StriveTogether®

Every child. Cradle to career.

Cradle-to-Career Outcomes Playbook: High School Graduation

Contents

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Contributors

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Introduction

Graduating from high school is a critical milestone that significantly influences a young person's future opportunities and long-term economic well-being. Research consistently shows that high school graduates have better outcomes across nearly every indicator of adult success compared to those who do not complete high school. For communities, higher graduation rates lead to stronger local economies, reduced public spending on social services and greater civic participation. When more young people graduate, communities benefit from a more skilled workforce, increased tax contributions and a healthier, more engaged population. In the 2019-2020 academic year, the U.S. average adjusted cohort graduation rate (ACGR) for public high school students was 87%, the highest it has been since the rate was first measured in 2010-2011 (79%) (**StriveTogether**).

According to the National Center for Education Statistics, high school graduates earn, on average, 30% more than individuals without a diploma (**NCES**). Over a lifetime, this can amount to hundreds of thousands of dollars in additional income. Furthermore, high school graduation is often a gateway to postsecondary education, military service or skilled trades — all of which open doors to higher-paying and more stable careers.

Economists such as Raj Chetty have linked educational attainment to economic mobility, showing that students who graduate high school and continue their education are significantly more likely to move out of poverty and achieve upward mobility. High school graduates are also less likely to experience unemployment, rely on public assistance or become involved in the criminal justice system.

Beyond financial outcomes, graduation is tied to better health, longer life expectancy and higher levels of civic engagement, such as voting and volunteering.

High school graduation is not just a milestone — it's a launchpad. It sets the foundation for lifelong learning, career advancement and a greater chance of economic security and social mobility. Improving high school graduation rates across a community requires a collaborative approach, with investments in education, health care, neighborhoods and supportive environments. Community-based organizations play a critical role in this effort, bringing together diverse stakeholders around shared goals — most importantly, ensuring that all young people are supported and on track to graduate from high school prepared for future success.

To do this effectively, community leaders need evidence-based insights on what drives young people to stay on track for high school graduation, but accessing this information can be challenging. Leaders often spend valuable time conducting research when they could be engaging with their communities. Consider three real examples:

- An organization is launching a new graduation initiative and needs a comprehensive understanding of the key factors that influence successful completion of high school.
- A group is leading a community-wide discussion on high school graduation efforts and requires

evidence-based practices to guide the conversation.

- A city planning group working to boost local employment is meeting with business leaders and needs clear research on how improving high school graduation rates can help build a stronger, more skilled workforce.

This playbook serves as a comprehensive guide to the latest research and best practices on high school graduation. It equips community leaders with the tools to identify opportunities, co-design effective strategies with their communities and build support for collective investment ensuring young people complete their high school degrees.

The playbook is organized around 17 essential questions that help communities understand their starting point and identify potential focus areas. Each question aligns to research-based topics that support high school graduation rates and offers a menu of possible indicators to track, as well as practices and policies to implement. These indicators, practices and policies have been compiled from a variety of frameworks with sources indicated in parenthesis.

Example

Essential Question *Areas to focus*	**Indicators** *Metrics to track*	**Practices and Policies** *Actions to take*
Are all students graduating from high school on time ready to successfully transition into further education, training or employment?	Students graduate from high school with a regular diploma within four, five and six years of entering high school (Education-to-Workforce). Percentage of students who graduate with a diploma in four years (on-time) (Education-to-Workforce). State- and district-level high school graduation rates over time, disaggregated by gender, race/ethnicity and income level (Civic Enterprises, Building a Grad Nation).	Dropout prevention calls for a systemic approach and process for ongoing and continuous improvement across all grade levels and among all stakeholders, through a shared and widely communicated vision and focus, tightly focused goals and objectives, selection of targeted research-based strategies and interventions, ongoing monitoring and feedback, and data-based decision making. It also requires the alignment of school policies, procedures, practices and organizational structures and continuous monitoring of effectiveness (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention). States should address inequities between high- and low-poverty school districts by establishing weighted funding formulas that provide more state funding to schools serving students with the greatest needs. States and districts should also work together to determine where those dollars can have the greatest impact and follow the evidence of what works, especially as they begin to develop comprehensive support and improvement plans for their lowest-performing schools. (Civic Enterprises, Building a Grad Nation).

This guide is not intended to serve as a checklist. Rather, communities should use the essential questions to explore options and choose what works for them.

Essential Questions for High School Graduation

High School Graduation progress. A community can track progress toward strong high school graduation rates by focusing on three key sets of indicators: whether students are graduating on time and ready for college, career or training; whether they are demonstrating strong attendance, behavior and academic progress, including strong grade point averages; and whether they are successfully accessing and completing rigorous college- and career-ready coursework.	
1	Are all students graduating from high school on time, ready to successfully transition into further education, training or employment?
2	Are students demonstrating satisfactory academic progress (including strong grade point averages), consistent attendance and positive behavior to be considered on track for high school graduation?
3	Are students accessing, completing and succeeding in rigorous college- and career-ready coursework?
4	Are students taking the necessary steps to have a post-high school plan (which may include applying to college, entering the workforce or other workforce training) and receiving sufficient counseling support along the way?
Leading a school system to strong graduation outcomes. School systems take a proactive and student-centered approach to ensure strong high school graduation outcomes. This includes closely monitoring student progress and identifying early warning signs — such as attendance issues, behavioral challenges or academic struggles — to provide timely interventions.	
5	Does the Local Education Agency (LEA) and school monitor the progress of all students and proactively intervene when students show early signs of attendance, behavior or academic problems?
6	Does the Local Education Agency (LEA) or school provide intensive, individualized support to students who have fallen off track?
7	Does the Local Education Agency (LEA) or school engage students by offering curricula and programs that connect schoolwork with college, career and life success?
Teaching, learning and high school coursework. Schools with well-trained, representative teachers who are subject matter experts are best equipped to provide high-quality instruction, build strong student relationships and keep students engaged. When paired with access to rigorous college and career coursework, these elements are key to helping all students stay on track and graduate from high school prepared for their futures.	
8	Do students have effective, representative teachers and leaders?
9	Are teachers and schools making significant contributions to academic growth for students?
10	Do students attend school in systems with adequate funding to prepare students to graduate with college- and career-ready high school degrees?

11	Do students have access to high-quality, rigorous curricula and coursework?
12	Do students have strong, supportive relationships with teachers/adults at school?
Experiences and neighborhood conditions. Students who live in well-resourced neighborhoods, where families have access to public support — such as health care, nutrition programs and economic assistance — are more likely to thrive academically. When high school students receive adequate counseling — whether for college, careers or training — they are better equipped to make informed decisions and successfully transition after graduation. Support can also come from community programs and mentors	
13	Do families live in well-resourced neighborhoods?
14	Do families with children have access to public support (i.e. health care access, nutrition programs, economic support, etc.)?
Positive school environments. Positive school environments foster safety, inclusivity and holistic student development. High schools can intentionally cultivate a strong sense of identity by helping students build confidence in their ability to engage with challenges, overcome obstacles and achieve success across all areas of learning.	
15	Do students attend schools with safe, inclusive and supportive environments?
16	Do students attend schools that prioritize their social, emotional and physical development and well-being?
17	Are there students who disproportionately experience exclusionary discipline?

The Case for High School Graduation

High school graduation is more than a milestone — it's a launchpad for opportunity. A diploma opens doors to college, career training, military service and employment that offers stability, benefits and upward mobility. For young people — especially those in historically marginalized communities — graduating from high school is a critical step toward breaking cycles of poverty and building a future with greater choices and independence.

But not all students have equal access to this opportunity. National data shows persistent disparities in graduation rates: while over 90% of white students graduate on time, that number drops to 81% for Black students, 83% for Hispanic students and 78% for students with disabilities (NCES, 2023). These gaps reflect deep systemic inequities in access to quality education, advanced coursework, experienced teachers and supportive learning environments.

A high school diploma no longer guarantees readiness for college or success in today's workforce. In 1983, 68% of jobs required no more

than a high school education; by 2021, that number had fallen to just 32%. Now, 72% of jobs require a college degree or some form of postsecondary training, especially in fast-growing sectors like health care, professional services and public education (Ed Source). Yet many students are graduating without the skills needed to advance successfully towards well-paying careers after high school. A 2022 report by the Center for American Progress found that over 40% of high school graduates needed remedial courses upon entering college and the Nation's Report Card (NAEP, 2024) showed that only 29% of 12th graders were proficient in reading and just 27% in math. These gaps highlight the urgent need for high schools to offer rigorous coursework, real-world experiences and strong preparation to ensure students are truly ready for what comes next.

When students have access to rigorous coursework, meaningful career exploration and support for their mental health and basic needs, they're more likely to graduate prepared for college, careers and life. These opportunities — especially when paired with enrichment, mentorship and real-world learning — can be transformational, particularly for students in under-resourced communities. When communities come together to provide these supports, young people are better equipped to thrive beyond high school.

What does High School Graduation mean?

Technically, graduating from high school means earning a diploma, verifying that students have taken and passed a set of requirements, including several years of math, English, science, history and electives. But high school graduation is much more than a checklist. It marks a major life transition — one that, without a strong foundation in academics, networks and executive functioning skills, can make the leap into college, career or adulthood much harder to navigate.

For students, especially those from under-resourced communities, a meaningful high school experience should do more than meet minimum requirements — it should equip them with the knowledge, confidence, relationships and skills to thrive in the real world. That includes not only content mastery, but also the ability to set goals, manage time, communicate effectively and access supportive networks.

In this way, a diploma should represent readiness — not just completion. Ensuring all students graduate with the tools they need for what comes next is essential to expanding opportunity, promoting equity and strengthening communities.

About the High School Graduation Playbook

StriveTogether's Cradle-to-Career Playbook: High School Graduation synthesizes leading research, indicators and evidence-based practices to promote equitable outcomes in high school graduation across communities. While the playbook builds on existing frameworks that are valuable in their own right, it does not replace them. Instead, it serves as a comprehensive tool that guides you to resources in areas where deeper exploration is needed. Communities can use the 17 essential questions to navigate to topics relevant to their specific needs, interests and goals.

The Education-to-Workforce Framework and supporting research

Mathematica's Education-to-Workforce Framework is the inspiration behind the playbook's organization and content. StriveTogether's Cradle-to-Career Playbook: High School Graduation includes all of the applicable research, content and aligned essential questions included in the Education-to-Workforce Framework. It is also organized in a similar way. The playbook supplements the Education-to-Workforce Framework by incorporating research on early childhood reading development, strategies for improving high school graduation rates, the need for high-quality, trained representative educators and more. 76% of the indicators, practices and policies (55 out of 72 total) included in the High School Graduation Playbook come from the Education-to-Workforce Framework.

About the playbook structure

The playbook is organized around 17 essential questions that help communities understand their starting point and identify potential focus areas. Each question offers a menu of possible practices and policies to implement, as well as key indicators to track.

Essential questions: areas to focus

The 17 essential questions help communities ask and answer questions that help them identify areas where co-designed solutions can improve high school graduation rates. The content of each question provides starting points for designing and collaborating on solutions. Inspired by and aligned with the Education-to-Workforce Framework, these questions are clear, offer various entry points for communities and provide an organizing structure for elaboration.

The playbook includes close to 1,000 indicators, policies and practices, though implementing all of them is neither necessary nor intended. Each community has its own unique assets, needs and resources. StriveTogether's Cradle-to-Career Playbook: High School Graduation helps communities identify key metrics to track, pinpoint effective strategies and determine where to start, enabling them to steadily improve early literacy for all young learners over time.

Indicators: metrics to track

Contributing indicators help communities see what it looks like when high school graduation rates improve for learners across a community. Contributing indicators are valuable because research shows they influence outcomes in a positive direction and are measured at the individual learner level (e.g., percentage of third graders scoring proficient in reading). They can help communities establish student-centered priorities and provide information earlier than outcome data is available, allowing communities to know if an initiative is working and to support continuous improvement of multiple initiatives.

Systems indicators help communities track the supports that influence outcomes at the system level, such as district, city, county or state efforts. These indicators are crucial because they allow communities to monitor the system, identify gaps and address them proactively. Measured at the family, caregiver or geographic level, systems indicators reflect institutional actions and their impact. For example, the percentage of eligible families with access to a library within walking distance is a key system indicator that reveals how well resources are distributed.

Practices and policies: actions to take

Practices and policies describe what can be done at every level of the system. Practices are evidence-based efforts, like teacher professional development, that create strong conditions for results. Policies are laws, regulations, procedures, administrative actions or incentives of governments or other institutions. Communities may see a policy listed that is currently not enacted in their district, city or state, offering an opportunity to align on advocacy efforts. Federal policies are listed to create awareness so communities can leverage or utilize them to support state and local efforts.

Scaling a solution often has a lifecycle that starts with a local practice that is proven effective, scaled locally (e.g., scaled from a classroom to a district, then to another district) and then used to inform the creation of a state-level policy that provides access to funding for further scaling. This approach

is outlined within the StriveTogether Theory of Action™. This playbook categorizes strategies into a practice or policy. But a practice can turn into a policy over time, or a policy can initiate a practice if it comes first. Lines begin to blur as scale takes over.

Not every contributing indicator has an identified systems indicator, practice or policy. That may be a result of limited research available or identified to date. Indicators, practices and policies can help answer multiple essential questions, but for simplicity, we've grouped each indicator with one essential question. To help communities choose the most relevant indicators for their context, each indicator is presented as it appears in its original source. This allows communities to understand the specific nuances that may be important to them. However, this approach means the language of indicators may vary, some may be duplicated across different sources, and language choices may need to change based on local preferences.

This resource aims to be an encyclopedia of evidence-based indicators and implementation strategies that can be used with community groups, referenced during annual planning and leveraged to prioritize initiatives as needed. Its purpose is to help you and your community understand possible levers at every level — learner, neighborhood, school, district, city and state — to improve high school graduation rates.

How to use this playbook

How this playbook is used will be different for each organization or community, depending on their planning process, goals and priorities. The playbook might be shared with a community working group in its entirety, referenced internally as a way to brainstorm potential solutions to discuss with others or leveraged in various other ways. After reading it, leaders can ask: How do we want to use this with our community?

This resource does not replace the voice and perspective of community members, who often know the solutions that will work best in their communities. Instead, consider this playbook a resource that community members can also access to support the co-designing of solutions and to inform your planning. For support on engaging with your community, visit StriveTogether's Results-Based Facilitation 101 course, available for free on the Training Hub.

This playbook offers several practical uses for community organizations. It can be used to onboard new staff or introduce organizations to cradle-to-career work. It helps explore aligned practices and policies, guiding the selection of working group topics and potential solutions. Communities can share the entire playbook with working groups or community members to support exploration and implementation. Additionally, it serves as a valuable resource during internal reviews for annual goal-setting and planning. Finally, this playbook can be used alongside other StriveTogether resources for a more comprehensive approach. If you are interested in diving deeper into the research supporting the indicators, visit the citations included throughout the playbook. The appendix also includes an annotated bibliography.

Due to the limited research on place-based partnerships, StriveTogether's Cradle-to-Career Playbook: High School Graduation highlights initiatives and examples from StriveTogether Cradle to Career Network members making clear progress on their early literacy outcomes, illustrating what has worked for them.

High School Graduation Progress

To monitor progress toward high graduation rates, communities should track whether students graduate on time and are prepared to pursue their postsecondary plans.

1 Are all students graduating from high school on time and ready to successfully transition into further education, training or employment?

Why this matters

Earning a high school diploma is a pivotal step toward greater opportunities, including increased chances of pursuing higher education. Conversely, students who leave school without a diploma often encounter significant challenges — economically, socially and in terms of their health. While overall graduation rates have improved, disparities remain. Students experiencing poverty, as well as Black, Latine, Indigenous and emerging multilingual students, continue to graduate at lower rates than their peers. In 2019, for instance, on-time graduation rates reached 93% for Asian/Pacific Islander students and 89% for white students, yet only 82% of Latine students, 80% of Black students and 74% of Indigenous students earned diplomas on time (Education-to-Workforce).

Currently, among the 47 states with established statewide minimum high school graduation requirements, only 18 have achieved full or partial alignment between their diploma requirements and the minimum admissions criteria for higher education statewide (Center for American Progress, 2018). The high school diplomas that students earn should be aligned with the rigorous standards students will encounter in college, training and life after graduation. A rigorous high school diploma would indicate that a student is prepared for acceptance to a postsecondary institution, workforce training program or employment.

Indicators

Contributing indicators

- Four-, five-, and six-year high school graduation rates/dropout rates. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Share on track to graduate. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Share overage/under credited. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Students graduate from high school with a regular diploma within four, five, and six years of entering high school (Education-to-Workforce).
- Percentage of students who graduate with a diploma in four years (on-time) (Education-to-Workforce).
- Adjusted cohort graduation rate (the percentage of first-time 9th graders who graduate with a regular diploma within four, five, and six years of entering high school, regardless of whether they transferred schools) (Education-to-Workforce).
- On-time graduation in four years is most commonly reported, as it is the time to graduation that most students should aim to achieve. As such, it is important to ensure equitable outcomes in four-year rates. Data systems should also collect information on whether students complete a high school equivalency credential (Education-to-Workforce).
- Educational attainment of population ages 25 to 34 in the United States (Annie E. Casey, Kids Count Data Center).
- Young adults ages 18 to 24 who are high school graduates, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- Young adults ages 18 to 24 who are high school
- graduates and enrolled in school, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- High school students not graduating on time, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- Young adults ages 18 to 24 who are enrolled in or have completed college, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- Young adults ages 18 to 24 not attending school, not working, and no degree beyond high school (Annie E. Casey, Kids Count Data Center).
- Teens ages 16 to 19 not in school and not high school graduates, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- Teens ages 16 to 19 not attending school and not working, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- The percentage of an entering freshman high school class not graduating in four years, disaggregated by race and ethnicity (Annie E. Casey, Kids Count Data Center).
- Freshmen cohort graduation rates four years later. In terms of the educational pipeline, the most useful measures track a cohort of students over time to determine whether and how they progress through school. Greene and Winters (2005) and the Editorial Projects in Education (EPE) Research Center (2008) attempt to approximate the percentage of ninth graders who earn a regular diploma four years later (Bridget Terry Long, Dropout Prevention).
- According to Greene and Winters (2005), there are several reasons why GED recipients should

not be included in the high school graduation rates. They point to research that has found that the returns to a GED are far less than that of a regular diploma (see Cameron and Heckman 1993; Murnane, Willett, and Boudett 1995) (Bridget Terry Long, Dropout Prevention).

- While freshmen graduation rates four years later give some sense of the students left behind without a degree, another way to measure the prevalence of dropping out of high school is to use direct estimates. Stillwell and Hoffman (2008) provide an event dropout rate, which is the proportion of students who drop out in a single year (Bridget Terry Long, Dropout Prevention).
- A third (and broader) way to measure high school degree attainment is to examine at one point in time the proportion of students who have not completed a high school degree and are not enrolled in school. The U.S. Department of Education tracks this information over time to produce a status dropout rate, which includes any sixteen- to twenty- four- year- old student without a high school credential (i.e., diploma or equivalent, such as GED) regardless of when they dropped out of school (Bridget Terry Long, Dropout Prevention).

System indicators

- Adjusted Cohort Graduation Rate: The adjusted cohort graduation rate (ACGR) is the percentage of students who graduate in 4 years with a regular high school diploma divided by the number of students who form the adjusted cohort for the graduating class. From the beginning of 9th grade (or the earliest high school grade), students who are entering that grade for the first time form a cohort that is "adjusted" by adding any students who subsequently transfer into the cohort and subtracting any students who subsequently transfer out, emigrate to another country (National Center for Education Statistics).
- Averaged Freshman Graduation Rate: The ACGR is different from the averaged freshman graduation rate (AFGR). The averaged freshman graduation rate (AFGR) is an estimate of the percentage of public high school students who graduate on time (i.e., 4 years after starting 9th grade) with a regular diploma. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. The AFGR estimate is not as accurate as the ACGR, but the AFGR can be estimated annually as far back as the 1960s (National Center for Education Statistics).
- Event Dropout Rate: The event dropout rate is the percentage of 15- to 24-year-olds in grades 10 through 12 who leave high school between the beginning of one school year and the beginning of the next without earning a high school diploma or an alternative credential such as a GED. The event dropout rate provides information about the rate at which U.S. high school students are leaving school without receiving a high school credential. The measure can be used to study student experiences in the U.S. secondary school system in a given year. The event dropout rates presented in this indicator are based on data from the Census Bureau's Current Population Survey (CPS) (National Center for Education Statistics).
- Status Dropout Rate: The status dropout rate is the number of 16- to 24-year-olds who are not enrolled in school and have not earned a high school diploma or an alternative credential, such as a GED, as a percentage of the total number of 16- to 24-year-olds in the population. In this indicator, status dropout rates are estimated using both the American Community Survey (ACS) and the Current Population Survey (CPS) (National Center for Education Statistics.)

- Status Completion Rate: Data from the Current Population Survey (CPS) can be used to calculate the status completion rate, the percentage of 18- to 24-year-olds not enrolled in high school or a lower education level who hold a high school diploma or an alternative credential, such as a GED. This rate includes all civilian, noninstitutionalized individuals 18 to 24 years old who have completed high school, including individuals who completed their education outside of the United States. While the Adjusted Cohort Graduation Rate and the Averaged Freshman Graduation Rate focus on a particular cohort of students in the U.S. secondary school system who graduated with a high school diploma, the status completion rate, presented in this indicator, describes the educational attainment of individuals in a given age range. Moreover, the status completion rate counts both high school diploma recipients and alternative credential recipients as high school completers (National Center for Education Statistics).
- State- and district-level high school graduation rates over time, disaggregated by gender, race/ethnicity, and income level (Civic Enterprises, Building a Grad Nation).
- Unemployment rates and earnings by educational attainment (i.e. Less than a high school diploma, High school diploma only, Some college but no degree, Associate's degree, Bachelor's degree, etc.) (Bureau of Labor Statistics).
- Four-, five-, and six-year high school graduation rates/dropout rates (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- The American Graduate initiative, which was made possible by the Corporation for Public Broadcasting (CPB), is public media's long-term commitment to improving youth outcomes through education and career readiness. Public media is uniquely positioned to serve as content creators, trusted communicators, conveners, and community connectors. Since 2011, national producers and local stations have engaged with more than 1,700 partners, including the GradNation campaign, to create public understanding of the challenges students, especially those in high poverty communities, face on the path to a high school diploma (Civic Enterprises, Building a Grad Nation).
- Systemic Approach—This strategy for dropout prevention calls for a systemic approach and process for ongoing and continuous improvement across all grade levels and among all stakeholders, through a shared and widely communicated vision and focus, tightly focused goals and objectives, selection of targeted research-based strategies and interventions, ongoing monitoring and feedback, and data-based decision making. It also requires the alignment of school policies, procedures, practices, and organizational structures and continuous monitoring of effectiveness (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- School-Community Collaboration—This strategy for dropout prevention focuses on the power of an engaged and responsive community where everyone in the community is accountable for the quality of education, resulting in a caring and collaborative environment where youth can thrive and achieve. Critical elements of this type of collaboration rely on effective, ongoing, and multidimensional communication so that dropout prevention is a communitywide and ongoing effort (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Early Literacy Development—Early literacy interventions to help low-achieving students improve their reading and writing skills establish the necessary foundation for effective learning in all subjects. Literacy development focus

should continue P-12 (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).

- Service-Learning—Service-learning connects meaningful community service experiences with academic learning. This teaching/learning method promotes personal and social growth, career development, and civic responsibility and can be a powerful vehicle for effective school reform at all grade levels (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Alternative Schooling—Alternative or non-traditional schooling and delivery model options (e.g., alternative times and environments, blended learning, virtual learning, competency-based credit opportunities) provide alternative avenues to credit earning and graduation, with programs paying special attention to the student's individual and social needs, career goals, and academic requirements for obtaining a high school diploma and transitioning successfully to life beyond graduation (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Afterschool/Out-of-School Opportunities—Many schools provide afterschool, before-school, and/or summer academic/enhancement/enrichment opportunities (e.g., tutoring, credit recovery, acceleration, homework support, etc.) that provide students with opportunities for assistance and recovery as well as high-interest options for discovery and learning. These opportunities often decrease information loss and can inspire interest in arenas otherwise inaccessible. Such experiences are especially important for at-risk students because out-of-school "gap time" is filled with constructive and engaging activities and/or needed academic support (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Individualized Instruction— Learning experiences can be individualized, differentiated, or personalized In an environment that is fully personalized, the learning objectives and content as well as the method and pace may all vary so personalization encompasses differentiation and individualization (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Quality CTE programs and related career pathways and guidance programs with P-20W orientation are essential for all students. Youth need workplace skills as well as awareness and focus to increase not only the likelihood that they will be prepared for their careers, but also that school will be relevant to what is next (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).

Policies

- The Adjusted Cohort Graduation Rate (ACGR) is considered to be the "gold standard" of graduation rate metrics; there are still ways it can be improved to guarantee the best data is available. There is still variability in what is considered a "regular" diploma, how transfer students are taken into account, and how certain subgroups (e.g., students with disabilities, English learners, low-income students) are identified within the cohort. These and other issues challenge our ability to compare graduation rates across states, but more troubling, have created loopholes for states in calculating their rates (Civic Enterprises, Building a Grad Nation).
- Promote policies and practices that reduce harmful disparities. It is evident that Black, Hispanic, and low-income students are less likely to be on track to graduate on time and enroll in postsecondary. Greater investments need to be made in these students and their schools starting in early education, and harmful, reactive disciplinary practices – particularly out-of-school suspensions, expulsions, and law enforcement referrals – should be replaced with proactive practices and policies that keep students in

school and attempt to address their underlying issues (Civic Enterprises, Building a Grad Nation).

- States should address inequities between high- and low-poverty school districts by establishing weighted funding formulas that provide more state funding to schools serving students with the greatest needs. States and districts should also work together to determine where those dollars can have the greatest impact and follow the evidence of what works, especially as they begin to develop comprehensive support and improvement plans for their lowest-performing schools. (Civic Enterprises, Building a Grad Nation).
- Align diplomas with college and career ready standards. Two recent reports on the quality of high school diplomas found mismatches between high school graduation requirements and state college admissions criteria, as well as the number and types of students earning a college and career ready diploma in the few states that offer one (Almond, 2017; Jimenez & Sargrad, 2018). The misalignment between what students need to graduate high school and what they need to be prepared for postsecondary hurts students, many of whom end up tracked into remediation courses (Civic Enterprises, Building a Grad Nation).
- State leaders should establish diploma requirements aligned with state college and university admissions criteria, and schools and districts should ensure more students, especially those that are at the greatest disadvantage, earn a college and career ready diploma. Making a well-aligned college and career ready diploma the default diploma option can help ensure more students are on track to graduate prepared for postsecondary or career pathways (Civic Enterprises, Building a Grad Nation).
- Support schools and districts with comprehensive support and improvement plans. Districts with identified low-performing high schools must develop support and improvement plans. These plans must include evidence-based strategies and be approved and monitored by the state (Civic Enterprises, Building a Grad Nation).
- States, with the help of researchers, should curate lists of evidence-based strategies and programs to assist districts in the development of these plans and connect schools and districts to organizations and networks that can provide necessary and individualized technical assistance. School improvement will not happen without a strategic, sustainable approach, and schools, districts, and the communities they serve will need help determining the best course of action and implementing their plans (Civic Enterprises, Building a Grad Nation).
- Avoid and eliminate practices that lower the bar for students. Over the past decade, there has been a marked increase in the use of credit recovery courses and alternative programs to move off-track students toward their diploma. While some of these courses and programs may be useful for a small subset of students who have mitigating circumstances, many of them fail to provide a rigorous education and prepare students for life beyond high school (Civic Enterprises, Building a Grad Nation).
- States, especially those with large numbers of credit recovery schools, should examine their quality and determine whether they are helping young people or simply offering meaningless credentials. And where these programs are having success, researchers and education leaders should do more to learn what works in engaging and graduating students who often face some of the greatest challenges (Civic Enterprises, Building a Grad Nation).
- Create state specific high school graduation plans. States should develop "Path to 90 Percent On-Time High School Graduation for All Plans" that analyze which districts, schools, and students within their state will need additional supports and/or guidance on implementing customized evidence-based approaches to enable all students to graduate, on-time,

prepared for postsecondary success (Civic Enterprises, Building a Grad Nation).

- Strengthen the transition from high school to postsecondary and careers. K-12 education leaders can ease the transition from high school to postsecondary and careers by creating alignment between high school and college entry requirements, helping students understand their postsecondary options and the application and financial aid process, and providing greater access to early college, career academies, and CTE coursework pathways (Civic Enterprises, Building a Grad Nation).
- Postsecondary institutions should do more to support students, particularly first generation and low-income students, both before they step onto campus and once they are there. This can include working with high schools to offer remediation courses prior to high school graduation, eliminating test score-based admission requirements, developing more structured and strategic advising and engagement opportunities for students during the summer gap and school year, particularly in the critical freshman year, and ensuring students have access to tutoring and other academic support. And as more low-income students enter postsecondary, it is important that these institutions recognize their needs and understand that financial aid packages often are not enough to cover basic expenses like food and housing (Civic Enterprises, Building a Grad Nation).
- Employers can help strengthen the transition between education and the workplace. They can increase engagement with schools by providing internships and job shadowing to ground learning in real experiences. Employers can also work with high schools and postsecondary institutions to create a more innovative last semester of high school where students can have the opportunity to have more practical, hands-on experiences (Civic Enterprises, Building a Grad Nation).
- State-level compulsory school age requirements. In the report The Silent Epidemic, researchers observe that no state has a legal dropout age below 16, and that almost nobody drops out of school before entering high school. States set minimum and maximum compulsory age requirements to be in school. While no state has a legal dropout age below 16, the majority of states permit a student to drop out of high school when they turn 16. Typically in 10th grade, a 16-year-old student has new found authority under law to make a choice. The report's researchers question the soundness of this policy, particularly since the U.S. guarantees, and provides substantial resources for, a public education through 12th grade. They propose that raising maximum compulsory school age requirements – specifically raising the legal dropout age to 18 – would, when coupled with well-trained staffs, more manageable caseloads, working partnerships with other government agencies to support parents and guardians who struggle to keep their children in school, and efforts to address the issues that caused students to leave school, would have a significant effect on reducing the dropout rate (Civic Enterprises, The Silent Epidemic).
- Accurate data at the state and federal levels. Schools and communities cannot adequately address the dropout problem without an accurate account of it. States need to do further work to make dropout rates more accurate, tracking students within states and across state lines. And more work needs to be done to build the data systems that will allow states to collect and publish graduation and dropout rates and to monitor progress state by state over time (Civic Enterprises, The Silent Epidemic).
- The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education (Common Core State Standards for Mathematics).

High school diplomas aligned with college- and career-ready standards

Indicators

Contributing indicators

- College- and career-ready (CCR) graduation rate. The number of students who graduated with a CCR diploma divided by the total number of graduates, which may include four-year and extended-year graduates. A CCR diploma is one that satisfies a state's content standards for English/language arts (ELA) and mathematics by twelfth-grade graduation, generally requiring students to complete, at minimum, four years of grade-level ELA and three years of math through Algebra II or Integrated Math III (Alliance for Excellent Education, Paper Thin).

System indicators

- College- and career-ready (CCR) graduation rate. The number of students who graduated with a CCR diploma divided by the total number of graduates in the Class of 2014, which may include four-year and extended-year graduates (Alliance for Excellent Education, Paper Thin).
- College- and career-ready (CCR) gap. The gap in attainment of a CCR diploma between (1) white students and students of color, (2) students from low-income families and students without this designation, (3) students with disabilities and those without this designation, and (4) English language learners and those without this designation (Alliance for Excellent Education, Paper Thin).

Practices and Policies

Practices

- Leverage higher education and workforce leaders in the design of high school graduation requirements (Education Strategy Group).
- Prioritize both flexibility and consistent rigor: States should maintain a streamlined set of diploma options that uphold a consistent standard of rigor, ensuring all pathways adequately prepare students for a range of high-value opportunities after high school— from college to apprenticeships to good jobs with living wages (Education Strategy Group).
- Include measures of college and career readiness: States should consider a robust set of measures that indicate students' readiness for continued education and training beyond high school, such as: earning early postsecondary credit (Advanced Placement, International Baccalaureate, dual credit); completing a CTE pathway; earning an industry recognized credential; completing work-based learning, including youth apprenticeship; demonstrating leadership on co/extra-curricular activities; demonstrating competency in core skills such as communication and collaboration; and/or completing community service hours (Education Strategy Group).
- Create and use data to monitor and continuously improve: Develop and implement a data strategy for understanding how different student groups and geographies are meeting the graduation requirements, and report that disaggregated data publicly on an annual basis (Education Strategy Group).
- Expand what students need to know and be able to do to graduate. While traditional graduation requirements are primarily grounded in content-defined course or testing requirements, competency-based education goes further. Alongside rigorous academic content, competency-based education asks students to demonstrate mastery of durable skills crucial to postsecondary and workforce readiness

(KnowledgeWorks, Four Key Insights into Competency-based Graduation Requirements).

- Ground advancement in mastery, not seat time. Competency-based education allows students to move at a pace that makes sense for them while making sure they have the support they need to be successful. This moves credit accumulation away from the tradition of the time-based Carnegie Unit and centers it instead on what students know. Almost all the states that we reviewed give schools and/or districts wide-ranging latitude to award credits based on mastery, with some notably going further than others (KnowledgeWorks, Four Key Insights into Competency-based Graduation Requirements).
- Rethink where, when and how graduation requirements can be met. Competency-based education moves beyond the time and location constraints imposed by the Carnegie Unit and asks students to demonstrate mastery, regardless of the time, place or method that they may use for doing so. Many states have introduced policy flexibilities that codify this level of student choice (KnowledgeWorks, Four Key Insights into Competency-based Graduation Requirements).
- Balance local control with reasonable state guardrails. Competency-based education moves beyond a one-size-fits-all model and seeks to personalize education for all students. While nearly every state dictates some level of baseline graduation requirements, many of the states that we reviewed balance this with considerable local flexibility in determining what students know and how they'll demonstrate it in relation to graduation requirements (KnowledgeWorks, Four Key Insights into Competency-based Graduation Requirements).
- Align high school graduation requirements to requirements for admission to state public university system (Jimenez and Sargrad, Are High School Diplomas Really a Ticket to College and Work?)
- Align high school graduation requirements to college and career readiness benchmarks and indicators of a "well-rounded" education that includes coursework and other educational experiences (Jimenez and Sargrad, Are High School Diplomas Really a Ticket to College and Work?).

Policies

- States ensure alignment between high school diploma requirements and state college admission standards. A recent report by the Center for American Progress (CAP) compared high school graduation requirements for each state's standard diploma to admission requirements for that state's public university system, and to measures of quality. According to CAP's analysis, in nearly every state for at least one subject, there is a preparation gap between the courses required to receive a standard diploma and the courses required for admission into the state's public four-year university system. Only two states require a 15-credit college-ready curriculum, just one state requires students to take three courses in a career pathway, and four states have aligned their high school diploma requirements with the requirements to be eligible for admission to the state public university system (Civic Enterprises, Building a Grad Nation).
- Align state's diploma with college and career readiness standards (Education Strategy Group).
- In eight states (Florida, Louisiana, Massachusetts, Ohio, New Jersey, Texas, Virginia, and Wyoming), a high school graduation test is required for students to receive a diploma. Four states (Tennessee, Nevada, Pennsylvania, and Georgia) have replaced high school graduation tests with end-of-course exams that factor into a student's course grades (Education Strategy Group).
- Several states incorporate experiences aimed at better preparing students for

higher education or the workforce into their graduation requirements or "diploma pathways." These experiences may include partaking in opportunities such as dual enrollment, industry credential programs, financial literacy courses, or career preparation courses (Education Strategy Group).

- Some states, like Texas, Illinois, Alabama, California, and New Hampshire, require or provide the option for students to complete financial aid applications, such as the FAFSA, to facilitate access to higher education (Education Strategy Group).
- A select few states, like Colorado, Kentucky, Rhode Island, and DC, are mandating the development of individualized learning plans tailored to students' academic and career goals, alongside requiring transition-related tasks such as resume preparation or career exploration activities (Education Strategy Group).
- In 2019, Washington state eliminated the state assessment mandate for graduation, and opted to provide a range of graduation pathway options to assess and better prepare students for college and career. These pathways include meeting graduation scores in Smarter Balanced Assessments (SBA), earning credits through dual enrollment programs, achieving certain scores on AP/IB/Cambridge exams, meeting SAT/ACT graduation scores, completing transition courses, exploring performance-based options, combining multiple pathways, achieving standard on the ASVAB, or completing a sequence of Career and Technical Education (CTE) courses (Education Strategy Group).
- Idaho students must complete a senior project to earn their diploma, demonstrating their ability to analyze, synthesize, and communicate information effectively. It includes research, thesis development using experiential or integrated project-based learning, and project presentation. Additional requirements may vary by district. Completion of a postsecondary certificate/degree or participation in an approved pre-internship/internship can also meet this requirement (Education Strategy Group).
- Policymakers should align their state's diploma with college and career readiness expectations: The high school diploma should provide a more robust signal of readiness than completion of courses alone. It should represent the state's vision for redesigning the high school experience, with the full set of college and career experiences (and intended competencies) included. While the specific demonstrations may evolve over time, the fundamental alignment must remain constant. This approach ensures the diploma continues to signal readiness, adapting to the needs of today's economy without losing its core purpose (Education Strategy Group, Rethinking High School Graduation Requirements).
- Leverage higher education and workforce leaders in the design: It's not enough for K-12 leaders to design high school graduation requirements in the hope that the requirements will set students up to be ready for success in college and career; higher education and workforce leaders need to be deeply engaged in the development to ensure alignment and buy-in (Education Strategy Group, Rethinking High School Graduation Requirements).
- Prioritize both flexibility and consistent rigor: States should maintain a streamlined set of diploma options that uphold a consistent standard of rigor, ensuring all pathways adequately prepare students for a range of high-value opportunities after high school—from college to apprenticeships to good jobs with living wages. And students should have a variety of ways to demonstrate readiness that is inclusive of, but not solely based on, course completion and/or assessment benchmarks. States can integrate experiential learning opportunities, including work-based learning, that help demonstrate mastery of key competencies (e.g., communications, teamwork)

into diploma options, providing authentic opportunity to both demonstrate and validate readiness in contexts that will engage students (Education Strategy Group, Rethinking High School Graduation Requirements).

- Include measures of college and career readiness: States should consider a robust set of measures that indicate students' readiness for continued education and training beyond high school, such as: earning early postsecondary credit (Advanced Placement, International Baccalaureate, dual credit); completing a CTE pathway; earning an industry-recognized credential; completing work-based learning, including youth apprenticeship; demonstrating leadership on co/extra-curricular activities; demonstrating competency in core skills such as communication and collaboration; and/or completing community service hours (Education Strategy Group, Rethinking High School Graduation Requirements).
- Create and use data to monitor and continuously improve: Develop and implement a data strategy for understanding how different student groups and geographies are meeting the graduation requirements, and report that disaggregated data publicly on an annual basis (Education Strategy Group, Rethinking High School Graduation Requirements).
- State policymakers should move from traditional high school graduation requirements which emphasize mastery of academic content standards and high school diploma attainment college and career readiness standards which prioritize both the mastery of academic content and experiential learning to support college and career readiness (Education Strategy Group, Rethinking High School Graduation Requirements).
- The Education Commission of the States provides a national comparison of state policies addressing graduation requirements, including pathways, diploma types and endorsements, course and assessment requirements, as well as non-course requirements and flexibilities for students and schools. This study found: (a) At least 21 states have identified multiple diploma options or pathways to graduation in state policy; (b) At least 46 states and the District of Columbia identify minimum credit requirements to earn a standard diploma; (c) At least 44 states and the District of Columbia permit students to substitute specific courses, assessments or other experiences for existing credit requirements; (d) At least 34 states require students to complete specific assessments as a graduation requirement (Education Commission of the States, 50-State Comparison).
- State high school graduation requirements should align with their CCR standards. The misalignment of high school graduation requirements and CCR standards diminishes the value of the high school diploma and sends the message that all students are not expected to meet the rigor required with the CCR standards (Alliance for Excellent Education, Paper Thin).
- States with CCR diplomas should make the CCR diploma the default diploma for all students. As seen in the cases of Arkansas, Indiana, and Texas, when states automatically place students in a CCR diploma pathway—coupled with the necessary support—traditionally underserved students perform better and the gaps between student subgroups shrink (Alliance for Excellent Education, Paper Thin).
- All states with multiple pathways should track and publicly report diploma pathway data disaggregated by diploma type and by student subgroup. Moreover, states should track this data during and through completion of postsecondary education, as Indiana does, and report the data in state and local report cards under ESSA. This will enable parents and the public to see which pathways best prepare students for postsecondary education (Alliance for Excellent Education, Paper Thin).
- States also should track and publicly report in the aggregate and disaggregated by student

subgroup data pertaining to students graduating from high school with waiver diplomas (Alliance for Excellent Education, Paper Thin).

- School districts should track and publicly report diploma pathway data disaggregated by diploma type and student subgroup, both districtwide and by school (Alliance for Excellent Education, Paper Thin).
- School districts and individual secondary schools (including middle and high schools) should educate parents and students about the long-term postsecondary outcomes of students who select less rigorous diploma pathways so that parents clearly understand the likely outcomes of all possible diploma options (Alliance for Excellent Education, Paper Thin).
- For accountability requirements under ESSA, states should consider using the percentage of students enrolled in postsecondary education without the need for remediation and the percentage of students graduating with a CCR diploma as indicators of school quality or student success. This action, coupled with this report's recommendation for disaggregating diploma pathways data during and through completion of postsecondary education, would provide meaningful data for parents and communities while ensuring the data is acted upon as part of the state's accountability system (Alliance for Excellent Education, Paper Thin).
- Ensure clear alignment of the requirements for high school graduation with the admissions requirements for state public university system. This will require the collaboration and coordination of the high school and state college systems in the areas of course type, amount, and curricula. One subject area that needs careful consideration is science, since misalignment can occur because public universities require laboratory science and providing this type of science may be particularly challenging for under-resourced school districts.
- Require completion of the 15-credit college-ready coursework required by most public university systems to receive a standard high school diploma. Research shows that non college-goers have better life outcomes if they take a rigorous high school course load regardless of college enrollment. This includes all of the following courses, or demonstrations of mastery of their equivalents: three years of math up to Algebra II; four years of English composition; three years each of social studies and science, including biology, chemistry, physics, with laboratory experience; and two years of the same foreign language. Any advanced or honors diplomas offered by states should exceed these expectations and could align with requirements for math and science college majors.
- Offer an additional career-readiness diploma for students that choose not to attend a four-year university. This diploma should require at least three CTE courses in the same field in addition to the 15-credit college-ready coursework. States should make these courses available to all students and ensure that they are in in-demand fields within the local labor market that lead to a well-paying job.
- Publish the graduation rates disaggregated by student group and diploma type, for example, the race, ethnicity, income, and disability status of students who received a standard high school diploma and other diploma options. Also, states report the disaggregated postsecondary outcomes for each diploma type, including course-taking patterns, credit accumulation, and college graduation rates.
- Ensure that all districts have the resources and educator workforce to offer the courses and preparation needed for students to meet the requirements for both standard and career readiness-diplomas, especially in math, science, and foreign language. This could include using technology solutions to enhance course access for students.
- Develop and maintain systems to monitor districts on appropriate methods to collect and

analyze graduation requirement completion. Such systems would help to ensure the integrity and accuracy of the data (Center for American Progress, Are High School Diplomas Really a Ticket to College and Work?)

2 Are students demonstrating satisfactory academic progress (including strong grade point average), consistent attendance and positive behavior to be considered on track for high school graduation?

Why this matters

Academic performance, attendance patterns and disciplinary incidents in eighth and ninth grade — often referred to as the "ABCs" of early warning (Attendance, Behavior and Course performance) — are powerful predictors of whether students are on track to graduate high school on time. These indicators play a critical role in dropout prevention by helping schools identify students who are beginning to fall behind before challenges become more difficult to address. Research consistently shows that middle grade metrics such as GPA, course failures, absenteeism and behavior-related issues are strong predictors of future high school success. By closely monitoring the ABCs, educators — including counselors, administrators and student support teams — can evaluate whether current interventions are working, identify students who need additional support and ensure that their data and monitoring systems are providing the insights necessary to keep all students on the path to graduation (Education-to-Workforce).

Attendance: Regular school attendance is essential for student learning and long-term success. Framing the goal as "consistent attendance" — being present for at least 90% of school days — offers a proactive alternative to the commonly used measure of chronic absenteeism, defined as missing 10% or more of the school year. Chronic absenteeism is closely linked to lower academic performance, decreased engagement in both academics and social life, and a higher risk of falling behind. In middle and high school, frequent absences are associated with lower rates of on-time graduation. For instance, research by Allensworth and Easton found that ninth grade course attendance was eight times more predictive of course failure than eighth grade standardized test scores — and was the single strongest indicator of overall academic performance. At the college level, strong attendance is similarly correlated with higher course grades and GPAs, and is often used as part of early alert systems to flag students who may need additional support to stay on track (Education-to-Workforce).

Behavior: Involvement in school disciplinary actions is strongly associated with poorer outcomes across

a range of academic indicators, including attendance, course completion, test performance, high school graduation and college enrollment. Because behavior — typically tracked through discipline records — is such a strong predictor of future success, it is often included in early warning systems alongside attendance and course performance.

Tracking exclusionary discipline isn't just a reflection of student behavior — it also reveals important insights about school practices and systems. High rates of suspension or expulsion may point to overly punitive discipline policies or signal underlying biases related to race, ethnicity, gender or ability. Data consistently shows that Black and Latine students, students experiencing poverty and students with disabilities are disciplined at disproportionate rates. For example, Black students are almost four times more likely than white students to receive an out-of-school suspension (Skiba, et al 2011). These disparities aren't random — they tend to be more pronounced in areas with higher levels of racial bias, as measured by implicit and explicit bias data from over 1.6 million people nationwide. And the pattern starts early: Black preschoolers are 3.6 times more likely than their white peers to receive one or more suspensions (Education-to-Workforce).

Grade Point Average: The shift from middle school to high school is one of the most challenging periods in a student's K-12 journey — particularly for Black boys (Sutton et al 2018), who face the steepest declines in GPA between eighth and ninth grade. Research from the UChicago Consortium on School Research (Denning et al 2022) shows that indicators like attendance, GPA and course failures during the middle grades offer the strongest prediction of high school performance — more so than standardized test scores or other common measures. These early academic signals provide critical insight into how students will navigate the transition and where support may be most needed.

Consistent attendance *Key source: E-W Framework*

Indicators

Contributing indicators

- Children who missed 11 or more days of school per year due to illness or injury (Kids Count).
- Percentage of students who are present for more than 90 percent of their enrolled days, excluding students enrolled for fewer than 90 days. The EW Framework selected an attendance rate of 90 percent as a minimum recommendation to align with the most commonly reported measure of chronic absenteeism, used by Attendance Works and the Civil Rights Data Collection (CRDC) (Education-to-Workforce).
- Students demonstrate satisfactory attendance by being present for 96 percent or more of enrolled days (Education-to-Workforce).
- Students who are "at risk" are identified as being present for 91 to 95 percent of enrolled days (Education-to-Workforce).
- The recent release of national data for the 2022-23 school year by the U.S. Department of Education shows that chronic absence slightly decreased from its high of 30% of students in the 2021-22 school year to 28% in 2022-23. While modest improvements in reducing chronic absence are occurring, it remains a challenge nearly everywhere (Attendance Works, Continued High Levels of Chronic Absence).
- Percentage of students attending schools with 20% or higher levels of chronic absence. In 2022-23, two years after schools reopened for in-person learning, a majority of students still attended schools with 20% or higher levels of

chronic absence. This serious absenteeism is in stark contrast to 2019, when slightly over a quarter of schools experienced such high levels of chronic absence (Attendance Works, Continued High Levels of Chronic Absence).

- Level of chronic absence per campus – Low Chronic Absence (0 - 4.9%); Modest Chronic Absence (5 - 9.9%); Significant Chronic Absence (10 - 19.9%); High Chronic Absence (20 - 29.9%); Extreme Chronic Absence (30%+) (Attendance Works, Continued High Levels of Chronic Absence).
- Level of chronic absence per campus, disaggregated by Elementary, Middle, and High School levels (Attendance Works, Continued High Levels of Chronic Absence).
- Level of chronic absence per campus, disaggregated by campus' level of economic disadvantage (defined as percent of students eligible for free or reduced-price meals) (Attendance Works, Continued High Levels of Chronic Absence).
- Chronic absence or failure in middle school indicates high risk for eventual dropout. There is a growing body of work, across multiple cities, that consistently shows middle school attendance and course failures are strong predictors of whether students eventually obtain a high school diploma (UChicago CCSR, Looking Forward to High School and College).
- In Philadelphia, Neild and Balfanz (2006) examined eighth-grade indicators, while Balfanz, Herzog, and MacIver (2007) examined sixth-grade indicators to determine whether they could identify students with a very high probability of eventual dropout. At both grade levels, they found that students with Fs in math or English, less than 80 percent attendance, or an out-of-school suspension (in the sixth-grade study) were at high risk of not graduating. Students' demographic characteristics and their test scores were not as predictive as grades and attendance (UChicago CCSR, Looking Forward to High School and College).
- In New York, Kieffer and Marinell (2012) examined students' fourth-grade test scores and attendance as predictors of being on-track for graduation in ninth grade, as well as changes in attendance and test scores from fourth through eighth grade. Course grades were not included in this study, but researchers found that both attendance and test scores in the early grades were predictive of being off-track for graduation in the ninth-grade year, along with declining attendance or test scores. Declining attendance through the middle grade years was particularly indicative that students were at elevated risk of not graduating (UChicago CCSR, Looking Forward to High School and College).
- In Baltimore, the Baltimore Education Research Consortium (BERC, 2011) showed that chronic absenteeism, course failures, and suspensions in sixth grade were strongly associated with not graduating within one year of the expected date. Chronic absenteeism had the strongest relationship of all the indicators (UChicago CCSR, Looking Forward to High School and College).

System indicators

- Chronic absenteeism/ average daily attendance (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- K-12 chronic absenteeism (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- K-12 days of attendance (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- K-12 days of expected attendance (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Percentage of students who are present for more than 90% of their enrolled days, excluding students enrolled for fewer than 90 days (Education-to-Workforce Framework).

- Percentage of students with less than 10 absences in a school year (or less than 5 percent of the school year) (National Education Association).
- Proportion of K-12 chronically absent students (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Average number of days children from focal populations were present in preschool (STEP Forward with Data Framework).
- Percentage of enrolled preschool children from focal populations who are present for more than 90% of their enrolled days, excluding children enrolled for less than three months (STEP Forward with Data Framework).

Practices and Policies

Practices

- Federal, state, and local governments will be essential in the development and funding of efforts to expand PreK, to develop integrated PreK-3rd initiatives, to reduce chronic absenteeism, to expand summer learning opportunities, to assure that schools provide high-quality instruction, and to provide access to health insurance and to effective opportunities for parents to increase their educational levels and human capital (Annie E. Casey, Double Jeopardy).
- Build Awareness: Educate the school community (staff, students, parents and partners) about chronic absence, what it is and why addressing it matters for ensuring an equal opportunity to learn (Attendance Works, Policy Recommendations).
- Track Daily Attendance: Require recording attendance daily in elementary schools and by class in secondary schools, and differentiating whether absences occur during in-person or any virtual learning in student information systems (Attendance Works, Policy Recommendations).
- Establish a Common Definition of a Day of Attendance: Student attendance should measure exposure to instruction across all modes of learning, including in-person and any virtual learning options. EDFacts supports the following definition: a student counts as present for a full day of instruction if they attend school for at least .5 of the day (Attendance Works, Policy Recommendations).
- Monitor Chronic Absence: Monitor and publish data on how many students are missing 10% of school for any reason. Share data broken down by school, grade, race/ethnicity, income, home language, disability, foster care, experiencing homelessness, ZIP code and mode of learning. Use legislation to define chronic absence and require public reporting (Attendance Works, Policy Recommendations).
- Invest in Accessible and Usable Data Systems: Ensure the availability of meaningful and actionable attendance metrics that can be collected and analyzed without undue burden to educators (Attendance Works, Policy Recommendations).
- Report on Type of Absences: Publish data broken down by excused, unexcused or suspension and disaggregated by school, grade, race/ethnicity, income, home language, disability, foster care, experiencing homelessness, ZIP code and mode of learning (Attendance Works, Policy Recommendations).
- Expand Metrics for Attendance and Engagement: Explore the adoption of collecting and reporting on metrics to ensure an equal opportunity to learn and attend school. This includes analyzing attendance data in conjunction with data on the percent and number of students enrolled, students with up-to-date contact information and students with or without connectivity (i.e., access to the internet, broadband, computers, tablets). Support analysis of data by school, grade and student group (Attendance Works, Policy Recommendations).

- Provide Enriching and Engaging Opportunities for Students: Ensure that students - especially those who are chronically absent - benefit from a whole child approach that includes enrichment activities and addresses the health and educational needs of students (Attendance Works, Policy Recommendations).
- Establish a Multi-Tiered System of Supports: Adopt a multi-tiered approach to reducing student absenteeism that begins with foundational supports, prevention and early intervention (Attendance Works, Policy Recommendations).
- Adopt a Cross-Sector Approach: Forge partnerships with youth-serving systems (education, health, housing, justice, employment, etc.) to effectively deliver a whole child education, positive youth development and workforce readiness (Attendance Works, Policy Recommendations).
- Promote Fair Attendance Practices: Research has found significant disparities in the labeling of absences as unexcused versus excused, as well as which students are suspended from school. Use such data to identify and eliminate inequitable practices before they contribute to disengagement and dropping out of school (Attendance Works, Policy Recommendations).
- Use Alternatives to Legal Action: Adopt a positive, problem-solving and systemic approach to reducing student absenteeism. A punitive approach does not solve barriers to attendance and can be especially harmful when students are already experiencing trauma. Enact legislative changes that eliminate ineffective punitive responses to student absenteeism in truancy laws (Attendance Works, Policy Recommendations).
- Invest in Long-Term Recovery: Use chronic absence data along with other indicators to identify where there are instructional losses and to allocate internal resources (experienced teachers, professional development, instructional supports, etc.) as well as external resources (tutoring, expanded learning, community school strategies, technology, health services, etc.) to those in greater need. Build district capacity to sustain reductions in chronic absence. Evaluate the impact of investments in engagement and recovery and sustain strategies proven to be effective (Attendance Works, Policy Recommendations).
- Track attendance in longitudinal student data systems (Attendance Works, Policy Advocacy).
- Calculate and report on chronic absence by district, school, grade and student subgroup (Attendance Works, Policy Advocacy).
- Establish school and district attendance teams to review chronic absence, in addition to other key attendance data, such as average daily attendance, truancy and satisfactory attendance (missing 5% or less of school), to inform strategies designed to reduce absenteeism (Attendance Works, Policy Advocacy).
- Address improved attendance in school improvement plans (Attendance Works, Policy Advocacy).
- Support the creation of multi-tiered systems that begin with prevention and early intervention (Attendance Works, Policy Advocacy).
- Use the prevalence of chronic absence to identify schools in need of community resources (Attendance Works, Policy Advocacy).
- Use chronic absence data to allocate state resources to address barriers to attendance (Attendance Works, Policy Advocacy).
- Promote effective approaches to reducing student absenteeism, using absentee data to problem solve rather than punish. (Attendance Works, Policy Advocacy).
- Adopt effective behavior management that reduces reliance on school suspensions. (Attendance Works, Policy Advocacy).
- Adopt, monitor and report expanded metrics for monitoring attendance and engagement (Attendance Works, Policy Advocacy).

- Prior Year Chronic Absence: Students who missed 10% of school in the prior school year should be prioritized for extra outreach and support for the current school year and the upcoming summer. A wealth of research shows that chronic absence in the prior year indicates students, starting in kindergarten, were more likely to fall behind in reading, experience lower achievement in middle school and less likely to graduate from high school. Keep in mind that large numbers of students chronically absent in a particular grade, student group or school can indicate a need for intensified investments in foundational and tier 1 supports, not just expanded early intervention. See Attendance Works free data tools for help on using your data (Attendance Works, Expanded Metrics).
- Attendance (in-person and remote): Schools and districts should take attendance daily in a consistent manner, and differentiate in student information systems whether absences are occurring during in- person or remote learning. Establish a common definition of what constitutes a day of attendance during remote as well as in-person instruction. The current U.S. EDFacts definition is that a student counts as present for a full day of instruction if they attend school for at least .5 of the day (Attendance Works, Expanded Metrics).
- Data on absences and attendance can be used to notice which students have satisfactory attendance (missing less than 5% of school), have at-risk attendance (miss 5-9% of school), moderate chronic absence (miss 10-19% of school), or are experiencing severe chronic absence (missing 20% or more of school). Knowing which and how many students fall into these attendance bands can inform school and district strategies for reducing chronic absence, and also help indicate the level of support that may be needed for individual students and families as well as groups of students (Attendance Works, Expanded Metrics).
- Attendance during the first month: Schools and districts should, within the first two weeks of school, identify which students have not shown up yet for the current school year. Analysis of chronic absence data demonstrates that a low level of student participation in the first weeks of school predicts later absenteeism. Utilize this information to organize an outreach effort to understand why students and families are not participating (Attendance Works, Expanded Metrics).
- Relationships: Research and experience show that strong reciprocal relationships with caring adults and educators are key to keeping students and families involved in school and learning. Educators can make a huge difference by using both in-person and virtual relationship-building strategies with students and their families. See our suggestions for activities in our Back-to-School calendar of activities for elementary grades and for secondary grades (find the calendars on this page), as well as the Spring Attendance Slump page (Attendance Works, Expanded Metrics).
- When educators take attendance they can do so with intentionality and in a caring manner. For example, if a student is chronically absent, educators can make an extra effort to welcome them back. Educators can also recognize good and improved attendance and provide social-emotional check-ins at either the classroom or with individual students. Teachers can also encourage connections using group assignments and online chats to keep students engaged with each other. Virtual connections (phone calls, texts and emails) can be essential tools for sustaining and deepening relationships and communication if students are unable to show up to class (Attendance Works, Expanded Metrics).
- Strategies aimed at attendance improvement could likely have as much or more of a pay-off for high school and college graduation as efforts aimed at improving test scores. While

there is considerable local and national focus on improving test scores as a mechanism for improving educational attainment, attendance is often seen as a low-level goal. Yet, middle school attendance is much more predictive of passing high school classes than test scores and is as predictive of high grades in high school as test scores. High school outcomes are also higher for students who improve their attendance during the middle grades than for students who improve their test scores. Students who end their middle grade years with strong attendance are much more likely to do well in their high school courses than students with weak attendance, regardless of what their attendance or test scores were in fifth grade (UChicago CCSR, Looking Forward to High School and College).

- Ensure access to preventative health care, especially as children enter school. This may include not only expanding enrollment in children's health insurance, but also providing children with immunizations and comprehensive screenings (vision, dental, hearing, and developmental delays) (Annie E. Casey Foundation).
- Offer a high-quality education that responds to the diverse learning styles and needs of students. When the educational experience engages children's interest and meets their learning needs, families are much more likely to feel that going to school is worthwhile (Annie E. Casey Foundation).
- Implement early warning systems to identify problems, such as chronic absence, to allow for timely intervention (Alliance for Early Success).
- Engage families of all backgrounds in their children's education. Attendance improves when schools create a wide variety of opportunities for families from all backgrounds to support their child's learning (Annie E. Casey Foundation).
- Educate parents about the importance of attendance (Annie E. Casey Foundation).
- Encourage families to help each other attend school (Annie E. Casey Foundation).
- Offer incentives for excellent attendance to all children, such as materials (pencils or tows), acknowledgement in class or at morning assembly, extra recess time, opportunities to dress casually if uniforms are required (Annie E. Casey Foundation).
- Conduct early outreach to families with poor attendance and, if appropriate, case management to address social, medical, economic, and academic needs (Annie E. Casey Foundation).
- Coordinate public-agency and, if needed, legal response for families in crisis (Annie E. Casey Foundation).
- Learner Engagement and Attendance Program (LEAP): A home visiting program that identifies and partners with families to improve student attendance and family engagement (Connecticut Department of Education).
- School employs a tiered approach to improving attendance by promoting positive conditions for learning (Attendance Works).
- Creating a culture of attendance by taking a positive, not punitive, approach to absenteeism that is centered on belonging and engagement, and helping everyone to understand why daily attendance matters in pre-K through 12th grade (Attendance Works).

Policies

- Avoid Funding Cliffs: Introduce policies that protect schools and school districts that have experienced significant drops in enrollment and attendance against major losses in funding. The funding should provide sufficient resources for schools to support students and families (Attendance Works, Policy Recommendations).
- Policy makers can adopt a standard definition of chronic absence (missing 10% or more of school), whether the school is in person, virtual

or a blend, support daily attendance taking (Attendance Works, Policy Makers).

- Policy makers can ensure the state has a longitudinal student database—ideally beginning in preschool—that tracks attendance for each student using a unique identifier (Attendance Works, Policy Makers).
- Policy makers can make chronic absence a policy priority and direct districts and schools to identify contributing factors to student absenteeism (Attendance Works, Policy Makers).
- Policy makers can promote the adoption of learning opportunity metrics (contact, connectivity, attendance, participation and relationships) in addition to chronic absence (Attendance Works, Policy Makers).
- Policy makers can require that school improvement plans include prevention-oriented strategies to reduce chronic absence and improve attendance (Attendance Works, Policy Makers).
- Policy makers can sponsor legislation that sets a common definition for chronic absence, promotes monitoring and public reporting of data, and requires schools and districts to address high levels of chronic absence. (Attendance Works, Policy Makers).
- Policy makers can support data sharing between education, health and social service agencies and other community-based youth and family organizations to target intervention efforts. (Attendance Works, Policy Makers).
- Policy makers can ensure adequate and equitable resources so that all students have a substantially similar opportunity to meet performance standards regardless of geographic location, and that state and local funding are sufficient to reasonably expect that all students can meet academic performance standards (Attendance Works, Policy Makers).
- Policy makers can coordinate and secure resources to eliminate the digital divide (Attendance Works, Policy Makers).
- Policy makers can use chronic absence data to identify districts, schools, student populations and communities that need additional resources to remove barriers to attendance and ensure positive conditions of learning. (Attendance Works, Policy Makers).
- Policy makers can build public awareness and consensus about addressing chronic absence (Attendance Works, Policy Makers).
- Advocate for a standard definition of chronic absence: missing 10% or more of school, whether the school is in person, virtual or a blend, and support the public and timely release of data (Attendance Works, Policy Advocacy).
- States establish standards for accountability, adopt regulations and provide guidance that sets expectations for school districts and schools to achieve (Attendance Works).
- States ensure consistent and comparable data across schools and districts by specifying how attendance concepts are defined and offering guidance on how to collect accurate data (Attendance Works).
- The U.S. Department of Education collects and reports chronic absence data. States must track chronic absenteeism as a school quality indicator, along with more traditional academic measures for accountability in the Every Student Succeeds Act of 2015 (ESSA) (Attendance Works).
- In November 2023, South Dakota offered grants for districts to spend on efforts to reduce chronic absenteeism. Money from the grants will fund transportation; mentoring and tutoring programs; student, family, and community engagement activities. (South Dakota DOE).
- Administrators in the 200-student Leola district in South Dakota began investing in Positive Behavioral Interventions and Supports, or PBIS, as chronic absenteeism grew during the pandemic. PBIS involves identifying students at high risk of failing or dropping out and developing systems to support them. With a nearly $200,000 grant from the state, the

district hired a full-time employee who works with students on credit recovery and develops programming to help reduce absenteeism. The grant also helped pay for three staff members to participate in a "check and connect" mentoring program that pairs adults with students to help them return to regularly attending school. (EdWeek, Why Chronic Absenteeism is a Budget Problem).

- Sarah Lenhoff, an associate professor of educational leadership and policy studies at Wayne State University, argues against tying school funding to Average Daily Attendance. Punishing districts where students are chronically absent only makes the problem more likely to recur, Lenhoff says. Instead, she'd prefer to see states require districts to allocate a certain funding amount toward evidence-based programs that address chronic absenteeism. (EdWeek, Why Chronic Absenteeism is a Budget Problem).
- Ericka Weathers, an assistant professor of education policy at the University of Pennsylvania, argues against state policies that aim to discourage chronic absenteeism but that might end up exacerbating it. For example, some states have truancy laws that require that students be suspended or that parents go to court or even jail if their children don't show up to school. Taking children away from school, or taking away the option for parents to take their children to school, could end up costing the district in future years. "If money's taken away because kids are absent, it's leaving less money to tackle the problems in a more restorative, preventative, and less reactive approach," Weathers said. (EdWeek, Why Chronic Absenteeism is a Budget Problem).

Positive behavior *Key source: E-W Framework*

Indicators

Contributing indicators

- Percentage of children who do not experience any of the following: in-school suspensions, out-of-school suspensions, disciplinary use of restraint and seclusion, or expulsions. (Education-to-Workforce).
- Percentage of children who often or very often exhibit positive social behaviors when interacting with their peers (Rhode Island Kids Count).
- Percentage of students who can function appropriately in group learning activities, participating actively, taking turns, following directions and working cooperatively (Rhode Island Kids Count).
- Percentage of children who do not experience any of the following: in-school suspensions, out-of-school suspensions, disciplinary use of restraint and seclusion, or expulsions (Education-to-Workforce Framework).

Practices and Policies

Practices

- In using Positive Behavioral Interventions and Supports (PBIS), ensure some student groups are not rewarded disproportionately to other student groups. Ensure equity across gender, race, ethnicity, economic status, disability status, etc. (Promise Partnership Utah).
- Positive Behavioral Interventions and Supports (PBIS) Research-based strategies for promoting positive behavior through school-wide interventions (PBIS).

- Restorative Justice in Schools: strategies for non-punitive discipline and fostering a positive school climate (National Association of Community and Restorative Justice).
- National Center on Safe Supportive Learning Environments offers research and tools on school climate, student behavior, and emotional well-being (NCSSLE).
- Explicit and integrated social-emotional skill building for students (CASEL).

Grade Point Average and Academic Progress

Key source: E-W Framework

Indicators

Contributing indicators

- Failure rates in core courses to identify students who might be at risk (Promise Partnership Utah).
- Grade 9 students are prepared to transition to high school and are on track to graduate on time. Percentage of students in grade 9 with a GPA of 2.5 or higher, no Ds or Fs in English language arts or math, attendance of 96 percent or higher, and no in- or out-of-school suspensions or expulsions (Education-to-Workforce).
- Percentage of students in grades 6–8 with a GPA of 3.0 or higher (Education-to-Workforce).
- Percentage of students in grades 9–12 with a GPA of 3.0 or higher (Education-to-Workforce).
- Percentage of students in grade 8 who meet grade-level standards in reading/English language arts and math as measured by state standardized tests (Education-to-Workforce).
- High school students earn course grades necessary to gain admission to college (Education-to-Workforce).
- Children ages 6 to 17 who repeated one or more grades since starting kindergarten. (Kids Count).
- Proficient reading by third grade. Results of a longitudinal study of nearly 4,000 students find that those who don't read proficiently by third grade are four times more likely to leave school without a diploma than proficient readers. For the worst readers, those who couldn't master even the basic skills by third grade, the rate is nearly six times greater (Annie E. Casey, Double Jeopardy).
- Student grades and course failures are best predicted by earlier grades and attendance. High school test scores are strongly predicted by earlier test scores. Background characteristics, study habits, and grit are not predictive of high school performance, once students' middle grade GPAs, attendance, and test scores are taken into account. Background characteristics (e.g., race, gender, neighborhood poverty, free lunch eligibility, being old-for-grade, and special education status) are all related to high school grades and test scores, but they do not tell us any more about who will pass, get good grades, or score well on tests in high school, once we take into account students' eighth-grade GPAs, attendance, and test scores. Students' misconduct and suspension records in middle school are also not predictive of high school performance, once we take into account their attendance, grades, and test scores. Likewise, students' reports of their study habits in eighth grade, and their responses on a grit scale measuring perseverance in the middle grades, are not predictive of their performance in high school beyond their current grades and attendance (UChicago CCSR, Looking Forward to High School and College).
- Middle school test scores are much weaker indicators of high school grades than middle school grades and attendance. Many high

school interventions are based on test score proficiency—meeting standards on tests, or reading at grade level. This is the reasoning behind programs that offer support based on test scores, such as double dose coursing or grade promotion standards in middle school that delay students' entry into ninth grade based on test scores. However, while middle grade test scores are moderately related to passing classes and getting high grades in high school, most of the relationship between test scores and later performance seems to work through students' grades. That is, students with strong test scores are more likely to get good grades than students with weak test scores, but it is the grades that matter for later outcomes. Grades are based on a number of factors in addition to tested skills, including attendance, assignment completion, and quality of work over the course of an entire semester. Once we account for students' GPAs and attendance in the middle grades, their test scores do not provide much additional information about their likelihood of passing their classes in high school, and they only improve the prediction of getting high grades (As and Bs) in high school among students who also have high grades in middle school (UChicago CCSR, Looking Forward to High School and College).

- Students need at least a 3.0 GPA in the middle grades to be college-bound; a 3.5 GPA gives them at least a 50 percent chance. Prior research on high school predictors of college graduation shows that, by far, the most important predictor of college graduation is students' high school GPA. Only students who graduate from high school with at least a B average have a moderate chance of earning a college degree. Parallel to this finding about college, only those students who leave eighth grade with GPAs of at least 3.0 have a moderate chance of earning a 3.0 GPA in high school. Students who plan to go to college need to get the message that college requires very strong levels of effort and engagement in both the middle grades and in high school (UChicago CCSR, Looking Forward to High School and College).
- Eighth-grade GPA combined with attendance provides a better prediction of who will be on-track at the end of ninth grade than either indicator alone; adding other indicators only marginally improves the prediction (UChicago CCSR, Looking Forward to High School and College).
- Eighth-grade core GPA is also the best predictor of earning high grades, followed by test scores and attendance. The best indicators of students' readiness to excel in high school classes are similar to those predicting the likelihood that students will pass their high school classes (UChicago CCSR, Looking Forward to High School and College).
- Prior Research Shows Passing Classes and Earning High Grades in High School Are Essential for High School and College Graduation, While Test Scores Matter for College Access There is often a perception that students' performance on tests is what matters for high school and college graduation. While there are innumerable studies showing significant relationships between test scores and educational attainment, grades are more strongly and consistently found to be related to educational attainment than test scores (UChicago CCSR, Looking Forward to High School and College).
- High grades in high school are essential for college graduation. While passing courses is critical for graduating from high school, it is not enough to be ready for college. Students who are likely to succeed in college are not merely passing courses; they are working hard and earning high grades. Research in Chicago, and across the country, has found that students' high school grades are, by far, the most important predictor of getting into college and eventually graduating—more important than ACT or SAT scores or high school coursework (UChicago CCSR, Looking Forward to High School and College).

- In California, Kurlaender, Reardon, and Jackson (2008) examined the relationships between seventh-grade achievement indicators and high school graduation. They found that, among indicators studied, course failures in middle school were the strongest predictors of eventually not graduating among those they studied. Test scores, retention in the elementary and middle grades, and the timing of when students took algebra were similarly related to graduation—but not as strongly as course failures (UChicago CCSR, Looking Forward to High School and College).

- Eighth-grade students with less than 80 percent attendance or GPAs less than 1.0 are at extremely high risk of being off-track in ninth grade. These are students with extremely low grades and attendance in the middle grades. Eighth-grade students with C/D averages and chronic absence in middle school are at high risk of being off-track in ninth grade. These students are more likely to be off-track than on-track in high school; they have a 50 to 75 percent likelihood of being off-track (UChicago CCSR, Looking Forward to High School and College).
- High School GPA as an indicator of Academic Preparation: Considered one of the best predictors of college entrance, persistence, and completion through correlation and regression analysis. Captures academic performance (cognitive) and personal attributes (noncognitive), such as motivation and perseverance. However, calculating the measure requires a GPA threshold to define "college-ready," and though there is a linear relationship between high school GPA and college outcomes, there are no clear GPA cutoffs to indicate readiness. (An analysis of Beginning Postsecondary Students (BPS) data finds that more than 50 percent of entering postsecondary students with a high school GPA of 3.0 or above earn a credential. However, this cutoff varies by credential type, making it difficult to set one standard. Among associates-seeking students, the high school GPA threshold for reaching this 50 percent attainment rate is higher (3.5), while it is lower for bachelor's-seeking students (2.5). Some studies, such as Geiser & Santelices (2007) and Roderick, Nagota, & Coca (2009) show that a threshold of 3.0 is more predictive for student outcomes than other thresholds, but variability by credential level steers the IHEP framework away from setting a specific standard. (IHEP, Toward Convergence).
- The University of Chicago Consortium of School Research found that freshman GPA is a statistically valid indicator and predictor of future student academic success. It is strongly predictive of eleventh-grade GPA, which plays a big role in college admission. Freshman GPA also predicts high school graduation, college enrollment, and one-year college retention, and, in fact, is a much better predictor of these important milestones than test scores. It is a strong "leading indicator" of subsequent positive outcomes, suggesting that students who have strong freshman grades are likely to do well academically in the future. This evidence also supports a focus on students who are struggling in ninth grade, who may need additional help to overcome a poor freshman year and improve the likelihood of better academic outcomes in the future. (UChicago Consortium, The Predictive Power of Ninth-Grade GPA).
- The percentage of students who have achieved at least a 3.0 GPA at the end of their 9th-grade year. To build a strong foundation for postsecondary success, it is essential that students start high school on the right foot. Numerous studies have shown that GPA is a better predictor of postsecondary success and less discriminatory than standardized test scores.16 And 9th-grade GPA, in particular, has been found to be predictive of 11th-grade GPA, postsecondary enrollment, and first-year retention. High schools may use GPA to qualify students for advanced coursework (such as Advanced Placement, International

Baccalaureate, and dual enrollment), and colleges consider GPA when making admissions, scholarship, and course placement decisions. Given these wide ranging implications, the significance of achieving a strong high school GPA is paramount. (EdStrategy, From Tails to Heads).

- Average course academic grades. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Average performance on portfolio-alternative assessments. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

System indicators

- Share of students on track to graduate (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Share of students who are over/under credited (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Student academic proficiency measured by standardized assessments in math and literacy (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Student academic growth measured by standardized assessments in math and literacy
  • Average course academic grades (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Average science performance (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Average performance on portfolio-alternative assessments (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- Intervention in middle school: For students with 80 percent or lower attendance in the middle grades or a GPA of less than 1.0 in the middle grades, interventions are strongly warranted while they are in middle school. These students are extremely likely to drop out of school, with a risk greater than 75 percent, unless they experience a substantial change in the way in which they are engaging with school. Students earning a mix of Cs and Ds or below, or who attend less than 90 percent of the time in middle school, have less than a 50 percent chance of being on-track when they get to high school. Moderate interventions might be sufficient to get them to succeed in high school (UChicago CCSR, Looking Forward to High School and College).
- High school transition: In the summer before ninth grade, high schools can use students' grades and attendance from middle school to identify students for whom it is most critical to establish trusting relationships. Students with eighth-grade attendance less than 90 percent or a GPA of less than 2.0 in eighth grade are very likely to need support during the ninth-grade year. Schools could reach out to these students and their parents to establish positive connections before problems occur (UChicago CCSR, Looking Forward to High School and College).
- Maintaining high expectations: Students need to know that college readiness means at least B-level work, starting at least in the middle grades. If students do not have at least a B average in the middle grades, they are extremely unlikely to end high school with at least a B average. Students with lower than a 3.0 high school GPA have a slim chance of graduating from college, and they will be ineligible to attend many colleges or receive most scholarships. Middle schools can reach out to families of students who are not making high grades to let them know that they are not on-track to be ready for college (UChicago CCSR, Looking Forward to High School and College).
- School-family communication: Schools can

make sure that teachers are keeping up with their grading in the parent portal and have clear grading policies, so that students and parents always know where their grades stand and can notice if they slip. For some students, this knowledge may be enough to motivate higher work effort. For others, it may take support from teachers, mentors, or support staff to reach out, determine why students' grades are low, and then develop strategies to support their particular needs (UChicago CCSR, Looking Forward to High School and College).

- Class structure: The ways that teachers structure their classes can influence whether students put in strong or weak work effort. Teaching is a complex task. Teachers need to design methods for engaging students around challenging academic work, even though students enter their class with different skill levels, different histories of success, and their own issues and priorities. The ways in which teachers implement their lessons have implications for the degree to which their students put in effort. Clear grading standards and constant feedback can provide motivation to keep up with work (UChicago CCSR, Looking Forward to High School and College).
- Student mindsets: Teachers can modify their instruction and their interactions with students to encourage positive mindsets about the work. When a student is not putting in effort, a teacher or other adult could find out why they are putting in little effort—what it is about the class or about students' own experiences and skills that is preventing strong performance. Teachers also can design courses so that they intentionally develop students' learning strategies, such as metacognitive skills and study habits, as part of teaching their course subject. Explicitly teaching strategies to do better in class can pay off with better success on tests and assignments in that class and in future work (UChicago CCSR, Looking Forward to High School and College).
- Consistent attendance: Attendance is critical, at least as important as test performance. It may seem like a low bar—get students to come to school every day. Efforts aimed at 100 percent attendance could actually have substantial pay-off in students' eventual success in college and careers, but problems with attendance are often dismissed as being of low importance compared to progress on tests. Figuring out how to get to school when other factors may interfere—from family sickness and transportation issues, to the pull of more interesting activities—is not of secondary importance to improving test scores (UChicago CCSR, Looking Forward to High School and College).
- Prioritize learning growth over benchmark scores: Schools and the public are concerned about meeting ACT benchmarks, but reaching benchmark scores is less important for college readiness than maximizing learning growth and getting good grades. Students need classroom environments that encourage them to put in strong effort, earn high grades, and show high rates of learning growth. If students are coming into high school with strong middle school records and not performing well, high schools need to find out why (UChicago CCSR, Looking Forward to High School and College).
- Research has shown that students learn more when they are in orderly environments with high expectations. Schools can achieve this in multiple ways. For academically strong students, they can run honors classes, IB programs, and advanced classes. Or they can put sufficient support staff in place in mixed-ability classes so that expectations are high for all students, and so that teachers are able to provide differentiated instruction in an orderly environment. They can make sure that students with low achievement have sufficient support, time for learning, and student centered pedagogy to enable them to be engaged and successful in challenging classes. Students tend to put in more effort and earn higher grades when teachers are attuned to their academic

needs and provide support as soon as they start to struggle (UChicago CCSR, Looking Forward to High School and College).

- Early Warning Monitoring Systems: Monitoring systems could help students get the right level and kinds of support to keep them on-track for high school and college graduation. High schools in Chicago have made extraordinary progress over the last five years in improving student performance in the ninth grade by using early warning indicators to support student performance in their classes. Ninth grade on-track rates have increased from around 59 percent to close to 85 percent in just a few years. In many high schools, educators have designed systems for reaching out to ninth-grade students whose absences are high or grades are low to find out why they are struggling and figure out ways to help them perform better (UChicago CCSR, Looking Forward to High School and College).
- In recent years, districts and charter networks across the country have recognized the importance of ensuring that students start their high school careers on the right foot and, in response, have designed and implemented programs targeted specifically towards 9th graders. For example, as part of the To & Through Project, Chicago Public Schools (CPS) partnered with the University of Chicago to conduct rigorous research on the factors that impact college success for the district's students. They found that students who were "on track" during their freshman year (defined as earning at least five course credits and failing no more than one semester of a core course) were three times more likely to graduate from high school than their offtrack peers, and 9th-grade GPA was nearly twice as predictive of high school graduation as standardized test scores. Leveraging these findings, CPS developed a rapid reporting system to alert schools of 9th-grade students with low grades, and some schools appointed "on-track coaches" to intervene with tutoring programs, peer mentors, and after-school help sessions. CPS also hosts a month-long "Freshman Connection" for students who may be at risk of not graduating. The program features half-day lessons on topics such as organization and goal-setting, as well as academic instruction in English language arts and mathematics. As a result, freshman on-track rates have increased from 65 percent in 2008–2009 to 89 percent in 2017–2018 (EdStrategy, From Tails to Heads).
- Uncommon Schools, a charter network in New York and New Jersey, developed a program called "Target 3.0," a mandatory class to boost the grade point averages of all students with a GPA below a 2.5. Uncommon developed the program after analyzing their data and recognizing that "getting above a 3.0 GPA was very significantly correlated with future college success." With 54 percent of their alumni earning a bachelor's degree within six years, Uncommon predicts that they will close the college graduation gap between low- and high-income students within the next four years, with the goal of 70 percent of students attaining a postsecondary degree within the next six years.

Successful completion of Algebra I by 9th grade

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of first-time grade 9 students who complete Algebra I or an equivalent course by the end of their 9th-grade year. Completion of Algebra I by grade 9 is highly predictive of later outcomes, including high school graduation and success in college, and proficiency in algebra is linked to job readiness and higher earnings once students enter the workforce (Education-to-Workforce).

System indicators

- Rate of on-time enrollment in pre-algebra and algebra (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- Implement a curriculum that prepares all students for college and includes opportunities for college-level work for advanced students. This includes providing courses that are required for entry into a two- or four-year college and providing rigorous academic coursework that prepares students for the demands of college. Recommended courses include four years of English, at least three years of mathematics, two to three years of science and social studies, and one to two years of a foreign language. The What Works Clearinghouse panel recommends that at a minimum, all students should pass Algebra I by the end of their 9th-grade year. (What Works Clearinghouse, Helping Students Navigate the Path to College).

Policies

- Texas Senate Bill 2124 requires school districts to automatically enroll sixth-grade students who demonstrate high performance in fifth-grade math into advanced math courses, such as an Algebra I pathway. Families are notified and may opt out, but written consent is required to remove a student. The policy aims to expand access to advanced coursework, especially for underrepresented students, by shifting from an opt-in to an opt-out model (Texas Education Agency).

9th grade on track

Key source: E-W Framework

Indicators

Contributing indicators

- Grade 9 students are on track to graduate high school in four years, enroll in postsecondary education, and succeed in their first year of postsecondary education. Grade 9 is a foundational year on students' paths to on-time high school graduation and postsecondary education. For example, grade point average (GPA) in grade 9 predicts GPA in grade 11, which plays a role in college admissions and predicts students' postsecondary enrollment and first year postsecondary retention (Education-to-Workforce).
- Percentage of students in grade 9 with a GPA of 3.0 or higher, no Ds or Fs in English language arts or math, attendance of 96 percent or higher, and no in- or out-of-school suspensions or expulsions (Education-to-Workforce).

- Middle grade attendance and grades can be used to identify a set of students who are at very high risk of failing classes and being off-track in high school, and many of these students can be identified by at least as early as sixth grade. Students with a very high risk of failure in high school are chronically absent in the middle grades or are already receiving Fs in their classes in the middle grades. Many of the students who are at high risk of ninth-grade failure can be identified by at least as early as sixth grade, although some fall into this group as their attendance declines through the middle grade years. Without a dramatic change in their educational experience, these students have very little chance of graduating from high school; they and their future teachers are set up for failure (UChicago CCSR, Looking Forward to High School and College).
- While some students can be identified as at high risk of failing in high school, many other students who fail their ninth-grade classes in Chicago do not show signs of being in academic trouble in the middle grade years. The majority of students who fail their ninth-grade courses, and are off-track for graduation in Chicago, cannot be identified precisely in middle school. While there are calls for early identification of dropouts in middle school, the change in context over the transition to high school makes it difficult to predict exactly who will fail in ninth grade, beyond the students with very high risk. Once students start to show signs of struggle in ninth grade, with absence from classes or low grades, they become at high risk of not graduating (UChicago CCSR, Looking Forward to High School and College).
- Students often leave the middle grades looking like they are prepared to do very well in high school, but their grades and attendance drop dramatically in ninth grade. Students without exceptionally high performance in middle school are unlikely to get high grades in high school, and even having a very strong record in middle school does not ensure a student of high grades in high school. In fact, 40 percent of students who left eighth grade with As or Bs in their classes and ISAT test scores of 310 (exceeding standards) in math earned a C or lower in their ninth-grade math class. Students who enter high school with strong records but no longer perform well in high school are another group of students ripe for intervention—intervention to make sure they reach their college potential (UChicago CCSR, Looking Forward to High School and College).
- The ninth-grade on-track indicator simply shows whether students are making sufficient progress in ninth grade to be likely to graduate. A student is on-track if she ends ninth grade with at least five full-year credits and no more than one semester F in a core course (English, math, science, or social science). Ninth-grade on-track is highly predictive of eventual graduation (80 percent correct prediction). It is more predictive of graduation than any other middle or high school predictor, other than the combinations of predictors that include twelfth-grade performance (i.e., those that are measured during the year of graduation, rather than several years prior), based on comparisons of studies from across the country (UChicago CCSR, Looking Forward to High School and College).
- Passing classes is essential to graduate high school. To obtain a diploma, students need to accumulate credits. That means they need to pass their classes. For most dropouts, the pattern of course failures begins in the ninth grade; failures then accumulate in later grades, until they are so far behind that they cannot catch up. As a result, a simple indicator of whether students are on-track or not in ninth grade, based on failures in the ninth-grade year (see box above; The Ninth-Grade On-Track Indicator), is very predictive of eventual graduation, and accounts for almost all of the differences in graduation rates by students' race, gender, economic status, and other background

characteristics, including test scores. Each semester course that a student fails in ninth grade lowers the probability of graduating by 15 percentage points. (UChicago CCSR, Looking Forward to High School and College).

Practices and Policies

Practices

- Monitor progress monthly to trigger rapid intervention (University of Chicago Network of College Success).
- Dedicated 9th grade teams and/or academies to provide academic support, mentorship and orientation to high school
- Educators can reach out early to each student whose grades and attendance start to slip (CCSR).
- Educators should make sure their class is organized coherently so that students know exactly what they need to do to earn good grades (CCSR).
- Foster teacher collaboration around students and risk factors. Absences are lower than expected in schools where teachers take collective responsibility for the whole school, not just their own students (CCSR).
- Some Chicago schools have used Freshman Watchlists to identify rising 9th graders who will likely need support, reaching out to these students during the summer through the district's Freshmen Connection program. Once students are in high school, schools can put students on the right path toward graduation by closely monitoring their attendance and grades. Many schools that have used ninth-grade "success reports" to identify students in need of support have shown substantial improvements in their ninth-grade on-track rates and progress toward graduation. (UChicago CCSR, Looking Forward to High School and College).

Math and reading proficiency in high school

Key source: E-W Framework

Indicators

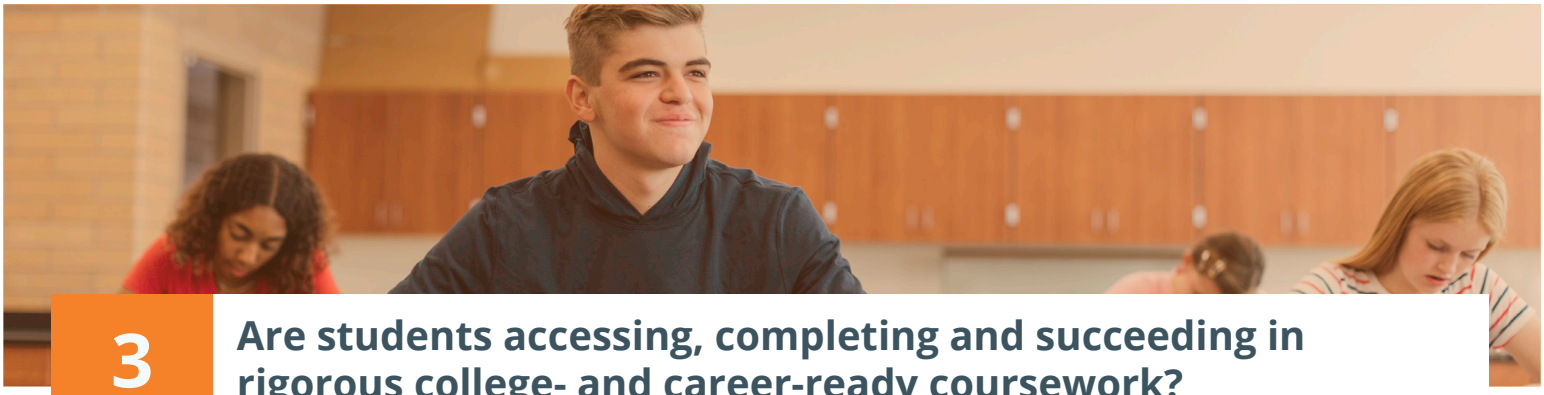
Contributing indicators

- Percentage of tested students who meet grade-level standards in reading/English language arts and math, as measured by state standardized tests. (Education-to-Workforce).
- Percent of children graduating from high school by age 19, disaggregated by their third grade reading proficiency (i.e. proficient, high; proficient, medium; not proficient, basic; not proficient, below basic). One in six children who are not reading proficiently in third grade do not graduate from high school on time, a rate four times greater than that for proficient readers. The rates are highest for the low, below-basic readers: 23 percent of these children drop out or fail to finish high school on time, compared to 9 percent of children with basic reading skills and 4 percent of proficient readers (Annie E. Casey, Double Jeopardy).
- Percent of children not graduating by their third grade reading proficiency and by race and ethnicity. The rate of those not graduating high school was highest for poor Black and Hispanic students, at 31 and 33 percent respectively—or about eight times the rate for all proficient readers. Graduation rates for Black and Hispanic students who were not proficient readers in third grade lagged far behind those for White students with the same reading skills (Annie E. Casey, Double Jeopardy).

Practices and Policies

Practices

- High-quality early education is a cost-effective investment for improving both early and later school success, particularly for students in low-income families and for Black and Hispanic children (Annie E. Casey, Double Jeopardy).
- A recent study of an integrated PreK-3rd approach implemented in Chicago found improved educational outcomes leading to a long-term societal return of $8.24 for every $1 invested in the first four to six years of school, including the PreK years (Annie E. Casey, Double Jeopardy).
- The integrated PreK-3rd approach to education, if fully developed and effectively implemented, involves six components: (1) aligned curriculum, standards, and assessment from PreK through third grade; (2) consistent instructional approaches and learning environments; (3) availability of PreK for all children ages 3 and 4, as well as full-day kindergarten for older children; (4) classroom teachers who possess at least a bachelor's degree and are certified to teach grades PreK-3rd; (5) small class sizes; and (6) partnership between the school and families. (Annie E. Casey, Double Jeopardy).
- Unfortunately, studies show the effects of good PreK programs can "fade out." But research also shows that gains for students are sustained if high-quality PreK is linked with the elementary grades, to create a common structure and coherent sets of academic and social goals (Annie E. Casey, Double Jeopardy).



3 Are students accessing, completing and succeeding in rigorous college- and career-ready coursework?

Why this matters

Access to and success in rigorous college- and career-ready coursework is essential for high school students because it prepares them for postsecondary education, workforce demands and long-term economic stability. Research shows that students who complete advanced coursework — such as Algebra II, advanced science or Advanced Placement (AP) classes — are more likely to enroll in and complete college (Adelman, 2006). Additionally, participation in rigorous courses is linked to higher rates of high school graduation and better preparation for 21st-century careers (Conley, 2007). However, equitable access remains a challenge, particularly for students from historically underserved communities, making it vital that schools not only expand access but also support success in these pathways.

College preparatory coursework completition

Key source: E-W Framework

Indicators

Contributing indicators

- High school students meet typical coursework requirements for admission to a four-year college. A high school education should ensure that students are eligible to pursue their chosen pathway after graduation. In many states, however, the requirements for a high school diploma fall short of the admissions criteria at many four-year colleges and universities (Education-to-Workforce).
- Percentage of high school graduates who successfully complete the coursework required for admission to a four-year college or university, which includes: four years of English classes, four years of math classes (including at least four of the following: pre-algebra, algebra, geometry, Algebra II or trigonometry, precalculus, calculus, statistics, quantitative reasoning, and data science), three years of laboratory science (including biology, chemistry, and physics), two years of social sciences, two years of foreign language, one year of visual or performing arts (Education-to-Workforce).
- Monitor the percentage of students who complete at least two courses in a single CTE program of study, as defined under Perkins V (Florida Department of Education).
- Track the proportion of CTE concentrators who earn recognized postsecondary credentials before graduation (Department of Education).
- Assess the number of students earning postsecondary credits through dual or concurrent enrollment in CTE-related courses (Department of Education).
- Measure student involvement in internships, apprenticeships, or cooperative education experiences aligned with their CTE programs (Department of Education).
- Evaluate additional factors such as the alignment of CTE programs with labor market demands, integration of academic and technical skills, and the inclusion of career counseling services (Department of Education).

System indicators

- High school course-taking and sequencing has been found to be a leading predictor of postsecondary success (Balfanz et al., 2016), yet statistics from the Civil Rights Data Collection shows that many high schools do not offer high-level courses that help students succeed at the next level. (Civic Enterprises, Building a Grad Nation).

Practices and Policies

Practices

- Universal advising guide to equip counselors and other caring adults with aligned messages and counseling resources (Education Strategy Group).
- Conduct regular labor market analyses in collaboration with workforce boards and industry partners to determine which career pathways to offer. Update course offerings every few years to stay aligned with economic shifts (Without Limits).
- Partner with community colleges and industry certification bodies to embed dual enrollment and credentialing opportunities into CTE pathways. Ensure that credits and certifications are portable and recognized by employers and postsecondary institutions (MDRC).

Early college coursework completion

Key source: E-W Framework

Indicators

Contributing indicators

- High school students successfully complete early college coursework (Advanced Placement [AP], International Baccalaureate [IB], or dual credit). There is growing evidence that participation in accelerated postsecondary pathways (such as early college high schools and dual enrollment) has a positive impact on students' high school graduation and postsecondary enrollment and completion. (Education-to-Workforce).
- Percentage of high school students who enroll in and pass at least one early college course (AP, IB, or dual credit). (Education-to-Workforce).
- Percentage of students enrolled in early college coursework who earn credit-bearing scores on end-of-course tests (for example, a score of 3 or higher on AP tests or 5 or higher on IB tests) or earn postsecondary credit within their dual enrollment courses. (Education-to-Workforce).

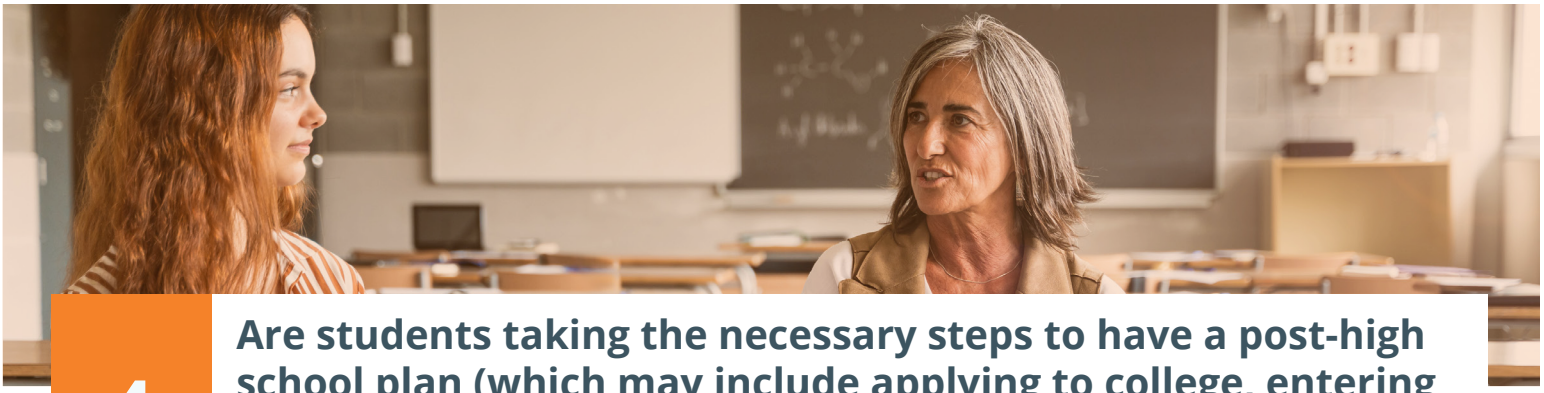
Practices and Policies

Practices

- Early College High Schools: Use targeted outreach and admissions strategies to prioritize access for historically marginalized groups. Avoid selective admissions criteria like prior academic achievement or test scores, and instead focus on potential and interest (AIR).
- Early College High Schools: Build integrated support systems—including dedicated counselors, success coaches, and access to college advisors—to help students persist in dual enrollment courses and plan for postsecondary success (Community College Research Center, Columbia University).

Policies

- High schools can partner with local postsecondary institutions to offer dual enrollment courses that allow high school students to earn postsecondary credits with both academic and career and technical concentrations. During the 2010-11 school year, 82 percent of high schools reported students enrolled in dual credit courses with an academic or CTE focus, while 53 percent of all postsecondary institutions reported high school students took courses for college credit within or outside of dual enrollment programs. (Civic Enterprises, Building a Grad Nation).



4 Are students taking the necessary steps to have a post-high school plan (which may include applying to college, entering the workforce or other workforce training) and receiving sufficient counseling support along the way?

Why this matters

Access to counseling and advising: Research shows that when students have access to high-quality advising, they experience a wide range of positive outcomes. These include stronger academic performance, greater engagement in early college and career pathways, higher rates of credential completion and increased persistence through key transitions. Effective advising also supports students in shaping their college and career identities, builds their confidence and motivation and helps them navigate and benefit from the social networks around them. In short, quality advising is essential — not only for advancing equity in education and career outcomes, but also for fostering thriving communities and a more robust economy (Education Strategy Group). Counselors and advisors are the key. High school counselors influence students' behavior, course selection and graduation in high school — and shape college enrollment, persistence, choice of major and degree completion. Counselors' impacts on educational attainment are, however, not driven by their short-term impacts on academic achievement. Rather, their effects appear to be driven by the guidance they provide students about their education options and the steps needed to reach them, along with the barriers to educational attainment that they raise or reduce (Christine Mulhern, Beyond Teachers: Estimating Individual Counselor's Effects on Educational Attainment).

Access to counseling and advising (i.e. high school graduation, college and career) *Key source: E-W Framework*

Indicators

Contributing indicators

- Percentage of students using academic advising and career counseling services. (Education-to-Workforce).
- Percent of students who report having helpful advising More than half of high school students say no one in their school has been helpful in advising on career options or options to further their education (ACTE, Career and Technical Education's Role in Career Guidance).

System indicators

- College and career counseling services are

available in high schools and college campuses. (Education-to-Workforce).

- Ratio of number of students to number of full-time equivalent (FTE) counselors. This recommended metric for the K–12 sector should be considered a minimum benchmark for measurement, as the ratio of students to FTE counselors does not provide insight into the quality or effectiveness of advising services. For a fuller picture, data users might be interested in additional information, such as the percentage of time that counselors dedicate to advising, how many students within the school they serve, the amount of time that other staff dedicate to advising (such as school-based administrators, third-party nonprofit program staff, and part-time or full-time volunteers), and/or the degree to which counselors or other staff leverage data to understand matriculation patterns of their school's graduates and help students make informed decisions based on the likelihood of completion (a practice that research links to the effectiveness of advising services) (Education-to-Workforce).
- The EW Framework strongly recommends that K–12 systems assess the quality of advising services by disaggregating data on key indicators of successful student transitions, such as early college coursework completion, SAT/ACT participation, FAFSA completion, selection of a well-matched postsecondary institution, senior summer on track, postsecondary enrollment directly after high school graduation, and/or successful career transition after high school (Education-to-Workforce).
- Student-to-counselor ratio: The average U.S. student-to-counselor ratio is 479 to 1, and it grows to more than 1,000 to 1 in some schools. This contrasts greatly with what is necessary to ensure adequate student services. The American School Counselor Association recommends a student/counselor ratio of 250 to 1 in order to implement a comprehensive developmental school counseling program designed to meet the needs of all students. (ACTE, Career and Technical Education's Role in Career Guidance).
- Maintaining or moving toward the 250:1 ratio is considered a key best practice for equitable and effective student support systems. Lower ratios lead to improved student outcomes (ASCA).
- Percentage of time counselors spend on assignments that match their professional counseling skills, instead of activities such as conducting testing programs, registering students for courses, filling out college applications, handling disciplinary issues and maintaining student records. Some of these activities, such as coordinating and administering cognitive, aptitude and achievement tests, have been declared inappropriate by the American School Counselor Association; while others merely stretch the limits of any individual professional, leaving less time to focus on direct student services such as career guidance. A survey of high school counselors in Florida found that more than 30 percent reported that "actual career counseling" occupied very little of their time (ACTE, Career and Technical Education's Role in Career Guidance).
- Counselors are trained to help students make good educational and career decisions. Many counselor preparation programs focus predominantly on mental health models rather than academic and career development models. Thus, some guidance professionals lack current and accurate knowledge concerning career guidance and emerging career opportunities, and may have outdated perceptions about postsecondary options that impact the information they share with students (ACTE, Career and Technical Education's Role in Career Guidance).
- School counselors believe every student can learn, and every student can succeed (American School Counselor Association, Professional Standards & Competencies).

- School counselors believe every student should have access to and opportunity for a high-quality education (American School Counselor Association, Professional Standards & Competencies).
- School counselors believe every student should graduate from high school prepared for postsecondary opportunities (American School Counselor Association, Professional Standards & Competencies).
- School counselors believe every student should have access to a school counseling program (American School Counselor Association, Professional Standards & Competencies).
- School counselors believe effective school counseling is a collaborative process involving school counselors, students, families, teachers, administrators, other school staff and education stakeholder (American School Counselor Association, Professional Standards & Competencies).
- School counselors believe school counselors are leaders in the school, district, state and nation (American School Counselor Association, Professional Standards & Competencies).
- School counselors believe school counseling programs promote and enhance student academic, career and social/emotional outcomes (American School Counselor Association, Professional Standards & Competencies).
- School counselors apply developmental, learning, counseling and education theories (American School Counselor Association, Professional Standards & Competencies).
- School counselors design and implement instruction aligned to ASCA Student Standards: Mindsets & Behaviors for Student Success in large-group, classroom, small-group and individual settings (American School Counselor Association, Professional Standards & Competencies).
- School counselors create school counseling program beliefs, vision and mission statements aligned with the school and district (American School Counselor Association, Professional Standards & Competencies).
- School counselors demonstrate understanding of educational systems, legal issues, policies, research and trends in education (American School Counselor Association, Professional Standards & Competencies).
- School counselors provide appraisal and advisement in large-group, classroom, small group and individual settings (American School Counselor Association, Professional Standards & Competencies).
- School counselors identify gaps in achievement, attendance, discipline, opportunity and resources (American School Counselor Association, Professional Standards & Competencies).
- School counselors apply legal and ethical principles of the school counseling profession (American School Counselor Association, Professional Standards & Competencies).
- School counselors provide short-term counseling in small-group and individual setting (American School Counselor Association, Professional Standards & Competencies).
- School counselors develop annual student outcome goals based on student data (American School Counselor Association, Professional Standards & Competencies).
- School counselors apply school counseling professional standards and competencies (American School Counselor Association, Professional Standards & Competencies).
- School counselors make referrals to appropriate school and community resources (American School Counselor Association, Professional Standards & Competencies).
- School counselors develop and implement action plans aligned with annual student outcome goals and student data (American School Counselor Association, Professional Standards & Competencies).

- School counselors use ASCA Student Standards: Mindsets & Behaviors for Student Success to inform the implementation of a school counseling program (American School Counselor Association, Professional Standards & Competencies).
- School counselors consult to support student achievement and success (American School Counselor Association, Professional Standards & Competencies).
- School counselors assess and report program results to the school community (American School Counselor Association, Professional Standards & Competencies).
- School counselors demonstrate understanding of the impact of cultural, social and environmental influences on student success and opportunities (American School Counselor Association, Professional Standards & Competencies).
- School counselors collaborate with families, teachers, administrators, other school staff and education stakeholders for student achievement and success (American School Counselor Association, Professional Standards & Competencies).
- School counselors use time appropriately according to national recommendations and student/school data (American School Counselor Association, Professional Standards & Competencies).
- School counselors demonstrate leadership through the development and implementation of a school counseling program (American School Counselor Association, Professional Standards & Competencies).
- School counselors create systemic change through the implementation of a school counseling program. (American School Counselor Association, Professional Standards & Competencies).

Practices and Policies

Practices

- Aligned advising strategies, which bridge the gap between K-12, higher education and the workforce (Education Strategy Group).
- Well-planned comprehensive counseling and guidance programs provide the scaffolding which ensures students' success in informed career decision making. In fully implemented comprehensive counseling and guidance programs, students have access to more college and career information, are more targeted in their course selection, reach higher levels of academic achievement and have higher grades, and feel that their education has better prepared them for their future. (ACTE, Career and Technical Education's Role in Career Guidance).
- Having access to effective college and career advising can help students navigate transitions between high school, college, and the workplace. A small but growing body of evidence shows that counselors vary in their effectiveness at boosting high school students' graduation rates, college attendance, selectivity, and persistence; moreover, students from low-income households benefit most from being assigned to an effective counselor. (Education-to-Workforce).
- Youth serving institutions reinforce advising efforts
- Students benefit from being matched to a counselor of the same race and having a counselor who attended a local college (Better School Counselors, Better Outcomes).
- Students benefit from assignment to counselors from the same racial group. A study by Christine Mulhern at RAND calculates that students are roughly two percentage points more likely to graduate high school and persist in college if assigned a counselor from the same racial group relative to one from a different race. Counselor effectiveness also matters most for low-income and low-achieving students, so it may be worth focusing on attracting the best counselors to the

schools with more low-income or lower-achieving students (Beyond Teachers: Estimating Individual School Counselor's Effects on Educational Attainment).

- Counselors vary in whether they are most effective for low or high achieving students. Matching students to counselors based on the counselor's comparative advantage and students' prior achievement (similar to how many high school courses are assigned) could be a simple way to improve educational attainment. (Christine Mulhern, Beyond Teachers: Estimating Individual School Counselor's Effects on Educational Attainment).
- Counselors should track critical indicators for each student (i.e.: a high school counseling credit check spreadsheet that highlights in green and red the credits that the student has and doesn't have respectively) (Lauren Tingle, High School Counseling Conversations).
- Design, implement and assess a school counseling program informed by disaggregated data identifying student needs (ASCA, The School Counselor and Academic Development).
- Deliver information to students and teachers on best practices to attain mindsets and behaviors (i.e., learning strategies, self-management skills, social skills) for student success (ASCA, The School Counselor and Academic Development).
- Provide relevance to students' academic effort and educational pursuits by helping them understand the connection between school and the world of work, assisting them in career planning and career-related goal setting (ASCA, The School Counselor and Academic Development).
- Encourage students to engage in challenging coursework and work to address and remove barriers to access the most rigorous coursework appropriate for each student. (ASCA, The School Counselor and Academic Development). Use disaggregated data to identify and address inequitable practices (ASCA, The School Counselor and Academic Development).
- Provide opportunities for students to: Enhance their belief in development of whole self and ability to succeed; Develop a positive attitude toward work and learning; Make decisions informed by evidence, considering others' perspectives and recognizing personal bias; Develop long and short-term academic goals; Demonstrate self-motivation and self-direction for learning; Demonstrate positive, respectful and supportive relationships with students and adults (ASCA, 2021). (ASCA, The School Counselor and Academic Development).
- Work to establish student opportunities for academic remediation as needed (ASCA, The School Counselor and Academic Development).
- Emphasize family/caregiver-community-school relationships in addressing academic needs (ASCA, The School Counselor and Academic Development).
- Professional Development—Adults who work with youth at risk of dropping out need to be provided ongoing professional learning opportunities, support, and feedback. The professional learning should align with the agreed upon vision and focus for the school/agency, the agreed upon instructional framework of high leverage research-based practices and strategies, and the identified needs of the population served. The professional learning opportunities provided should be frequently monitored to determine the fidelity of implementation and need for additional support and feedback (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).

Policies

- Keep counselor to student caseloads as low as possible, ideally around 250:1. One study estimates that adding an additional high school counselor improves four-year college enrollment rates by 10 percentage points (Education-to-Workforce).

- The American School Counselor Association recommends a counselor caseload of 250 students, yet many counselors manage double or triple that recommended caseload, with the national average caseload at 471 students (Education-to-Workforce).

Counselor effectiveness

Practices and Policies

Practices

- Improving counselor effectiveness by one standard deviation, which is equivalent to having a counselor at the 84th percentile of effectiveness rather than at the 50th percentile, makes students 2.0 percentage points more likely to graduate high school and 1.7 percentage points more likely to enroll in a four-year college (Christine Mulhern, Better School Counselors, Better Outcomes).
- Counselors' effects are most pronounced among low-achieving and low-income students; low achievers, for example, are 3.4 percentage points more likely to graduate if assigned to an effective counselor (Christine Mulhern, Better School Counselors, Better Outcomes).
- Solidifying relationships with students so students know who is on their team and that adults are fighting for them (Lauren Tingle, High School Counseling Conversations).
- Counselors should be in contact with students' parents, teachers and friends (Lauren Tingle, High School Counseling Conversations).
- Counselors should consult with teachers to ensure teachers and students are on the same page. Counselors should reassure teachers that they are in it together (Lauren Tingle, High School Counseling Conversations).
- Counselors should know who the key friends are in students' lives, who is in the student circle that can help them graduate and really rally a peer group around them (Lauren Tingle, High School Counseling Conversations).

SAT and ACT participation and performance

Key source: E-W Framework

Indicators

Contributing indicators

- High test scores help students get access to college. When colleges make entrance decisions, they usually rely on both students' grades and their scores on college entrance exams (the ACT and SAT). For this reason, higher scores on the college entrance exams help students gain access to more selective colleges and programs. High test scores also can help students obtain scholarships (UChicago CCSR, Looking Forward to High School and College).

System indicators

- Average college admission test scores (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- Universal testing mandates: Evidence suggests that standardized tests like the SAT and ACT can be a useful and cost-effective approach

for identifying high-achieving students from marginalized backgrounds for the purposes of college access and outreach initiatives. There is evidence that universal testing mandates requiring all students to take the ACT or SAT raise college enrollment rates among students from low-income households (Education-to-Workforce).

- Free college admission exams: One way states are attempting to increase postsecondary access to students is to provide college enrollment exams for free. To date [i.e. as of 2018], 26 states have made either the ACT or SAT a requirement for 11th graders and have administered the exams to students free of cost. Using data from Lumina Foundation's A Stronger Nation report shows states that require a college admission test have slightly smaller subgroup gaps between white and Black students (13.6 vs. 14.5 percentage points), as well as white and Hispanic students (21.1 percentage points vs. 22.6 percentage points). Increasingly, high schools are joining the movement to provide free college admission testing and some have devoted school hours to SAT test-taking or provided vouchers to cover the cost of ACT exams (Civic Enterprises, Building a Grad Nation).

FAFSA completion

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of grade 12 students who complete the FAFSA by June 30 (Education-to-Workforce).
- Rates of FAFSA completion. Students who report completing a FAFSA are more likely to enroll in college, enroll in a four-year rather than a two-year college, and enroll full time rather than part time compared to students who do not complete an application (Education-to-Workforce).
- Rates of FAFSA completion for low-income students: Students from low-income households who complete a FAFSA are 127 percent more likely to enroll in college in the fall after graduating high school than their peers who do not. One study found that, among students who applied and were admitted to college, there was a 29 percent difference in enrollment—84 percent of students who were admitted and completed the FAFSA enrolled in a four-year college, compared with 55 percent enrollment by students who were admitted but did not complete the FAFSA (Education-to-Workforce).
- Student reasons for not completing a FAFSA. (e.g., among fall 2009 ninth-graders who graduated from high school and reported, or their parents reported, not completing a FAFSA, 33 percent thought they or their family could afford school or college without financial aid; 32 percent thought they or their family may be ineligible or may not qualify for financial aid; 28 percent did not want to take on debt; and 23 percent did not have enough information about how to complete a FAFSA) (Stats in Brief, Why didn't students complete a FAFSA).

Practices and Policies

Practices

- High school educators and college access counselors hold information sessions to help students and families understand the process and timeline for FAFSA submission this year (U.S. Department of Education, Better FAFSA Toolkit).
- High school educators and college access counselors support students as they create a StudentAid.gov account by giving time to do it with trained school personnel or volunteers (U.S. Department of Education, Better FAFSA Toolkit).

- High school educators and college access counselors set FAFSA completion goals for your or key partners' high schools and use available data to know your school's current submission rate (U.S. Department of Education, Better FAFSA Toolkit).
- High school educators and college access counselors train teachers, support staff and volunteers on how to fill out the FAFSA (U.S. Department of Education, Better FAFSA Toolkit).
- High school educators and college access counselors visit ed.gov/Better-FAFSA to access resources like the Financial Aid Toolkit for counselors and the roadmap for counselors and advocates (U.S. Department of Education, Better FAFSA Toolkit).
- High school educators and college access counselors Develop a roadmap for their school and community support providers (U.S. Department of Education, Better FAFSA Toolkit).

College applications

Key source: E-W Framework

Indicators

Contributing indicators

- Grade 12 students submit a well-balanced portfolio of at least three college applications. Research shows that students who apply to at least two colleges are more than 40 percent more likely to enroll in a four-year college than those who apply to only one (Education-to-Workforce).
- There are disparities by race, ethnicity, and income in the rates at which students apply to college. One study found, for instance, that students from low-income households were less likely to apply to college and less likely to apply to multiple colleges than their peers. As another example, among Chicago Public School (CPS) students who aimed to achieve a four-year degree, Black and Latino students were least likely to apply to and enroll in college (Education-to-Workforce).
- Percent of students who earn college credit while still in high school, which can improve direct enrollment rates.

System indicators

- The percentage of high school graduates who transition directly to college, typically tracked at the state, district, or school level.

Practices and Policies

Practices

- Idaho sends every eligible high school senior a letter notifying them that they've already been accepted to some or all of the state's public colleges and universities—no application required. The program led to a 6–15% increase in enrollment at Idaho public colleges, particularly for low-income and rural students (Education Commission of the States).

Policies

- The *Postsecondary and Workforce Readiness Act*, this initiative rewards high school students who complete a set of experiences—academic coursework, career exploration, and postsecondary planning—with a "college and career endorsement" on their diplomas. Some public institutions offer preferential admissions or placement for students with endorsements (Postsecondary Workforce and Readiness Act - Illinois).

Selection of a well-matched postsecondary institution *Key source: E-W Framework*

Indicators

Contributing indicators

- High school graduates select the best "match" college among the institutions to which they were admitted, based on the institutional graduation rate of similar students. Nationwide, 50 percent of students from low-income families attend a less selective college than those to which they have access, even though attending a more selective college can lead to higher graduation rates and future income (Education-to-Workforce).
- Percentage of high school seniors who select a college within 10 percentage points of the best matched postsecondary institution to which they were admitted, based on the institution's graduation rate for similar students by race, ethnicity, or income status (as measured by Pell Grant receipt) (Education-to-Workforce).

Practices and Policies

Practices

- KIPP's College Match Strategies Framework: Each fall, Knowledge Is Power Program (KIPP) counselors work with high school seniors to create a college "wish list" based on their academic achievement, financial needs, and personal interests. Students and families are given access to a match tool that provides personalized information about "likely," "match," and "reach" colleges for that student, based on grade point average (GPA) and ACT/SAT scores, along with data on the graduation rate and net price of each college. Counselors offer guidance on how to select a good mix of schools to which to apply, develop strong applications, request application waivers from colleges, and apply for financial aid. Using a centralized data system, counselors track students' wish lists—and later, their applications, admissions, and enrollment—which they use to follow up with students at key points in their senior year. Supporting this process is a set of key performance indicators that KIPP monitors; they include the share of seniors who apply to at least nine colleges by December, submit financial aid applications by February, and enroll in college by the following October. KIPP then determines which students did not enroll or enrolled in a college with a much lower underrepresented minority (URM) graduation rate (10 percentage points or lower) than the college with the highest URM graduation rate to which they were admitted. Each year, staff analyze the data to measure progress over time in helping students attend not just any college but one that is a good match (Education-to-Workforce).

Participation in work-based learning *Key source: E-W Framework*

Practices and Policies

Practices

- Comprehensive counseling and guidance programs are led by counselors, but in order to navigate the complex workplace of the 21st century, students need the services of many qualified professionals who engage them in the career decision-making process. These educational professionals can include career development specialists, CTE teachers,

CTE administrators, career coaches, work-based learning facilitators, and a variety of other capable individuals, many with strong connections to CTE. These people, working in concert, provide a powerful service delivery system of programs and activities designed to help students gain proficiency in career decision-making skills. (ACTE, Career and Technical Education's Role in Career Guidance).

- Educators participating in the *Educators in Industry* externship program reported a deeper understanding of essential workplace skills such as problem-solving, collaboration, and communication. This insight led them to redesign classroom activities to better develop these competencies in students through active, real-world contexts (Educators in Industry).
- Adults in the CTE team are prepared and informed. At the school or institutional level, guidance and career development leaders should meet together to identify the different roles that each play. Counselors are trained to understand young people and their age-appropriate development. Career coaches and career facilitators can work with groups of students to help them create portfolios and gain work-readiness skills. Work-based learning coordinators can interact directly with business and industry leaders to create opportunities for students to interface with the workplace. CTE administrators can support professional development and training, provide equipment and space, and approve and encourage the positive efforts of the team (ACTE, Career and Technical Education's Role in Career Guidance).
- A new focus on the reorganization of CTE curriculum has emerged emphasizing career clusters and career pathways as a way to guide young people through the career decision-making process. Career clusters are broad groupings of occupations or careers used as an organizing tool for curriculum design and instruction. The U.S. Department of Education identified 16 national clusters in 1999, and many individual states have adopted or adapted these clusters for their own use. The career cluster framework is serving to reorganize CTE programs in a way that is more meaningful to students as they enter the 21st century workplace and allows more broad exploration of career opportunities (ACTE, Career and Technical Education's Role in Career Guidance).
- Engaging students through personalized and applied learning. Perhaps the most important contribution of CTE to career guidance is its ability to engage students in the educational and career decision-making process through learning that is relevant and personal. Focused CTE programs underscore the relevancy of high school education and help students see how they will use the knowledge they are gaining in their futures, critical elements of career guidance (ACTE, Career and Technical Education's Role in Career Guidance).
- One of the key components being used to personalize student learning is an "individual plan for graduation and beyond," also known as an "individualized graduation plan." These plans are often based on career clusters, pathways or programs of study, and they map out the career and college readiness courses a student is required to take, as well as a mix of interest-based courses, other electives and enrichment experiences (ACTE, Career and Technical Education's Role in Career Guidance).
- A variety of electronic tools exist to help students develop individualized graduation plans and integrate them with interest assessments and career exploration tools. Some schools are also using electronic portfolios in order to follow students' career choices. Computer-based programs can simplify the process for young people by organizing careers into related clusters and by providing links to post-high school institutions and professional organizations (ACTE, Career and Technical Education's Role in Career Guidance).

- Work-based learning experiences like internships, job shadowing, community service projects and youth apprenticeships provided by CTE can further help students make career decisions, network with potential employers, select courses of study and develop job skills relevant to future employment. Through the interaction of work and study experiences, students can enhance their academic knowledge, personal development and professional preparation. (ACTE, Career and Technical Education's Role in Career Guidance).
- As an extension of work-based learning, students also have the opportunity to participate in Career and Technical Student Organizations (CTSOs), co-curricular organizations that provide leadership, career development and recognition opportunities for students. (ACTE, Career and Technical Education's Role in Career Guidance).

Policies

- The 2006 Carl D. Perkins Career and Technical Education Act included a new requirement for CTE to begin implementing "programs of study" to be eligible for federal funding. Programs of study are defined in the Perkins law as options for students in planning for and completing future coursework. They must incorporate and align secondary and postsecondary education elements; include rigorous and relevant academic and CTE content in a coordinated, non-duplicative progression of courses; lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree; and may include the opportunity for dual or concurrent enrollment programs. (ACTE, Career and Technical Education's Role in Career Guidance).

Senior summer on track

Key source: E-W Framework

Practices and Policies

Practices

- The National College Attainment Network (NCAN) compiled a number of resources related to key topics around improving students' postsecondary outcomes. This evolving list of resources focuses on best practices and case studies related to reducing the effect of summer melt and ensuring that students who intend to matriculate actually do so (NCAN, Summer Melt Resources).
- NCAN Summer Melt Toolkit: This resource from NCAN is a good introduction to the concept of summer melt. It includes background information, different approaches to combating summer melt (virtual and non-virtual), and steps various stakeholders can take (NCAN, Summer Melt Resources).
- Sample Summer Melt Text Messages: You don't need to start from scratch on crafting a summer melt text messaging campaign. NCAN used these messages during a campaign with Signal Vine during a previous summer melt prevention effort (NCAN, Summer Melt Resources).
- SummerLink, a program in the Fort Worth Independent School District, was designed to keep college-bound students on track by offering logistical and emotional support during the transitional summer season before college (Harvard Strategic Data Project).
- NCAN has developed two units that focus on college retention/success. In these units summer transition workshops, using social media, and summer bridge programs are highlighted as ways to prevent summer melt (NCAN, Summer Melt Resources).
- Research spanning 100 years has shown that students lose ground during summer, particularly low-income students. They lose an average of more than two months in reading achievement over the summer, slowing their progress toward

third-grade reading proficiency. It is also, therefore, important for schools and communities to develop opportunities for summer learning which are aligned with instruction that occurs during the regular school year (Annie E. Casey, Double Jeopardy).

Leading a School System to Strong Graduation Outcomes

School systems can boost high school graduation outcomes by proactively monitoring student progress and addressing early warning signs like attendance, behavior, or academic issues with timely, student-centered interventions.

5 Does the LEA and school monitor the progress of all students to identify early risk indicators of attendance, behavior or academic problems?

Why this matters

Research shows that early identification is key to preventing dropout. According to a report by the National Dropout Prevention Center (2020), students who show signs of disengagement — such as poor attendance, behavior issues or academic struggles — are at a significantly higher risk of not graduating. Additionally, the Institute of Education Sciences (2017) highlights that systems for monitoring student progress, such as early warning systems, have been shown to improve graduation rates by allowing schools to intervene before problems become insurmountable.

Early warning and monitoring systems

Indicators

System indicators

- Local education agencies identify and track indicators of risk, including GPA, attendance, and behavior (Institute of Education Sciences).
- Responses to student engagement surveys measuring levels of academic engagement. Sample questions include: "I usually look forward to this class," "I work hard to do my best in this class," "Sometimes I get so interested in my work I don't want to stop," and "The topics we are studying are interesting and challenging." (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Responses to student engagement surveys measuring levels of student-teacher trust. Sample questions include: "When my teachers tell me not to do something, I know they have a good reason," "I feel safe and comfortable with teachers at this school," "My teachers always keep their promises," "My teachers will always listen to students' ideas," and "My teachers treat me with respect." (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Responses to student engagement surveys measuring how they view the importance of school for the future. Sample questions include: "My classes give me useful preparation for what I plan to do in life," "High school teaches me valuable skills," "Working hard in high school matters for success in the workforce," "What we learn in class is necessary for success in the future," and "I have someone who is helping me with my college and career goals." (What Works Clearinghouse, Dropout Prevention in Secondary Schools).

Practices and Policies

Practices

- Implement an early warning system to identify students. The system should include indicators on attendance, suspensions, course failures in English or math, and low scores on state English and math assessments (National Dropout Prevention Center).
- When a child exhibits two or more warning indicators, a school based team should meet to determine appropriate interventions for the student. Parents should be included and offered at least 10 days notice of the meeting (National Dropout Prevention Center).
- Include information and data on the school's early warning system in its annual school improvement plan, including data on indicators used (National Dropout Prevention Center).
- Establish requirements for dropout recovery programs to meet, including offering appropriate supports for students, including tutoring, career counseling, and college counseling. Schools should ensure that each student in a dropout recovery program has an individual graduation plan developed by the student's assigned academic coach (National Dropout Prevention Center).
- Establish a student recovery program that offers specified services, including services designed to enable students to obtain high school equivalency certificates (National Dropout Prevention Center).
- Ensure students who are suspended from school for 10 or fewer consecutive days, whether in or out of school, have an opportunity to make academic progress during the period of their suspension to make up assignments and earn credits missed (National Dropout Prevention Center).

- Establish a treatment center for planned, individualized programs of educational, medical, psychological, rehabilitative experiences and activities (National Dropout Prevention Center).
- Monitor the progress of all students, and proactively intervene when students show early signs of attendance, behavior, or academic problems. (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Organize and analyze data to identify students who miss school, have behavior problems, or are struggling in their courses. Use data routinely collected in school as a starting point for monitoring the three key "ABC" early warning indicators: Attendance (total, unexcused, and excused), Behavior (suspensions, office referrals), Course grades (including intermediate outcomes such as failing tests or missing assignments) (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Intervene with students who show early signs of falling off track. Use the data collected to identify students who are in need of early intervention to ensure they remain on track for graduation. Early interventions can occur for individual students, groups of students, or the entire school, and they may be academic, social, or emotional in nature. Before planning any intervention, informally check in with students about changes in attendance, behavior, or grades to discover the cause of the problem (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- If data show high rates of absenteeism, take steps to help students, parents, and school staff understand the importance of attending school daily. Provide incentives to students and parents for attending school and for attending on time, as tardiness impacts learning as well. Have inter-class competitions for best attendance or most improved attendance on a weekly basis, and reward both teachers and students for their efforts (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Monitor progress and adjust interventions as needed. Regularly monitor the effectiveness of interventions by reviewing the data on target students' attendance, behaviors, and academic progress during team meetings. Pay particular attention to students' performance on indicators that the intervention is expected to influence. For example, daily wake-up calls would influence attendance during the first period. If no improvement is evident based on the data, determine whether an alternate course of action is necessary. Consider whether the intervention is being implemented as intended and, if not, what can be done to facilitate better implementation (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Early Warning Systems: Dropping out is a slow process of disengagement and problems predictive of dropping out often emerge early in a student's life. Many of these problems appear to go unnoticed. Schools need to develop district-wide (or even state-wide) early warning systems to help them identify students who they anticipate are less likely to succeed in the school where they are. This will not only serve those who stay in one school, but will help those students who transfer from school to school to make sure they do not get lost in the various systems in which they are enrolled. Mechanisms need to be developed to ensure such warning systems trigger the appropriate support and provide follow through until the student is back on track. One clear step relates to absenteeism. Every day, schools should have a reliable list of the students who failed to attend school and should notify parents or guardians immediately and take appropriate action to ensure students attend school and have the support they need to remain in school. It is critical that schools address the circumstances that drove students away from the school in the first place (Civic Enterprises, The Silent Epidemic).

Policies

- Develop attendance policies with the intent to change behavior, not punish. Reconsider the use of zero-tolerance policies such as suspensions for truancy and instead consider less severe consequences such as community services or in-school detentions (National Dropout Prevention Center).
- The Every Student Succeeds Act (ESSA) requires states to identify high schools with graduation rates below 67% and implement evidence-based interventions to improve outcomes. Early Warning Intervention and Monitoring Systems (EWIMS) are recognized as effective tools under ESSA, enabling schools to track key indicators such as attendance, behavior, and course performance to identify and support at-risk students (Graduation Ready - AIR).
- The Colorado Department of Education promotes the use of On-Track/Early Warning Systems (EWS) that utilize local and historical data to identify students at risk of not graduating. These systems focus on indicators like attendance, behavior, and course performance, allowing schools to implement timely interventions. The state's framework supports districts in developing and refining these systems to improve student outcomes (Colorado Department of Education).
- The Multilingual Learner/English Language Learner Graduation Rate and Dropout Prevention Planning Tool provides research-informed effective practices and strategies, protocols, and templates for use by districts and schools as they dive into ML and ELL data (New York City Department of Education).

6 Does the LEA or school provide intensive, individualized support to students who have fallen off track?

Why this matters

Intensive, individualized support for students is crucial to prevent high school dropout because it directly addresses the unique barriers that can impede academic success and emotional well-being. Research has shown that students at risk of dropping out often face multiple challenges, including academic struggles, behavioral issues and lack of family or community support. When these needs are met with targeted, personalized interventions, students are more likely to stay engaged and persist through graduation.

The National Dropout Prevention Center (2020) highlights that tailored interventions, such as mentorship, academic tutoring and counseling, can improve student outcomes by addressing these specific needs. These supports help build student resilience, improve academic performance and foster a sense of belonging — key factors in staying on track for graduation. A study by the Institute of Education Sciences (2017) found that students who received individualized interventions through early warning systems were significantly less likely

Proactive droupout intervention

Practices and Policies

Practices

- Provide intensive, individualized support to students who have fallen off track and face significant challenges to success. Students who are already off track, who have not responded to previous interventions, or who must overcome large personal obstacles are unlikely to graduate without more intense intervention. Regularly monitoring ABC data will help staff identify which students are chronically absent or have failed multiple courses, which students are not responding to interventions, and which are facing significant personal challenges. A trained adult advocate can help these students by providing individualized support to meet their academic, personal, and emotional needs (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- For each student identified as needing individualized support, assign a single person to be the student's primary advocate. Provide each high-risk, high-needs student with an adult advocate whose primary task is to help students get back on track for graduation. Advocates provide students and their families with a trusted connection within the school and can act as a liaison among students, their families, and school staff. When students have multiple or acute needs, the advocate may also take on the additional role of a case manager. As a case manager, the advocate coordinates support from multiple sources to address needs he or she cannot handle single handedly. When assigning advocates to students, consider the key qualifications such as: advocacy and communication skills, such as the ability to negotiate, compromise, and confront conflict constructively; familiarity with the schools and community resources; a belief that all students have abilities; willingness to work cooperatively with families and school staff. Try to assign advocates who are from the same community, have similar interests, or share similar cultural or language backgrounds (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Develop a menu of support options that advocates can use to help students. Create a menu of available services in and around the school community, including academic assistance services, behavioral interventions, mentoring, sources to address basic needs (e.g., provision of food and school supplies), college planning and preparation, rewards for improved behavior, and support for families. Have advocates monitor students' attendance, behavior, and course performance regularly—as often as daily, if necessary—to determine whether students need additional support and which supports to provide. Advocates can use the support menu to create an individualized plan based on each student's needs (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Sample support practices to address student attendance: provide attendance cards for each teacher to sign when students attend class; escort students from class to class; provide wake-up calls to students; organize transportation to school (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Sample support practices to address student behavior: Provide social and emotional skills training; provide individual counseling sessions; implement daily behavior contract; provide peer mentoring. (What Works Clearinghouse, Dropout Prevention in Secondary Schools).

- Sample support practices to address student academic performance: implement individual performance contracts with student and parent; provide one-on-one support with a reading or math specialist; provide after-school homework help; follow-up daily on missed assignments (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Sample support practices to address family support: provide training on how parents can actively engage with their child's school; provide tips for monitoring adolescents' behavior and academic performance; provide training in accessing community resources and contacting school personnel; provide help with getting welfare benefits or food stamps (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Support advocates with ongoing professional learning opportunities and tools for tracking their work. Advocates need proper training, ongoing feedback and mentoring, opportunities to share experiences with colleagues, and a system for tracking their work (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Additional Supports and Adult Advocates: There are a wide range of supplemental services or intensive assistance strategies for struggling students in schools – attendance monitoring, school and peer counseling, mentoring, tutoring, double class periods, internships, service-learning, summer school programs, and more – that have their strong advocates (and usually some research to back it up) that can make a difference in the lives of students who are at risk of dropping out. Such services, together with intensive, best-practices literacy programs, should be made accessible to low-performing students to ensure they learn to read at grade level and stay on the graduation track (Civic Enterprises, The Silent Epidemic).
- Schools need to enhance their coordination with community-based institutions and government agencies to ensure that students receive the proper support (Civic Enterprises, The Silent Epidemic).
- Schools need to consider the importance of supports for students with special needs, such as pregnant women and students with disabilities (Civic Enterprises, The Silent Epidemic).
- The range of programs and supports can be overwhelming and finding the right supports a challenge. Since research shows the value of having an adult at the school who is involved with and familiar with the student, schools should consider developing adult advocacy programs within the school environment. This could involve teachers or other school staff, including administrative and support staff, coaches, and counselors. Ensuring that there is an adult advocate is particularly important in large schools in districts in which the dropout epidemic is most severe. The National Middle School Association supports such an idea, stating that the system works when "the concept of advocacy is fundamental to the school's culture, embedded in its every aspect. Advocacy is not a singular event or a regularly scheduled time; it is an attitude of caring that translates into action when adults are responsive to the needs of each and every young adolescent in their charge." The National Association of Secondary School Principals recommends that every high school student have a mentor, or "Personal Adult Advocate," to help personalize the education experience. This would help identify academic and personal crises earlier, and to head off those things that this survey shows might lead to the student being inclined to drop out (Civic Enterprises, The Silent Epidemic).

Small, personalized student communities

Practices and Policies

Practices

- For schools with many at-risk students, create small, personalized communities to facilitate monitoring and support. Schools with large numbers of at-risk students may struggle to provide students with personalized attention and support. In a small, personalized community, staff can check in with students more frequently, pay closer attention to their needs, form stronger and more meaningful relationships with them, and keep track of what troubles and motivates them (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Decide whether the small communities will serve a single grade or multiple grades. Examine school data to determine which type of community would best serve at-risk students: (a) Transition-year academies serve all students in a specific grade and focus on the particular needs experienced by students as they start middle school or high school and must adjust to new demands and expectations and to having more freedom in school; (b) College- or career-focused communities include all students at multiple grade levels and help students see how their education is useful for preparing for future careers; (c) Smaller communities that span all grades allow students to develop strong peer relationships that begin when they enter school and last through graduation (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Create teams of teachers that share common groups of students. Create teacher teams that work with the same students for the entire time students are part of the small community (either the entire year or multiple years). By teaming and remaining with students longer, teachers can form stronger, longer lasting relationships with their students and provide consistency, even when there is some staff turnover. This allows the teachers to monitor and proactively intervene when students show signs of being at risk for dropping out (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Identify a theme to help build a strong sense of identity and community and to improve student engagement. Select a small community theme around which the small communities can be organized (e.g., humanities, science and technology, society and culture, performing arts, environmental justice, social justice in America, communications and media, health, public safety). Themes provide a sense of shared identity for the students in the community; this feeling of belonging helps students feel connected to their schooling.
- Develop a schedule that provides common planning time and ample opportunities for staff to monitor and support students. To help students and teachers get to know one another, develop a master schedule that permits teachers and students to remain in their community most of the day. More than half the classes taught by the teacher team should be within the smaller community, and students should take most, if not all, courses from teachers in their communities. Master schedules should also include common planning times for teacher teams, which teacher teams should use to: develop activities that relate to the theme of the community, link course content to the theme, and further engage students in getting to know their community; collaboratively identify concerns and develop solutions; and discuss academic and behavioral progress with students

and their parents (What Works Clearinghouse, Dropout Prevention in Secondary Schools).

- Improve Instruction and Access to Supports for Struggling Students. In a survey administered by researchers of The Silent Epidemic report, four out of five participating dropouts (81 percent) wanted better teachers and three-fourths wanted smaller classes with more individualized instruction. Over half (55 percent) felt that more needed to be done to help students with problems learning. Seventy percent of survey participants believed that more after-school tutoring, Saturday school, summer school and extra help from teachers would have enhanced their chances of staying in school. While some of the students' best days in school were when teachers paid attention to them, many others had classes that were so big that teachers did not know their names. In focus groups, participants repeated again and again that they believed smaller class sizes would have helped ensure that teachers maintained order in the classroom and would have provided more individual attention. The problem of large schools and the need for smaller class sizes and more personal instruction emerged more than 12 separate times from the participants in our four focus groups in Philadelphia and Baltimore. Seventy-five percent of survey participants agreed that smaller classes with more one on one teaching would have improved students' chances of graduating (Civic Enterprises, The Silent Epidemic).
- There are studies suggesting that small schools are more likely to promote the engagement of both students and staff that is so critical to reducing the number of dropouts, and that the largest direct effect appears to be in low socioeconomic status schools, although there is debate about the appropriate size of such smaller schools (Civic Enterprises, The Silent Epidemic).
- There is a body of literature that reveals that small learning communities and interdisciplinary teaming are associated with lower dropout rates. And there is some evidence that alternative schools serving students at risk of dropping out can also reduce dropout rates (Civic Enterprises, The Silent Epidemic).
- In The Silent Epidemic survey, only 56 percent of respondents said they could go to a staff person for school problems and just two-fifths (41 percent) had someone in school with whom to talk about personal problems. More than three out of five (62 percent) said their school needed to do more to help students with problems outside of class. Seven out of ten favored more parental involvement. These young people craved one-on-one attention from their teachers, and when they received it, they remembered it making a difference. Participants in the focus groups recounted that some of their best days were when their teachers noticed them, got them involved in class, and told them they were doing well. Studies have shown that if students perceive their teachers to be of a higher quality, there is a lower likelihood that the students will drop out. In our survey, four out of five agreed that better, more qualified teachers who could keep class interesting would improve students' chances for graduating (Civic Enterprises, The Silent Epidemic).
- Small learning communities with one-on-one instruction that engage students in their studies and relate the material to their lives and goals, and interdisciplinary teaming of teachers and students have each shown promise in lowering school-wide dropout rates (Civic Enterprises, The Silent Epidemic).

Supporting special populations

** Special populations refers to students that must overcome barriers that may require special consideration and attention to ensure equal opportunity for success and in an educational setting. They include students in foster care, students with disabilities, English language learners, and homeless students (U.S. Department of Education).*

Indicators

Contributing indicators

- High school graduation rates for homeless students (Civic Enterprises, Building a Grad Nation).

Practices and Policies

Practices

- Raise awareness in schools and communities about the presence and needs of homeless students (Civic Enterprises, Building a Grad Nation).
- Improve identification of children and youth experiencing homelessness in schools (Civic Enterprises, Building a Grad Nation).
- Implement existing federal policy with fidelity in schools and districts across the country (Civic Enterprises, Building a Grad Nation).
- Build a strong network of supports around schools and students to connect them to social/emotional supports, as well as tangible supports like housing (Civic Enterprises, Building a Grad Nation).
- Find and share best practices and efforts across the nation that are working to help homeless students succeed (Civic Enterprises, Building a Grad Nation).
- Spokane Public Schools' Homeless Education and Resource Team (HEART) has contributed to an overall upward trend in on-time graduation rates for students experiencing homelessness since 2013. An intra-district data management system, School Data Tools, allows district staff access to real-time information to support the needs of every student. School Data Tools tracks assessment scores, course completion rates, absenteeism rates, graduation rates, FAFSA completion rates, discipline counts and trends, and school improvement plan progress (Civic Enterprises, Building a Grad Nation).
- Spokane Public Schools' HEART program leveraged its extensive data tracking to develop and assign a new position. The Homeless Community Specialist role, created to provide highly engaged support for students experiencing homelessness and their families, initially worked with two high schools identified by the district's quarterly point-in-time report as having the greatest number of unaccompanied homeless youth with the highest risk of dropping out and the lowest graduation rate. HEART augmented this specialized role with the Check & Connect mentoring program, the only dropout prevention program reviewed by the United States Department of Education's What Works Clearinghouse found to have strong evidence of positive effects on staying in school. Highly relationship-driven, Check & Connect provided HEART with guidance on effective strategies, a means to document their work, and a conduit to communicate with administrators, teachers, and other district staff (Civic Enterprises, Building a Grad Nation).

Policies

- The McKinney-Vento Homeless Assistance Act is the blueprint for helping homeless students attain their high school diploma. The Every Student Succeeds Act's (ESSA) amendments

to the McKinney-Vento Act went into effect in October 2016, but implementation remains a work in progress (Civic Enterprises, Building a Grad Nation).

- States can support school districts to ensure adequate homeless liaison capacity by helping LEAs to conduct their own needs assessments of the ability of the liaison to carry out his or her responsibilities, and identifying supports that may be needed from other LEA personnel to help the liaison carry out these responsibilities (Civic Enterprises, Building a Grad Nation).
- States can provide virtual or in-person networking opportunities for liaisons in the state to learn from each other and borrow best practices from other school districts (Civic Enterprises, Building a Grad Nation).
- States can help ensure adequate Title I set-asides for homeless students. Title I Part A of ESSA is the largest federal preK-12 education program, funded at over $15 billion and reaching the majority of school districts in the United States. Under ESSA, all LEAs that receive Title I Part A funds must reserve funds to support homeless students. The amount of Title I funds reserved for homeless children and youth must be based on the total allocation received by the LEA, and set aside prior to any allowable expenditure of transfers by the LEA (Civic Enterprises, Building a Grad Nation).
- States can help LEAs to conduct their own needs assessments to determine an appropriate set-aside amount (Civic Enterprises, Building a Grad Nation).
- States can provide specific examples of ways in which other LEAs in the state are using Title I funds to assist homeless students (Civic Enterprises, Building a Grad Nation).
- States can include a specific line item for the homeless student set-aside funds in the LEA consolidated plan for Title I (Civic Enterprises, Building a Grad Nation).
- ESSA requires that SEAs and LEAs implement procedures to identify and remove barriers that prevent homeless students from receiving appropriate credit for full or partial coursework completed at a prior school. States should review, and possibly revise, state policies on credit accrual to ensure that such barriers are removed (Civic Enterprises, Building a Grad Nation).
- State plans should clearly describe how youth experiencing homelessness will receive assistance from school counselors to prepare and improve their readiness for college (Civic Enterprises, Building a Grad Nation).
- Several states have successfully passed legislation that complements these federal requirements for supporting high school students experiencing homelessness. For example: (a) In California, when partial credit is awarded in a particular course, the student shall be enrolled in the same or equivalent course, if applicable, to complete the entire course (b) In New Mexico, a student who changes schools at least once during a single school year as a result of homelessness is entitled to priority placement in classes that meet state graduation requirements, and timely placement in electives comparable to those in which the student was enrolled at the previous school(s); (c) In Oregon, a school district or charter school must waive graduation requirements that exceed state requirements for students who experienced homelessness at any time from grade 9 to 12 (Civic Enterprises, Building a Grad Nation).
- States should ensure students with disabilities have access to and are expected to participate in CCR diploma pathways to ensure that more students with disabilities graduate college and career ready (Alliance for Excellent Education, Paper Thin).
- States should eliminate the use of specific pathways for students with disabilities that lead to a diploma that is less rigorous than the state's regular diploma, as was discovered in four states (Alliance for Excellent Education, Paper Thin).

- States should ensure that students with disabilities complete the same high school graduation requirements as students without disabilities for the state's regular high school diploma, and should significantly reduce opportunities to waive or modify certain graduation requirements (such as assessments or course requirements) for students with disabilities, as was found in fourteen states. If requirements are waived or reduced for these students, the alternative assessment and/or course options should be just as rigorous and lead to similarly meaningful postsecondary options for students. Additionally, parents must be fully informed about the impact decisions to waive or alter graduation requirements have on the postsecondary options for their students if opting for less rigorous requirements (Alliance for Excellent Education, Paper Thin).

7 Does the LEA or school engage students by offering curricula and programs that connect schoolwork with college, career and life success?

Why this matters

Curricula and programs connected to life after high school: Engaging high school students with curricula and programs that connect schoolwork to college, career and life success is a critical strategy for improving graduation outcomes. When students see a clear link between their education and their future goals, they are more motivated to stay in school, perform well academically and graduate prepared for what's next.

Research consistently shows that relevance increases engagement. According to the National Center for Education Statistics (NCES, 2020), students who participate in career and technical education (CTE) programs have higher high school graduation rates than their peers, especially when programs are aligned with postsecondary and workforce pathways. The Association for Career and Technical Education (ACTE) reports that students concentrating in CTE are 10% more likely to graduate on time than the national average.

Additionally, the Center for Promise (2014) found that a leading reason students drop out of high school is that they do not see the relevance of school to their future. When schools offer real-world learning opportunities — such as internships, dual enrollment and project-based learning — students are more likely to develop a sense of purpose and connection to their education.

Equitable placement in rigorous coursework: Rigorous coursework is a leading indicator of postsecondary enrollment and attainment. The fact that Black and Latine students often lack access to high-level courses required to enroll in postsecondary institutions and programs is problematic, as is the fact that these students remain under-rep-

resented even when access is not an issue. Lack of opportunities at the high school level for Black and Latine students feeds into a lack of equity at the postsecondary level. If gaps in postsecondary credentials are to be addressed, disparities in AP courses, gifted and talented programs, and high-level math and science courses must be targeted. (Civic Enterprises, Building a Grad Nation).

By aligning coursework with students' aspirations and real-life skills, schools foster greater engagement, increase persistence and support higher graduation rates — especially for historically underserved students.

Curricula and programs connected to life after high school

Practices

- Engage students by offering curricula and programs that connect schoolwork with college and career success and that improve students' capacity to manage challenges in and out of school (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Directly connect schoolwork to students' options after high school. Make classes relevant by offering curricula and academic programs that are clearly connected to a career pathway or postsecondary education. Schools with a college or career theme also provide a common focus for teachers and students, making it easier for teachers to collaborate, share information about student progress, and create a coherent schoolwide curriculum (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Provide curricula and programs that help students build supportive relationships and teach students how to manage challenges. Districts and states can help by developing social and emotional learning standards with benchmarks for skills students should develop at each grade level. Skills taught through curricula and programs might include how to make better decisions in high-stakes situations, strategies for stress and anger management, setting and tracking progress toward goals, and relationship-building skills (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Regularly assess student engagement to identify areas for improvement, and target interventions to students who are not meaningfully engaged. Administer school climate and student engagement surveys annually. Analyze survey results along with regularly monitored ABC early warning indicators, such as attendance and grades to assess schoolwide strengths and weaknesses (What Works Clearinghouse, Dropout Prevention in Secondary Schools).
- Different Schools for Different Students: In a survey conducted by researchers John M. Bridgeland, John J. Dilulio, Jr. and Karen Burke Morison, students who had dropped out of high school reported wanting classes to be more relevant to their interests and lives and longed for smaller learning communities with more individualized attention. Great schools learn to treat each student differently, rather than demanding that all students fit into the "one size fits all" format of schooling that is widely used today (Civic Enterprises, The Silent Epidemic).
- Options offered to students, and supported by the research, can include alternative high schools that offer individualized plans for each student. This model can be an effective way to address the varied needs of potential dropouts. Options can include schools with traditional

structures, but with a commitment to providing all students with a rigorous curriculum which prepares them for college or a family-wage job. Theme-based schools, such as ones that focus on science and technology or the arts, are another way to prepare students for their future (Civic Enterprises, The Silent Epidemic).

- Improve Teaching and Curricula to Make School More Relevant and Engaging and Enhance the Connection between School and Work. Respondents to a survey administered by researchers of The Silent Epidemic report had many thoughtful ideas about the specific actions schools could take to improve the chances that a student would stay in high school. Their most common answers related to classroom instruction – making what is learned in classes more relevant to their lives, having better teachers who keep classes interesting, and having smaller classes with more one-on-one instruction, involvement and feedback. Eighty-one percent of survey respondents said that if schools provided opportunities for real-world learning (internships, service learning projects, and other opportunities), it would have improved the students' chances of graduating from high school. Outside studies have noted that clarifying the links between school and getting a job may convince more students to stay in school (Civic Enterprises, The Silent Epidemic).
- Student internships are motivating to some students, helping them see that there is potential after high school for greater opportunities and lead to a choice-filled life. Often the opportunity to continue in the work that they have had an internship experience requires HS Graduation, and possibly continued education (Appalachian Cradle to Career)
- Active Learning—Active learning and student engagement strategies engage and involve students in meaningful ways as partners in their own learning. These strategies include student voice and choice; effective feedback, peer assessment, and goal setting; cooperative learning; thinking critically, creatively, and reflectively; and micro-teaching, discussion, and two-way communication. To be most effective, teachers must provide students with tools and strategies to organize themselves and any new material; techniques to use while reading, writing, and doing math; and systematic steps to follow when working through a task or reflecting upon their own learning (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).

Equitable placement in rigorous coursework

Key source: E-W Framework

Indicators

Contributing indicators

- The "AP credit funnel," that is, the level of AP course availability for a high school student; the likelihood of a student's enrollment in an AP course; the likelihood of a student taking an AP test; and the likelihood of a student earning a passing score on an AP exam. All data disaggregated by student demographic (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- Differences in the participation rates for students from key demographic subgroups in rigorous courses and programs relative to those students' representation in their school population as a whole, including opportunities, such as the following: Gifted and talented programs; Algebra I in middle school; Higher-level math courses in high school (that is, Algebra II, calculus); Early college courses (AP, International Baccalaureate [IB], and dual enrollment) (Education-to-Workforce).

System indicators

- School actions to provide access to advanced course work: (a) Schools offering access to AP coursework; (b) Student identification and course enrollment; (c) Engagement and exam funding; (d) Teacher and student supports (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- Share of students enrolling in advanced coursework (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Average performance on advanced coursework exams (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- In 2010, the Wake County Public Schools began assigning middle school students to accelerated math and eighth-grade algebra based on a defined prior achievement metric. Such a measure would identify students who might be overlooked for the recommendation to take accelerated-level courses as a result of variation in course-grading practices and subjective beliefs about which students are capable of success in these courses. This policy reduced the relationship between course assignment and student characteristics such as income and race/ethnicity, while increasing its relationship to academic skill. The policy increased the share of students on track for algebra by eighth grade. Students placed in accelerated math were exposed to higher-skilled peers but larger classes (Dougherty, S. et al. Middle School Math Acceleration and Equitable Accessto Eighth-Grade Algebra).

Policies

- The federal government should resume collecting disaggregated school-level data on advanced coursework in the Civil Rights Data Collection (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States should include detailed disaggregated data on advanced coursework on school report cards (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States should develop and invest in partnership organizations that can support schools to expand offerings, provide professional development to teachers, and help students prepare for and succeed in advanced courses, not just AP courses (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States and districts should leverage available federal funding, including Title I, Title II, Title III, and Title IV of the Every Student Succeeds Act (ESSA) and funding from the American Rescue Plan Act, to expand and improve advanced coursework offerings (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States should invest in strategies to address and elevate the rigor of all of their high school courses (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States and districts should work to vertically align standards critical for student success at the high school level with earlier grades to prepare students for advanced coursework.
- Districts should invest in ongoing collaboration between elementary, middle, and high school staff to continually improve alignment and coordination of instructional concepts and vocabulary (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States and school districts can expand access to advanced coursework by: (a) Making investments in statewide partnerships focused on equitably expanding advanced coursework;

(b) Working to optimize schoolwide master schedules to reduce conflicts and open up more slots for students in advanced coursework; (c) Remaining open to leveraging technology to expand offerings, which could entail virtual offerings across schools within a district, in regional partnerships, or through high-quality state virtual schools (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).

- States and districts should analyze data to reduce opportunities for bias in systems used to identify students for advanced courses from elementary through high school (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States and districts should implement automatic enrollment or academic acceleration policies that automatically place students with demonstrated proficiency in the subsequent highest available course (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- Districts should recruit and mentor students early in their high school careers to prepare them for enrollment and success in advanced coursework (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- States and districts should invest to eliminate subscription or examination fees for advanced coursework (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- Districts should initiate regular conversations with families in their home languages about advanced coursework registration timelines, program availability, and cost reductions (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- State-level partnerships and districts should invest in professional development and communities of practice for advanced coursework instructors (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).
- State-level partnerships and districts should create supplemental opportunities for advanced coursework students to connect with and learn from peers and experts (Center for American Progress, Closing Advanced Coursework Equity Gaps for All Students).

Access to college preparatory coursework

Key source: E-W Framework

Indicators

Contributing indicators

- Students have access to the full set of courses needed to meet the requirements for admission at most colleges (Education-to-Workforce).

System indicators

- Percentage of high schools offering each of the following sets of college preparatory courses: four years of English, four years of math (including at least four of the following: pre-algebra, algebra, geometry, Algebra II or trigonometry, precalculus, calculus, statistics, quantitative reasoning, and data science), three years of laboratory science (including biology, chemistry, physics), two years of social science, two years of foreign language, one year of visual or performing arts (Education-to-Workforce).
- Percentage of middle schools offering Algebra I. (Education-to-Workforce).
- Percentage of high schools that offer select math and science courses (e.g., Algebra II, Calculus, Chemistry, Physics). More than half of

high schools nationwide do not offer Calculus, while more than 20 percent of schools fail to offer Algebra II. In science, 40 percent of schools fail to offer physics while 38 percent do not offer chemistry. Black and Hispanic students have less access to high-level math and science courses than their peers. Schools with high Black and Hispanic populations (at least 75 percent Black and Hispanic enrollment) are significantly less likely to offer Calculus, Physics, Chemistry, and Algebra II compared to schools with low Black & Hispanic enrollment (schools with less than 25 percent Black and Hispanic enrollment) (U.S. Department of Education, 2016). Nearly 3 in 10 schools with high Black and Hispanic enrollment do not offer Algebra II, a course required by most colleges across the country. Moreover, nearly 7 in 10 do not offer Calculus (Civic Enterprises, Building a Grad Nation).

- Rate of completion of a college-track curriculum (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Access to in-demand CTE pathways

Key source: E-W Framework

Indicators

Contributing indicators

- Career and technical education (CTE) pathway offerings are aligned to in-demand occupations, as defined by regional labor market data (Education-to-Workforce).

System indicators

- Number and percentage of a high school's CTE program offerings considered "in demand." (Education-to-Workforce).
- Share earning a career readiness certificate by high school completion (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Share earning a military or workforce certification by high school completion (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Share possessing marketable trade skills by high school completion (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Rate of completion of a career pathway program while in high school (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- Improved alignment between CTE offerings and local job openings. Recent studies of CTE offerings indicate that CTE programs are frequently misaligned with projected job openings in local regions. For example, one study of CTE programs in high schools in West Virginia found that only about half of the state's CTE programs were aligned to at least one occupation in high demand among employers in the region. An earlier study in Tennessee found that only 18 percent of graduates concentrated in program areas aligned to high-demand occupations (Education-to-Workforce).
- Research shows that the benefits of CTE vary widely across fields, with certain high-demand fields such as health yielding greater economic returns to participants (Education-to-Workforce).
- Schools should prioritize career development and job training programs to engage students in authentic experiences that utilize project-based learning, community-based learning, and other forms of active learning where a community need is identified and met (National Dropout Prevention Center).

Policies

- The Strengthening Career and Technical Education for the 21st Century Act (known as Perkins V) went into effect in July 2019, introducing a new requirement: states and local education agencies would need to use data to assess and demonstrate alignment between their program offerings and labor market needs. As described in this brief by Advance CTE, states have operationalized this requirement in different ways, developing their own definitions for what occupations count as high skill, high wage, or in demand based on labor market data and making that data more or less available to the public. In Nebraska, the state's H3 website provides detailed information on occupations that are high skill, high wage, and high demand (H3) at state or regional levels. For example, across the state, the number one H3 occupation based on the number of annual openings, net change in employment, and growth rate is currently heavy and tractor-trailer truck driver. Users can easily explore H3 occupations by career cluster, accessing data on average wages; number of annual openings; and required education, job training, and work experience. Data are updated weekly to reflect new or rapidly growing industries. As part of its Perkins V state plan, Nebraska requires that all secondary and postsecondary CTE programs use the data tool to demonstrate alignment to H3 occupations (Education-to-Workforce).
- Expanded income support during training. Workers who must choose between training and a return to employment are likely to face strong financial incentives to return to work, even if it means accepting low-wage work or returning to an industry clearly in decline. Recent proposals for wage insurance or reemployment insurance over the short- to medium-term could make engagement in, and completion of, training more feasible for a significant segment of the workforce (Ann Huff Stevens, What Works in CTE?).
- Support for capacity building among public sector training providers, especially community colleges Given the greater fiscal variability at the state level, a federal role in supporting CTE provision, especially during economic downturns, is likely to be essential to avoid capacity constraints that limit effective training. Federal funding for programs aimed at individual workers should be accompanied by funding for CTE programs (Ann Huff Stevens, What Works in CTE?).
- Improve student access to information about program quality and expected outcomes Additional investments in training opportunities for individual workers need to be accompanied by well-designed access to information. Training often raises earnings and employment, but results vary dramatically by the training provider, field of study, and across individuals with different work and career histories (Ann Huff Stevens, What Works in CTE?).
- Offering career and technical education is one way that high schools are working to build stronger bridges to a career or credential. In the 2016-17 school year, 98 percent of public school districts offered CTE programs to high school students. While districts were the most likely to provide CTE programs (77 percent of districts), regional CTE centers or a consortium of school districts (54 percent), two-year community or technical colleges (46 percent), and four-year colleges or universities (11 percent) also partnered with districts to provide CTE programs. Almost three in every four of these programs allowed students to earn high school as well as postsecondary credit (Civic Enterprises, Building a Grad Nation).

Teaching, Learning and High School Coursework

High schools with well-trained, representative teachers and access to rigorous college and career coursework are better able to deliver high-quality instruction, build strong relationships with students and keep them engaged, ensuring more students stay on track to graduate.

8 Do students have effective, representative teachers and leaders?

Why this matters

Effective, representative teachers and leaders are essential for advancing high school academic outcomes, as they shape instructional quality, school culture and equitable access to success across all subjects. Research consistently shows that strong school leadership and effective teaching are among the most significant factors influencing student achievement at the high school level (Leithwood et al., 2004; Kane et al., 2016; Bryk, et. al).

School leaders play a critical role in creating the conditions for success by providing high-quality professional development, aligning resources with literacy goals and fostering a culture of accountability and continuous improvement (Steiner, 2020). Research on principals' impact on student achievement highlights this influence, showing that highly effective principals can increase student learning by the equivalent of two to seven additional months in a given school year, whereas ineffective principals can negatively impact achievement by the same margin (Education-to-Workforce Framework).

Additionally, representative teachers and leaders — those who reflect the diversity of their student populations — help build stronger connections with families and communities, enhance student

engagement and support culturally responsive instruction, all of which contribute to improved literacy outcomes (Grissom, Rodriguez, & Kern, 2021).

By investing in highly effective, diverse educators and leaders, schools can drive meaningful improvements in high school graduation rates.

Effective program and school leadership

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of school leaders rated as effective, using an evaluation system that includes multiple measures, such as the Administrator Evaluation component of the Tennessee Educator Acceleration Model (TEAM) (Education-to-Workforce Framework).

System indicators

- Schools are led by effective principals and school leaders. Percentage of school leaders rated as effective, using an evaluation system that includes multiple measures, such as the Administrator Evaluation component of the Tennessee Educator Acceleration Model (TEAM) (Education-to-Workforce).
- Staff surveys that can be used to measure effective school leadership include the Effective Leaders subcomponent of the UChicago 5E's survey instrument, Panorama Teacher and Staff Survey, or The New Teacher Project's (TNTP) Instructional Culture Insight Survey. However, no research has emerged at this point to show that staff surveys are valid and reliable measures of school leader effectiveness, and survey measures run the risk of offering a biased or potentially politicized rating of a leader, underscoring the importance of examining multiple measures (Education-to-Workforce Framework).

Practices and Policies

Practices

- The New York City Department of Education's Framework for Great Schools draws on research from the Consortium of Chicago School Research, which identified key "essential supports" for school improvement, including effective school leadership, strong family-community ties, supportive environments, collaborative teachers, and rigorous instruction. New York City's Department of Education collects data on each of these elements and reports the data in annual School Quality Snapshots available to the public through online dashboards. Schools receive a rating (excellent, good, fair, or needs improvement) for each element based on (1) parent and teacher surveys, and (2) quality reviews conducted by experienced educators who visit and evaluate the school. To evaluate school leadership, for example, reviewers determine how well school resources are aligned to instructional goals, how well the school meets its goals, and how well leaders make decisions. This qualitative assessment is complemented with data from a parent and teacher survey that asks questions about effective school leadership (for example, whether teachers say the principal communicates a clear vision for the school). The two data sources combine into an overall rating of the school's leadership. Dashboard users can drill down to view the detailed survey responses, scores on the Quality Review, and qualitative data behind these scores. In an article by The Hechinger Report, Daniel Russo, a principal in the Bronx who oversaw the dramatic

transformation of one of the city's most troubled schools, attributed this success to the school's concerted application of the framework (Education-to-Workforce).

- Ensure program directors and school principals have the capacity to provide instructional leadership that supports effective teaching (Alliance for Early Success).
- Louisiana's Mentor Teachers, who are local educators who have the knowledge and skills to effectively coach and support new and resident teachers in their districts (Louisiana Department of Education).

Representational racial and ethnic diversity of educators

Key source: E-W Framework

Indicators

System indicators

- Educators reflect the racial and ethnic diversity of the student body. Educational staff composition by race and ethnicity (%) compared to student composition by race and ethnicity (%) (Education-to-Workforce).
- Same-race student-teacher ratio by race/ethnicity (Data sources: Local school, LEA or SEA human resources, administrative and/or enrollment data) (Education-to-Workforce Framework and StriveTogether 2021).
- Educational staff composition by race and ethnicity compared to student composition by race and ethnicity (Education-to-Workforce Framework and StriveTogether 2021).
- Percentage of program sites that support a language other than English (STEP Forward with Data Framework).
- Percentage of program sites where children from focal populations are exposed to staff in their program who reflect their own identities (STEP Forward with Data Framework).
- Percentage of workforce members who are fluent in the language spoken by the children they serve (STEP Forward with Data Framework).

Practices and Policies

Practices

- Bright Futures Education Partnership's Systems-Level Indicators: The Bright Futures Education Partnership adopted seven systems-level indicators that focus on identifying systemic racial disparities, and include indicators of school funding, same-race teachers, bilingual teachers, teacher credentials, teacher experience, school discipline, and the digital gap (Education-to-Workforce).
- A study published in *Education Next* found that students randomly assigned to classrooms led by same-race teachers experienced improvements in math and reading achievement by 3 to 4 percentile points . This suggests that racial matching between teachers and students can enhance academic performance (Education Next).
- Research from North Carolina indicates that Black students taught by same-race teachers had reduced rates of exclusionary discipline, such as suspensions and expulsions. This pattern held across elementary, middle, and high school levels, suggesting that teacher-student racial matching can influence disciplinary practices (Constance, Lindsay and Hart, Cassandra 2017).

- A study examining the effects of teacher-student demographic matching found that Black students matched with same-race teachers exhibited fewer internalizing behaviors, such as anxiety and low self-esteem, and fewer externalizing behaviors, such as acting out. This indicates that racial matching can positively affect students' social-emotional well-being (Murray 2023).
- Research indicates that matching high school students with same-race teachers improves the students' college enrollment rates. This highlights the potential long-term benefits of teacher-student racial matching on post-secondary educational attainment Delhommer 2022).
- Districts have plans to recruit educators from underrepresented populations (National Education Association).
- Districts have plans to retain educators from underrepresented populations (West Ed).
- Engaging young men of color in early childhood education initiatives, like the Literacy Lab's Leading Men Fellowship (Results for America).

Policies

- Teacher preparation programs can recruit a more diverse cohort of teachers by: (a) Setting an ambitious but achievable annual diversity goal for enrollment; (b) Making sure faculty 'owns' this goal; (c) Establishing partnerships with diverse districts interested in operating "grow your own" programs to encourage students of color to enter the teaching profession. This can give candidates a head start by offering opportunities like career-technical education and free college-in-high-school coursework; (d) Establishing partnerships with community colleges; Targeting teaching prospects as early as possible (even high school); (e) Offering grants, scholarships, or other financial support aimed at encouraging enrollment in teacher preparation programs or to ensure persistence through graduation (National Council on Teacher Quality, Program Diversity and Admissions).
- Teacher preparation programs can retain more candidates of color through graduation by: (a) Establishing mentorship programs to support teacher candidates after they have enrolled in a teacher prep program; (b) Supporting affinity groups or clubs for teacher candidates of color and others interested in pursuing a career in education; (c) Employing a racially diverse faculty within the school or department of education; (d) As early as possible, securing clinical placements in classrooms led by teachers of color (National Council on Teacher Quality, Program Diversity and Admissions).
- State policy supports recruitment of promising future educators, including underrepresented populations (National Education Association).
- Making educator diversity data visible and actionable to all stakeholders (Education Trust).
- Setting clear goals at the state, district and teacher preparation levels to increase educator diversity (Education Trust).
- Investing in efforts to retain teachers of color that improve working conditions and provide opportunities for personal and professional growth (Education Trust).

Indicators

Contributing indicators

- Percentage of teachers surveyed indicating satisfaction with the conditions of employment (National Education Association).
- Percentage of teachers surveyed indicating satisfaction with the terms of employment (National Education Association).

System indicators

- Teacher retention: Percentage of teachers who return to teaching in the same school from year to year (Education-to-Workforce).
- School leader tenure: Percentage of school leaders who have served in their current positions for less than two years, two to three years, and four or more years (Education-to-Workforce).
- North Carolina's Teacher Working Conditions Survey offers a systematic way to capture teachers' perspectives on the conditions in which they work (NC TWC Survey).

Practices and Policies

Practices

- Districts have differentiated pay structures for clearly defined roles and responsibilities that account for hybrid/varied educator roles within a school (National Education Association).
- Districts offer financial incentives for educators working in hard-to-staff schools (National Education Association).
- Districts offer incentives for teachers to take on differentiated or hybrid roles (National Education Association).
- Districts offer teachers starting salaries comparable to other professionals with similar skills, knowledge and education. Additionally, education support professionals (ESPs) are paid at least a minimum wage (National Education Association).
- State and/or district contributions for health coverage increase at least enough to keep up with health care inflation (National Education Association).
- State or district provides access to affordable, quality health insurance for education employees and their families (National Education Association).
- State or district recognizes highly effective teachers through awards and additional pay, like the Texas Teacher Incentive Allotment (Teacher Incentive Allotment).

Policies

- States and/or districts have differentiated compensation structures that provide higher rates of pay for teachers demonstrating the most effectiveness, such as Texas' Teacher Incentive Allotment (TEA Teacher Incentive Allotment).

Indicators

Contributing indicators

- Students have access to teachers who have earned credentials demonstrating their knowledge and preparation for teaching (Education-to-Workforce).
- Percentage of courses taught by full-time equivalent (FTE) teachers (that is, teachers other than substitutes or those with emergency or provisional licenses) (Education-to-Workforce Framework).
- Percentage of courses taught by teachers certified to teach the given subject or grade level (Education-to-Workforce Framework).

System indicators

- Percentage of courses taught by full-time equivalent (FTE) teachers (that is, teachers other than substitutes or those with emergency or provisional licenses) (Education-to-Workforce).
- Percentage of courses taught by teachers certified to teach the given subject or grade level (Education-to-Workforce).
- Percentage of preparation program graduates surveyed indicating satisfaction with their preparedness to serve as the teacher-of-record (National Education Association).

Practices and Policies

Practices

- Districts partner with teacher preparation programs on teacher residencies and induction (National Education Association).
- Preparation programs survey graduates about their preparedness to serve as the teacher-of-record and report their response rates (National Education Association).
- Preparation programs use pre-service performance assessments to determine candidate preparedness prior to program completion and/or initial licensure (National Education Association).
- Preparation programs work with local school districts to recruit high-achieving high school graduates to pursue careers in education (National Education Association).

Policies

- Teacher preparation programs can improve performance on state licensing tests by: (a) Encouraging prospects to take their licensing tests early, even at the conclusion of high school while their knowledge of general subject areas is most likely to be fresh; (b) Conducting diagnostic testing (free of charge to the candidate) that will better guide their selection of content area coursework; (c) identifying the courses on a campus that will most likely address the general knowledge candidates will need to pass their licensing tests (National Council on Teacher Quality, Program Diversity and Admissions).
- Teacher preparation programs can raise admission standards by: (a) Establishing and maintaining standards that limit admissions to college students who are in the upper half of academic distribution (generally speaking a 3.0 average or above); (b) Eliminating the common perception that the teaching major represents an easy path to a college degree, making necessary changes in coursework that send the wrong signal; (c) Recognizing that higher academic standards are likely to make a teaching major more attractive to many college students (National Council on Teacher Quality, Program Diversity and Admissions).

Indicators

Contributing indicators

- Students have equitable access to experienced teachers. Research consistently shows that more experienced teachers make greater contributions to student achievement, especially compared to teachers who are early in their careers. After teachers gain about five years of experience, however, the difference between a more or less experienced teacher (that is, one with 10 versus 5 years of experience) is not significant. (Education-to-Workforce).

System indicators

- Percentage of teachers with less than one year, one to five years, and more than five years of experience. (Education-to-Workforce).

Practices and Policies

Policies

- Qualified, experienced teachers for all students, especially the students who need them most (Annie E. Casey Foundation).
- The Texas Teachers' Incentive Allotment aims to incentivize effective teachers to work in high-need areas and rural districts by providing funding for districts to reward outstanding teachers with the potential for six-figure salaries, and to support their professional development (Teacher Incentive Allotment Texas).

Professional development

Practices and Policies

Practices

- Schools provide professional development for teachers to understand the principles of quality career development and job training teaching and learning and programs, develop the skills necessary to integrate this pedagogy in their classes and recognize the critical role the community plays to engage youth in activities that lead to career competencies (National Dropout Prevention Center).

Teacher leadership

Indicators

Systems indicators

- Percentage of teacher leaders rated effective based on multiple measures of performance (National Education Association).
- Percentage of teacher leaders who occupy hybrid roles (National Education Association).
- Percentage of teacher leaders with a leadership endorsement/certificate (National Education Association).
- Presence of an educator shortage (National Education Association).

Practices and Policies

Practices

- Districts have pathways for teachers who want to remain in their teaching role but make a bigger impact and larger salary. For example, North Carolina's Advanced Teaching Roles, including the Multi-Classroom Teacher-Leader Role (Department of Public Instruction for the state of North Carolina).

Policies

- State codifies the Teacher Leadership Competencies and/or other standards for teacher leadership (National Education Association).
- State includes a state-level endorsement/certificate for teacher leaders (National Education Association).
- State provides resources to complete voluntary national certification and endorsements that promote teacher leadership opportunities (National Education Association).

Teacher leadership

Indicators

Systems indicators

- The percentage of teaching positions that remain unfilled at the start of the school year (Tennessee Department of Education).
- The number of applicants per open teaching position, a common measure used across districts.

Practices

Practices

- Districts begin cultivation and recruitment a year prior to the present school year (National Education Association).
- Districts have plans to recruit and retain accomplished educators (National Education Association).
- Districts have plans to recruit educators for shortage areas, such as special education and second language acquisition (National Education Association).
- Hiring high quality staff (Results for America).
- State tracks educator shortages (National Education Association).

9 Are teachers and schools making significant contributions to academic growth for students?

Why this matters

Schools' contribution to student outcomes: School effectiveness measures aim to capture schools' impacts on student achievement on test scores, as well as more long-term outcomes, such as high school graduation, college access and success, and eventual earnings. Analyses of nationwide data by the Educational Opportunity Project at Stanford University showed an unexpected story of the quality of public education in the United States: students in some poor districts start off testing far below average, but their schools appear to be doing an outstanding job at helping these students catch up to the national average. Year after year these students demonstrate more learning growth than students in many more affluent districts (Education-to-Workforce and The Educational Opportunity Project).

Teachers' contribution to student learning: Research has proven that teachers are one of the most important contributors to student learning and social-emotional development (RAND 2019). Measuring their contributions to student learning relies on measuring their students' growth on learning outcomes (sometimes called "value-added"). Value-added models measure contributions to student outcomes by considering students' initial performance levels (for example, using prior test scores) or other background characteristics. Additionally, classroom observations, student work portfolios and other qualitative proxies are often incorporated to provide a more comprehensive view of teacher impact in the absence of standardized tests.

School contribution to multilingual learner progress: True fluency in multiple languages is an incredible asset to individuals, their families and global society. Multilingual learners (MLs), also known as English Learners (ELs) or English Language Learners (ELLs), represent a rapidly growing population in U.S. public schools, accounting for over 10% of all students nationwide. These students have the opportunity to continue developing proficiency in their home language while acquiring English as a second — or sometimes third or fourth — language. However, this process is complex and demanding, particularly in systems that often face challenges such as a shortage of multilingual teachers, inconsistent implementation of bilingual or dual-language programs, and the pressures of high-stakes accountability testing. Research shows significant disparities in outcomes between ML students and their non-ML peers, with long-term English Learners — those who have not achieved English proficiency after five to seven years — being particularly at risk. These students often have a GPA below 2.0 and perform two to three years below grade level in English language arts and math. Additionally, they face higher dropout rates and lower rates of college enrollment, underscoring the critical need for targeted support and resources to help these students succeed (Education-to-Workforce).

Indicators

Contributing indicators

- The percentage of students who have achieved at least a 3.0 GPA at the end of their 9th-grade year (Education Strategy Group, Momentum Metrics).
- The percentage of students who have shown potential to be successful in advanced coursework who have successfully completed at least one course (Education Strategy Group, Momentum Metrics).
- Of students who participate in career and technical education (CTE) coursework, the percentage that concentrate in an in-demand pathway, as defined by regional labor market data (Education Strategy Group, Momentum Metrics).
- The percentage of eligible high school seniors who submitted at least two college applications (Education Strategy Group, Momentum Metrics).
- The percentage of eligible high school seniors who complete the FAFSA by June 30 (Education Strategy Group, Momentum Metrics).
- The percentage of high school seniors who are admitted to at least one "match" postsecondary institution (Education Strategy Group, Momentum Metrics).
- The percentage of students who enroll at a postsecondary institution directly after high school; the percentage of students who enlist in the military, enter the workforce (in a position with family-sustaining wages), or participate in a registered apprenticeship (Education Strategy Group, Momentum Metrics).
- The percentage of students at postsecondary institutions who complete "gateway" (or entry level) courses within their first year (Education Strategy Group, Momentum Metrics).
- Students with the same middle grade performance have different probabilities of being on-track for high school success or earning high grades in high school, depending on which schools they attend. Often, there is a perception that the same academic records may indicate different levels of performance if students come from one school versus another. For students with middle grade performance that is either very high or very low, middle grade performance predicts similar levels of success regardless of where they attended the middle grades. Students with particularly weak eighth-grade performance (i.e., GPA of 1.0 or below and attendance of 80 percent or below) are unlikely either to be on-track or to earn high grades in ninth grade, regardless of where they earned those low eighth-grade grades. For students with a moderate chance of being on-track, based on eighth-grade indicators, their actual on-track rates can range from 41 to 66 percent, a difference of 25 percentage points, depending on where they went to middle school, net of any high school effects (UChicago CCSR, Looking Forward to High School and College).

System indicators

- Schools' contributions to student outcomes, including achievement, attendance, social-emotional learning, college enrollment, and earnings, using value-added models. Value-added and other growth models require linking schools or colleges to student outcome data (such as test scores from two or more academic years, so growth can be measured). As of 2021, all states included at least one approach to measuring growth on standardized tests in their school accountability plans under the Every Student Succeeds Act (ESSA). The most popular approach was student growth percentiles

(used by 24 states as of 2019); eight states implemented value-added measures (Education-to-Workforce).

Practices and Policies

Practices

- Adopt momentum metrics as a core measure of success. District leaders need to prioritize postsecondary preparation and successful transitions as the ultimate measure of their systems' success. This means holding themselves and their administrators accountable for improvement and sharing progress publicly (Education Strategy Group, The Momentum Metrics).
- Convene cross-sector leaders to review data and plan for improvement. First, district leaders need to ensure that their educators and administrators have access to the Momentum Metrics data. Then, they should convene school teams to analyze all of the Momentum Metrics, determine root causes, and set goals for improvement, while at the same time reaching out to community-based organizations, business leaders, and postsecondary representatives to jointly strategize solutions for closing identified postsecondary preparation and transition gaps (Education Strategy Group, The Momentum Metrics).
- Set goals for improvement. While all of the metrics are important, having too many priority indicators may diminish focus. On an annual basis, each district should select at least one indicator from the Preparing, Applying, and Enrolling areas to set a goal for improvement and focus capacity and resources to drive change (Education Strategy Group, The Momentum Metrics).
- Deploy capacity to offer direct student advising and assistance. Capacity, whether internal to the district or through a partnership, is necessary to target individual student supports. Districts should either employ an individual directly responsible for monitoring student data, working with school educators and administrators, and coordinating outside advising supports, or work with partners that can bring that capacity (Education Strategy Group, The Momentum Metrics).
- Integrate metrics into regional postsecondary attainment strategies. As communities work to meet attainment goals and prepare students for the workforce, it will be critical that students are able to seamlessly transition from high school to postsecondary education and training. The momentum metrics should be used as leading indicators of whether the community is on the path to meet its attainment goal (Education Strategy Group, The Momentum Metrics).
- Partner with postsecondary institutions to address gaps. The Momentum Metrics are crucial for telling the story of what is, but not what has to be. The data should be used as a flashlight to see what hurdles stand in the way of student success and identify how students of color and low-income students fare compared to their peers. However, it's not enough to stop at illumination; schools and districts need to partner with their local postsecondary institutions to facilitate seamless, successful transitions (Education Strategy Group, The Momentum Metrics).
- Identify policy barriers that impede progress. District leaders should communicate to the state when barriers arise for supporting students' postsecondary preparation and transitions. For instance, unnecessary prerequisites may hinder the ability of students to enroll in advanced coursework, even if they have previously been identified as having potential. States can issue waivers around these requirements or institute regulations that automatically enroll students in advanced courses if they have shown potential (Education Strategy Group, The Momentum Metrics).
- Communicate about the most predictive indicators of student progress and success.

District leaders should organize appropriate communications targeted at students, families, and educators to make them aware of the critical leverage points in a student's path to and through postsecondary education and training (Education Strategy Group, The Momentum Metrics).

- Administrators, educators, and partners have access to the data on student progress (Education Strategy Group, The Momentum Metrics).
- Administrators, educators, and partners know the key momentum points for students' postsecondary success (for instance, they know to what extend students of color are enrolling and succeeding in advanced course work, which students in their district have a postsecondary plan, etc.) (Education Strategy Group, The Momentum Metrics).
- District leaders target interventions to students who have fallen behind academically
- District leaders provide opportunities to expose students to their postsecondary options (e.g., college visits, college fairs, work-based learning, etc.) (Education Strategy Group, The Momentum Metrics).
- District leaders work to ensure that students are applying to multiple institutions and selecting one that will be a good fit for them (Education Strategy Group, The Momentum Metrics).
- District leaders work to improve student financial literacy and ensuring students complete FAFSA (Education Strategy Group, The Momentum Metrics).
- District leaders review student data to understand how high school outcomes and postsecondary outcomes differ by student group (Education Strategy Group, The Momentum Metrics).
- Prioritize, support, and invest in results-driven initiatives to transform low-performing schools into high-quality teaching and learning environments in which all children, including those from low-income families and high-poverty neighborhoods, are present, engaged, and educated to high standards (Annie E. Casey Foundation).

Policies

- State leaders incorporate the Momentum Metrics into the state longitudinal data system. Whether these data are available should not be up to the individual priorities or capacity of districts. States should immediately begin collecting information and building tools to visualize data not currently in their longitudinal data systems so that both local administrators and state level policymakers have actionable insight into students' progress to successful postsecondary outcomes (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- State leaders use the Momentum Metrics to track progress toward meeting the state's postsecondary attainment goal. The measures provide valuable information on the progress the state is making to meet its postsecondary attainment goal. State leaders should create a dashboard to monitor progress across all of the measures and visualize the trajectory of students on their path to postsecondary matriculation (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- State leaders create incentives for districts to set and meet metric goals. In a time of significant competing priorities and budget reductions, communities will need incentives to prioritize the identified metrics. This is especially true if the metrics are not a component of the state's accountability system. States should consider grant competitions, using federal stimulus dollars, or other award approaches to encourage districts to set and meet annual improvement targets (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).

- State leaders analyze statewide data to identify and promote bright spots. The state education agency—potentially in partnership with the state's higher education agency—should produce an annual report that highlights the state's progress in moving each of the metrics and points to specific schools, districts, or communities that have demonstrated significant year-over-year improvement and identify gaps in the metrics, by race/ethnicity, income status, and geography (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- State leaders target supports using research-backed interventions. There are research-backed strategies that practitioners and policymakers can implement to improve student outcomes for each of the metrics. States should use their programmatic funds and bully pulpit to promote strategies that have proven to be effective in improving students' postsecondary preparation and success (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- State leaders facilitate peer learning networks. To facilitate the use of the identified research-backed interventions, as well as to learn from the bright spot districts, states should consider developing peer learning networks around specific metrics. This will give educators and administrators a way to learn not only about what they should do, but also importantly, how they can implement the strategies (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- State leaders create supportive policies. The state's role in setting the appropriate enabling conditions for success is paramount. State leaders must identify policy approaches that inspire action and remove barriers to improve students' postsecondary preparation and transitions. This includes both strategies for increasing data transparency and use and policies that research has shown will lead to student success, especially for students of color and those from low-income families (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- State leaders communicate about the most predictive indicators of student progress and success. State leaders should organize appropriate communications targeted both at the public and school and district officials to make them aware of the critical leverage points in a student's path to and through postsecondary education and training (Education Strategy Group, From Tails to Heads: Recommendations for State Leaders).
- In recent years, the Office of the State Superintendent of Education (OSSE) in the District of Columbia (DC) and the Louisiana Department of Education (LDOE) developed new measures to understand each high school's impact on the higher education and workforce prospects of its students. These measures are known as "promotion power" because they use statistical methods to measure each school's power to improve students' long-term outcomes separately from the characteristics of the students it serves. DC and LDOE developed promotion power measures on multiple long-term outcomes. Although college or career readiness in high school, high school graduation, and college enrollment were key outcomes for both agencies, LDOE also measured promotion power for two longer-term outcomes: college persistence and earnings at age 26. Both entities relied on administrative data from the lead education agency (OSSE or LDOE) and the National Student Clearinghouse. Louisiana, which examined earnings, also linked individual-level data from the Louisiana Workforce Commission. Analyses of the promotion power measures in DC and LDOE found that high schools vary widely in their power to promote long-term student outcomes. Although schools effective in promoting one long-term outcome (like high school graduation) were also more likely to be effective at promoting other long-

term outcomes (like college enrollment), many schools varied in their effectiveness for different outcomes. LDOE high schools that are especially good at promoting college enrollment and persistence, for example, do not necessarily promote strong earnings for their students at age 26. This finding highlights how assessing school effectiveness on multiple dimensions of long-term success is important to help systems more accurately assess both school effectiveness and equity of access to effective schools (Education-to-Workforce).

Teachers' contributions to student learning growth

Key source: E-W Framework

Indicators

Contributing indicators

- Students demonstrate growth on standardized assessments from beginning of the year to the end of the year (Education-to-Workforce Framework)
- The percentage of students across a district, school and classrooms who meet their annual growth targets (Education-to-Workforce Framework)
- Percentage of instructors demonstrating above average contributions to student learning, as measured by student growth on state standardized tests or other outcomes (for example, using value-added models or student growth percentiles). Note that value-added and other growth models require linking instructors to student outcome data (such as test scores from two or more academic years, so growth can be measured). The EW Framework cautions against using value-added data as the only measure of teaching effectiveness and recommends also including measures based on classroom observation and student survey data. When used for high-stakes accountability, measures of teachers' contributions to student learning may have unintended consequences (for example, leading to practices such as "teaching to the test") (Education-to-Workforce Framework)
- Collective teacher efficacy: The collective belief of teachers in their ability to positively affect students. The effect size (1.57) demonstrates a strong correlation to student achievement (Hattie).
- Student academic growth measured by standardized assessments in math and literacy. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Teacher absences (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Teacher engagement with professional development (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Opportunities for teacher leadership (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Teacher retention/turnover (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

System indicators

- Percentage of instructors demonstrating above average contributions to student learning, as measured by student growth on state standardized tests or other outcomes (for example, using value-added models or student growth percentiles) (Education-to-Workforce).
- Teachers demonstrate instructional expertise. They demonstrate strong knowledge of content and pedagogy, display mastery of content

knowledge and instructional strategies, convey ideas and information clearly, and are able to differentiate learning (TNTP, Competency-Aligned Educator Interview Questions and Activities).

- Teachers demonstrate strong communication skills. They demonstrate effective written and oral communication skills, display mastery of written grammar, usage, and organization, and speak clearly and precisely (TNTP, Competency-Aligned Educator Interview Questions and Activities).
- Teachers apply feedback to improve practice. They are open to feedback and are able and willing to incorporate it to develop as a professional. They are committed to becoming an excellent teacher, seek and incorporate feedback from others with humility, and draw lessons from prior experience and apply to future endeavors (TNTP, Competency-Aligned Educator Interview Questions and Activities).
- Teachers demonstrate critical thinking. They analyze situations thoroughly and generates effective strategies, identify key issues, generate effective/creative strategies or responses to situations, and develop logical responses to address challenges (TNTP, Competency-Aligned Educator Interview Questions and Activities).
- Teachers demonstrate strong teamwork and relational skills. They are respectful of students and others in all situations, are aware of how one's own background and assumptions can influence one's perspective and interactions with others, strive to understand the opinions and experiences of others, and demonstrate the ability to effectively and appropriately interact with students and others in the school community (TNTP, Competency-Aligned Educator Interview Questions and Activities).

Practices and Policies

Practices

- Research indicates professional learning experiences that help teachers use their specific curriculum to make informed decisions for their students can result in transformational changes in teaching and learning (CCSSO, A Nation of Problem-Solvers).
- Districts partner with teacher preparation programs on teacher residencies and induction (National Education Association).
- Percentage of preparation program graduates surveyed indicating satisfaction with their preparedness to serve as the teacher-of-record (National Education Association).
- Preparation programs survey graduates about their preparedness to serve as the teacher-of-record and report their response rates (National Education Association).
- Preparation programs use pre-service performance assessments to determine candidate preparedness prior to program completion and/or initial licensure (National Education Association).
- Districts align professional learning with standards, curriculum and assessments (National Education Association).
- Districts have professional learning plans, including induction and mentoring, for teachers, education support professionals (ESPs) and specialized instructional support personnel (SISP) (National Education Association).
- Districts integrate theories, research and models of human learning into the planning and design of professional learning (National Education Association).
- Districts provide educators with targeted support based on formative and summative evaluation results (National Education Association).
- Districts provide extra resources and assistance for those educators in hard-to-staff schools (National Education Association).

- Districts provide funding for educators to access professional learning that addresses new education research and technology that will help improve instruction or support for students (National Education Association).
- Districts provide ongoing professional learning and support to administrators, including training in equity and racial and social justice to better support Indigenous educators and students as well as educators and students of color (National Education Association).
- Districts provide teacher leadership development (National Education Association).
- Districts support regular, job-embedded professional learning opportunities (National Education Association).
- Districts use a variety of student, educator and systems data to plan, assess and evaluate professional learning (National Education Association).
- Districts implement scheduled job-embedded planning, instructional support and collaborative time (National Education Association).
- Districts provide resources to guarantee dedicated time for teacher teams to plan and review student data to improve instructional results (National Education Association).
- High-quality professional learning experiences are curriculum-based and directly applicable to teachers' everyday work. Effective curriculum-based professional learning (CBPL) should include initial training aligned with specific curricular materials, regular collaborative planning opportunities for teachers such as unit and lesson internalization, lesson rehearsal, student work analysis and ongoing observation and feedback. (CCSSO, A Nation of Problem-Solvers).

Policies

- Teacher evaluation systems that use Value-Add Measures to determine the impact a teacher has on student learning
- Districts mandate successful completion of a residency program prior to obtaining initial licensure (National Education Association).
- Preparation programs require school-based experiences beyond a semester of student teaching (National Education Association).
- State provides funding for induction programs (National Education Association).
- State provides funding for preparation programs to establish residency programs with local school districts (National Education Association).
- State provides resources to grow preparation programs in minority-serving institutions (National Education Association).
- Investing in hiring, training and retaining a high-quality and diverse workforce of educators (Urban Institute).
- State provides funding and technical assistance to strengthen professional learning in areas with high concentrations of poverty, Indigenous students and students of color, with emphasis on mentoring, implicit bias and cultural competency (National Education Association).
- State provides funding for job-embedded professional learning opportunities to help educators improve their instructional repertoire (National Education Association).
- Some states, including Colorado and Louisiana, are making strides by incentivizing the use of curriculum-based professional learning (CBPL). To ensure meaningful impact, professional development must focus on concrete concepts, connect directly to daily lessons and provide pedagogical strategies with clear, practical examples for use in the classroom. (CCSSO, A Nation of Problem-Solvers).
- Nebraska is increasing access to HQIM and training for educators through partnerships and incentive programs. Nebraska's Instructional Materials Collaborative (NIMC) provides tools and resources for districts related to HQIM and curriculum-based professional learning. (CCSSO, A Nation of Problem-Solvers).

Indicators

Contributing indicators

- Students report having a supportive, engaging teacher who sets clear, fair, and high expectations, and helps them learn (Education-to-Workforce).
- Students' perceptions of their teacher's effectiveness, using a survey instrument such as the Pedagogical Effectiveness subscale of the Panorama Student Survey, the Tripod Student Survey, the Ambitious Instruction and Supportive Environment domains of the 5Essentials Survey, or the Elevate survey's Feedback for Growth, Meaningful Work, Student Voice, Teacher Caring, Learning Goals, Supportive Teaching, and Well-organized Class scales (Education-to-Workforce).
- Measures of student engagement/enthusiasm/academic aspirations (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

System indicators

- Teachers demonstrate cross-cultural agility. They are aware of how one's own background and assumptions can influence one's perspective and interactions with others. They strive to understand the opinions and experiences of others. They demonstrate the ability to effectively and appropriately interact with students and others in the school community (TNTP, Competency-Aligned Educator Interview Questions and Activities).
- Teachers hold high expectations for students. They assume accountability for reaching outcomes despite obstacles, they demonstrate, the belief that students can perform at high levels, they focus on own capacity to impact situations rather than on external barriers, they understand challenges within larger context, and they take initiative to solve own problems (TNTP, Competency-Aligned Educator Interview Questions and Activities).
- Teachers demonstrate ability to develop a positive, culturally affirming, and supportive classroom culture, remain productive and focused on teaching when confronted with challenges, and display flexibility and willingness to adapt classroom culture building approaches to meet the needs of the school and students (TNTP, Competency-Aligned Educator Interview Questions and Activities).
- Teachers demonstrate the ability to build relationships with both adults and children. They act respectfully and collaboratively toward students, families, and staff, are aware of how one's own background and assumptions influence interactions, and strive to understand the opinions and experiences of others (TNTP, Competency-Aligned Educator Interview Questions and Activities).

Practices and Policies

Practices

- Educator selection process: School leaders should determine the educator competencies that are most essential to success in their contexts, determine specific, observable ways candidates may demonstrate these competencies (indicators), and then map them to the selection model to determine how these competencies will be assessed. Cross-cultural agility and high expectations are critical competencies to assess: In The Opportunity Myth, TNTP found that teacher expectations significantly influence student learning and that teachers who share their students' racial or ethnic identities have higher expectations.

Thus, it's important teachers understand how their identities can influence their instruction and that teachers work to develop and model high expectations for all. Additionally, TNTP recommends the following general selection competencies, as they also correlate to classroom performance: critical thinking, application of feedback, communication, and professionalism. As past performance is a generally reliable predictor of future success, TNTP also suggest assessing instructional expertise and classroom management. Finally, schools may also assess candidates' school fit and ability to build relationships to ensure that candidates will thrive in their school setting (TNTP, Competency-Aligned Educator Interview Questions and Activities).

Policies

- States and districts implement a validated student perception survey, such as Panorama or Tripod, to systematically collect student feedback. The data gathered informs continuous improvement efforts and integrates into teacher, leader, school, and district accountability frameworks (Education-to-Workforce Framework).

Multilingual learner progress

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of English learner students who are reclassified in five years or less, based on local reclassification criteria. The longer a student remains classified as an English learner, their risk of dropping out of school and having other adverse academic outcomes increases. In Arizona, for example, only 49 percent of long term English learners graduated high school on time, compared to 81 percent of long-term proficient former English learners and 85 percent of never English learners. (Education-to-Workforce).
- Student enrollment by English language acquisition status. For instance, when enrolling students in a California PK-12 public school, parents or guardians complete a home language survey. This survey identifies students who speak only English at home as English only (EO). Those students identified as having a language other than English at home are assessed for their English language proficiency within the first 30 days of enrollment. Based on this assessment, students who are determined to have sufficient English language proficiency to access the curriculum without additional support are identified as Initially Fluent English Proficient (IFEP), while those who require additional English language development support are identified as English learners (EL). Additionally, as students move through the grades, ELs that achieve English language proficiency are identified as Reclassified Fluent English Proficient (RFEP) students (Californians Together).
- Percent of multilingual learners who are (or have ever been) classified as English language learners (Californians Together).
- Percent of multilingual learners who are classified as Long-Term English language learners (LTELs) (Californians Together).
- Percent of multilingual learners who are classified as "At-Risk" Long-Term English language learners (AR-LTELs) (Californians Together).
- Percent of multilingual learners who had been classified as English Language Learners but are now reclassified as Fluent English Proficient (RFEP) (Californians Together).

- Percent of English Language Learners who make progress towards English language proficiency. The California Schools Dashboard has a measure called the English Learner Progress Indicator (ELPI) which determines whether an English Language Learner has made adequate progress, as measured by the English Language Proficiency Assessment for California (ELPAC) (Californians Together).
- Percentage of students who meet or exceed English Language Arts standards, disaggregated by English-Only students (EO), English Learners (EL), Initially Fluent-English Proficient (IFEP), and Reclassified Fluent-English Proficient (RFEP) (Californians Together).
- Gap in English Language Arts performance between English-Only students and multilingual students.
- Percent of multilingual learners who meet or exceed standards in English Language Arts (Californians Together).
- Percent of multilingual learners who participate in a Dual Language Immersion or Developmental Bilingual Programs (Californians Together).
- Percent of students who participate in programs leading to proficiency in two or more languages (Californians Together).
- Percent of multilingual learners who are chronically absent (Californians Together).
- Percent of multilingual learners who have access to expanded learning opportunities (Californians Together).
- Percent of multilingual learners who have a caring adult relationship at school. (Tracked through student response surveys like the California Healthy Kids Survey) (Californians Together).
- Percent of multilingual learners who experience chronic sadness or hopelessness in school (tracked through student response surveys like the California Healthy Kids Survey) (Californians Together).

System indicators

- Number of bilingual teacher preparation programs at state-approved education preparation programs (Californians Together).
- Percent of bilingual preparation programs offering the PK-3 ECE Specialist Credential who offer a bilingual authorization (Californians Together).
- Percent of teachers who have access to a supportive school environment and high-quality professional learning that includes designated and integrated English Language Development strategies (Californians Together).

Practices and Policies

Practices

- Disaggregate data on English Learners: High school ELs may be described as falling into four groups: (a) Long-term English Learners. Such students have been classified as ELs for more than four to seven years (depending on state definitions), many since kindergarten. They are far more likely to qualify for special education services than are other ELs or non-ELs in Grades 6 to 12; (b) Newcomer students with interrupted formal education (SIFE). These recently arrived immigrant students have less than grade-level-equivalent education, often with low levels of literacy in their native language; (c) Newcomer students at or close to grade level. These students often arrive with high school transcripts and evidence of coursework that can transfer into academic credits; (d) Progressing ELs. These students entered U.S. schools in late elementary or middle school and are on track to exit EL status in the typical four- to seven-year time frame (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Focus on Academic Language, Literacy and Vocabulary. Reading, writing and vocabulary exercises are essential building blocks for

developing language fluency, but it is only part of what is needed. Students who appear fully fluent in English may nonetheless struggle to express themselves effectively in academic settings, as they lack the words and phrases needed to connect their ideas and discuss them with others (University of Massachusetts Global, Innovative Strategies for Teaching English Language Learners).

- Link Background Knowledge and Culture to Learning. Numerous studies show that students perform better when their home culture and background knowledge are incorporated into the academic environment. When children and their families are represented and respected in the classroom, they are much more likely to be engaged and successful. Allowing students to express themselves in a safe environment and learn from one another is also a wonderful social-emotional learning opportunity that benefits the entire class, especially students of color (University of Massachusetts Global, Innovative Strategies for Teaching English Language Learners).
- Increase Comprehensible Input and Language Output. English language learners learn both through the language they encounter (input) and the language they produce (output). Students should also be given ample opportunities to produce language, and they should receive direct feedback to increase their comprehension and improve their language skills (University of Massachusetts Global, Innovative Strategies for Teaching English Language Learners).
- Promote Classroom Interaction. When teaching English language learners, keep in mind that vocabulary, grammar and pronunciation develop faster when there are opportunities for interaction in the classroom using the language being learned. But many new teachers make the mistake of simply presenting a lesson and then pairing students up to discuss without providing guidance. Teachers should explicitly model and practice academic language so that students can more fully engage with one another. Teachers should also provide ample opportunities for more structured classroom interactions with a clear purpose and goal (University of Massachusetts Global, Innovative Strategies for Teaching English Language Learners).
- Stimulate Higher-Order Thinking Skills and Use of Learning Strategies. Higher-order thinking skills (HOTS) are essentially critical-thinking abilities that go beyond rote memorization, concept formation and reading comprehension. Mastering HOTS is the ultimate goal of the learning process, as these competencies are needed to become an independent and creative thinker (University of Massachusetts Global, Innovative Strategies for Teaching English Language Learners).
- Relationships, Self-Advocacy, and Routines. Before starting with the first "real" lesson, begin with relationships, self-advocacy, and routines. When focusing on relationships, start with names. Teachers should know how to pronounce student names—and students should know how to pronounce each other's names. Also, students need to be fully seen. Educators must take time to learn about their students' interests, families, and topics they love to study. Teachers should also share about themselves—share hobbies, family pictures, etc. Classrooms (especially newcomer classrooms) need to feel safe because we are encouraging students to be vulnerable each day when they are using a new language (Education Week, Thirteen Instructional Strategies for Supporting ELL Newcomers).
- Increase Student Engagement and Interactions. To support student engagement, as well as the lesson and language objectives, liberally employ the use of visuals to reinforce both spoken and written words. Capitalize on the use of gestures, often exaggerated, for added emphasis, speak slower and be sure to enunciate your words, repeat important words or phrases, and be sure to use fewer idioms. Many ELL students have

not attended schools in their new county and may be unfamiliar with cultural references. Take the time to thoroughly review texts to identify potentially confusing language and concepts so that you can build the background knowledge of your ELL students prior to exposing them to potentially confusing material (Kareva & Echevarria, 2013) (Education Week, Thirteen Instructional Strategies for Supporting ELL Newcomers).

- Feelings of safety: We always consider content relevancy, the use of visuals, vocalization, facial expression, among others. However, what ELs need at first is to feel safe, comfortable, and confident in their new environment. The school system works in a completely different way in every country. Newcomers need to be shown how school works, classroom routines, how to sign in and out of school, how to move around campus, how to get their meals, how to login on their technological devices, explain schedules, share possible extracurricular activities in which newcomers could participate, etc. Newcomers need modeling, not only for the language but also for the culture. Newcomers need to be shown what to do and how to do it, what to say and how to say it. Teachers need to be aware of the cultural shock newcomers go through so they can help the process to run a bit smoother (Education Week, Thirteen Instructional Strategies for Supporting ELL Newcomers).
- Every newcomer should have a mentor to shadow him/her during the first days of school, someone who can introduce them to their teachers, who makes teachers aware that this EL is in their class and will need some extra attention. In my opinion, cultural awareness should be the first teaching strategy. Newcomers are facing a new culture, and they also need to feel their own culture is valued. Thus, it is important to generate activities that allow students to share their culture, so they make comparisons and connections by sharing about a subject they master and a subject that is relevant.
- Utilize Language-Learning Goals. Many educators are aware that the use of learning targets in the classroom is an instructional best practice and that students learn better when teachers utilize clear daily learning goals (Marzano, 2009; Reeves, 2010; Kareva & Echevarria, 2013). For ELL students, it is especially important to include both lesson and language-learning goals. The lesson objectives should be focused on the grade-level content while the language objective should align to one of the four domains of English-language development (ELD), which are listening, speaking, reading, and writing. A teacher's experience with creating and using language objectives in their instruction is important to ensure that ELLs have equal access to the curriculum (Hudson, Miller, & Butler, 2006; Short, Echevarría, & Richards-Tutor, 2011; Marcos and Himmel 2016). When planning a lesson, everything should intentionally lead students to mastery of the learning targets while providing students with a variety of meaningful activities and high-quality instruction (Education Week, Thirteen Instructional Strategies for Supporting ELL Newcomers).
- Stations are a versatile and practical way to provide students with practice on new skills they are learning and to differentiate instruction for newcomers with varying levels of language acquisition (Education Week, Thirteen Instructional Strategies for Supporting ELL Newcomers).
- Building relationships with your students is the foundational component of successful teaching and learning, and there is a multitude of research that supports this idea. According to a review of 46 research studies, students that feel valued and appreciated are more likely to demonstrate both short- and long-term improvements in academic engagement, attendance, grades, and behavior, while also having a reduced dropout rate (Sparks, 2019). Begin forming relationships with your ELL

students by learning about their individual culture, traditions, religion, hobbies, family dynamic, and background. Stay respectful of their personal boundaries and understand that they may need time to settle into their new environment before opening up. Having a positive relationship with a student's family can also help support their education (Education Week, Thirteen Instructional Strategies for Supporting ELL Newcomers).

- Create a welcoming environment to celebrate the cultural background of your multilingual learners. This will ensure they feel valued and included in school life (Leeds for Learning, Strategies to support multilingual learners).
- Engage with the families of multilingual learners to understand their backgrounds and involve them in the learning process (Leeds for Learning, Strategies to support multilingual learners).
- Assess prior knowledge from any previous schooling (Leeds for Learning, Strategies to support multilingual learners).
- Allocate a classroom buddy and a language buddy to support new arrivals (Leeds for Learning, Strategies to support multilingual learners).
- Assess first language proficiency (Leeds for Learning, Strategies to support multilingual learners).
- Use visual aids, gestures, and graphic organisers e.g. diagrams and pictures to help bridge language gaps and make content more accessible (Leeds for Learning, Strategies to support multilingual learners).
- Undertake a language assessment as it will help to determine a learner's proficiency in English, which can then be used to support their needs. The assessment will highlight any gaps in their language journey to target through interventions or classroom support (Leeds for Learning, Strategies to support multilingual learners).
- Pre-teach concepts and key vocabulary in their first language and English using a translation app or website to translate (Leeds for Learning, Strategies to support multilingual learners).
- Provide language scaffolding through techniques like sentence stems, word banks and modelling to support multilingual learners in constructing their own sentences and concepts (Leeds for Learning, Strategies to support multilingual learners).
- Translate key words and discuss the meanings with learners (Leeds for Learning, Strategies to support multilingual learners).
- The Bell Foundation has an 'EAL strategy and great ideas' page along with a 'resource library' page for strategies to use to support multilingual learners in class. You can search for the phase and topic you are teaching (Leeds for Learning, Strategies to support multilingual learners).

Policies

- High school graduation requirements: There are a variety of ways that schools can address the competing demands of providing targeted instruction to ELs and ensuring they stay on track to earn the credits they need to graduate. Schools increasingly combine ESL instruction with content area instruction; that is, they teach both ESL and content curricula in an integrated way. This practice—grounded in research on second language acquisition—helps keep students on track to earning state-required credits without adding an additional class period for ESL. However, it can be challenging to combine English language development standards with academic content standards, especially within the confines of a traditional high school day. Some schools use block scheduling to allow for longer class periods that meet fewer times per week to ensure that students receive sufficient support to develop language and content skills in such courses. Still, some newcomers might find a five-year path necessary to complete all of the requirements, especially if they aspire to enroll in a four-year

college (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).

- The Increasing Rigor of Pathways to Graduation: Raising graduation expectations—and in particular, making the default pathway a rigorous one that can lead to college admission—is intended to reduce the negative effects of tracking that have long been a barrier to success for ELs, students in poverty, students of color, and other groups. Nevertheless, in states where the demands of core coursework are extensive, schools may find their options to provide newcomers with ESL or remedial content courses limited by the number of periods available in the day. Enrolling newcomers in courses with grade-level-appropriate content from the beginning is a strategy that is supported by research and one that many schools are finding success with. But states should also consider whether they are providing sufficient support to schools for that approach to be successful (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Graduation Rates and School Accountability: Policymakers attached high stakes to the ACGR in hopes of spurring high schools to improve their outcomes. However, those stakes may also have the unintended consequence of discouraging administrators from enrolling older newcomers who appear unlikely to meet the four-year ACGR metric—for example, those who need additional time beyond four years to earn a diploma or who might age out of eligibility to attend high school before obtaining one. One way states can try to mitigate that reluctance is to give schools credit for students who graduate in more than four years. ELs are more likely than other subgroups to take advantage of extra years to graduate, so including extended-year graduation rates is an important way to signal to high schools that their efforts to help ELs graduate—even if it takes more than four years—will be recognized. Another step some states have taken is to set up different graduation rates for alternative high schools that serve students at risk of dropping out, often with more curricular and logistical flexibility than traditional high schools (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Insufficient data disaggregation for decision-making: While NCLB and ESSA greatly increased the amount of information that is reported on ELs and thus these students' visibility to policymakers, the data may not be sufficiently nuanced. For example, graduation rates for ELs as a whole tend to lag behind non-ELs, but one study found much lower graduation rates for some groups of ELs, including Spanish speakers living in poverty and with disabilities, than for other groups. If data reporting does not sufficiently distinguish which students are struggling, practitioners will not be able to target resources appropriately (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Lack of research on whether the indicators states use for all students are valid for ELs. For instance, there is little research on whether the indicators that accurately predict whether students will drop out or persist to graduation are valid for ELs. One study investigated whether two indicators used by several districts in the Seattle, Washington, area accurately predict ELs' risk of dropping out. One indicator was at least six absences plus at least one course failure in Grade 9, and the other was at least one suspension or expulsion in Grade 9. The study found that the indicators failed to flag many students, especially newcomers, who eventually dropped out of school (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).

- Newcomer Placement and EL Programing: Enrollment in a new school is a critical event in the educational trajectory of newcomer ELs. States can support this process by reminding school personnel of their obligations to enroll eligible youth regardless of immigration status and provide guidance on how to collect sufficient information to place a student in a grade or in courses, as the above examples show. While responsiveness to the local context is important, some minimum boundaries are likely useful in all circumstances, such as requiring districts to carefully examine transcripts for transferable credits or providing a consistent definition of SIFE across the state (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Instructional Programs: The EL program model a school or district uses is generally a local decision. This makes sense, as local variables—including EL population characteristics, community and educator philosophies, and available resources—should guide such choices. But states can provide guidance on which models are most likely to lead to success. While there are no recent studies of the effectiveness of bilingual education for high school newcomers, the literature is clear that bilingual education programs that start in kindergarten—especially dual language programs that help ELs develop their native language to a high level of proficiency—produce better long-term academic results than do English-only programs. One study found that balanced bilinguals—students who developed English and their native language to equally high levels—were less likely to drop out of high school than English monolinguals or bilinguals without strong skills in both languages. ELs in bilingual programs are also more likely to reclassify as English proficient by high school than ELs in English-only programs. Knowing that long-term ELs are less likely to graduate on time than former ELs, bilingual education may be an effective way to improve graduation rates (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Reclassification of ELs as English Proficient: The decision to reclassify a student as a former EL has considerable ramifications. One research study showed that among students who scored just below or just above the cutoff signaling English proficiency, being reclassified had positive effects on ACT scores, graduation rates, and postsecondary attendance. This may be due to the fact that research suggests that students identified as ELs are systematically under-enrolled in grade-level or honors academic coursework. This being the case, two ways to ensure that students have access to grade-level, credit-bearing courses are to ensure that a state's EL reclassification policy exits students as soon as is reasonable to do so, and to use the state's other policy levers to motivate schools to be proactive in helping students achieve the proficiency criteria more quickly. Ensuring timely exit from the EL program also may prevent students from losing their motivation to finish school as they continue to be labeled ELs for years, even long after they self-identify as fluent in English (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Maximum Age of Compulsory and Free Public Schooling. Immigrant students who arrive in the United States during their high school years may be affected by a state's maximum age of enrollment, especially those who arrive with fewer than four years before they will age out of the system and without evidence of transferable credits. Students should be informed of the options available to them and allowed to make their own decisions. In the mid-2010s, advocates and the media reported numerous instances of administrators blocking older immigrant students from enrolling in comprehensive high schools because of their age, among other reasons. Hearing several such complaints,

New York State took action to provide clear regulations reiterating the state law requiring schools to allow students up to age 21 to enroll. Further, knowing that some schools diverted students to educational programs that met the letter of that law but were not equivalent to the standard high school experience, the state made it clear that all students were entitled to the full range of services that a comprehensive high school offers (such as special education, services for ELs, and career and college counseling). Districts were also cautioned not to force or steer students toward alternative programs, although students would be allowed to voluntarily opt into them (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).

- Access to Credit-Bearing and Advanced Courses. Policies that increase access to advanced coursework—whether by requiring that all students have access or simply providing incentives to offer more of these types of classes—address historic patterns by which students in the process of developing English proficiency are denied access to academic content. Federal civil rights law requires ELs be given access to all of the same opportunities as their peers, including regular and honors academic classes, career and technical education, dual enrollment (college courses taken during high school), and advanced placement. However, having permission to enroll in a course is not sufficient to ensure access. It is frequently reported that a large share of general education teachers are unprepared to teach ELs in academic content areas.85 One study reported that staff in a Pennsylvania high school were reluctant to place EL students in upper-level content courses because they believed the teachers of those courses would not make the kinds of academic accommodations that would make the content accessible to ELs, a judgment the authors characterized as underestimating ELs' ability to take on academic challenges. As much as setting higher expectations for ELs is an important goal, it is reasonable to be concerned about whether policies to increase access to high-level courses will have the intended effect if they are not paired with state and district policies to ensure appropriate instruction (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).
- Teacher and Staff Quality and Training. Teacher quality is one of the most important factors in ensuring ELs' academic success. The state role in setting standards for teacher training and qualifications is especially important given the wide variation within most states of district capacity to serve ELs. Schools with a small population of ELs, for example, might need the additional weight of a state statute—and state funds—to prioritize hiring EL specialists and providing training to general education teachers. States have a duty to ensure that ELs in such schools receive services comparable to those available to ELs in well-resourced, high-incidence schools (Migration Policy Institute, The Impacts of English Learners of Key State High School Policies and Graduation Requirements).

Indicators

System indicators

- Teachers demonstrate high-quality instructional practices and interactions with students. One measurement approach is to conduct classroom observations of instructional practice, such as those that measure the quality of teacher–child interactions.
- Teachers' overall and subscale scores on an observation rubric associated with an educator observation system; examples of common frameworks include the Danielson's Framework for Teaching and the Marzano Causal Teacher Evaluation Model. (Education-to-Workforce).
- Percentage of teachers rated effective based on multiple measures of performance (National Education Association).
- Teacher coaching and professional development (Education-to-Workforce Framework).
- Percentage of educators surveyed indicating alignment among professional learning, standards, curriculum and assessments (National Education Association).
- Percentage of educators surveyed indicating satisfaction with professional learning time and opportunities (National Education Association).
- Percentage of educators who participated in job-embedded professional learning opportunities in the previous year (National Education Association).
- Percentage of workforce members who receive training in culturally-responsive instruction, especially to understand a child's developmental progress to inform instruction (STEP Forward with Data Framework).
- Percentage of workforce members who receive training on reducing or eliminating bias in their work (STEP Forward with Data Framework).
- Percentage of workforce members who receive training on trauma-informed care or responsiveness (STEP Forward with Data Framework).

Practices and Policies

Practices

- Districts design, monitor and implement evaluation systems based on state framework in partnership with educators and their associations (National Education Association).
- Districts align professional learning with standards, curriculum and assessments (National Education Association).
- Districts use evaluations aligned with induction (National Education Association).
- Districts use performance evaluations employing multiple measures (National Education Association).
- Districts provide "peer assistance" or "peer assistance and review" (PAR) teams (National Education Association).
- Districts have professional learning plans, including induction and mentoring, for teachers, education support professionals (ESPs) and specialized instructional support personnel (SISP) (National Education Association).
- Districts integrate theories, research and models of human learning into the planning and design of professional learning (National Education Association).
- Districts provide educators with targeted support based on formative and summative evaluation results (National Education Association).
- Districts provide extra resources and assistance for those educators in hard-to-staff schools (National Education Association).

- Districts provide funding for educators to access professional learning that addresses new education research and technology that will help improve instruction or support for students (National Education Association).
- Assess the quality of learning environments, teacher-child interaction, teaching strategies, and children's progress, and use the data for continuous improvement (Alliance for Early Success).
- Districts provide ongoing professional learning and support to administrators, including training in equity and racial and social justice to better support Indigenous educators and students as well as educators and students of color (National Education Association).
- Districts provide teacher leadership development (National Education Association).
- Districts support regular, job-embedded professional learning opportunities (National Education Association).
- Districts use a variety of student, educator and systems data to plan, assess and evaluate professional learning (National Education Association).
- Providing training and classroom materials (Results for America).

Policies

- State develops a comprehensive culturally-responsive teaching policy, covering equity and racial and social justice, to increase educators' cultural and linguistic competence through pre-service education, licensure and ongoing professional learning (National Education Association).
- State provides funding and technical assistance to strengthen professional learning in areas with high concentrations of poverty, Indigenous students and students of color, with emphasis on mentoring, implicit bias and cultural competency (National Education Association).
- State provides funding for job-embedded professional learning opportunities to help educators improve their instructional repertoire (National Education Association).
- State policy mandates multiprofessional collaboration on educator support and evaluation systems staffed by active pre-K through 12 educators (National Education Association).
- State policy requires that evaluations be based on multiple measures of performance to determine effectiveness. Measures may include classroom observations, portfolios, leadership roles and professional learning (National Education Association).
- State provides funding for "peer assistance" and "peer assistance and review" (PAR) teams (National Education Association).

10 Do students attend school in systems with adequate funding to prepare students to graduate with college- and career-ready high school degrees?

Why this matters

A multi-state study of school finance reforms that equalized school funding found that increasing per-pupil spending by 10% in all 12 school-age years increased the probability of high school graduation by seven percentage points for all students and by roughly 10 percentage points for children experiencing poverty. This same level of increased investments for students was also associated with positive outcomes into adulthood, which included positive effects on adult wages, with a 9.6% increase in adult hourly wages, and a substantial decrease in adult poverty rates (Learning Policy Institute).

Funding also supports equitable access to resources, ensuring that schools in underserved or underfunded areas can access the same high-quality curricula and professional learning opportunities as those in more affluent districts (Chingos & Whitehurst, 2012).

Expenditures per student *Key source: E-W Framework*

Indicators

Contributing indicators

- Per pupil expenditures. For elementary and secondary schools, data are reported annually at the state, district, and school levels through the U.S. Department of Education's Office of Elementary and Secondary Education (OESE) Per Pupil Expenditure Transparency website. Disparities in funding can be assessed vertically at the federal, state, and local levels, as well as horizontally between schools within the same district or postsecondary institutions within the same state (Education-to-Workforce Framework).
- Equity Factor, a measure that indicates variance in per-pupil funding within a state (see this brief by New America for more information) (Education-to-Workforce Framework).
- Equitable weighted student funding formula (Data sources: Local policy and practice assessments) (StriveTogether 2021).

System indicators

- Per pupil expenditures. The highest-poverty districts in the United States receive approximately $1,000 less per student than the lowest-poverty districts—even states that have

implemented progressive funding policies based on student need have not all been successful in ensuring funding for students from low-income households exceeds funding levels for more advantaged students (Education-to-Workforce).

- Equity Factor, a measure that indicates variance in per-pupil funding within a state (see this brief by New America for more information). (Education-to-Workforce).
- Equitable weighted student funding formula (Data sources: Local policy and practice assessments) (StriveTogether 2021).
- Equity factor, or the degree of variance between district per-student funding to state average (Data source: U.S. Department of Education) (StriveTogether 2021).

Practices and Policies

Practices

- Increase school funding to boost graduation rates: Researchers at Michigan State University analyzed high school graduation rates over a seven-year period to see how public spending affected them. They found that extra spending of $437 per child on social programmes for low-income families, or $720 in educational spending, boosted high school graduation rates by one percentage point over the seven years (World Economic Forum). Other research has estimated that increasing per-pupil instruction expenditures by 10% would lead to an increase in graduation rates between 1.5% and 3.6% in these districts.
- Several years of sustained spending increases improved student outcomes. A robust body of research shows that across a variety of outcomes such as test scores, graduation rates, and college attendance, student performance improves with greater spending. Over the long term, students gain important benefits on economic outcomes such as wages. Benefits tend to be greater for lower-income students and districts (PPIC, Understanding the Effects of School Funding).
- How—and to whom—spending is targeted matters. Policies that target district characteristics may not fully address gaps in spending and student outcomes, depending on how funding is targeted across students and schools within the same district. In California, spending is higher for low-income, Black, and Latino students—but current spending progressivity is not enough to close existing test score gaps (PPIC, Understanding the Effects of School Funding).
- The labor market for educators may constrain spending policies and create tradeoffs. Often, high-poverty schools rely on lower-paid and less experienced teachers, but have smaller class sizes. Large-scale policies to increase spending on new staff—such as the class size reduction of the 1990s—may adversely affect experience and credentials over the short run, limiting potential benefits per dollar (PPIC, Understanding the Effects of School Funding).
- The Government Finance Officers Association's (GFOA) has developed a series of Best Practices in School Budgeting, which clearly outline steps to developing a budget that best aligns resources with student achievement goals. The five steps are presented below:
- Plan and Prepare. The planning and budgeting process begins with mobilizing key stakeholders, gathering information on academic performance and cost structure, and establishing principles and policies to guide the budget process. Objectives include: (a) Foster collaboration between the academic and finance staff in the budget process; (b) Set expectations for the budget process and analyze the district's current state; (c) Effectively communicate the process and corresponding decisions to stakeholders. Steps include: (1) Establish a partnership between the finance and instructional leaders. A collaborative process increases the likelihood that the decisions

made will be supported after the budget process is over; (2) Develop principles and policies to guide the budget process. Budget principles and policies formalize standards and fundamental values that should govern the budgeting process; (3) Analyze current levels of student learning. The current state of academic performance must be assessed to determine what course of action to take; (4) Identify communications strategy. The budget process should include a plan to inform participants, stakeholders, and the general public about how the budget process works, why each decision was made and how to provide input in the process (GFOA, Smarter School Spending Framework).

- Set Instructional Priorities. The budget needs to be rooted in the priorities of the district. Intentionally created instructional priorities provide a strong basis for developing a district's budget and strategic financial plan, as well as presenting a budget document. Objectives include: (a) To develop goals using the SMARTER framework; (b) To determine gaps between a school district's current level of performance and its desired level of performance; (c) To research practices shown to improve district performance to determine which practices might help it plan, budget, and attain its student achievement goals; (d) To identify the instructional priorities being considered to increase student achievement. Steps include: (1) Develop goals. Goals should be thoughtfully developed and structured to be specific, measurable, and reasonable in order to provide a strong foundation for the budget process; (2) Identify root cause of gap between goal and current state. By finding root causes of problems, a district can identify the most effective solutions to achieving its goals; (3) Research & develop potential instructional priorities. The district's instructional priorities should be informed by practices proven by research and also be limited in number to focus on items critical to optimizing performance; (4) Evaluate choices amongst instructional priorities. A district needs to weigh its different options for achieving its goals against one another in order to focus on those with the greatest potential for student achievement impact (GFOA, Smarter School Spending Framework).
- Pay for Priorities. Current resources and expenditures must be thoroughly analyzed in order to find capacity to pay for top instructional priorities. Objectives: (a) Developing a Staffing Analysis; (b) Developing a Cost of Service Analysis; (c) Developing a process to prioritize spending; (d) Weighing trade-offs between costs and benefits. Steps include: (1) Apply cost analysis to the budget process. A cost analysis and staffing analysis are essential to identifying how the district might allocate its limited resources; (2) Evaluate & prioritize use of resources to enact the instructional priorities. Instructional priorities need to be thoroughly quantified as a first step to determining how much money is needed to implement the priorities and where that money will come from. Trade-offs need to be weighed to examine whether the costs, financial or otherwise, of implementing an instructional priority are viable (GFOA, Smarter School Spending Framework).
- Implement Plan. The "strategic financial plan" is the long-term road map for implementing the district's instructional priorities. A "plan of action" describes how the strategic financial plan will be translated into coherent actionable steps. Steps include (1) Develop a strategic financial plan. A strategic financial plan provides a three to five year perspective on how the district will pursue its instructional priorities and how success will be determined; (2) Develop a plan of action. Roles and responsibilities for implementing the strategic financial plan should be made clear for greater accountability; (3) Allocate resources to individual school sites. Resources have the most direct impact at school sites and should be allocated transparently and consistent with the district's overall strategy;

(4) Develop a budget presentation. A budget document needs to be well organized and also clearly lay out the challenges the district is facing and how the district's strategies and financial plan will address these challenges (GFOA, Smarter School Spending Framework).

- Ensure Sustainability. The planning and budgeting process should be one that can be replicated in the future in order to ensure the district remains focused and plans accordingly for reaching its student achievement goals. To ensure that the strategies and priorities are implemented with fidelity to the budget document, a school district needs to establish a system for evaluating results. Objectives: (a) Implement a system to monitor strategy implementation; (b) Evaluate the results of implementation throughout the year. A well-developed budget outlines the dollars and resources for implementing a plan of action to align student outcomes with resources for the upcoming fiscal year. However, there are numerous examples where excellent plans are improperly or incompletely put into practice. In some cases, the plan may never even get off the ground (GFOA, Smarter School Spending Framework).
- The organization Brown's Promise has five equity principles to guide their work to end patterns of school segregation and educational resource inequities: (1) Listen to people and communities most impacted - center organizations that are already deeply connected in directly impacted communities, including families, faith leaders, grassroots organizations, and especially students; (2) Focus on educator diversity in addition to student diversity. An integrated school is comprised of diverse students and adults; (3) Center the student experience in an integrated school - not just numbers of students of different races or ethnicities or family income levels; (4) Avoid unintended consequences such as reducing spending in districts serving concentrations of students living in poverty or diluting Black, Latino, or other minoritized group's political power on school boards in an effort to create integrated districts; (5) Hold the state responsible education is ultimately the responsibility of the state, so avoid falling into a hyper-localism trap that prioritizes local control over the rights of historically underserved students (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Funding that is linked to compliance with common quality standards and is flexible, blendable, and sufficient for the continuum of services and supports needed to get children ready for school and to provide school experiences that help them become strong readers (Annie E. Casey Foundation).
- Adequate school funding to ensure access to the resources that afford every child the opportunity to learn (Annie E. Casey Foundation).
- State has an independent body of stakeholders that includes active pre-K through grade 12 educators and administrators who annually assess if state funding is sufficient to provide all students the opportunity to meet rigorous academic standards (National Education Association).

Policies

- In 2012, California passed the Local Control Funding Formula (LCFF), a school funding formula overhaul which allocated funds based on pupil needs and eliminated many limitations on the use of funds, allowing "local control" over spending decisions. Research has found strongly significant impacts of LCFF-induced increases in district revenue on average high school graduation rates for all children, poor children, and all racial ethnic groups that experienced such changes. A $1,000 increase in district per-pupil revenue from the state experienced in grades 10–12 leads to a 5.3 percentage-point increase in high school graduation rates, on average, among all children. Researchers

found similar magnitudes for poor children and by race/ethnicity: a $1,000 increase in per-pupil revenue from the state causes a 6.1 percentage-point increase for poor children, a 5.3 percentage-point increase for Black children, a 4.2 percentage-point increase for non-Hispanic White children, and a 4.5 percentage-point increase for Hispanic children (Learning Policy Institute, Money and Freedom).

- Fund public schools fully and fairly by moving toward regional or statewide revenue. State funding policy should ensure that every district and school has the funding it needs to provide a high-quality education. The state must ensure that all students can attend school in buildings that are safe, healthy, welcoming places, and that students have access to a rigorous, high-quality public education within those walls. States must also ensure that education funding is targeted based on the level of student need so that all children have an equal opportunity to succeed. Districts with substantially greater student need should receive substantially greater funding; districts with similar levels of student need should receive similar levels of funding (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- State leaders should advance the goal of fully and fairly funding public schools by considering three actions: (1) Redefining "local" to mean a larger geographic area, which might be a county, an area served by a regional education service agency (which can have different names in different states, e.g., an intermediate unit, a Board of Cooperative Educational Services, etc.), or, where relevant, a metropolitan area, instead of a single school district; (2) Shifting away from local funding altogether, replacing those funds with state revenue for education; (3) Using some combination of these approaches, both redefining "local" and shifting away from this kind of funding (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Ensure integration and resource equity within districts and schools by adopting requirements that do three things: (1) Ensure integration. Districts should be required to demonstrate that all schools are within, for example, 5 or 10 percentage points of district-wide average student poverty for that grade span (e.g., all elementary schools should be within 10 points of the district-wide poverty rate for grades 1 through 5), unless doing so would require excessive commute times. (2) Ensure resource equity. Districts should be required to demonstrate to the state that they are using their resources strategically in order to meet the differing student needs in each school. This should include a demonstration that schools with more student need (including more students living in poverty, multilingual learners, and special education students) are receiving additional funding and staffing to meet those needs, and are not disproportionately relying on novice, out of field, or uncertified educators. (3) Ensure all school assignment changes advance equity and integration and protect against backsliding. When districts change school boundaries or school assignment policies for any reason (e.g., opening a new building, closing a school, redrawing boundaries to address changes in housing patterns and school capacity), or when a district changes a lottery process that governs public school choice, a state should review and approve the plan only after a demonstration that it will advance integration and increase the likelihood that all students get an equal educational opportunity, rather than exacerbating segregation or resource inequities (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Ensure integration and resource equity within districts and schools by provide funding and technical assistance. If a state is serious about equal opportunities for all students, it must also invest in local leaders' capacity to meet expectations. This means providing money to support the work while also providing training and guidance to grow local leaders' belief in and ability to achieve the goals. (a) State leaders

should provide grants to support district leaders in planning for and implementing innovative strategies to advance integration and resource equity. (b) State leaders should provide technical assistance in the form of written guidance, communities of practice, and even place-specific consultation and deep implementation support. District leaders should be consulted in determining what sorts of assistance would be most helpful, but likely would benefit from support in identifying sources of federal, state, and philanthropic funds to pursue this work; legal requirements—and flexibilities—that support this work; and examples of other places that have pursued similar efforts and seen success. (c) State leaders should invest in the capacity of the state education agency (SEA), or other entity tasked with leading this work. High-quality technical assistance is challenging to provide. The SEA can only do this effectively if it has the necessary expertise, time, and resources, as well as trusting relationships with district leaders. This may be achieved by hiring or training experts within the SEA, by contracting with external partners, and/or identifying national partners as part of federally funded technical assistance programs (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).

- Create an ecosystem that promotes integration and resource equity by collecting and reporting data. Transparency in the form of consistent and easily accessible data over time builds understanding about the persistence of segregation and resource inequities. State leaders should calculate share measures of integration and resource equity on school, district, and state report cards in a way that makes it easy to see districtwide patterns across schools. This data should cover the following categories: (a) Measures of socioeconomic and racial integration/segregation between schools for the district as a whole; (b) Property tax rates for the district's taxpayers as compared to statewide rates and rates for adjacent districts; (c) Spending per student in the district as compared to statewide spending and spending in adjacent districts (d) Local spending in the district that is above and beyond the amount called for by the state funding formula; (e) Easy to understand data visualizations showing how the district allocates resources to schools, including, at minimum: dollars per student, percentage of novice educators, percentage of teacher vacancies, student-to-counselor ratio, student-to-teacher ratio, number of (high school) AP courses and seats offered. (f) Measures of socioeconomic and racial integration/segregation between schools and between districts statewide and for major metropolitan regions. (g) The percentage of students statewide attending school in highly segregated schools and districts. (h) The percentage of students statewide attending school in districts that do (or do not) promote equal opportunity for all by (1) deconcentrating poverty, (2) meaningfully targeting resources to meet the needs of students in high-poverty schools, or (3) both (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Create an ecosystem that promotes integration and resource equity by adding integration and resource equity to district accountability ratings. Change district accountability systems to include indicators that specifically hold leaders responsible for the things they are uniquely able to control, including measures of resource equity and integration. These new equity indicators should be generated in partnership with district leaders themselves, as well as students and families. They might include two key measures: (a) Deconcentration of poverty Districts would earn more points by reducing the range of poverty rates between the highest and lowest poverty schools in their district. For example, they could get all elementary schools within five points of the district-wide average for elementary schools; (b) Resource allocation Districts would earn more points by aligning the level of resources in a school with the level of

student need in that school, either by spreading need evenly and allocating resources equally or by channeling resources (spending per student, number of certified, non-novice teachers and support staff per student, etc.) to the schools with greater student need. The specific measures would depend on the state context. For example, in a state with a funding formula that provides additional funds to the district for each student living in poverty, the accountability system could provide more points for the district as it gets closer to spending all funds generated by the low-income weight in the schools where those students are actually enrolled (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).

- Create an ecosystem that promotes integration and resource equity by leveraging federal requirements and resourcing. State leaders should: (a) Support meaningful resource allocation reviews required by Title I of the Every Student Succeeds Act; (b) Train state and local education leaders on requirements under Tile VI of the Civil Rights Act of 1965; (c) Support district leaders in identifying, securing, and implementing federal grants that support integrated, well resourced public schools (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Districts implement measures to broaden their tax base (National Education Association).
- Districts use "pupil weights" in their base formula to adjust for diverse student needs (National Education Association).
- State funds local efforts to diversify revenue streams (National Education Association).
- Passage of voter-approved children's funds at local levels (Children's Funding Project).
- State implements measures to broaden its tax base (National Education Association).
- Access to resources: School finance equity (Birth to Grade 3 Indicator Framework).

11 Do students have access to high-quality, rigorous curricula and coursework?

Why this matters

Access to high-quality, rigorous curricula and coursework in high school is crucial for student success, both academically and in future endeavors. High-quality refers to the efficacy of teachers, quality of curriculum and access to multiple options. Rigorous means access to the type of coursework and learning experiences that promote deep thinking, critical analysis and problem solving; require students to apply knowledge in complex, real-world contexts; and prepare them for success in postsecondary education, meaningful careers and lifelong learning.

Enhanced college readiness and success
Engaging in advanced coursework — such as Advanced Placement (AP), International Baccalaureate (IB), honors classes and dual enrollment programs — has been consistently linked to higher college enrollment and completion rates. Students who participate in rigorous high school courses are more likely to attend four-year colleges and graduate on time. These advanced opportunities not only strengthen academic preparation but also offer students the chance to potentially earn college credit before graduating (Long, Conger, and Iatorola, 2012). Common examples include AP classes, dual or concurrent enrollment programs that award both high school and college credit, IB course, and early college high school models. However, it is important to note that passing an advanced course exam does not guarantee college credit; the final decision to award credit is made by the institution where the student ultimately enrolls (Center for American Progress).

Improved academic performance: High-quality curricula aligned with rigorous state standards contribute to notable student learning gains. Such curricula not only bolster academic achievement but also foster critical thinking and problem-solving skills essential for higher education and the workforce (National Institute for Excellence in Teaching).

Equity and access: Providing all students with access to challenging coursework helps bridge opportunity gaps. Research indicates that enrollment in advanced courses can improve student engagement, self-esteem and reduce absenteeism and disciplinary actions (Center for American Progress).

Access to quality, culturally responsive curriculum

Key source: E-W Framework

Indicators

Contributing indicators

- The percentage of students who pass AP exams (Center for American Progress).
- Schools and instructors use a standards-aligned core course curriculum that meets quality standards (as defined by EdReports) and is culturally relevant, centering the lived experiences and heritage of students' ethnic or racial backgrounds (Education-to-Workforce Framework).
- The Tier 1 curriculum, assessments, and instructional resources in use are closely aligned (Instruction Partners).
- When and if appropriate, additional culturally and/or linguistically relevant materials are used alongside curricular materials to support students in making personal connections (Instruction Partners).
- The school/system uses quality data and assessment resources consistently, cohesively, and strategically to drive instructional decision making for all students (Instruction Partners).

System indicators

- Schools and instructors use a standards-aligned core course curriculum that meets quality standards and is culturally relevant, centering the lived experiences and heritage of students' ethnic or racial backgrounds (Education-to-Workforce Framework).

Practices and Policies

Practices

- When and if appropriate, additional culturally and/or linguistically relevant materials are used alongside curricular materials to support students in making personal connections (Instruction Partners).

- Schools adopt content-rich, developmentally appropriate curricula linked to standards and assessments (Annie E. Casey Foundation).

Policies

- A high-quality curriculum not only provides a clear framework for teachers, but also ensures coherence across grades and schools. It is essential that legislators promote the selection and periodic review of evidence-based instructional materials and resources in districts. This will help determine if they meet students' needs or if additional materials and supports are necessary. Don't remove resources, even flawed ones, without providing educators with effective alternatives first. (Model state: Delaware) (Shanker Institute).

Access to early college coursework

Key source: E-W Framework

Indicators

Contributing indicators

- Students have access to Advanced Placement (AP), International Baccalaureate (IB), and dual enrollment courses.
- Rate of completion of college-level courses/ credits in high school (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- The percentage of students who have shown potential to be successful in advanced coursework who have successfully completed at least one course. Participation in early postsecondary opportunities— Advanced Placement (AP), International Baccalaureate (IB), and dual enrollment—has been shown to increase high school graduation, postsecondary enrollment, and college persistence rates (EdStrategy, From Tails to Heads).

System indicators

- Number of AP, IB, and dual enrollment courses offered, overall and by subject (Education-to-Workforce).
- Percentage of students in an early college course who take the relevant end-of-course test needed to earn credit (for example, AP or IB test), overall and by subject (Education-to-Workforce).
- Student subgroup representation in AP courses. Black and Hispanic students disproportionately are underrepresented in rigorous course programs, depriving them of the opportunity to build strong academic transcripts required at elite universities and of the preparation needed to succeed in college. In 2016, Black students were 15.3 percent of all students in public schools, but just 7.3 percent of all students who took at least one AP exam. In that same year, Hispanic students comprised 26.4 percent of public school students but just 22.4 percent of AP test-takers (Civic Enterprises, Building a Grad Nation).
- AP courses are not the only rigorous classes to which Black and Hispanic have limited access. According to data from the U.S. Department of Education's Civil Rights Data Collection, Black and Hispanic students represent 42 percent of student enrollment in schools offering gifted and talented education programs (GATE), yet just 28 percent of students enrolled in such programs (U.S. Department of Education, 2016) (Civic Enterprises, Building a Grad Nation).
- Rate of completion of college-level courses/ credits in high school. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- AP Leadership Team – Establish a committee of teachers and administrators to examine data, create and model an access-centered vision, and maintain a general continuity in policy and programming for the school's AP classes (College Board, Broadening Access to Advanced Placement).
- AP Listening Session – Collect input from students on ways to improve the AP program and barriers to participation (College Board, Broadening Access to Advanced Placement).
- AP Ambassadors – Set up a program for students to take a leadership role in recruiting their peers for AP classes (College Board, Broadening Access to Advanced Placement).
- AP Boot Camp – Offer an event to build community, leadership capacity, and study skills in students enrolled in AP classes (College Board, Broadening Access to Advanced Placement).
- AP Information Event – Share information about AP with students and families, focused on AP course offerings and potential alignment with students' educational and career goals (College Board, Broadening Access to Advanced Placement).
- AP Prep Sessions – Host review sessions by experienced AP readers or other successful AP teachers to support students as they prepare for AP Exams (College Board, Broadening Access to Advanced Placement).
- AP Course Availability and Sequencing – Intentionally add AP courses that serve as a gateway for expanding access to rigorous coursework (College Board, Broadening Access to Advanced Placement).
- San Antonio Independent School District (SAISD) leveraged the data in the College Board's AP Potential report to generate a series of customized reports that list the potential to succeed for every student at every high school campus for every AP course offered by the College Board. Rather than simply using the binary definition of AP Potential—either a student has potential or does not— SAISD went further by grouping students into 10 percentage point bands, starting at having a zero to 10 percent chance of passing the AP exam in a given course prior to enrolling to having a 90 to 100 percent chance. The school-level report lists the potential for all incoming students to help guide their advising practices around enrollment in advanced coursework, with school counselors targeting outreach to students who were identified with potential (EdStrategy, From Tails to Heads).
- At the state level, the Connecticut State Department of Education (CSDE) has launched an AP activation campaign to encourage students identified with potential to enroll in advanced coursework. Each year, the Commissioner sends a signed letter directly to every 10th and 11th grade student identified with AP Potential. Since starting the campaign, the state has seen an increase in the number of students enrolling in AP coursework, as well as in taking and passing AP exams (EdStrategy, From Tails to Heads).
- To break down historic access barriers, Washington became the first state in the nation to adopt an automatic enrollment policy for advanced mathematics, English language arts, and science classes in all high schools. The policy, known as Academic Acceleration, automatically places students who meet standards on state-level exams in the next more rigorous course in the corresponding content area. While intended to increase access to advanced coursework for all students, the policy is particularly aimed to support students who have been historically underrepresented (EdStrategy, From Tails to Heads).

Policies

- The Texas Education Agency (TEA) defines dual

credit as a system where eligible high school students enroll in college courses and receive both high school and college credit. These courses can be taught on high school campuses by approved instructors or on college campuses. The Texas Higher Education Coordinating Board (THECB) assigns service areas to public colleges, facilitating partnerships between high schools and colleges to offer dual credit opportunities (Texas Education Agency).

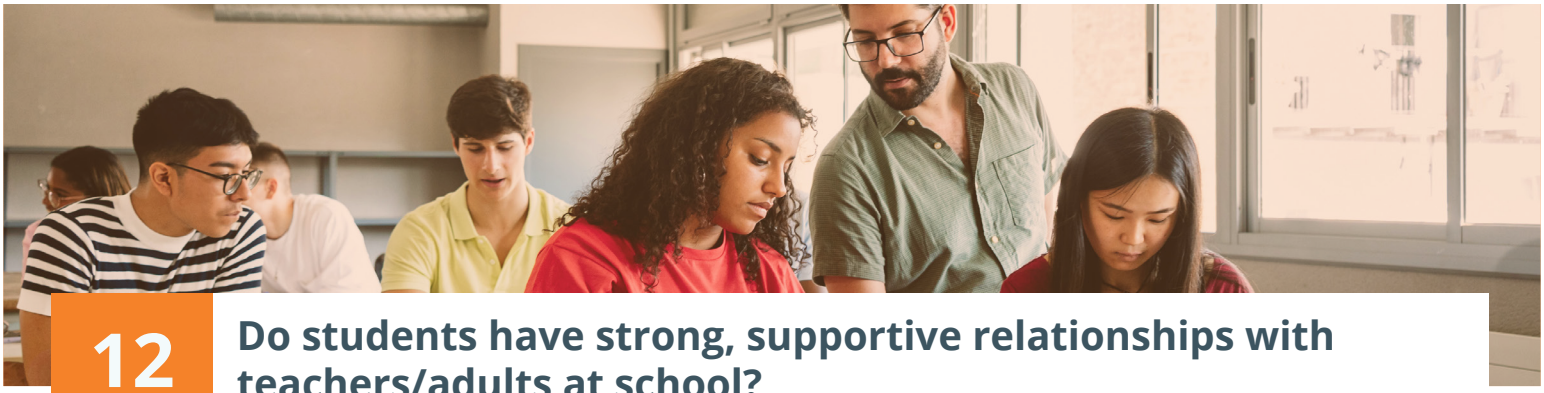
- Houston ISD has implemented initiatives to increase student participation in advanced academic programs, including AP, IB, and dual enrollment courses. Notably, the district expanded the number of high schools offering the University of Texas's OnRamps dual enrollment courses from 15 to 33, resulting in a significant increase in student enrollment and college credit attainment. These efforts aim to enhance college readiness and provide equitable access to advanced coursework (Houston Chronicle).

Assessments

Practices and Policies

Practices

- Educators design and conduct pre-assessments to gauge knowledge and skills before beginning a unit (Student Achievement Partners).
- The school/system uses quality data and assessment resources consistently, cohesively, and strategically to drive instructional decision making for all students (Instruction Partners).
- Assessment and evaluation honor multilingual learners' (MLs') primary languages and current English proficiency levels. There is a written policy to ensure that MLs are not held back in the curriculum sequence or small-group work based on primary language influence or current English proficiency level (Instruction Partners).
- Each student has clear, individual learning goals and learning targets that teachers, students, and families/caregivers understand (Instruction Partners).
- There is a clear and efficient data cycle process in place that supports leaders and teachers in collecting and analyzing student data as well as adjusting instruction based on what is and is not working (Instruction Partners).
- Student data is gathered from multiple forms of assessment (e.g., universal screener, progress monitoring, curriculum assessment, teachers' observation notes about skills individual students have and have not yet mastered) (Instruction Partners).
- Data is analyzed collaboratively from each form of assessment alongside student goals to determine what is working and what may need to be refined to support students in moving toward skill mastery (Instruction Partners).
- Student data is disaggregated and analyzed by demographics; team members use this data to ensure that the needs of students in priority groups are centered when making instructional decisions (Instruction Partners).



12 Do students have strong, supportive relationships with teachers/adults at school?

Why this matters

Strong, supportive relationships with teachers and other adults at school are critical for high school students' academic success, engagement and overall well-being. Research shows that when students feel connected to adults at school, they are more likely to attend regularly, perform better academically and avoid risky behaviors (Centers for Disease Control and Prevention, 2009). Positive teacher-student relationships have also been linked to greater motivation, higher levels of social-emotional competence and lower dropout rates (Roorda, Koomen, Spilt, & Oort, 2011). Importantly, these relationships can serve as protective factors, especially for students facing external challenges, helping them build resilience and persist toward graduation and future goals.

Supportive student-educator relationships

System indicators

- Relationship quality between student and teacher as measured through closeness, commitment, and complementarity (Jowett, S. et al., Teacher-Student relationship quality as a barometer of teaching and learning effectiveness).
- The Student–Teacher Relationship Scale (STRS, Pianta, 1994, 2001; see also Koomen et al., 2012; Koomen & Jellesma, 2015) is the most often used assessment tool that has been specifically developed to examine teachers' perceptions of relationships with their students through three relational dimensions: closeness (interactions and communications are warm and open), conflict (the degree of friction and discordant between the teacher and student), and dependency (the degree to which the student is overly dependent on the teacher). Its conceptual basis is derived from parent–child attachments. Bowlby's (1973) attachment theory describes these attachments as either warm or secure, angry or dependent, and anxious or insecure (Jowett, S. et al., Teacher-Student relationship quality as a barometer of teaching and learning effectiveness).

Practices:

- The National Dropout Prevention Center/ Network's 15 Effective Strategies for Dropout Prevention: Mentoring/Tutoring—Mentoring is typically a one-to-one caring, supportive

relationship between a mentor and a mentee that is based on trust. Mentoring offers a significant support structure for high-risk students. Tutoring, also typically a one-to-one activity, focuses on academic support and is an effective practice when addressing specific needs in collaboration with the student's base teacher (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).

- Students whose relationships with their teachers are characterized by high levels of support and low levels of conflict obtain higher scores on measures of academics, and behavioral adjustment than do students whose relationships with teachers are less positive. Prospective studies find that a more positive teacher-student relationship is associated with a greater sense of school belonging, lower levels of externalizing behaviors, improved peer relationships, and higher achievement. Longitudinal meditational analyses find that the effect of a supportive teacher-student relationship on achievement is due to the direct effect of teacher-student relationship quality on students' engagement in the classroom (Wu, J. et al. Teacher student relationship quality type in elementary grades).

Experiences and Neighborhood Conditions

High school students living in well-resourced communities and receiving strong counseling support are more likely to thrive academically, make informed decisions and successfully transition to college, careers or training after graduation.

13 Do families live in well-resourced neighborhoods?

Why this matters

Neighborhoods play a central role in supporting families' stability and well-being, their access to social and economic opportunities, and their children's chances to thrive and succeed. Neighborhoods are where children experience critical stages of social-emotional and physical development, where social ties form and where people access resources and life opportunities. The ability to find and afford quality housing, to feel welcomed and respected in one's community and social circles, and to have equitable access to local resources all reflect essential aspects of an inclusive neighborhood (Urban Institute).

Students and families in neighborhoods experiencing poverty have limited access to resources and opportunities that promote economic mobility. The size of the middle class in an area is associated with levels of upward mobility. Moving to a lower-poverty area before age 13 improves the likelihood of students eventually attending college and earning more as adults. Economic segregation varies by race, with a higher percentage of Black and Latine people experiencing poverty living in low-income communities compared to white people from similar economic backgrounds (Education-to-Workforce Framework).

Access to affordable housing: A lack of affordable housing leads to material hardships like reduced access to food, clothing, medicine and transportation, while also negatively impacting mental and physical health, such as increased depression among tenants behind on rent and developmental delays in children living in poor housing conditions. This issue is also linked to higher eviction rates, disproportionately affecting families experiencing poverty, women and people of color (Education-to-Workforce Framework). Families experiencing poverty are more likely than middle-income families to live in substandard housing, which is associated with exposure to lead paint, asbestos, mold, roaches and rodents. These conditions can affect children's cognitive functioning and behavior, and can increase the incidence of asthma, which can cause school absences (Annie E. Casey Foundation). Families experiencing poverty also are more likely than middle-income families to move frequently, often causing their children to change schools mid-year. Students who have changed schools two or more times in the previous year are half as likely as their stable peers to read well (Annie E. Casey Foundation).

Well-resourced neighborhoods and family well-being: A well-resourced neighborhood, in contrast, has affordable housing in safe communities, diversity of income and demographics, access to technology, transportation and other resources that help families thrive. Affordable, stable and safe housing is foundational to individual and family well-being. Children who grow up in safe and stable housing are more likely to enter kindergarten ready to learn, succeed in elementary and middle school and graduate from high school. Adults living in stable housing are more likely to complete post-secondary training and obtain and keep high-quality employment. And individuals with lower incomes living in mixed-income neighborhoods tend to experience better outcomes at all life stages (Results for America).

Environmental quality: Good and stable health helps people of all ages surmount life's challenges, excel in school and on the job, ensure their families' well-being and fully participate in their communities. Environmental quality reduces people's risk of health complications that may undermine school or work performance. Access to and usage of health services can help parents ensure that their children receive basic care through critical formative years and enable adults to obtain the tests needed to screen for early detection of diseases, enhancing the likelihood of effective treatment (Urban Institute).

Political participation and representation: Governance that is attentive to the needs of all community members and residents who are deeply engaged in collective decision making are hallmarks of a community that supports upward mobility. A responsive local government empowers the people it serves by ensuring their concerns are addressed. By allocating resources equitably, local governments can help ensure all residents have good prospects for economic success. And when public institutions that are intended to serve and protect communities act with justice and restraint, residents feel that they are valued and respected members of the community (Urban Institute).

Indicators

Contributing indicators

- Percentage of residential units that are unoccupied, or vacant, in a given year, disaggregated by rentals and homeownership (US Census Bureau).
- Average age of housing stock, which helps communities isolate potential issues, like exposure to asbestos and/or lead paint and connect people to resources (US Census Bureau, American Community Survey).
- Student mobility rate (Promise Neighborhoods; The Urban Institute, prepared for U.S. Department Of Education).
- Students experiencing housing instability and changing schools as a result (Data sources: Local SEA, LEA or school records or analysis) (StriveTogether 2021).
- Number of students experiencing housing instability that requires changing schools (StriveTogether 2021).
- Number of students who experience homelessness during the school year (StriveTogether 2021 and Urban Institute).
- Ratio of affordable and available housing units to households with low, very low, and extremely low income levels. Families and individuals need the security and stability of a decent house or apartment they can afford, where family budgets are not stretched too thin to pay for other basic needs like nutritious food, health care, and educational opportunities (Urban Institute).
- Number and share of public school children who are ever homeless during the school year. Housing instability and homelessness represent extreme manifestations of powerlessness and the loss of dignity and belonging, disrupting family stability and undermining both physical and emotional health (Urban Institute).
- Ratio of (1) the number of affordable housing units to (2) the number of households with low and very low incomes in an area (city or county). Housing units are defined as affordable if the monthly costs do not exceed 30 percent of a household's income. Households with low incomes are defined as those earning below 80 percent of area median income (AMI), and very low-income households are defined as those earning below 50 percent of AMI (Education-to-Workforce Framework).
- Percentage of eligible households receiving federal rental assistance (Education-to-Workforce Framework).

System indicators

- There is sufficient availability of affordable housing for the number of families with low incomes in an area (city or county). (Education-to-Workforce).
- Ratio of (1) the number of affordable housing units to (2) the number of households with low and very low incomes in an area (city or county). Housing units are defined as affordable if the monthly costs do not exceed 30 percent of a household's income. Households with low incomes are defined as those earning below 80 percent of area median income (AMI), and very low-income households are defined as those earning below 50 percent of AMI. (Education-to-Workforce).
- Percentage of eligible households receiving federal rental assistance. (Education-to-Workforce).
- Percent of household income spent on rent (StriveTogether 2021).

- Number of affordable and available housing units per 100 households with low, very low, and extremely low incomes. This metric reflects the extent of housing options for households with low incomes. Housing is considered affordable when monthly costs fall at or below 30 percent of a household's income (Urban Institute).
- Location affordability index (StriveTogether 2021).
- Eviction rate (StriveTogether 2021).
- Environmental racism, as measured by air quality index (StriveTogether 2021).
- Environmental racism, as measured by environmental health hazards (StriveTogether 2021).
- Level of public investment in neighborhoods as measured through programs like Opportunity Zones, Community Development Blocks and tax credits (StriveTogether).
- Share of people experiencing poverty who live in high-poverty neighborhoods. A high-poverty neighborhood is where more than 40% of residents are experiencing poverty. This metric reflects the extent of economic segregation in a community (Urban Institute).

Practices and Policies

Practices

- Invest in safe, affordable housing (Alliance for Early Success).
- Balancing resident needs with inspector capacity (Results for America).
- Healthy home environment assessments: Professional home inspections evaluating environmental health risks (Results for America).
- Proactive inspections to help maintain safe and healthy housing. The foundation of many effective programs is a more strategic deployment of a jurisdiction's home inspection capacity. Oftentimes, this includes using data analysis to identify high-risk blocks or neighborhoods and then sending inspectors to walk those areas, conduct visual exterior assessments, speak to residents and schedule proactive inspections (Results for America).
- Raising tenant and landlord awareness about maintaining safe and healthy housing. Many successful programs include a robust education component — often run by inspectors — to help landlords and tenants identify home hazards and other threats to home safety. This can include written materials, videos and public workshops (for instance, walking through a home to demonstrate an inspection). Such efforts also often include information on how to request a home inspection (Results for America).

Policies

- Housing rehabilitation loan and grant programs: Funding in the form of loans and/or grants to income-eligible owner-occupants to assist with repair, rehabilitation and/or reconstruction of homes (Results for America).
- To ensure property owners have the financial capacity to address home hazards, some programs provide income-eligible property owners with grants and/or loans to assist with repair, rehabilitation and/or reconstruction of homes. Funding is often tied to specific forms of home improvement, such insulation, plumbing or mold removal (Results for America).
- Lead paint abatement programs: Programs focused on removing lead-based and contaminated surfaces from homes and other buildings (Results for America).
- Percentage of eligible households receiving federal rental assistance (Education-to-Workforce Framework).
- Ratio of the number of affordable housing units to the number of households with low and very low incomes in an area (by city or county). Housing units are defined as affordable if the monthly costs do not exceed 30% of a household's income. Households with low

incomes are defined as those earning below 80% of area median income (AMI), and very low-income households are defined as those earning below 50 percent of AMI (Education-to-Workforce Framework).

- Adopting rent regulation, eviction prevention, just-cause eviction and right-to-counsel policies to protect tenants (Urban Institute).
- Balancing community development with creating opportunities for residents with low by addressing vacancy and blight; and investing in schools, transportation and job creation (Urban Institute).
- Creating affordable homeownership opportunities, including by providing down payment or closing-cost assistance and expanding access to financing, such as through the use of subsidized or shared appreciation (Urban Institute).
- Creating more dedicated affordable housing, including by subsidizing affordable housing development, establishing incentives for developers to create affordable units (e.g., density bonuses) and exploring ways to build affordable housing on publicly-owned land (Urban Institute).
- Creating permanent supportive housing for individuals and families experiencing chronic homelessness (Urban Institute).
- Enacting foreclosure prevention, property tax relief and rehabilitation assistance programs to assist homeowners (Urban Institute).
- Enforcing fair housing laws (Urban Institute).
- Expanding affordable housing in resource-rich neighborhoods (Urban Institute).
- Increasing the overall housing supply, including by reforming zoning and land-use policies, streamlining permitting processes and creating incentives for developers to build new housing (Urban Institute).
- Preserving subsidized and unsubsidized affordable rental housing (Urban Institute).
- Providing rental assistance to residents and incentivizing landlords to rent to tenants receiving assistance (Urban Institute).
- Reforming property taxes and property assessment processes to ensure that they do not disproportionately burden residents with low incomes (Urban Institute).
- Supporting community development in high-poverty neighborhoods, including incomes to move to more resource-rich communities (Urban Institute).
- Supporting permanently affordable housing models, such as community land trusts (Urban Institute).

Access to technology

Key source: E-W Framework

Indicators

Contributing indicators

- Individuals have access to a reliable Internet connection and a personal desktop or laptop computer (Education-to-Workforce).
- Percentage of individuals who have both (1) access to at least one desktop or laptop computer owned by someone in the home and (2) reliable broadband Internet (Education-to-Workforce).
- Number and percent of students who have school and home access to broadband internet and a connected computing device (Promise Neighborhoods; The Urban Institute, prepared for U.S. Department Of Education).

System indicators

- Access to internet and computer/devices and technical support (StriveTogether 2021).
- Percentage of the community that has access to a desktop or laptop, a smartphone, a tablet or another computer (Data source: American Community Survey) (StriveTogether 2021).
- Percentage of households that have broadband internet subscriptions (Data source: American Community Survey) (StriveTogether 2021).
- Residential fixed broadband deployment (Data source: Federal Communications Commission) (StriveTogether 2021).
- Percentage of individuals who have both (1) access to at least one desktop or laptop computer owned by someone in the home and (2) reliable broadband internet (Education-to-Workforce Framework).
- Share of households with a computer and broadband internet subscription in the home. This metric reflects a community's digital divide by measuring in-home access to a computer and the internet, including DSL, cable modem, cellular data and fiber connections. Without reliable access to online resources, young people and adults are locked out of opportunities to learn, build skills, and gain the credentials they need to advance economically (Urban Institute).
- State has a broadband task force/commission to promote broadband access (National Council of State Legislatures).

Practices and Policies

Practices

- Connectivity: Even when learning is in-person, students and their families need internet access, proper equipment and training on utilizing online learning platforms to complete school-based learning and assignments. This access allows for greater access to learning opportunities and also ensures they can obtain learning materials if they must stay home. School districts should determine which students do not have internet access and equipment and determine through partnership with local and state governments, along with community partners how to secure the resources to address gaps. Districts and schools should also assess whether school staff have access to needed technology and equipment and the skills to use them. (Attendance Works, Expanded Metrics).
- Technology to support learning and assessment in the classroom and online (Annie E. Casey Foundation).
- Local and state coalitions who advocate for access to broadband with city and state officials and by partnering with telecommunications companies (National Council of State Legislatures).
- Addressing financial barriers to home broadband internet access, including by providing direct cash transfers or subsidies for the costs of broadband service and devices, such as laptops, tablets and phones (Urban Institute).
- Addressing physical barriers to home broadband internet access, such as the lack of appropriate infrastructure or wiring (Urban Institute).
- Creating free, public options for accessing the internet, including by providing Wi-Fi in public, accessible spaces like libraries (Urban Institute).
- Providing digital literacy training for residents, particularly underserved residents, to close the digital divide (Urban Institute).

Policies

- State subsidizes broadband subscriptions for families with limited incomes (FCC).[1]
- Federal Bipartisan Infrastructure Law: Offers broadband infrastructure and digital equity grants (Connected Nation).
- Smart Cities policies and resources.

1 Federal funding for this program has ended but we chose to include it so that communities see what federal programs can look like.

Indicators

Contributing indicators

- Individuals have access to low-cost and timely transportation to commute to school or work (Education-to-Workforce).
- Average commute time to work, school, or college (Education-to-Workforce).
- The Low Transportation Cost Index, from the U.S. Department of Housing and Urban Development (Education-to-Workforce).
- Distance to school and average student travel time (Birth to Grade 3 Indicator Framework, 2017).
- Average travel time to school (Data sources: Local SEA, LEA or school records or analysis) (StriveTogether 2021).
- Average travel time to work (Data sources: Center for Neighborhood Technology; American Community Survey) (StriveTogether 2021).
- Percentage of workers who commute by walking and by biking (Data sources: Center for Neighborhood Technology; American Community Survey) (StriveTogether 2021).
- Trips made to work by mass transit (Data sources: Center for Neighborhood Technology; American Community Survey) (StriveTogether 2021).
- Access to mass transit departure and arrival points (Measuring Accessibility).
- Share of income spent on transportation. This metric reflects how much households spend on both public transit and cars (Urban Institute).
- Transit trips index and transportation cost index. Without accessible transportation options, families may be unable to take advantage of opportunities for work and education, or they may have to trade expensive commutes for other needs and goods (Urban Institute).

System indicators

- Transit trips index. This metric reflects a community's access to public transportation. It is percentile-ranked nationally based on the number of public transit trips taken annually by an average household earning 80% of the area median income (Urban Institute).

Practices and Policies

Practices

- Complete Streets approach to ensure the design of streets balance the needs of different modes of transportation, support local land uses, economies, cultures and natural environments (Smart Growth America).
- Districts and schools explore transportation solutions to help students living far from school participate in sports or afterschool programs. (Promise Partnership Utah).
- The United Way of Central Minnesota notes that a challenge in regards to transportation is that students within 2 miles of the school will not be picked up by the bus. This has students to the extent that some transfer schools twice within a single school year to access transportation during winter months. (United Way of Central Minnesota).

Policies

- Complete Streets policies (Smart Growth America).
- Availability of public transportation subsidies for students (Data sources: Local SEA, LEA or school records or analysis) (StriveTogether 2021).
- Affordable housing within walking distance from public transportation (Data source: Center

for Neighborhood Technology) (StriveTogether 2021).

- Transit connectivity index (Data source: Center for Neighborhood Technology) (StriveTogether 2021).
- Encouraging housing development near transit, including affordable housing and housing for people with disabilities (Urban Institute).
- Expanding transportation options, including public transportation, such as buses and light rails, and active transportation, such as bike lanes and sidewalks (Urban Institute).
- Improving the quality and frequency of public transportation (Urban Institute).
- Improving transportation accessibility for people with mobility challenges, including by creating paratransit systems and ensuring existing transit is accessible to people with disabilities (Urban Institute).
- Reducing barriers to using public transportation, including by providing fare subsidies, making systems easy to navigate (e.g., having clear signage and route maps in multiple languages), and centralizing fares across different modes of transportation (Urban Institute).

Exposure to neighborhood crime

Key source: E-W Framework

Indicators

Contributing indicators

- Number and percentage of students who feel safe at school and traveling to and from school, as measured by a school climate survey (Promise Neighborhoods; The Urban Institute, prepared for U.S. Department Of Education).
- Proportion of children with a parent or guardian who has served time in jail (Data source: Health Resources and Services Administration) (StriveTogether 2021).

System indicators

- Rate of violent felonies and property felonies by city or county (number of incidents per 100,000 residents). (Education-to-Workforce).
- Rates of reported violent crime and property crime. Exposure to crime, even if one is not a direct victim, can contribute to stress, depression, and anxiety in youth and adults, and teens who are exposed to high levels of violent crime are more likely to engage in criminal activity themselves. (Data source: Federal Bureau of Investigation) (StriveTogether 2021) (Urban Institute).
- Rate of juvenile arrests by city or county (number of arrests per 100,000 residents) (Education-to-Workforce Framework).
- Rate of juvenile justice arrests (Data source: Federal Bureau of Investigation) (StriveTogether 2021).
- Rate of violent felonies and property felonies by city or county (number of incidents per 100,000 residents) (Education-to-Workforce Framework).
- Creating reentry supports for those recently released from jail or prison (Urban Institute).
- Implementing restorative justice approaches, which can help reduce recidivism (Urban Institute).
- Improving neighborhoods by redeveloping vacant or abandoned properties, installing street lighting and supporting community development activities (Urban Institute).
- Improving residents' financial security, including by strengthening the social safety net and reducing obstacles to accessing public benefits (Urban Institute).
- Preventing gun violence by limiting access to firearms and raising awareness of gun safety best practices (Urban Institute).

- Promoting community-led violence prevention initiatives, which identify residents at highest risk and intervene before conflict occurs (Urban Institute).
- Shifting toward evidence-based policing, in partnership with communities (Urban Institute).

Neighborhood economic diversity

Key source: E-W Framework

Indicators

Contributing indicators

- The concentration of poverty within a city or county. Percentage of city or county residents experiencing poverty who live in a high-poverty neighborhood (defined as a neighborhood in which more than 40 percent of residents experience poverty). (Education-to-Workforce).
- Percentage of children under age 6 living in neighborhoods in which more than 20% of the population lives in poverty (Rhode Island Kids Count).

System indicators

- Percentage of city or county residents experiencing poverty who live in a high-poverty neighborhood (defined as a neighborhood in which more than 40% of residents experience poverty) (Education-to-Workforce Framework).
- Percentage of families who have lived in poverty for two generations or more (Brookings Institute).
- Share of residents experiencing poverty who live in high-poverty neighborhoods. Economic segregation excludes families with low incomes from well-resourced and opportunity-rich neighborhoods, undermines their sense of belonging, and creates neighborhoods of concentrated poverty and distress, which damage their children's long-term prospects (Urban Institute).

Practices and Policies

Practices

- ImpactTulsa's Child Equity Index: ImpactTulsa is a collective impact organization in the StriveTogether Cradle to Career Network that works with local partners in the Tulsa, Oklahoma area to advance more equitable outcomes. The Child Equity Index, a data tool developed by ImpactTulsa in partnership with Tulsa Public Schools, aims to help partners better understand the landscape of opportunity and systemic inequities in the Tulsa area. The index uses more than 40 indicators to measure environmental conditions across six domains of influence: (1) student-level factors, (2) neighborhood health, (3) neighborhood socioeconomic status, (4) neighborhood safety, (5) neighborhood pride and custodianship, and (6) neighborhood access. The index uses student addresses to attach "place-based" measures to neighborhood environments, defined using census tract and zip code geographic boundaries. The index also uses a Neighborhood Model to measure the relationship between environmental conditions and students' academic outcomes. Findings from the Child Equity Index have sparked conversation about systemic inequities in Tulsa and have translated into action for students and families. For example, when Internet access maps by census tract revealed inequities in access for low-income communities and communities of color, local school districts adjusted their remote learning strategies, and their partners launched a City of Tulsa Internet Access Taskforce. (Education-to-Workforce).

Neighborhood juvenile arrests

Key source: E-W Framework

Indicators

Contributing indicators

- Rate of juvenile arrests by city or county (number of arrests per 100,000 residents) (Education-to-Workforce).

Practices and Policies

Practices

- Examining juvenile arrest rates by type of offense (for example, drug abuse violation, curfew and loitering, disorderly conduct, etc.) can also help data users better understand community dynamics and inequities in policing (Education-to-Workforce).
- Examine data on post-arrest handling of juvenile cases (For example, users could examine whether youth are referred to juvenile court after arrest or diverted from formal court processing (Education-to-Workforce).

Neighborhood racial diversity

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of an individual's neighbors who are members of other racial or ethnic groups, calculated as a Neighborhood Exposure Index. (Education-to-Workforce).
- Neighborhood exposure index, or share of a person's neighbors who are people of other races and ethnicities (Data source: American Community Survey) (StriveTogether 2021).
- Percentage of an individual's neighbors who are members of other racial or ethnic groups, calculated as a Neighborhood Exposure Index (Education-to-Workforce Framework).
- Proportion of community residents who are immigrants (Data source: National Equity Atlas) (StriveTogether 2021).
- Ratio of the share of local elected officials of a racial or ethnic group to the share of residents of the same racial or ethnic group (Data sources: American Community Survey; local elections data) (StriveTogether 2021).
- Share of the voting-eligible population who are registered to vote and share who turn out to vote (Data source: Census) (StriveTogether 2021).
- Index of people's exposure to neighbors of different races and ethnicities. Racially and ethnically diverse neighborhoods are hallmarks of inclusive communities. This metric calculates separately for each racial or ethnic group the average share of that group's neighbors who are members of other racial or ethnic groups (Urban Institute).

Practices and Policies

Practices

- Narrowing racial homeownership gaps, including by creating affordable homeownership opportunities for households of color (Urban Institute).
- Reducing housing discrimination in the private market, including by enacting source-of-income

laws and funding fair housing organizations (Urban Institute).

- Reforming zoning policies to allow for more diverse, high-density, mixed-income communities (Urban Institute).

Environmental quality

Indicators

Contributing indicators

- Air quality. Carcinogenic, respiratory and neurological toxins in the air can harm people's health. A higher value for this metric indicates better air quality and lower exposure to toxins (Urban Institute).

Practices and Policies

Practices

- Addressing home health hazards, such as lead paint and pipes, to foster safe and healthy home environments (Urban Institute).
- Developing parks and other green spaces to absorb carbon and improve air quality (Urban Institute).
- Improving the quality and frequency of public transportation and encouraging housing development near transit to reduce reliance on personal vehicles (Urban Institute).
- Incentivizing private-sector actors to reduce their carbon footprints, including by leveraging government procurement and contracting procedures (Urban Institute).
- Investing in green infrastructure, such as permeable pavements, that can help mitigate exposure to environmental stressors like extreme heat (Urban Institute).
- Reducing the carbon footprint of all public-sector operations, including by transitioning to clean energy sources, electrifying bus and vehicle fleets, retrofitting city-owned buildings and implementing other energy efficiency measures (Urban Institute).

Just policing

Indicators

Systems indicators

- Juvenile arrests per 100,000 juveniles. High number of arrests among young people, ages 10 to 17, is a strong indicator of elevated criminal legal system involvement and over policing. This metric includes arrests for any crime or status offense (Urban Institute).

Policies

Policies

- Creating community responder or co-responder programs for nonviolent emergencies, such as mental health or behavioral crises, domestic disputes, traffic safety issues and homelessness (Urban Institute).
- Creating diversion programs and other alternatives to arrest, trial and incarceration (Urban Institute).

- Improving police officer recruitment, retention and training, as well as addressing officer wellness (Urban Institute).
- Minimizing the use of over-policing strategies, including stop-and-frisk, pretextual and non-safety-related traffic stops and "broken windows" policing (Urban Institute).
- Shifting funding from police departments to other local agencies where appropriate, such as funding programs in schools to address truancy instead of relying on police officers to enforce truancy laws (Urban Institute).
- Shifting toward evidence-based policing, in partnership with communities (Urban Institute).
- Supporting greater police accountability, including by publishing data on police misconduct and use of force, advocating for the reform of qualified immunity and creating civilian oversight boards that operate independently of law enforcement agencies (Urban Institute).

Political participation and representation

Indicators

Systems indicators

- Ratio of the share of local, elected officials of a racial or ethnic group to the share of residents of the same group. Political scientists commonly use this metric to capture the extent to which racial and ethnic groups are represented by their community's elected leaders (Urban Institute).
- Share of the voting-age population who turns out to vote. Voter turnout is a well-established and broadly available reflection of political engagement in a community (Urban Institute).
- Number of membership associations per 10,000 people and ratio of Facebook friends with higher socioeconomic status to Facebook friends with lower socioeconomic status. Social networks help connect people across lines of income, education, and identity, enabling them to share information and other resources that support well-being, connect to opportunities for advancement, and strengthen feelings of belonging (Urban Institute).

Policies

Policies

- Adopting direct democracy practices, such as participatory budgeting, to empower community members and encourage them to participate in local governance (Urban Institute).
- Creating public financing systems for local elections (Urban Institute).
- Reducing barriers to voting, including by automatically registering voters, expanding the number of voting sites and their voting hours and offering additional options, such as mail-in, early and absentee voting (Urban Institute).
- Restoring voting rights to formerly incarcerated people (Urban Institute).
- Scheduling local elections to coincide with state or national elections, which can lead to a more representative electorate (Urban Institute).
- Scheduling local elections to coincide with state or national elections (Urban Institute).
- Strengthening and diversifying the local government workforce, including by investing in hiring, recruitment, training and compensation (Urban Institute).

- Strengthening civics education courses in schools (Urban Institute).
- Supporting labor unions and the right to organize (Urban Institute).
- Switching from at-large to district elections, adopting proportional representation systems and moving to choice voting or cumulative voting systems to make local governments more representative of their constituents (Urban Institute).

Community resources

Practices and Policies

Practices

- GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs): The federal program is a comprehensive intervention program and is tasked with equalizing access to higher education for low- income students. The GEAR UP grantees are charged with establishing partnerships among school districts, colleges and other organizations to operate the projects; and states and partnerships are awarded six- year grants to provide the services at high-poverty middle and high schools. (Bridget Terry Long, Dropout Prevention and College Prep).
- Upward Bound: One of the largest and longest running federal programs, Upward Bound is "designed to generate skills and motivation necessary for success in education beyond high school among young people from low- income backgrounds and inadequate secondary school preparation" (Public Law 90- 222, December 23, 1967). (Bridget Terry Long, Dropout Prevention and College Prep).
- Talent Search: The Talent Search program was created in 1965 as one of the original federal TRIO programs, which also includes Upward Bound (discussed in the previous section). The program is designed to help low- income, first generation college students prepare for and gain access to college by providing information on the types of high school courses students should take to prepare for college and on the financial aid available to pay for college. The program also helps students complete financial aid applications and navigate the college application process. (Bridget Terry Long, Dropout Prevention and College Prep).
- Project GRAD: First launched in Houston, Texas, Project Graduation Really Achieves Dreams (Project GRAD) is designed to improve academic achievement, high school graduation rates, and rates of college attendance for low- income students. It does this by first trying to help students arrive at high school better prepared academically by implementing a specific reading and math curricula, along with enhanced professional development for teachers, at the elementary and middle school levels. At the high school level, Project GRAD offers special academic counseling and summer academic enrichment and a college scholarship (Bridget Terry Long, Dropout Prevention and College Prep).
- AVID: The Advancement Via Individual Determination (AVID) Program targets students in fifth through twelfth grade with the hope of helping students who are capable of completing a rigorous curriculum but currently fall short of their potential. Many of AVID's students are from low- income or minority families. To improve outcomes, AVID attempts to enroll students in more challenging classes, including honors and advanced placement (AP) courses. Students also enroll in the AVID elective, in which they learn

organizational and study skills, work on critical thinking, and get academic help from peers and college tutors. (Bridget Terry Long, Dropout Prevention and College Prep).

- Puente Project: The Puente Project is an outreach program with the goal of increasing the number of educationally disadvantaged students who enroll in four year institutions, earn degrees, and return to the community as mentors. Although it services all kinds of students, Puente targets Latino students in particular as an original goal was to increase the number of Latino students attending the University of California. The program includes a rigorous counseling component in which participants meet with trained community members. Students must also meet at least monthly with teachers and advisors to discuss challenges and life choices. Their parents must also sign a statement agreeing to support the student and attend necessary meetings. (Bridget Terry Long, Dropout Prevention and College Prep).

14 Do families with children have access to public support (i.e. health care access, nutrition programs, economic support, etc.)?

Why this matters

Access to public support programs significantly influences high school students' ability to graduate by mitigating economic hardships and fostering stable, supportive environments conducive to learning.

Programs such as the Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance for Needy Families (TANF) provide essential financial resources to families experiencing poverty. These supports alleviate economic stress, enabling parents to better meet their children's basic needs and invest in their education. Studies have shown that access to cash assistance and income supports correlates with increased high school and college graduation rates, as well as higher overall educational attainment (Urban Institute).

Stable housing is crucial for academic success. Rental assistance programs reduce the incidence of health problems among children, leading to fewer school absences due to illness. This effect is particularly pronounced among adolescents, who benefit significantly from improved living conditions (National Library of Medicine).

Public support programs play a critical role in promoting high school graduation by addressing the underlying economic and social challenges that can impede educational success. By ensuring families have access to necessary resources, these programs help create stable environments where students can thrive academically.

Indicators

Systems indicators

- Percentage of births to mothers with less than a 12th grade education (Rhode Island Kids Count).
- Births to teens ages 15-17 per 1,000 girls (Project Thrive, NCCP).
- Childhood Migrant Education Program participant (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Foster youth status (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Individuals have not experienced repeated traumatic events within home environments. Childhood experiences such as maltreatment, interparental violence, family disruption, poverty, and stress all have a negative impact on children's development and lifelong outcomes. (Education-to-Workforce).
- Percentage of individuals with fewer than three ACEs. (Education-to-Workforce).
- Physical, sexual and emotional abuse in childhood (Head Start ECLKC).
- Emotional and physical neglect in childhood (Head Start ECLKC).
- Children living with a family member with mental health or substance use disorders (Head Start ECLKC).
- Witnessing domestic violence in childhood (Head Start ECLKC).
- Sudden separation from a loved one in childhood (Head Start ECLKC).
- Childhood poverty (Head Start ECLKC).
- Racism and discrimination in childhood (Head Start ECLKC).
- Violence in the community during childhood (Head Start ECLKC).
- Percentage of individuals with fewer than three Adverse Childhood Experiences (ACEs) (Education-to-Workforce Framework).
- Reduced exposure of children to adverse childhood experiences (Campaign for Grade-Level Reading).
- Children in households where the household head has graduated high school. (Note: Those who have a GED or equivalent are included as high school graduates.) (Data source: U.S. Census Bureau, American Communities Survey.) (Annie E. Casey Foundation).
- Number of U.S. children living in poverty with asthma (Campaign for Grade-Level Reading).

System indicators

- Deaths caused by injury per 100,000 people. These deaths both reflect and cause trauma in a community. They include planned deaths (e.g., homicides or suicides) and unplanned deaths (e.g., from motor vehicle and other accidents) (Urban Institute).

Practices and Policies

Practices

- AVANCE Parent-Child Education Program (PCEP): Nine-month intensive bilingual program for child development (Results for America).
- Triple P Spartanburg (Positive Parenting Program): Free services to help develop parenting skills and understanding of child development (Triple P Spartanburg).
- Hello Family Spartanburg: Parent support and education initiative (Hello Family Spartanburg).

- ParentCorps: Early childhood, family-centered intervention that takes place in schools and Head Start programs (Results for America).
- Evidence-based home visiting programs (Prenatal-to-3 Policy Impact Center).
- Lead paint inspection and abatement (Rhode Island Kids Count).

Policies

- Creating targeted supports for vulnerable groups, including children and young people — particularly those in foster care and those returning from juvenile detention — and survivors of domestic or intimate partner violence (Urban Institute).
- Fostering positive learning environments for students, including by developing programs that prevent bullying, moving away from punitive disciplinary practices and applying other trauma-informed practices (Urban Institute).
- Improving traffic safety by implementing calming measures, building complete streets and creating safer environments for pedestrians and bicyclists (Urban Institute).
- Increasing access to mental health services, including substance use treatment and prevention (Urban Institute).
- Preventing gun violence by limiting access to firearms, keeping guns out of schools and raising awareness of gun safety best practices (Urban Institute).
- Strengthening workplace safety regulations and creating paid sick leave and predictable scheduling laws to enhance worker well-being (Urban Institute).

Food security

Key source: E-W Framework

Indicators

Contributing indicators

- Individuals have access to enough affordable, nutritious food.
- Percentage of individuals with high or marginal food security, as measured by the U.S. Department of Agriculture's (USDA) Food Security Survey Module. (Education-to-Workforce).
- Percentage of eligible individuals participating in SNAP. (Education-to-Workforce).
- Percentage of individuals living in a census track with low access to healthy food, as defined by the USDA's Food Access Research Atlas. (Education-to-Workforce).
- Percentage of individuals with high or marginal food security, as measured by the U.S. Department of Agriculture's (USDA) Food Security Survey Module (Education-to-Workforce Framework).
- Percentage of eligible individuals participating in SNAP (Education-to-Workforce Framework).
- Percentage of individuals living in a census track with low access to healthy food, as defined by the USDA's Food Access Research Atlas (Education-to-Workforce Framework).
- Number of food-insecure children in the U.S. (Campaign for Grade-Level Reading).
- Number of children who receive free lunch during the summer (Campaign for Grade-Level Reading).
- Percentage of eligible units with children under age 18 not receiving SNAP (Prenatal to 3 Policy Impact Center).
- Percentage of households reporting child food insecurity (Prenatal to 3 Policy Impact Center).
- Number and percent of children who consume five or more servings of fruits and vegetables daily (Promise Neighborhoods; The Urban

Institute, prepared for U.S. Department Of Education).

- Percentage of eligible individuals receiving WIC benefits (U.S. Department of Agriculture).
- Percentage of eligible units with children under age 18 not receiving SNAP (Desired outcome: Families have access to necessary services through expanded eligibility, reduced administrative burden or programs to identify needs and connect families with services) (Prenatal to 3 Policy Impact Center).

System indicators

- Percentage of eligible individuals participating in SNAP (Education-to-Workforce Framework).
- Percentage of individuals living in a census tract with low access to healthy food, as defined by the USDA's Food Access Research Atlas (Education-to-Workforce Framework).
- Percentage of individuals with high or marginal food security, as measured by the U.S. Department of Agriculture's (USDA) Food Security Survey Module (Education-to-Workforce Framework).
- Proportion of eligible students participating in the School Breakfast Program (Data source: U.S. Department of Agriculture) (StriveTogether 2021).
- Proportion of households experiencing food insecurity (Data sources: Census, Child Protective Services) (StriveTogether 2021).

Practices and Policies

Practices

- Support health and affordable food options in high-poverty neighborhoods (Alliance for Early Success).
- Increase participation of families, child care providers, schools, and communities in federal nutrition programs (Alliance for Early Success).
- Summer food programs keep kids healthy when school is out (Campaign for Grade-Level Reading).
- Breakfast at school improves attendance and learning (Campaign for Grade-Level Reading).
- Reduced Administrative Burden for SNAP (Prenatal to 3 Policy Impact Center).

Policies

- States expand access to WIC benefits (e.g., increasing income threshold, extending benefits for postpartum people).
- Child and Adult Care Food Program (CACFP): Allows educational programs in eligible low-income areas to serve a free meal and/or snack to students 18 and younger (No Kid Hungry).

Healthcare access and insurance coverage

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of individuals with health insurance. This measure captures participation in any insurance program, including those offered by the government (such as CHIP and Medicaid), employers, or community clinics, as well as those that individuals purchase (for example, through Health Insurance Marketplaces). Multiple surveys measure health insurance coverage and can be adapted for use by educational institutions or employers. At the national level, they include the Current

Population Survey, Medical Expenditure Panel Survey, National Health Interview Survey, and Survey of Income and Program Participation. (Education-to-Workforce).

- Percentage of eligible individuals (children or adults) enrolled in Medicaid or CHIP. This information can be used to support families with low incomes in enrolling in these programs. (Education-to-Workforce).
- Percentage of individuals with health insurance (Education-to-Workforce Framework).
- Percentage of eligible individuals (children or adults) enrolled in Medicaid or CHIP (Education-to-Workforce Framework).
- Percent of uninsured U.S. children overall and percent of uninsured U.S. children who are living in poverty (Campaign for Grade-Level Reading).
- Percent of children nationally without a medical home. A medical home is a health care setting that patients visit regularly for their primary care needs, building familiarity and consistency with care providers (Campaign for Grade-Level Reading).

System indicators

- Ratio of population per primary care physician. Access to health services is essential to both preventive care and treatment of health conditions, enabling people to enjoy the good health that facilitates success in school, work, and social relationships (Urban Institute).
- Air quality index. Environmental hazards expose people to health risks that threaten their quality of life and may undermine school and work performance (Urban Institute).
- Deaths due to injury per 100,000 people. Exposure to trauma affects children's brain and socioemotional development; undermines people's feelings of connection, agency, and self-efficacy; and interferes with capacities for school and work success (Urban Institute).

Practices and Policies

Practices

- Expand outreach to ensure access to affordable, physical, oral, and mental health insurance coverage for children and parents (Alliance for Early Success).
- Simplify enrollment to ensure access to affordable, physical, oral, and mental health insurance coverage for children and parents (Alliance for Early Success).
- Eliminate barriers to retention to ensure access to affordable, physical, oral, and mental health insurance coverage for children and parents (Alliance for Early Success).
- Address health care shortages —both of providers who accept Medicaid/CHIP, and of providers who offer specialized care (e.g., dental care, mental health, developmental specialists) (Alliance for Early Success).
- Increase access to comprehensive health (medical) homes that identify and respond to the physical, social, and emotional determinants of health (Alliance for Early Success).
- Prioritize funding for prevention programs, including those delivered outside of traditional medical settings (Alliance for Early Success).
- Implement health care data systems to track and improve referral and follow-up services (Alliance for Early Success).
- Improve coordination between IDEA Part B and C, primary care, and public health programs (Alliance for Early Success).
- Access to high-quality, affordable, comprehensive health care (including preventative, acute, emergency, and chronic care) for physical, mental, and oral health for all families with infants and young children (Annie E. Casey Foundation).
- Policies and programs which would increase access to health insurance for children and to improved education for parents, particularly in low-income families, could play an important

role in fostering children's educational success. In families, parents are the first teachers, preparing their children to read simply by talking and reading to them frequently. Parents can be the first to spot health and developmental problems that may lead to reading difficulties. But parents don't always know what to look for or how to help their children, and access to health care is essential. Poverty is strongly associated with lack of health insurance coverage. For example, 10 percent of people in families with incomes of $50,000 or more are not covered by health insurance, but this jumps 19 percent for those with family incomes between $25,000 and $49,999, and to 29 percent for those with family incomes below $25,000. Children in poor families also are more likely than their peers to have parents with limited education, because lower education is associated with earning lower incomes. (Annie E. Casey, Double Jeopardy).

Policies

- Expanding Medicaid, under the Affordable Care Act, eligibility significantly increases access to healthcare for low-income families and children. States that expanded Medicaid have seen higher rates of insured children, better access to preventive care, and improved health outcomes. States like New Mexico and Oregon have seen significant declines in uninsured rates after expansion (Centennial Care Medicaid; Oregon Health Plan).
- Expanding School Based Health Centers allows students to access medical, dental, and mental health services in schools. Medicaid reimbursement for SBHC services ensures financial sustainability. Colorado and Maryland use Medicaid billing to fund SBHCs, improving student health and attendance (Colorado Department of Public Health and Environment; Maryland Public Schools).
- California, Illinois, and Washington offer coverage to all children, including undocumented minors, extending Medicaid/CHIP-like coverage to all children, regardless of immigration status (California Budget and Policy Center; Illinois Department of Human Services; Washington State Health Care Authority).
- Continuous eligibility policies for Medicaid and CHIP benefits ensures children maintain Medicaid/CHIP coverage for 12 months, even if family income fluctuates.
- Streamlining Medicaid/CHIP enrollment through automatic data matching with other public programs (e.g., SNAP). Reduces paperwork and administrative barriers for families. Louisiana uses data-driven auto-enrollment to increase child health coverage rates (Louisiana Department of Health).
- Universal child health insurance. In 1998, an Institute of Medicine committee found that "insurance coverage is the major determinant of whether children have access to health care," and that uninsured children are "most likely to be sick as newborns, less likely to be immunized as preschoolers, less likely to receive medical treatment when they are injured, and less likely to receive treatment for illnesses such as acute or recurrent ear infections, asthma, and tooth decay." Other studies have verified that after enrolling in the Children's Health Insurance Program, children's unmet health needs fall by 50 percent or more and their routine health, dental and asthma care improves in terms of both access and quality. Despite gains made under the Affordable Care Act, however, the United States is still far from ensuring that all children have health insurance (Campaign for Grade-Level Reading).
- Ensure a medical home for every child. A medical home is a health care setting that patients visit regularly for their primary care needs, building familiarity and consistency with care providers. Care typically is provided by a team of practitioners including physicians, medical assistants, nurses, nurse practitioners and care coordinators. The American Academy

of Pediatrics (AAP) defines a medical home for infants and children as having well-trained primary care physicians who are known to the child and family, able to develop "a partnership of mutual responsibility and trust," and able to help manage and facilitate all aspects of pediatric care. Medical homes are especially important for medically underserved children, who often have more "chronic conditions and economic, geographic, and psychosocial factors" that combine to aggravate medical problems (Campaign for Grade-Level Reading).

- Medi-Cal status: California's Medicare health care program (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).

Economic stability

Indicators

Contributing indicators

- Results of a longitudinal study of nearly 4,000 students shows that poverty has a powerful influence on graduation rates. The combined effect of reading poorly and living in poverty puts these children in double jeopardy. (Annie E. Casey, Double Jeopardy).
- Percent of children not graduating from high school by age 19, disaggregated by poverty experience (i.e. children in families who have experienced at least one year below the poverty threshold.) Overall, 22 percent of children who have lived in poverty do not graduate from high school, compared to 6 percent of those who have never been poor. This rises to 32 percent for students spending more than half of their childhood in poverty. For children who were poor for at least a year and were not reading proficiently in third grade, the proportion that didn't finish school rose to 26 percent. That's more than six times the rate for all proficient readers. (Annie E. Casey, Double Jeopardy).
- Even among poor children who were proficient readers in third grade, 11 percent still didn't finish high school. That compares to 9 percent of subpar third grade readers who have never been poor. Among children who never lived in poverty, all but 2 percent of the best third grade readers graduated from high school on time. (Annie E. Casey, Double Jeopardy).

System indicators

- Family income level (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Household income at 20th, 50th and 80th percentiles. This metric captures the financial resources available to low-, middle-, and high-income households and the extent of income inequality in a community. Larger gaps between values for the three income groups indicate greater inequities (StriveTogether 2021 and Urban Institute).
- People with overdue debt typically have few assets or negative wealth (StriveTogether 2021 and Urban Institute).
- Household income and incarceration for children from low-income households (StriveTogether 2021).
- Income segregation and intergenerational mobility across colleges (StriveTogether 2021).
- Pay on an average job compared with the cost of living. This metric reflects the supply of jobs in a community that pay enough to meet the local cost of a family's basic needs (Urban Institute).

- Ratio of the share of total home values owned by a racial or ethnic group to the share of households of the same group. This metric shows the degree of racial and ethnic disparity in housing wealth. The larger the difference between the two values, the greater the inequities (Urban Institute).
- Share of adults in the community ages 25 to 54 who are employed. This is a common metric for measuring employment levels among prime-age workers, also known as the employment-to-population ratio (Urban Institute).
- Households that have at least $400 in emergency savings (The Federal Reserve Bank).
- Ratio of pay on the average job to the cost of living. Living-wage jobs provide opportunities for work that enable people to meet their families' financial needs, supporting both economic success and feelings of dignity and autonomy. (Urban Institute)
- Share of households with debt in collections. Opportunities to accumulate even modest savings can help families weather destabilizing events, such as a period of unemployment or an unexpected expense, providing a sense of autonomy and control and supporting family stability. (Urban Institute)

Practices and Policies

Practices

- Incentivize economic development that brings living-wage jobs into neighborhoods where lack of opportunity brings all of the problems associated with unemployment and concentrated poverty (Alliance for Early Success).
- Adopt policies that support flexible work schedules for parents (Alliance for Early Success).
- Increase access to public benefits and tax credits that provide income or other supports to help families meet basic needs and maintain stable housing and employment (Alliance for Early Success).
- Support paid family leave and work exemptions that foster nurturing relationships and responsive caregiving, build parental resilience, and provide security for children (Alliance for Early Success).
- Fair work scheduling (Prenatal to 3 Policy Impact Center).

Policies

- CalWORKS status: California's work opportunity program that provides temporary financial assistance and employment-focused services to families with children who are minors whose income and property are below state maximum limits for their family size (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Child allowance (Prenatal to 3 Policy Impact Center).
- Income support programs (Rhode Island Kids Count).
- Paid family leave (Prenatal to 3 Policy Impact Center).
- Paid sick leave (Prenatal to 3 Policy Impact Center).
- State earned income tax credit (Prenatal to 3 Policy Impact Center).
- State minimum wage (Prenatal to 3 Policy Impact Center).
- Two-generation programs for parental employment (Prenatal to 3 Policy Impact Center).
- State child tax credits that are fully refundable (IRS).
- Adopting community wealth-building strategies, such as establishing a public bank, supporting cooperatives and worker-owned businesses, implementing progressive procurement policies and supporting community land trusts and other models of collective ownership (Urban Institute).

- Establish baby bonds, publicly-funded child trust accounts designed to address racial/ethnic wealth inequality (Prosperity Now).
- Creating a local living-wage ordinance that requires employers to pay wages higher than the federal minimum wage (Urban Institute).
- Creating programs that allow renters to earn equity through their rent payments and share in the long-term appreciation of their homes (Urban Institute).
- Creating workforce development programs that support workers in reskilling and upskilling, such as public-sector apprenticeships (Urban Institute).
- Creating matched savings accounts for residents with low and moderate wealth (Urban Institute).
- Establishing a local reparations program to make amends for historical harms and address the structural roots of ongoing wealth disparities (Urban Institute).
- Helping families with low and moderate incomes overcome barriers to homeownership, such as by providing down payment assistance (Urban Institute).
- Helping parents access high-quality and affordable child care (Urban Institute).
- Helping residents access financial services and build credit safely, including by regulating predatory lending practices, such as payday loans (Urban Institute).
- Increasing wages for local government workers (Urban Institute).
- Investing in infrastructure and other amenities (e.g., roads, public transit, parks and schools), which both creates jobs and enhances longer-term employment opportunities for residents (Urban Institute).
- Investing in baby bonds and other child development accounts (Urban Institute).
- Investing in job placement services and supports to help residents find stable jobs, including transitional and reentry support programs (Urban Institute).
- Leveraging public procurement processes to incentivize employers to pay living wages (Urban Institute).
- Partnering with large community-serving institutions, such as universities and hospitals, to funnel capital and resources toward improving local communities (Urban Institute).
- Prioritizing job quality in addition to wages, such as by supporting employee-owned businesses, integrating job-quality requirements in local government contracts and recognizing "high road" employers that pay living wages and provide other elements of high-quality jobs, such as paid leave, workplace flexibility and stable scheduling (Urban Institute).
- Providing local entrepreneurs and small-business owners with the support they need to succeed, including capital and technical assistance (Urban Institute).
- Providing direct cash transfers to residents, such as through guaranteed income programs or local tax credits (Urban Institute).
- Providing financial education and counseling services to residents (Urban Institute).
- Reforming government fines and fees, which disproportionately affect residents with low incomes and wealth (Urban Institute).
- Strengthening and diversifying the local government workforce, including by investing in recruitment, training and retention (Urban Institute).
- Strengthening the social safety net and reducing obstacles to accessing public benefits, such as asset limits (Urban Institute).
- Supporting existing employers, particularly locally-owned businesses, to grow and thrive (Urban Institute).
- Supporting residents in accessing and completing postsecondary education (Urban Institute).

Navigating public services

Practices

Practices

- Reduce barriers to participation in public benefit programs (e.g., TANF, Head Start, child care subsidy, SNAP and WIC, Medicaid/CHIP, and the EITC) with universal on-line applications and aligned eligibility and enrollment policies (Alliance for Early Success).
- Employ navigators, centralize referral resources, and invest in hub strategies that integrate supports for parents and children in settings where families are (Alliance for Early Success).
- Connect education and job training opportunities for parents with access to high quality early learning for their children (Alliance for Early Success).
- Connect learning environments to health and family support networks (Alliance for Early Success).
- Coordinate income support programs to minimize "cliff effects" that occur when a small increase in wages leads to a substantial decrease in benefits (Alliance for Early Success).
- Develop a comprehensive, linked data system to inform planning, document progress, and ultimately improve the health, development, learning, and success of children and their parents (Alliance for Early Success).
- Centralize and track screening, referral, diagnosis, and treatment (Alliance for Early Success).
- Support training for parents, service providers, and policymakers to help them accurately interpret and use data (Alliance for Early Success).
- Invest in networks of parent navigators/ promoters to build social capital and connect families to supports (Alliance for Early Success).
- Ensure programs draw upon the language and culture of families and their communities (Alliance for Early Success).
- Direct supports to the most vulnerable parents: teen parents, foster parents, grandparents raising grandchildren, parents who have experienced abuse and neglect, and parents of children with special needs (Alliance for Early Success).
- Promote family support programs that offer activities and materials while creating opportunities for modeling, peer support, and networking among parents (Alliance for Early Success).
- Change the culture of eligibility determination and case management from a focus on rule compliance, to a focus on adult-, child-, and family outcomes (Alliance for Early Success).
- Revise eligibility and work requirements for low-income families that disrupt continuity of care for children and work against children's developmental and educational needs (Alliance for Early Success).

Positive School Environments

Positive high school environments foster safety, inclusivity and holistic development by helping students build confidence to engage with challenges, overcome obstacles and succeed across all areas of learning.

15 Do students attend schools with safe, inclusive and supportive environments?

Why this matters

Inclusive and supportive environments: Students who feel unsafe or marginalized are significantly more likely to disengage and leave school before graduation. On the contrary, a sense of belonging in school contributes to improved achievement, well-being and health. When students feel they belong, they experience higher levels of motivation, engagement and tenacity (Education-to-Workforce Framework). Climate surveys, which measure experiences beyond academic ones, are typically used to understand the extent to which students and educators feel safe, seen and connected. Positive climate survey results are positively associated with stronger academic and behavioral outcomes (StriveTogether 2021). Walton and Cohen (2011) showed through longitudinal studies that interventions improving feelings of belonging in school could have lasting effects, leading to better college persistence and life satisfaction years later. School is a critical socialization environment; what students experience there shapes their self-concept, resilience and future success well beyond high school (Walton and Cohen 2011).

School and workplace racial and ethnic diversity: Greater diversity is shown to reduce intergroup prejudice and improve intelligence and innovation (Education-to-Workforce Framework). Racial and

ethnic diversity is positively associated with children's language development in early learning programs (Education-to-Workforce Framework). Workplaces with a diverse team see better employee interpersonal skills and innovation, better financial performance and less conflict (Education-to-Workforce Framework).

School and workplace economic diversity: The disparity in average school poverty rates between white and Black students is the single most important predictor of differences between their academic achievement (Education-to-Workforce Framework). The relationship between economic segregation and outcomes begins in early childhood, where children's academic achievement and social-emotional development have been linked to the average socioeconomic status of their classroom, regardless of a child's own economic or demographic background (Education-to-Workforce Framework).

School safety: School safety is critically important for high school students, as it is a core component of school climate that directly influences academic achievement, mental health, attendance and the likelihood of staying in school (Education-to-Workforce Framework). Students who feel unsafe are more likely to experience chronic absenteeism, lower grades and higher dropout rates. Additionally, the U.S. Department of Education (2018) found that a positive perception of school safety is linked to stronger peer relationships, better emotional regulation and greater readiness for postsecondary success. Research also shows disparities in students' feelings of safety according to their race and ethnicity. For example, one study found that students in schools serving predominantly Black and Latine populations report feeling less safe and having less positive peer interactions than those at schools with predominantly white and Asian populations, on average (Education-to-Workforce Framework). Even within the same schools, Black and Latine students report feeling less safe than their white and Asian peers (Education-to-Workforce Framework).

School and family engagement: School engagement with families provides benefits to students academically and socially, both in short-term school success and long-term outcomes (Education-to-Workforce Framework). High school students whose families stay engaged — through activities such as discussing school progress, helping plan coursework, and supporting postsecondary goals — are more likely to earn higher GPAs and graduate on time (Fan & Chen, 2001; Wang & Sheikh-Khalil, 2014). Research shows that in high school, home-based involvement, such as parents monitoring academic progress and encouraging persistence, has a stronger impact on student outcomes than traditional school-based volunteering (Fan & Chen, 2001). The Harvard Family Research Project (2010) emphasized that family engagement around college and career planning, including course selection, financial aid navigation and application processes, is one of the strongest predictors of whether students enroll in and persist through postsecondary education. Moreover, Wang and Sheikh-Khalil (2014) found that emotional support and consistent communication from parents about schoolwork are strongly associated with higher student motivation, effort, and engagement during the high school years. While adolescents seek greater autonomy, they still benefit greatly from feeling that their families are invested in their education — not through hovering, but through consistent encouragement and guidance.

Indicators

Contributing indicators

- Parental involvement in student's education (e.g., parents' awareness of student's school attendance and grades). (Civic Enterprises, The Silent Epidemic).
- Mean scores on family surveys, such as the Panorama Family-School Relationships Survey or CORE Districts School Culture & Climate Survey parent assessment of school-community engagement (Education-to-Workforce Framework).

System indicators

- There are effective partnerships between schools and families, such that parents have access to school systems and are meaningfully included in school processes and student learning. (Education-to-Workforce).
- Percentage of families and percentage of teachers or caregivers reporting positive relationship quality with one another, using a tool such as the Family and Provider/Teacher Relationship Quality (FPTRQ) parent survey. (Education-to-Workforce).
- Invest in family engagement strategies that value parents as experts in their children's development (Alliance for Early Success).
- Set goals and track outcomes in ways that engage families in their children's learning (Alliance for Early Success).
- Co-locate or coordinate programs and services to improve family access (Alliance for Early Success).
- Community schools operate as community hubs, bringing together many partners to offer education, health and social services, and youth and community development for children, young people, parents, and other community members during extended hours and weekends (Annie E. Casey Foundation).

Practices and Policies

Practices

- Schools assist parents in gaining knowledge and skills to engage with fellow parents, faculty, staff, and community partners in support of high-quality education for each student (National Dropout Prevention Center).
- The National Dropout Prevention Center/Network's 15 Effective Strategies for Dropout Prevention: Family Engagement—Research consistently finds that family engagement has a direct, positive effect on youth's achievement and is one of the most accurate predictors of a student's success in school. Critical elements of this type of collaboration rely on effective, ongoing, and multi-dimensional, two-way communication as well as ongoing needs assessments and responsive family supports and interventions (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Schools build faculty, staff and administrator capacity to effectively engage parents in support of their children through formal professional development and establishing corresponding benchmarks to evaluate impacts on parents and students (National Dropout Prevention Center).
- Contact: Maintaining current contact information is essential for connecting with students and families, especially those who might need support. Consider asking for current email, cell and home phone numbers and emergency contacts multiple times, such as at back-to-school events, parent meetings and

the start of each semester. Attendance Works has developed a list of ideas and strategies for locating students and families who have not been in touch with their schools. (Attendance Works, Expanded Metrics).

- School staff should also use in-person strategies (connecting at school events, parent teacher conferences, community events) and virtual strategies (phone calls home, two -way texting, virtual home visits) to maintain communications with families, not just students. If instruction is virtual, staff should connect to students at least three times a week, if not daily, since the lack of response could be a sign that a student or family may be experiencing challenges that require support. (Attendance Works, Expanded Metrics).
- Schools and districts should monitor the extent to which students and their families have at least one adult they can go to for support. Provide families opportunities to offer feedback on the quality of their relationships to school staff and opportunities to inform decision-making. Harvard's Guide to Relationship Mapping can be used to ensure all students have a meaningful connection to an adult in the school community. (Attendance Works, Expanded Metrics).
- Parent Engagement Strategies & Individualized Graduation Plans: In a survey conducted by researchers John M. Bridgeland, John J. Dilulio, Jr. and Karen Burke Morison, students who had dropped out of high school believed the communication between schools and parents needs to be greatly strengthened – that schools need to do more to invite parents in and be part of the solutions, and that parents need to do more themselves to be involved. One of the ways this deficit of parent involvement shows up is in truancy, where parents can be more involved by simply making sure their child shows up each day at school. When researchers asked focus group participants about their school's follow-up policy for truancy and other acts of student disengagement, more often than not the respondents perceived that the schools did too little, or perhaps were overwhelmed with the numbers of such cases. (Civic Enterprises, The Silent Epidemic).
- Simple things such as teacher feedback to parents about class participation, missed assignments, grades and other issues can be critical to helping keep students on track. Although schools cannot be expected to address and solve weaknesses in the family structure, which survey shows is a common factor for students who drop out, they need to recognize and develop ways to address different types of family circumstances. This includes ways to bridge other school-family differences, such as in language, culture, educational attainment or reaching a single working parent. When additional educational choices are offered to students, which can include the restructuring of existing schools or the creation of new ones, these schools can incorporate into their new structure ways to improve parent involvement and school-home communication. (Civic Enterprises, The Silent Epidemic).
- Another way to further strengthen the linkage between school and home is for the schools to develop individualized graduation plans for each student, particularly for those at risk of dropping out. This additional step would help the parents become more aware of the specific requirements for their high school student so they can take the steps necessary to help ensure they are carried out to completion. This knowledge would also help empower the parent further to advocate for their child. (Civic Enterprises, The Silent Epidemic).
- Research from the U.S. Department of Education and others shows that the involvement of family members can have a positive influence on their child's school achievement. It can help improve their student's grades and test scores, as well as help make sure they actually attend school, complete their homework, and have a better attitude overall. (Civic Enterprises, The Silent Epidemic).

- In The Silent Epidemic survey, seventy-one percent of young people surveyed felt that one of the keys to keeping students in school was to have better communication between the parents and the school, and increasing parental or guardian involvement in their child's education. Less than half said their school contacted their parents or themselves when they were absent (47 percent) or when they dropped out (48 percent). Respondents suggested that increased parental involvement could influence very basic things – such as ensuring students came to school every day and attended their classes. Studies have shown that students with parents who are engaged in their lives – by monitoring and regulating their activities, talking with them about their problems, encouraging individual decision-making and being more involved in the school – are less likely to drop out of school. The communication links between parents and schools are critical if such involvement is to work effectively to monitor such activities, exchange information about school performance and problems, and ensure that such problems are addressed early and quickly. (Civic Enterprises, The Silent Epidemic).
- Dual Generation Strategies. The links between parent education, family income and children's educational success further suggest the potential value in pursuing two-generation strategies, which seek to improve results for children by focusing simultaneously on school policies and programs, and on strengthening families through increased parental education and improved employment opportunities that reduce family poverty, as well as increased health insurance coverage for all family members. (Annie E. Casey, Double Jeopardy).
- Caregivers offer consistent communication and emotional support to students around schoolwork (Wang & Sheikh-Khalil, 2014).
- Parents/guardians are encouraged to meet regularly with their student's high school counselor(s) to ensure their students have access to rigorous course work and are on a CCR diploma pathway (Alliance for Excellent Education, Paper Thin).

School safety

Key source: E-W Framework

Indicators

Contributing indicators

- Students feel physically, mentally, and emotionally safe at school or campus (that is, safe from both physical threats and violence, as well as bullying and cyberbullying). (Education-to-Workforce).
- Percentage of students reporting high levels of physical, mental, and emotional safety in school climate surveys, such as the U.S. Department of Education ED School Climate Surveys (EDSCLS), the Sense of Safety subscale within the CORE Districts school culture and climate survey, or the School Safety subscale within the Panorama Student Survey
- Percentage of students indicating they feel safe and cared for at their school (National Education Association).
- Number of documented incidents that occurred at the school of: Robbery with a weapon; Robbery without a weapon; Physical attack or fight with a weapon; Physical attack or fight without a weapon; Threat of physical attack with a weapon; Threat of physical attack without a weapon; Rape or attempted rape; Sexual assault (other than rape); Possession of a firearm or explosive device; Shooting (regardless of whether anyone was hurt); Students, faculty, or staff deaths as a result of a homicide (Civil Rights Data Collection, Office for Civil Rights).

- Whether any of the school's students, faculty, or staff died as a result of a homicide committed at the school (Civil Rights Data Collection, Office for Civil Rights).
- Whether there has been at least one incident at the school that involved a shooting (regardless of whether anyone was hurt) (Civil Rights Data Collection, Office for Civil Rights).
- Number of documented incidents of offenses [rape or attempted rape; sexual assault (other than rape)] committed by a student that occurred at the school (Civil Rights Data Collection, Office for Civil Rights).
- Number of documented incidents of offenses [rape or attempted rape; sexual assault (other than rape)] committed by a school staff member that occurred at the school.
- Number of allegations made against a school staff member of offenses [rape or attempted rape; sexual assault (other than rape)] that occurred at the school, which were followed by a resignation or retirement prior to final discipline or termination (Civil Rights Data Collection, Office for Civil Rights).
- Number of allegations made against a school staff member of offenses [rape or attempted rape; sexual assault (other than rape)] that occurred at the school, which were followed by a determination that the school staff member was responsible for the offense (Civil Rights Data Collection, Office for Civil Rights).
- Number of allegations made against a school staff member of offenses [rape or attempted rape; sexual assault (other than rape)] that occurred at the school, which were followed by a determination that the school staff member was not responsible for the offense (Civil Rights Data Collection, Office for Civil Rights).
- Number of allegations made against a school staff member of offenses [rape or attempted rape; sexual assault (other than rape)] that occurred at the school, which were followed by a duty reassignment prior to final discipline or termination (Civil Rights Data Collection, Office for Civil Rights).
- Number of reported allegations of harassment or bullying of K-12 students on the basis of: sex; sexual orientation; gender identity; race, color, or national origin; disability; religion (Civil Rights Data Collection, Office for Civil Rights).
- Number of reported allegations of harassment or bullying of K-12 students on the basis of perceived religion (disaggregated by atheism/agnosticism; Buddhist; Catholic; Eastern Orthodox; Hindu; Islamic (Muslim); Jehovah's Witness; Jewish; Mormon; multiple religions, group; other Christian; other religion; Protestant; Sikh) (Civil Rights Data Collection, Office for Civil Rights).
- Number of K-12 students reported as harassed or bullied on the basis of: sex; race, color, or national origin; disability [disaggregated by race, sex (male, female, nonbinary), disabilityIDEA, disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of K-12 students disciplined for engaging in harassment or bullying on the basis of: sex; race, color, or national origin; disability [disaggregated by race, sex (male, female, nonbinary), disability-IDEA, disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).

System indicators

- Facilities that are safe, healthy, inviting, welcoming, and conducive to teaching and learning (Annie E. Casey Foundation).
- Percentage of educators surveyed indicating they feel safe and cared for at their school (National Education Association).
- Percentage of public school employees in each job category who have received in-service training on intervention techniques, such as restorative practices (National Education Association).

- Schools report disaggregated data on incidents of student bullying on a daily or weekly basis (National Education Association).
- Student-to-counselor ratio and access to school social workers.
- Whether an LEA has a written policy or policies prohibiting harassment or bullying of students on the basis of all of the following: sex; race, color, or national origin; disability (LEA) (Civil Rights Data Collection, Office for Civil Rights).
- Web link to policy or policies prohibiting harassment or bullying of students on the basis of all of the following: sex; race, color, or national origin; disability (LEA) (Civil Rights Data Collection, Office for Civil Rights).
- Whether an LEA has a written policy or policies prohibiting harassment or bullying of students on the basis of: sexual orientation; gender identity; or religion (LEA) (Civil Rights Data Collection, Office for Civil Rights).
- Web link to policy or policies prohibiting harassment or bullying of students on the basis of: sexual orientation; gender identity; or religion (LEA) (Civil Rights Data Collection, Office for Civil Rights).

Practices and Policies

Practices

- The National Dropout Prevention Center/Network's 15 Effective Strategies for Dropout Prevention: Safe Learning Environments—Safe, orderly, nurturing, inclusive, and inviting learning environments help students realize potential as individuals and as engaged members of society. All students need to be safe, physically and emotionally; to be expected to achieve; to be recognized and celebrated equitably for accomplishments; and to feel genuinely welcomed and supported. A safe and orderly learning environment provides both physical and emotional security as well as daily experiences, at all grade levels, that enhance positive social attitudes and effective interpersonal skills. A comprehensive discipline plan and violence prevention plan should include conflict resolution strategies and should deal with potential violence as well as crisis management. A safe, nurturing, and responsive learning environment supports all students, teachers, cultures, and subgroups; honors and supports diversity and social justice; treats students equitably; and recognizes the need for feedback, innovation, and second chances (The National Dropout Prevention Center/Network, 15 Effective Strategies for Dropout Prevention).
- Build a School Climate that Fosters Academics. In a survey administered by researchers of The Silent Epidemic report, seven in ten surveyed favored increasing supervision in school and more than three in five (62 percent) felt more classroom discipline was necessary. More than half (57 percent) believed their high schools did not do enough to help students feel safe from violence. Students in the focus groups talked about how they could not do homework or pay attention in class because of the many disruptions, including the fear of violence. Seven in ten (71 percent) said their schools did not do enough to make school interesting. (Civic Enterprises, The Silent Epidemic).
- Districts educate all school personnel on intervention techniques in incidents of student bullying and harassment, such as restorative practices and Positive Behavioral Intervention and Supports (PBIS) (National Education Association).
- Programs like Communities In Schools (CIS) embed support within schools to assist at-risk students. CIS offers services such as mentoring, counseling, and basic needs provision. A multiyear study found that CIS effectively reduces dropout rates and increases graduation rates when implemented with high fidelity (Communities in Schools).

Policies

- Districts allocate resources toward interventions around student safety issues (e.g., LGBTQ+ bullying and harassment) (National Education Association).

Inclusive environments

Key source: E-W Framework

Indicators

Contributing indicators

- Percentage of students in K-12 reporting belonging in school, as measured by surveys such as the Sense of Belonging subscale of the CORE Districts school culture and climate survey, the Classroom Belonging subscale of the Panorama Student Survey, or the Elevate survey's Affirming Identities and Classroom Community scales (Education-to-Workforce Framework).
- Individuals feel they belong and feel connected to their peers in their schools, postsecondary institutions, and workplaces. (Education-to-Workforce).
- Percentage of students reporting belonging in school, as measured by surveys such as the Sense of Belonging subscale of the CORE Districts school culture and climate survey, the Classroom Belonging subscale of the Panorama Student Survey, or the Elevate survey's Affirming Identities and Classroom Community scales. (Education-to-Workforce).
- Percentage of students experiencing mechanical versus physical constraint and seclusion (Data source: Civil Rights Data Collection) (StriveTogether 2021).
- Percentage of students experiencing school-related arrests (Data source: Civil Rights Data Collection) (StriveTogether 2021).
- Percentage of students receiving in-school or out-of-school suspensions (Data source: Civil Rights Data Collection) (StriveTogether 2021).
- Sense of belonging and connection to school community (Data sources: Youth Risk Behavior Survey; local school climate surveys) (StriveTogether 2021).
- Student perceptions of their school's inclusion of their history, culture and racial identity (Data sources: Local school climate surveys) (StriveTogether 2021).

System indicators

- Percentage of teachers who have received professional development in culturally-responsive pedagogy (National Education Association).
- Percentage of teachers who have received professional learning time in equity and racial and social justice (National Education Association).
- Percentage of teachers who have received professional learning time in implicit bias (National Education Association).
- Percentage of teachers who have received professional learning time in trauma-related practices (National Education Association).
- Measurement of bullying, harassment and discrimination (Data sources: Youth Risk Behavior Survey; local school climate surveys) (StriveTogether 2021).
- Schools annually report on school climate and student engagement (National Education Association).

- Schools have data-driven, site-based school climate and student engagement plans (National Education Association).
- Percentage of programs where classrooms demonstrate equitable socio-cultural interactions (STEP Forward with Data Framework).
- Percentage of system-level funding that is allocated to equity-focused activities targeted to children, families and/or workforce members from focal populations (STEP Forward with Data Framework).
- Results from publicly available school climate surveys (Birth to Grade 3 Indicator Framework).

Practices and Policies

Practices

- Districts dedicate professional learning time to culturally-responsive pedagogy (National Education Association).
- Districts dedicate professional learning time to equity and racial and social justice (National Education Association).
- Districts dedicate professional learning time to implicit bias (National Education Association).
- Districts dedicate professional learning time to trauma-informed practices (National Education Association).

Policies

- Districts allocate funds to advance educators' awareness of implicit bias (National Education Association).
- Districts allocate funds to advance educators' competence in culturally-responsive pedagogy (National Education Association).
- Districts allocate funds to advance educators' understanding of equity and racial and social justice (National Education Association).
- Districts allocate funds to advance educators' understanding of trauma-informed practices (National Education Association).
- Districts allocate resources to a workforce wellness and safety program, ensuring educators of color and LGBTQ+ educators feel safe and cared for in their schools (National Education Association).
- State develops a policy that requires annual reporting by school on school climate and student engagement (National Education Association).
- Fostering positive learning environments for students, including by reducing class sizes, developing programs that prevent bullying, moving away from punitive disciplinary practices and applying other trauma-informed practices (Urban Institute).

School and workplace racial and ethnic diversity

Key source: E-W Framework

Indicators

Contributing indicators

- Students are exposed to racial and ethnic diversity within their schools. Student body composition by race and ethnicity (%). (Education-to-Workforce).

System indicators

- Student body composition by race and ethnicity (Education-to-Workforce Framework).
- Share of students attending high-poverty schools, by race or ethnicity (Urban Institute).

Practices and Policies

Practices

- Use of research and data tools to understand school and workplace racial and ethnic diversity to understand equity issues and trends (National Equity Atlas).

Policies

- Creating more equitable school attendance boundaries (Urban Institute).
- Developing centralized school lottery application systems that prioritize school diversity (Urban Institute).
- Ending school and neighborhood segregation, including by expanding affordable housing in resource-rich neighborhoods and reforming zoning policies to allow for more diverse, high-density, mixed-income communities (Urban Institute).
- Implementing more equitable school funding policies and advocating for reforms to state and federal funding (Urban Institute).
- Rethink school district lines by enrolling students across district lines. District lines are responsible for roughly 60 percent of segregation in schools. State policymakers should invest in the creation or expansion of interdistrict transfer programs and magnet schools to enroll students across district lines. Controlled choice approaches can succeed with the right design elements to help advance integration rather than facilitating segregation. These elements include four things: (a) Free transportation to make program participation a meaningful option for all families; (b) Fair, transparent, and inclusive lotteries to ensure true diversity; (c) Ongoing, extensive multilingual outreach and communication to families in a wide range of neighborhoods; (d) School siting policies that ensure that historically underserved students are not asked to bear disproportionate commuting burdens (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Rethink school district lines by changing district lines. State leaders should consider changing existing lines. In many cases, shifting a district line by a matter of blocks can dramatically reduce segregation; in other cases, it may make sense to consider shifting to truly countywide school districts or pursuing other consolidation strategies. Strategically revising district lines can enhance diversity and improve resource equity (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Rethink school district lines by strengthening anti-secession laws to prevent continued district fracturing and segregation. Without careful attention, efforts to promote integration may be met with backlash and backsliding. This is what happened in Tennessee after education leaders pursued an innovative effort to consolidate Memphis Schools into Shelby County School District, which would have integrated school districts and increased access to resources for the predominantly Black students in Memphis (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Foster positive student experiences in integration efforts by promoting educator quality and diversity. A truly integrated school is staffed by diverse, high-quality, well-supported educators. State leaders should – every time they invest in an integration program – also do the following: (1) Publish annual educator quality and diversity data in the schools and districts impacted by the initiative, and how they compare to other schools in the surrounding district(s); (2) Set educator diversity, quality, and support goals in the schools and districts that participate, including timelines with interim targets; (3) Identify state resources to support educator quality, diversity, and support in schools and districts that participate; (4) Invest in opportunities to prepare, support, and retain teachers of color in the schools and districts that participate; (5) Require and fund ongoing, job-embedded, evidence-based professional

learning for educators in schools and districts that participate, including support for understanding adult mindsets and asset-based pedagogies; anti-bias training; and diversity, equity, inclusion, and belonging training (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).

- Foster positive student experiences in integration efforts by encouraging meaningful student, family, and community engagement. State leaders should—every time they invest in an integration program— also provide guidance, training, and funding to local leaders that is focused on community engagement. This support should focus on four actions that will help educators in integrating schools: (a) Engaging families that live further from a particular school or who speak different languages. This is particularly important for magnet schools and other public, choice-based integration efforts, which cannot create diversity if diverse families are not aware of, connected to, and excited about sending their children to the schools; (b) Leveraging community-based organizations (CBOs) in both the "sending" and "receiving" communities to partner with a school to accelerate student learning and meet whole-child needs; (c) Creating parent and family advisory councils with power to participate in decision-making about a school's programming, practices, and policies. These councils should include meaningful representation of families from underrepresented communities; (d) Providing ongoing financial and personnel support for the daily work of authentic community engagement (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).
- Foster positive student experiences in integration efforts by ensuring all students have access to advanced coursework. Districts working to integrate schools are historically prone to segregate students within "integrated" buildings via biased academic tracking policies. State leaders should require—and fund—all schools, and especially those participating in an integration program, to do two things: (a) Conduct universal screening for participation in gifted and talented programs at the elementary level. For an example, see Maryland's universal screening requirement; and (b) Implement automatic enrollment policies that put all students who demonstrate readiness on one or more of a wide variety of valid metrics (including grades, end of course assessments, standardized tests, and teacher recommendations) into advanced courses (Brown's Promise, Fulfilling Brown's Promise: A State Policy Agenda).

School and workplace socioeconomic diversity

Key source: E-W Framework

Indicators

Contributing indicators

- Students are exposed to socioeconomic diversity within their schools. Student body composition by income. (Education-to-Workforce).
- Share of students attending high-poverty schools, by race or ethnicity. Students from families with low incomes and students of color achieve better academic outcomes when they attend more economically and racially diverse schools. (Urban Institute).

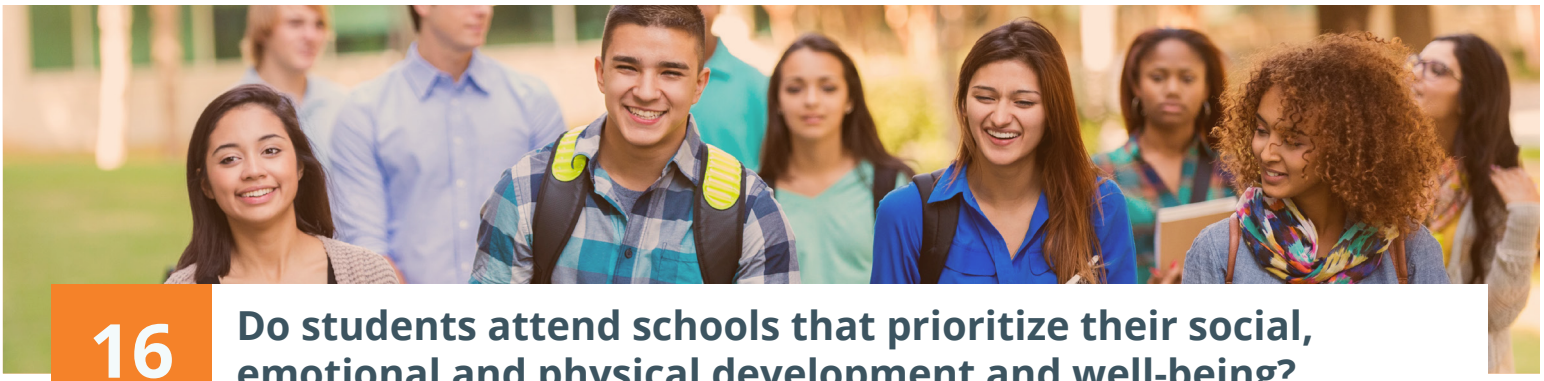
Practices and Policies

Practices

- Use of research and data tools to understand school and workplace socioeconomic diversity to understand equity issues and trends (National Equity Atlas).

Policies

- Creating more equitable school attendance boundaries (Urban Institute).
- Developing centralized school lottery application systems that prioritize school diversity (Urban Institute).
- Ending school and neighborhood segregation, including by expanding affordable housing in resource-rich neighborhoods and reforming zoning policies to allow for more diverse, high-density, mixed-income communities (Urban Institute).
- Implementing more equitable school funding policies and advocating for reforms to state and federal funding (Urban Institute).



16 Do students attend schools that prioritize their social, emotional and physical development and well-being?

Why this matters

Schools can be a critical place to access support for students' physical, mental and social-emotional health. For example, three out of four students who ever access mental health services do so through their school (Education-to-Workforce Framework). Schools that provide access to nurses, school psychologists and social workers tend to see improved learning outcomes, school climate and student well-being (Education-to-Workforce Framework).

Prioritizing the social, emotional and physical well-being of high school students is critical for their academic success and long-term development. Research consistently shows that students who feel safe, supported and healthy are more engaged in school and perform better academically. The Collaborative for Academic, Social and Emotional Learning (CASEL) finds that students participating in effective social and emotional learning (SEL) programs show an average academic achievement gain of 11 percentile points compared to peers (Durlak et al., 2011). Additionally, the Centers for Disease Control and Prevention (CDC) reports that physical well-being — such as regular physical activity and good nutrition — is linked to higher grades, better attendance and improved classroom behavior (CDC, 2017).

Fostering social and emotional wellness also supports the development of essential life skills, such as resilience, empathy and responsible decision making, which are critical for postsecondary success and healthy adulthood (Mahoney, Durlak, & Weissberg, 2018). Schools that integrate well-being into their core priorities not only improve student outcomes but also help close opportunity gaps, particularly for students from historically marginalized groups.

Social-emotional skills*

Key source: E-W Framework

**Social-emotional skills includes characteristics like self-management, growth mindset, self-efficacy, social awareness, cultural competency, and civic engagement*

Indicators

Contributing indicators

- Civic engagement of high school graduates: Voter participation. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Civic engagement of high school graduates: Incarceration rates. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Civic engagement of high school graduates: Rates of volunteerism. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Civic engagement of high school graduates: Community organization participation and leadership. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Deeper learning skills of high school graduates: Knowledge (academic content, career, citizenship content, practical life knowledge). (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Deeper learning skills of high school graduates: Skills/ability (creativity; confidence; self-regulation, responsibility, goal-setting, reflexivity; social interaction/communication; critical thinking/ problem solving; information and technology; resourcefulness). (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Deeper learning skills of high school graduates: Mission motivation to learn and be challenged/ academic self-concept. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Deeper learning skills of high school graduates: Appreciation of and ability to engage with diversity/equity. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Percentage of students in K-12 reporting a high level of social-emotional skills (e.g., social awareness, self-management, growth mindset, self-efficacy) on surveys such as the CORE Districts SEL Survey social awareness scale, or percentage of students meeting benchmarks on teacher ratings of social skills drawn from Elliott and Gresham's Social Skills Rating Scale (Education-to-Workforce Framework).
- Percentage of youth in K-12 with mental or emotional health needs as identified by a universal screening tool. For a list of mental health screening tools that may be appropriate for school-based use, see the following guide from the National Center on Safe Supportive Learning Environments: "Mental Health Screening Tools for Grades K-12" (Education-to-Workforce Framework).
- Self-management: Students are able to regulate their emotions, thoughts, and behaviors effectively in different situations; Percentage of students reporting a high level of self-management on surveys such as the CORE Districts SEL Survey self-management scale (grades 5–12) or Shift and Persist scale for children. (Education-to-Workforce).
- Growth mindset: Students believe that their abilities can grow with effort; Percentage of students reporting a high level of growth mindset on surveys such as the CORE Districts SEL Survey Growth Mindset Scale (grades 5–12) or the Growth Mindset Scale developed by Carol Dweck, which may be used with children, teens, and adults. (Education-to-Workforce).
- Self-efficacy: Students believe in their ability to

achieve an outcome or reach a goal. Percentage of students reporting a high level of self-efficacy on surveys such as the CORE Districts Social-Emotional Learning (SEL) Survey self-efficacy scale. (Education-to-Workforce).

- Social awareness: Students are able to understand others' perspectives; understand social and ethical norms for behavior; and recognize family, school, and community resources and supports. Percentage of students reporting a high level of social awareness on surveys such as the CORE Districts SEL Survey social awareness scale, or percentage of students meeting benchmarks on teacher ratings of social skills drawn from Elliott and Gresham's Social Skills Rating Scale. (Education-to-Workforce).
- Cultural competency: Individuals are able to understand the perspectives of and empathize with others from diverse backgrounds and cultures. Reflecting the lack of developed tools in the field, the EW Framework is unable to recommend a specific measurement tool. In some contexts, it might be possible to adapt an existing measure for adults for use with youth. For examples, the HEIghten Outcomes Assessment for Intercultural Competency & Diversity or The Intercultural Development Inventory®. (Education-to-Workforce).
- Civic engagement: Individuals exhibit the knowledge, skills, values, motivation, and activities that promote quality of life within a community and society at large through political and nonpolitical processes. Percentage of students reporting a high level of civic engagement on surveys such as the Youth Civic and Character Measures Toolkit Survey and Youth Civic Engagement Indicators Project Survey. (Education-to-Workforce).

Practices and Policies

Practices

- Collaborative for Academic, Social, and Emotional Learning's (CASEL) best practices for building inclusive school environments through social-emotional learning (CASEL).
- Whole-school culture-building strategies, such as using the first two weeks of the school year intentionally to build school culture, promoting school values in messages around the school, or playing music outdoors between classes to foster a positive environment. (PACE, Enacting Social-Emotional Learning).
- Promoting personal interaction to build trust and relationships, for example by greeting students by name and shaking hands at the beginning of school or class. (PACE, Enacting Social-Emotional Learning).
- Advisory periods that provide teachers and students time to form relationships, learn social skills, discuss issues like bullying, and process difficult events happening on or off campus. (PACE, Enacting Social-Emotional Learning).
- Organizing schedules and students to support relationships, for example by offering bridge programs for students just entering the school, grouping students into smaller communities or "families" within large schools, and keeping groups of students with the same teachers for multiple years. (PACE, Enacting Social-Emotional Learning).
- Inclusion strategies, such as organizing student volunteers to reach out to isolated or lonely students, and student clubs that specifically offer support to groups that might feel excluded at school (e.g., African American or Latinx students, special education students, or female students interested in computer coding). (PACE, Enacting Social-Emotional Learning).
- Impact of teaching a growth mindset: Researchers Susana Claro and Susanna Loeb estimate that the average growth in English language arts and math scores corresponding

to the difference between a fixed mindset to a growth mindset (an approximately two standard deviation change) are approximately 0.07 and 0.05 standard deviations in the corresponding test performance. Based on a rough calculation developed by Hanushek, Peterson & Woessmann (2012), these changes are equivalent to more than 35 days of learning. The difference is especially meaningful considering that the evidence that social-emotional barriers such as a fixed mindset can potentially be addressed by low-cost scalable interventions. (PACE, Students with Growth Mindset Learn More in School).

- Positive behavior management and restorative practices that help teachers focus on why a student acted out, help students develop more appropriate skills, and in some cases, mend damaged relationships between educators and students. Strategies range from formal, packaged programs to everyday strategies such as "cooling off" rooms where students can get support and avoid suspension. (PACE, Students with Growth Mindset Learn More in School).
- Setting and enforcing clear values and expectations, through direct instruction, specific programs or events, rewards systems for positive behavior, and visuals posted throughout the school. (PACE, Students with Growth Mindset Learn More in School).
- Targeted approaches for struggling, at-risk, or historically marginalized students, ranging from professional counseling, multi-tiered systems of support for struggling students, and programs meant to support equity, particularly for African American youth. (PACE, Students with Growth Mindset Learn More in School).
- Elective courses such as music or PE as opportunities to model good communication and group interaction skills, and to form trusting relationships between adults and students. (PACE, Students with Growth Mindset Learn More in School).
- Student clubs that specifically promote kindness, compassion, and positive behavior, with some clubs going further to support students facing trauma. Several schools also have leadership programs that teach students to model good behavior on campus, help other students, and mediate conflicts. (PACE, Students with Growth Mindset Learn More in School).
- Afterschool programs and activities (e.g., music, yoga, sports) that are intentionally designed to give students opportunities to connect with students from other backgrounds, form relationships with adults, or relieve stress. (PACE, Students with Growth Mindset Learn More in School).
- Strategies for creating a positive classroom environment, such as seating students in groups to reinforce norms of getting help from peers, taking on specific roles in a group, and learning to receive feedback. (PACE, Students with Growth Mindset Learn More in School).
- Strategies for managing emotions, such as permitting students to redo homework assignments and tests to reduce pressure and show students they can improve over time with consistent effort. (PACE, Students with Growth Mindset Learn More in School).
- Modeling appropriate language and mindsets, for example by providing concrete protocols for how students should communicate with one another or by coaching students to say "I can't do it YET" instead of "I can't do it." (PACE, Students with Growth Mindset Learn More in School).
- Staff leadership teams charged with overseeing the behavior and school climate approaches at the school. (PACE, Students with Growth Mindset Learn More in School).
- Use of non-instructional staff in creative ways, such as staffing a "Listening Room" where students can find a trusted adult, training PE teachers as life coaches for frequently truant students, or explicitly recruiting staff members who are a good fit with the values of the school and the racial/ethnic makeup of the student

body. (PACE, Students with Growth Mindset Learn More in School).

- Opportunities for adults to learn about social-emotional learning, such as professional development on topics like growth mindset; staff meetings where educators model the kinds of behaviors and language expected of students, or pairing experienced teachers with new teachers for coaching on social-emotional learning practices. (PACE, Students with Growth Mindset Learn More in School).
- Use of CORE survey data to guide and improve school efforts, often led by the staff leadership teams mentioned above. (PACE, Students with Growth Mindset Learn More in School).
- School- or staff-led local data collection efforts to provide more rapid or specific feedback, such as developing short student surveys, administered monthly, to track whether students feel safe, have friends, and have a trusted adult connection at school. (PACE, Students with Growth Mindset Learn More in School).
- Schools with strong SEL practices tend to build on existing assets, such as an established program or particular individuals. For example, one outlier school uses a well-developed sports program as a primary vehicle for supporting social-emotional learning; another uses its strong music program. In each school, an existing program was re-purposed to help build student confidence, promote teamwork, build positive relationships with peers and adults, and improve student attendance and motivation. The specific content of these programs seems to be less important than the fact that they are authentic to the school's strengths and needs, are deeply embedded in the school culture, and are explicitly designed to advance social-emotional learning. (PACE, Students with Growth Mindset Learn More in School).
- Schools with strong SEL practices tend to implement with intention. Practices used to foster social-emotional learning and positive campus climate are implemented intentionally, not in a spontaneous or ad hoc manner. When formal programs are implemented, there are clear roles for staff, specific trainings, and purposeful rules and incentives. Appropriate levels of staffing and financial investment also appear to be important to success. (PACE, Students with Growth Mindset Learn More in School).
- Schools with strong SEL practices tend to promote student agency and leadership. Educators in outlier schools believe that youth-led efforts help students engage and also promote positive behaviors and a school culture of trust and inclusion. Strategies range from buddy programs to kindness clubs and student-led lessons on respect. (PACE, Students with Growth Mindset Learn More in School).
- To advance social-emotional learning, it appears that schools and districts need to invest in relevant staff positions and adult learning activities. Sometimes these decisions are made at the school level, but often, district support is needed to fund school-level positions or professional development. In addition, districts can invest in district-level personnel who coordinate or support social-emotional learning, as several CORE districts do. All of the outlier schools we studied received some form of professional development around social-emotional learning topics. (PACE, Students with Growth Mindset Learn More in School).
- Districts—or other entities—can help by measuring social-emotional learning outcomes and providing support to use the data. The CORE districts have an annual survey to measure social-emotional learning outcomes and can use it to monitor school performance and provide targeted supports to schools. Districts use the survey data in a variety of ways: for evaluating school and educator performance, for public reporting to parents, and for grouping schools into cohorts for specialized training. As a result of these and other activities, administrators are quite aware of social-emotional learning

outcomes and take them seriously. (PACE, Students with Growth Mindset Learn More in School).

- Districts can help schools integrate social-emotional learning and racial equity efforts. While many of the educators in our study approach their work with a strong equity orientation, not all connect their specific social-emotional learning strategies to their equity goals. As a result, schools may be left with an incomplete or incoherent approach. This may be an area where district (or network) leadership can make a substantial difference, by addressing the issue head-on, inviting dialog, and explicitly articulating how social-emotional learning efforts relate to racial equity goals. (PACE, Students with Growth Mindset Learn More in School).

Policies

- More work is needed to help schools achieve a common understanding of social-emotional learning and to align social-emotional learning activities, both within a school and between the school and district levels. Certainly, this is an area where district leadership can make a substantial difference. In our study, we found the strongest conceptual and programmatic coherence in the district with the most comprehensive approach, which includes social-emotional learning standards for students and adults, use of the adult standards in personnel evaluations, use of social-emotional learning priorities and measures in school performance evaluations, relevant professional development, and financial investment in these social-emotional learning interventions. This level of formal alignment may be necessary to make social-emotional learning a true priority for school-level educators and bring coherence to varied practices and supports within a school or district. (PACE, Students with Growth Mindset Learn More in School).
- Districts can provide support to help schools integrate social-emotional learning and subject area content—an area that even the strongest outlier schools are just beginning to explore. One CORE district has integrated social-emotional learning into its content standards. A few others have curricula that include or emphasize social-emotional learning topics. At the same time, some teachers in the outlier schools argue that social-emotional learning should be considered a pedagogical approach rather than a component of course curricula. Moving forward, policymakers and educational leaders could consider what content-specific social-emotional learning practice looks like and how to support it at scale. (PACE, Students with Growth Mindset Learn More in School).

Social capital

Key source: E-W Framework

Indicators

Contributing indicators

- Individuals have access to and are able to mobilize relationships that help them further their goals. (Education-to-Workforce).
- Percentage of students or individuals reporting a high level of social capital on surveys such as the Social Capital Assessment + Learning for Equity (SCALE) Social Capital, Network Diversity, and Network Strength scales (Education-to-Workforce Framework).
- Percentage of students or individuals reporting a high level of social capital on surveys such as the Social Capital Assessment + Learning for Equity (SCALE) Social Capital, Network Diversity, and Network Strength scales. (Education-to-Workforce).

- The EW Framework recommends consulting guidance by the Christensen Institute that describes emerging practices for measuring students' social capital using a four-dimensional framework based on quantity of relationships, quality of relationships, structure of networks, and ability to mobilize relationships (Education-to-Workforce Framework).
- A student has strong developmental relationships, that is, close connections through which young people discover who they are, gain abilities to shape their own lives, and learn how to interact with and contribute to the world around them. A developmental relationship is distinct from more generalized notions of positive relationships in that it is defined by the combination of five interconnected elements: express care, challenge growth, provide support, share power, and expand possibilities. (Search Institute, Social Capital Assessment).
- A student has access to the resources provided by developmental relationships. Resources can include things such as financial or material help, information, skill-building opportunities, guidance, and values and norms. The following social capital measure focuses on three types of resources: access to useful information, new connections, and skill-building opportunities. (Search Institute, Social Capital Assessment).
- Students have a web or network of developmentally-rich relationships that can provide access to valuable resources. There are several indicators that have been used to understand the quality of an individual's social network, such as network structure, size, diversity, and strength. (Search Institute, Social Capital Assessment).
- Students have people in their network who are from different cultures, racial and ethnic backgrounds, economic backgrounds, and have different skills. (Search Institute, Social Capital Assessment).
- Students have people in their network they can go to for help, trust, and feel close to, as well as people who they feel less close to (i.e., weaker tie) but who may be influential in helping them access their goals or who may connect them to others. (Search Institute, Social Capital Assessment).
- Catalysts to Mobilize Relationships and Resources: The degree to which an individual has different relationships that help build their self-awareness, confidence, relationships-building skills, and possible selves. (Search Institute, Social Capital Assessment).
- Self-Initiated Social Capital: The degree to which an individual actively builds relationships and uses the relationships and the resources they have to reach their goals. (Search Institute, Social Capital Assessment).
- Relationship-Building Skills: The degree to which an individual is able to build positive relationships with others. (Search Institute, Social Capital Assessment).
- Networking Skills: The degree to which an individual purposefully uses relationships within their social network to reach their goals. (Search Institute, Social Capital Assessment).
- Personal Identity: The degree to which an individual has a clear sense of their personal identity (Search Institute, Social Capital Assessment).
- Racial and Ethnic Identity: The degree to which an individual has a clear sense of their racial and ethnic background and what this identity means to them. (Search Institute, Social Capital Assessment).
- Sense of Purpose: The degree to which an individual has a clear sense of their life's purpose. (Search Institute, Social Capital Assessment).
- Self-Efficacy for Reaching Life Goals: The degree to which an individual feels they can successfully reach their life goals. (Search Institute, Social Capital Assessment).
- Progress Towards Education or Career Goals: The degree to which an individual reports making progress towards their education or career

goals. (Leveraging Social Capital to Broaden Participation in STEM).

- Commitment to Paying It-Forward: The degree to which an individual engages in behaviors that demonstrate a commitment to paying-it-forward to others. (Leveraging Social Capital to Broaden Participation in STEM).
- Collective Efficacy to Change Systems: The degree to which an individual feels that they can work with their program or organization to change employment and education systems. (Leveraging Social Capital to Broaden Participation in STEM).
- Occupational Identity: The degree to which an individual has a clear sense of their occupational identity. (Leveraging Social Capital to Broaden Participation in STEM).
- Job-Seeking Skills: The degree to which an individual engages in behaviors that may lead to securing employment. (Leveraging Social Capital to Broaden Participation in STEM).

System indicators

- To measure concentration of social capital at a systems level, users could consider an index adapted from researchers Anil Rupasingha and Stephan Goetz. Their index includes: the number of all associations per 10,000 population, including religious organizations, civic and social associations, political organizations, professional organizations, labor organizations, bowling centers, physical fitness facilities, public golf courses, and sports clubs. The measure also includes commercial and nonprofit associations drawn from Census Bureau County Business Patterns data. It also includes
- The percentage of voters who participated in a presidential, state, or county election (Education-to-Workforce Framework).
- The county-level census response rate in the person's county (Education-to-Workforce Framework).
- The number of charitable, nonprofit organizations with an office in the county (Education-to-Workforce Framework).
- Cohesiveness: The degree to which a person's social networks are fragmented into cliques. (Leveraging Social Capital to Broaden Participation in STEM).
- Economic connectedness: The degree to which low-income and high-income people are friends with each other. Studies have shown that children who grow up in communities with more economic connectedness (cross-class interaction) are much more likely to rise up out of poverty. (Leveraging Social Capital to Broaden Participation in STEM).
- Civic engagement: Rates of volunteering and participation in community organizations. (Leveraging Social Capital to Broaden Participation in STEM).
- Program Support for Social Capital Development: The degree to which an individual reports receiving forms of support as a result of participating in a program that is believed to promote social capital (e.g., skill building, increasing network size). (Leveraging Social Capital to Broaden Participation in STEM).
- Sense of Program/School Community: The degree to which an individual feels a sense of community within their program, school, or organization. (Leveraging Social Capital to Broaden Participation in STEM).
- Psychological Safety: The degree to which an individual feels their program or organization provides a safe space for them to express who they are as an individual. (Leveraging Social Capital to Broaden Participation in STEM).
- Volunteer Support: The degree to which an individual perceives that volunteers in their program or organization have provided them with social capital support (e.g., useful information, new connections). (Leveraging Social Capital to Broaden Participation in STEM).
- Seeking Volunteer Support: The degree to

which an individual actively seeks social capital support from volunteers within their program or an organization (e.g., asks for information, guidance, and other forms of instrumental support). (Leveraging Social Capital to Broaden Participation in STEM).

- Seeking Teacher/Professor Support: The degree to which an individual actively seeks social capital support from teachers, professors, and other campus staff (e.g., asks for information, guidance, and other forms of instrumental support). (Leveraging Social Capital to Broaden Participation in STEM).

Practices and Policies

Practices

- Students' social capital in STEM education (derived from families, peers, teachers, and professional networks) demonstrably promotes their STEM educational outcomes and career paths. Inclusive STEM schools, mentoring, and after-school programs are some promising approaches that can enhance STEM social capital and outcomes of underrepresented students, particularly women, Blacks/Hispanics/Native Americans, youth with low socioeconomic status, and persons with disabilities. (Leveraging Social Capital to Broaden Participation in STEM).
- In out-of-school settings, offering after-school or summer programs, such as robotics team or science summer camp, can foster peer networks and pair students with STEM mentors. These out-of-school time programs are practical social capital building strategies that can reach a large number of students across the country, especially in rural communities. (Leveraging Social Capital to Broaden Participation in STEM).
- Schools and nonprofit organizations can help cultivate social capital among young people through educational and non-educational programming (Education-to-Workforce Framework).

Policies

- Interventions such as zoning and affordable housing policies aimed at integrating neighborhoods and college admissions reforms to boost diversity on campuses can increase cross-class interaction substantially and are likely to be very valuable. (Opportunity Insights, Social Capital and Economic Mobility).
- Friending bias (i.e. the tendency for people to befriend people similar to them) can be influenced by policy changes as well. While more work needs to be done to identify what types of interventions reduce friending bias, there are a number of programs being piloted around the country that warrant further study: efforts to reduce the size of groups in which students interact and limit the divisions created by tracking in schools, changes in architecture and urban planning to foster greater interaction, and the creation of new domains for interaction via programs that seek to break down class barriers. (Opportunity Insights, Social Capital and Economic Mobility).
- Providing relevant bridging social capital may make other programs that seek to increase economic mobility more effective. For example, recent programs that have had large impacts in helping families move to higher-opportunity neighborhoods or obtain higher-paying jobs provide bridging social capital and outperform traditional programs that focus solely on economic resources or skills. These results suggest that prioritizing the provision of adequate social support so people can take advantage of available economic resources may greatly amplify the impacts of existing programs to reduce intergenerational poverty. (Opportunity Insights, Social Capital and Economic Mobility).
- Policy initiatives and programs aimed at enhancing opportunities for students to connect and engage with more interest-sharing peers and professionals in STEM fields could help them develop extended social networks that can support their educational and career pathways

in STEM. ISTEMSs represent one of the latest comprehensive schoolwide reform models that offer opportunities for students, particularly underrepresented groups, to participate in a STEM-specialized learning environment with interest-sharing peers. (Leveraging Social Capital to Broaden Participation in STEM).

- Policymakers and educators can develop and expand programs that promote STEM-oriented interactions among peers and parental involvement in STEM education both at home and at school. Creating and supporting STEM-focused clubs or study groups, in and out of school, is one approach. (Leveraging Social Capital to Broaden Participation in STEM).
- Policymakers and educators can introduce STEM-related materials or activities to the existing well-established student organizations such as Girl Scout STEM Programs and Young Men's Christian Association (YMCA) STEM Programs. (Leveraging Social Capital to Broaden Participation in STEM).
- To promote parental engagement in STEM, they must have expanded access to STEM learning resources and activities, especially for those parents without a college degree and those who are not working in STEM fields. Equally important is providing training and professional development in STEM for educators and social service providers, such as public librarians or museum staff, whose tasks involve engaging parents in their children's learning activities. (Leveraging Social Capital to Broaden Participation in STEM).
- Policy initiatives can create and facilitate well-designed mentoring programs that pair students (in particular women, under-represented minorities, low-SES students, and people with disabilities) with STEM educators or professionals who are knowledgeable and passionate about supporting students' educational and career development. Training and supporting those STEM educators or professionals in providing mentorship can help them be effective mentors for their mentees. Also helpful is partnering schools with industry organizations to offer internships for students to shadow professionals in real-world STEM settings. (Leveraging Social Capital to Broaden Participation in STEM).

Access to health, mental health and social supports *Key source: E-W Framework*

Indicators

Contributing indicators

- Individuals have access to health, mental health, and social services provided by educational institutions and employers. Schools can be a critical source of support for students' physical, mental, and social-emotional health. For example, three out of four students who ever access mental health services do so through their school. (Education-to-Workforce).
- Ratio of number of students to number of health, mental health, and social services full-time equivalent (FTE) staff (for example, school nurses, psychologists, and social workers) (Education-to-Workforce Framework).
- The U.S. Department of Education's National Teacher and Principal Survey collects data on the number of FTE nurses, psychologists, and social workers among a sample of schools (Education-to-Workforce Framework).
- Proportion of youth experiencing poor mental health (Data Source: Youth Risk Behavior Surveillance System) (StriveTogether 2021).

- Percentage of youth with mental or emotional health needs as identified by a universal screening tool. For a list of mental health screening tools that may be appropriate for school-based use, see the following guide from the National Center on Safe Supportive Learning Environments: "Mental Health Screening Tools for Grades K–12" (Education-to-Workforce Framework).
- Physical health/fitness of high school graduates. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Rate of teen parenthood. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Rate of drug/substance use/abuse. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

System indicators

- Eligible schools are enrolled in free and reduced-price school breakfast and lunch programs (National Education Association).
- Number and type of in-school health workers (National Education Association).
- Percentage of specialized instructional support personnel (SISP) surveyed indicating satisfaction with time dedicated toward collaboration (National Education Association).
- Percentage of programs offering health, mental health and social services, or staff or consultants providing infant and early childhood mental health consultation (IECMHC) services (Education-to-Workforce Framework).
- Proportion of schools with behavioral/mental health services and on-site staff (StriveTogether 2021).
- School structure and resources, including the following indicators: General population support services (e.g., guidance counselor, college counselor, employment assistance, emergency funds, disability support); ELL or dual-language program(s) offered; Special education and support for students with disabilities; Advanced coursework (e.g., AP, IB, dual enrollment/early college); Ability tracking; Career pathway programming for students (e.g., internships, credentials, vocational education, job fairs, job readiness programming); College connections (e.g., visits to school by college representatives, college centers); Behavior management system (e.g., PBiS systems and fidelity, restorative practices); Health and mental health services; Socioemotional/leadership development interventions; General population programs/interventions (e.g., reading programs, incentive systems); Online learning; Curriculum/teaching materials (not infrastructural); Curriculum development (including for cultural relevance); Teacher and staff professional development (including on data usage, collaborative and systemic analysis of student work, formative assessment practices); Specials (physical education, electives, extracurricular activities, and enrichment programming); Student affiliation or decision making bodies (e.g., GSA, student government). (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- Districts provide adequate resources for student-to-specialized instructional support personnel (SISP) to collaborate with teachers, education support professionals (ESPs), parents and students. (National Education Association).
- Districts provide student-to-specialized instructional support personnel (SISP) with adequate time to collaborate with teachers and education support professionals (ESPs) (National Education Association).
- School-based supports for child health and well-being, such as physicals, vaccinations, dental and vision care, therapy and other mental health services (Results for America).

Policies

- Providing access to health care (Rhode Island Kids Count).
- Districts require a favorable student-to-specialized instructional support personnel (SISP) ratio (Optimal ratios include: school counselors – 250:1; school nurses – 750:1; school psychologists – 500-700:1; school social workers – 250:1) (National Education Association).
- State and/or district pays for school-based health workforce, including nurses and counselors (National Education Association).
- In addition to ensuring students receive the academic supports needed for postsecondary, social and emotional supports are needed as well. A recent survey by Gallup found that 37 percent of adults believe social and life skill supports would be most helpful in preparing students for college, while another 38 percent believe social and life skills would be helpful in preparing students for the workplace. Nationally representative surveys of teachers and administrators show that they believe social and emotional development is critical for success in school, work, and life, but that only a minority of schools are integrating such learning and development into school culture, climate, and curriculum (Bridgeland, Bruce, & Hariharan, 2013; DePaoli, Atwell, & Bridgeland, 2017). (Civic Enterprises, Building a Grad Nation).
- Supporting Students' Basic Needs: In an interview conducted with state-level members of the National College Attainment Network, members in four states (California, New York, Ohio, Tennessee) identified better support for students' basic needs as a key state policy issue. When members discussed student basic needs, they included access to housing, food, transportation, and other supports necessary for postsecondary success outside of tuition and fees. Organizations considered the impact of a wide variety of student needs – from financial to social-emotional – on access and attainment outcomes. One member suggested that many access and attainment policies are "outdated and antiquated" and "don't address the needs and wants of students today." Another interviewee shared their belief that "students need to be at the table, with a voice, and with a vote" to ensure that more holistic supports are provided. Members across states highlighted policy efforts to support student mental health, assist with food, housing, and transportation, and ensure that students are retained throughout their postsecondary education because concerns about their basic needs are alleviated. (NCAN, Building Momentum at the State Level).

Physical development and well-being

Key source: E-W Framework

Indicators

Contributing indicators

- Individuals exhibit positive physical development and health. Physical development and well-being is both an outcome in itself and an important contributor to economic mobility and security. Research links healthy behaviors like physical activity to higher academic achievement. (Education-to-Workforce).
- Percentage of students meeting benchmarks on self-rated surveys of physical health, such as the California Healthy Kids Survey Physical Health & Nutrition module. (Education-to-Workforce).
- The EW Framework recommends measuring physical development and well-being using

self-reports on surveys. Although physical fitness tests and activity trackers are viable alternatives to self-reports, survey data may be more feasible to collect at scale while mitigating potential concerns about shaming and privacy. As one example, California administers both a survey and a physical fitness test to K–12 students. However, it recently eliminated the Body Composition component of the test amid concerns about its value and risk for unintended consequences and is reassessing whether to continue with the test at all (Education-to-Workforce Framework).

System indicators

- Periodically measure the extent to which the school is in compliance with its health and wellness policy and progress made in attaining the goals of the school's health and wellness policy and make the assessment available to the public (National Dropout Prevention Center).
- Rate of teen parenthood. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Rate of drug/substance use/abuse. (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).

Practices and Policies

Practices

- Recognize the importance of student health and wellness and establish a nutrition promotion and education program, physical activity, and other school-based activities that promote student wellness (National Dropout Prevention Center).
- Include nutrition guidelines for all foods available on the school campus to promote student health and reduce obesity (National Dropout Prevention Center).
- Create a school health and wellness committee composed of students, parents, faculty, administrators, school health professionals and community health organizations to ensure appropriate health and wellness programs are available to each student (National Dropout Prevention Center).
- Inform and and update the public about the content, implementation and impacts of the school's health and wellness policy (National Dropout Prevention Center).

Policies

- Since 2003, every school district in California has been required to administer the California Healthy Kids Survey (CHKS) at least once every two years and make the results publicly available. CHKS is an anonymous, confidential survey for students in grades 5 and above designed to help school communities identify students' needs. It is based on a strengths-based framework drawn from resilience and youth development research. CHKS covers several dimensions of school climate and student well-being, including physical and mental well-being and safety. Although there is a core survey that must be administered, school districts can select supplementary modules for more in-depth questions on different topics or add a custom module to measure other topics relevant to their community.

Communication skills

Key source: E-W Framework

Indicators

Contributing indicators

- Individuals have the oral, written, nonverbal, and listening skills required for success in school and at work. (Education-to-Workforce).
- K–12: Percentage of students demonstrating proficiency on assessments such as the College and Career Readiness Assessment, an assessment for grades 6–12 that measures critical thinking, problem solving, and written communications (Education-to-Workforce Framework).

System indicators

- Percentage of students demonstrating proficiency on assessments such as the College and Career Readiness Assessment (CCRA+), an assessment for grades 6–12 that measures critical thinking, problem solving, and written communications. (Education-to-Workforce).

Higher-order thinking skills

Key source: E-W Framework

Indicators

Contributing indicators

- Individuals have the problem solving, critical thinking, and decision-making skills needed in the workplace. Higher-order thinking (also referred to as critical thinking, problem solving, or decision making) is consistently ranked as one of the most in-demand workforce readiness competencies by employers across industries. (Education-to-Workforce).
- Percentage of students demonstrating proficiency on assessments such as the College and Career Readiness Assessment (CCRA+), an assessment for grades 6–12 that measures critical thinking, problem solving, and written communications. (Education-to-Workforce).
- Remembering: Students recognize or recall knowledge from memory. Remembering is when memory is used to produce or retrieve definitions, facts, or lists, or to recite previously learned information. (Anderson and Krathwohl, Bloom's Taxonomy Revised).
- Understanding: Students construct meaning from different types of functions be they written or graphic messages or activities like interpreting, exemplifying, classifying, summarizing, inferring, comparing, or explaining. (Anderson and Krathwohl, Bloom's Taxonomy Revised).
- Applying: Students carry out or use a procedure through executing or implementing. Applying relates to or refers to situations where learned material is used through products like models, presentations, interviews or simulations. (Anderson and Krathwohl, Bloom's Taxonomy Revised).
- Analyzing: Students break materials or concepts into parts, determine how the parts relate to one another or how they interrelate, or how the parts relate to an overall structure or purpose. Mental actions included in this function are differentiating, organizing, and attributing, as well as being able to distinguish between the components or parts. When one is analyzing,

he/she can illustrate this mental function by creating spreadsheets, surveys, charts, or diagrams, or graphic representations. (Anderson and Krathwohl, Bloom's Taxonomy Revised).

- Evaluating: Students make judgments based on criteria and standards through checking and critiquing. Critiques, recommendations, and reports are some of the products that can be created to demonstrate the processes of evaluation. In the newer taxonomy, evaluating comes before creating as it is often a necessary part of the precursory behavior before one creates something. (Anderson and Krathwohl, Bloom's Taxonomy Revised).
- Creating: Students put elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing. Creating requires students to put parts together in a new way, or synthesize parts into something new and different creating a new form or product. This process is the most difficult mental function in the new taxonomy. (Anderson and Krathwohl, Bloom's Taxonomy Revised).

Practices and Policies

Practices

- Teachers use a variety of question types to gauge students' understanding. When gauging students' learning in math class, it's essential to ask a variety of questions that encourage critical thinking, communication, and reflection. Open-ended questions can help you understand students' thought processes and identify areas where they may need additional support. Probing questions can uncover students' thought patterns and help you diagnose misconceptions. Higher-order thinking questions can assess students' ability to apply mathematical concepts to real-life scenarios and make connections to broader mathematical ideas. Self-reflection questions can help students identify their own strengths and weaknesses and develop a growth mindset. Modeling and visualizing questions can encourage students to think creatively and develop their spatial reasoning skills. Finally, discussion and connection questions can foster a sense of community and help students see the relevance of math to their everyday lives. By mixing up the types of questions you ask, you can get a more comprehensive picture of your students' understanding and provide targeted support to help them deepen their learning. (National Council of Teachers of Mathematics).

17 Are there students who disproportionately experience exclusionary discipline?

Why this matters

Discipline practices: Research consistently documents persistent disparities in exclusionary discipline practices — disciplinary actions that remove students from their educational setting, such as in- or out-of-school suspensions — along lines of race, socioeconomic background and disability status (Education-to-Workforce Framework). Exclusionary discipline practices have serious negative consequences for high school students' academic and life outcomes; students who experience them are more likely to fall behind academically, disengage from school and eventually drop out (Losen & Martinez, 2013). The American Psychological Association (APA) Task Force further found that exclusionary practices are associated with increased rates of future disciplinary action and greater involvement with the juvenile justice system — a pattern known as the "school-to-prison pipeline" (APA, 2008).

These practices disproportionately affect students of color, students with disabilities and LGBTQ+ students, exacerbating existing inequities and contributing to long-term social and economic disparities (U.S. Government Accountability Office, 2018).

In contrast, alternative approaches to discipline, such as restorative justice and positive behavioral interventions and supports (PBIS), are associated with improvements in school culture and climate (Education-to-Workforce Framework). Research suggests that these approaches not only reduce behavior incidents but also foster better teacher-student relationships and improve student achievement (Gregory, Clawson, Davis, & Gerewitz, 2016).

Equitable discipline practices *Key source: E-W Framework*

Indicators

Contributing indicators

- Differences in the rates at which students from key demographic subgroups ever experience different forms of school discipline (office referrals, suspensions, expulsions, restraint, and exclusion) relative to those students' representation in their school population as a whole (Education-to-Workforce Framework).
- Disproportionalities along the lines of key demographic characteristics in the level of school discipline experienced (for example, number of days suspended) (Education-to-Workforce Framework).

- Percentage of students subjected to disciplinary action in the past year (National Education Association).
- Students (K-12) who received one or more in-school suspension: Number of students without disabilities who received one or more in-school suspension [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) who received one or more in-school suspension: Number of students with disabilities who received one or more in-school suspension [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students who received one out-of-school suspension: Number of K-12 students without disabilities who received one out-of-school suspension [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students who received one out-of-school suspension: Number of K-12 students with disabilities who received one out-of-school suspension [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students who received more than one out-of-school suspension: Number of K-12 students without disabilities who received more than one out-of-school suspension [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students who received more than one out-of-school suspension: Number of K-12 students with disabilities who received more than one out-of-school suspension [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) who were expelled (with educational services; without educational services; because of zero-tolerance policies) (Civil Rights Data Collection, Office for Civil Rights).
- Number of students without disabilities who were expelled (with educational services; without educational services; because of zero-tolerance policies) [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities who were expelled (with educational services; without educational services; because of zero-tolerance policies) [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students without disabilities who were transferred for disciplinary reasons to alternative school [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities who were transferred for disciplinary reasons to alternative school [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students who received corporal punishment (Civil Rights Data Collection, Office for Civil Rights).
- Number of K-12 students without disabilities who received corporal punishment [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of K-12 students with disabilities who received corporal punishment [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of instances of corporal punishment that K-12 students received (disaggregated by students without disabilities, students with

disabilities) (Civil Rights Data Collection, Office for Civil Rights).

- Number of instances of out-of-school suspensions that K-12 students received (disaggregated by students without disabilities, students with disabilities-IDEA, students with disabilitiesSection 504 only) (Civil Rights Data Collection, Office for Civil Rights).
- Number of school days missed by K-12 students who received out-of-school suspensions [disaggregated by race, sex (male, female, nonbinary), disability-IDEA, disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) who were referred to law enforcement agency or official.
- Number of students without disabilities who were referred to law enforcement agency or official [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities who were referred to law enforcement agency or official [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of instances of referrals to law enforcement that K-12 students received (disaggregated by students without disabilities, students with disabilities-IDEA, students with disabilities-Section 504 only) (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) who were arrested for school-related activity (Civil Rights Data Collection, Office for Civil Rights).
- Number of students without disabilities who were arrested for school-related activity [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities who were arrested for school-related activity [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of instances of school-related arrests that K-12 students received (disaggregated by students without disabilities, students with disabilities-IDEA, students with disabilities-Section 504 only) (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) subjected to mechanical restraint: o Number of non-IDEA students subjected to mechanical restraint [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities (IDEA) subjected to mechanical restraint [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) subjected to physical restraint (Civil Rights Data Collection, Office for Civil Rights).
- Number of non-IDEA students subjected to physical restraint [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities (IDEA) subjected to physical restraint [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).
- Students (K-12) subjected to seclusion (Civil Rights Data Collection, Office for Civil Rights).
- Number of non-IDEA students subjected to seclusion [disaggregated by race, sex (male, female, nonbinary), disability-Section 504 only, EL] (Civil Rights Data Collection, Office for Civil Rights).
- Number of students with disabilities (IDEA) subjected to seclusion [disaggregated by race, sex (male, female, nonbinary), EL] (Civil Rights Data Collection, Office for Civil Rights).

- Number of instances of mechanical restraint, physical restraint, seclusion (disaggregated by students without disabilities, students with disabilities-IDEA, students with disabilities-Section 504 only) (Civil Rights Data Collection, Office for Civil Rights).

System indicators

- Out-of-school suspension and expulsion rates, disaggregated by race, disability, gender, and other student demographics (Civil Rights Data Collection, Office for Civil Rights).
- Availability and participation in inclusive practices such as Universal Design for Learning (UDL) and restorative classroom management (Eliminating Disparities in School Discipline).
- Ratio of mental health professionals to students, and implementation fidelity of restorative practices.
- Schools treat students similarly and appropriately for disciplinary infractions (Education-to-Workforce).
- K-12 institution suspension rate (California Department of Education & WestEd, Cradle-to-Career Data System Public Data Definitions).
- Schools collect and publicly report demographic data recording behavior and behavioral interventions leading to disciplinary exclusion from school (National Education Association).
- Suspension and expulsion rates (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Suspension rates disaggregated by gender, race, ethnicity, disability status, language status, and economic status. (Council of the Great City Schools).
- Instructional days missed per 100 students due to suspensions disaggregated by gender, race, ethnicity, disability status, language status, and economic status. (Council of the Great City Schools).
- Differences in the rates at which students from key demographic subgroups ever experience different forms of school discipline (office referrals, suspensions, expulsions, restraint and exclusion) relative to those students' representation in their school population as a whole (Education-to-Workforce Framework).
- Disproportionalities along the lines of key demographic characteristics in the level of school discipline experienced (for example, number of days suspended) (Education-to-Workforce Framework).
- Rates of arrests and law enforcement referrals (Urban Institute, Robust and Equitable Measures to Identify Quality Schools).
- Behavioral reasons for discipline (Birth to Grade 3 Indicator Framework).
- Discipline equity gaps by student subgroups (Birth to Grade 3 Indicator Framework).
- Percent of total instructional time missed (Birth to Grade 3 Indicator Framework).
- Suspension, expulsion and overall exclusionary discipline rates and numbers of students impacted (Birth to Grade 3 Indicator Framework).

Practices and Policies

Practices

- Identifying and addressing disproportionate discipline in Maryland: In partnership with the Regional Education Laboratory (REL) Mid Atlantic, the Maryland State Department of Education (MSDE) is systematically identifying and addressing disproportionality in exclusionary discipline. All local school systems in the State of Maryland have discipline review teams tasked with examining removals from the classroom and increasing the use of non-exclusionary discipline practices. Discipline data are disaggregated by race and ethnicity and disability status, allowing practitioners and researchers to understand disciplinary trends and examine

school characteristics related to disproportionate discipline. MSDE is using data to identify resources and interventions that can promote preventive strategies and non-exclusionary behavioral supports, such as restorative justice practices and positive behavioral interventions and supports (Education-to-Workforce).

- Schools offer alternatives to traditional behavioral interventions, such as restorative practices (National Education Association).
- Schools use Positive Behavior Intervention Supports (PBIS) (Results for America).
- Invest in public health strategies to create safe schools (Center for Policing Equity).
- My Brother's Keeper, a national program reducing exclusionary discipline and promoting equity for young men of color (My Brother's Keeper Alliance).
- Training and Professional Development. Professionals must receive comprehensive training on disability awareness, implicit bias, and positive behavioral interventions. This training should emphasize de-escalation techniques and the importance of understanding disability-related behaviors in context (EdTrust, Unfair Punishments).
- Revising Policies and Practices. Schools should replace zero-tolerance policies with restorative justice approaches that focus on repairing harm, fostering understanding, and building supportive relationships. Discipline policies must be flexible enough to account for the individual needs of students with disabilities. States should also continue to end laws allowing for corporal punishment, seclusion, and dangerous restraint practices (EdTrust, Unfair Punishments).
- Strengthening Legal Protections and Enforcement. Governments and advocacy organizations must ensure that schools comply with IDEA and Section 504. This includes robust monitoring and enforcement mechanisms to hold systems accountable for violations (EdTrust, Unfair Punishments).
- Increasing Resources and Support. Schools must be equipped with the resources to meet the needs of SWD including hiring trained special education staff, providing access to mental health services, and ensuring the availability of assistive technologies (EdTrust, Unfair Punishments).
- Promoting Inclusive School Cultures. Creating an inclusive school culture requires a commitment to valuing diversity and fostering empathy. Schools should involve students, families, and community members in decision-making processes to ensure that policies and practices reflect the needs and perspectives of all (EdTrust, Unfair Punishments).
- Data Collection and Transparency. Schools must collect and publicly report data on disciplinary actions, disaggregated by disability, race, and other relevant factors (EdTrust, Unfair Punishments).
- Restorative practices invite young people to share what's really happening and get support if they need it. In contrast, punitive discipline focuses on punishing the harm-doer, often adding to the problem that led to the hurtful behavior (The Hechinger Report, Punitive Discipline Makes School Feel Like a Prison, Not a Community).
- Restorative processes help students understand the causes and impacts of their harmful acts and consider what they could have done differently. Further, educators are given an opportunity to demonstrate their full investment in their students' growth as well as their complete commitment to deepening their own reflection practices. A community of care supports the building of trust and relationships in a way that includes both young people and adults (The Hechinger Report, Punitive Discipline Makes School Feel Like a Prison, Not a Community).
- By helping young people (and adults) learn skills like managing anger, having empathy, challenging bias and practicing conflict resolution, we can prevent harm from occurring.

But when harm does occur, and adults use harsh discipline to address it, they undermine SEL. We should model the strategies and values that we want students to learn and the values that we hope they will embrace — like compassion and respect for every person (The Hechinger Report, Punitive Discipline Makes School Feel Like a Prison, Not a Community).

- Research shows that positive relationships and good communication make schools safer and more effective. It's hard to create those good connections in schools where coercion, punishment and the threat of incarceration are everywhere. Schools do have security needs. Sometimes students must be suspended. But creating community is paramount (The Hechinger Report, Punitive Discipline Makes School Feel Like a Prison, Not a Community).

Policies

- Districts allocate resources toward restorative practices (National Education Association).
- State policy requires schools to collect and publicly report demographic data recording behavior and behavioral interventions leading to disciplinary exclusion from school. Disciplinary actions include in-school/out-of-school suspensions, expulsions, arrests and referrals to law enforcement (National Education Association).
- Policies support the integration of behavioral health services in schools to address underlying issues before they result in disciplinary actions.

Bibliography

A. Frameworks incorporated

Organization	Publication	Description	Link
Alliance for Early Success	Birth Through Eight State Policy Framework	Provides a roadmap for state policies aimed at improving health, family support, and learning outcomes for children from birth through age eight.	Link
Alliance for Excellent Education	Paper Thin? Why All High School Diplomas Are Not Created Equal	Analyzes disparities in high school diploma requirements across states, emphasizing the need for college- and career-ready standards to ensure student preparedness.	Link
American School Counselor Association (ASCA)	ASCA School Counselor Professional Standards & Competencies	Outlines the mindsets and behaviors school counselors need to effectively support student academic, career, and social/emotional development.	Link
American School Counselor Association (ASCA)	The School Counselor and Academic Development	Highlights the role of school counselors in promoting academic development through comprehensive counseling programs.	Link
Annie E. Casey Foundation	Early Warning! Why Reading by the End of Third Grade Matters	Highlights the critical importance of achieving reading proficiency by third grade as a predictor of high school graduation and long-term success.	Link
Annie E. Casey Foundation	Double Jeopardy: How Third-Grade Reading Skills and Poverty Influence High School Graduation	Demonstrates that students who are not proficient in reading by third grade, especially those in poverty, are significantly less likely to graduate high school on time.	Link
Annie E. Casey Foundation	Kids Count Data Center	A comprehensive data resource providing insights into child and family well-being across the U.S.	Link

Organization	Publication	Description	Link
Association for Career and Technical Education (ACTE)	Career and Technical Education's Role in Career Guidance	Highlights the role of career and technical education in providing comprehensive guidance to help students navigate the evolving workforce landscape.	**Link**
Attendance Works	Attendance Works Policy Recommendations	Advocates for policies at all levels that address chronic absenteeism as a key factor in educational inequity and student achievement.	**Link**
Attendance Works	Expanded Metrics for Monitoring Attendance and Engagement	Provides strategies for tracking and improving student attendance in virtual learning environments to address chronic absenteeism.	**Link**
Attendance Works	For Policy Makers	Offers guidance for policymakers on implementing effective attendance policies and practices.	**Link**
Attendance Works	Policy Advocacy	Provides strategies and recommendations for policymakers to address chronic absenteeism and improve student attendance.	**Link**
Attendance Works	3 Tiers of Intervention	Presents a multi-tiered system of support for addressing chronic absenteeism through prevention, early intervention, and intensive support.	**Link**
Brown's Promise	Fulfilling Brown's Promise: A State Policy Agenda	Proposes a state policy agenda aimed at closing educational opportunity gaps and advancing equity in line with the historic Brown v. Board of Education decision.	**Link**
California Cradle-to-Career Data System	Cradle-to-Career Data System Public Data Definitions	Defines key data points for tracking student progress from early education through career, facilitating data-driven decision-making.	**Link**
Californians Together	The State of English Learners in California	Provides a comprehensive overview of the educational progress and challenges faced by English learners in California.	**Link**
Center for American Progress	High School Diplomas	An analysis of the value and implications of high school diplomas in the current educational landscape.	**Link**
Center on Enhancing Early Learning Outcomes	Birth to Grade 3 Indicator Framework	Provides a framework of indicators to support alignment between early childhood and K–3 systems for improved student outcomes.	**Link**
Child Trends	System Transformation for Equitable Preschools (STEP Forward with Data) Framework	Proposes a data framework to guide equitable preschool system transformations, focusing on access, quality, and outcomes.	**Link**

Organization	Publication	Description	Link
Civic Enterprises & Everyone Graduates Center at Johns Hopkins University	Building a Grad Nation: Progress and Challenge in Raising High School Graduation Rates	Analyzes national high school graduation trends, highlighting progress and ongoing challenges in achieving a 90% graduation rate.	**Link**
Civic Enterprises, LLC	The Silent Epidemic Perspectives of High School Dropouts	Provides a tool to assist educators and policymakers in planning and implementing college and career development initiatives.	**Link**
College Board	Broadening Access to Advanced Placement, A Toolkit for Educators and School Leaders	Analyzes barriers to Advanced Placement (AP) access and offers strategies to expand participation, especially for underrepresented students.	**Link**
Education Strategy Group (ESG)	Rethinking High School Graduation Requirements: A Strategic Imperative for State Policymakers	Advocates for aligning high school graduation requirements with college and career readiness to ensure equitable opportunities for all students.	**Link**
Education Strategy Group (ESG)	From Heads to Tails, Building Momentum for Postsecondary Success	Offers guidance for district leaders to sustain and scale effective practices for student success post-pandemic.	**Link**
Education Strategy Group (ESG)	From Tails to Heads: Building Momentum for Postsecondary Success	Proposes metrics and policies to increase college and career readiness and equitable postsecondary attainment.	**Link**
Education to Workforce	The Education to Workforce Framework	An initiative focused on aligning educational pathways with workforce demands to ensure students are career-ready.	**Link**
Guan K. Saw1	Leveraging Social Capital to Broaden Participation in STEM	Details a large-scale initiative to broaden participation in STEM fields through collaborative efforts and inclusive practices.	**Link**
Head Start	Trauma and Adverse Childhood Experiences	Provides resources to help early childhood programs understand and respond to the impact of trauma and ACEs on young children.	**Link**
Instruction Partners	Essential Practices in Early Literacy	Presents five research-based practices to enhance early literacy instruction, emphasizing the needs of multilingual learners.	**Link**
Larry Ferlazzo, Education Week	Thirteen Instructional Strategies for Supporting ELL Newcomers	Offers evidence-based instructional strategies to effectively teach and support English language learner newcomers in the classroom.	**Link**

Organization	Publication	Description	Link
Leeds for Learning	Multilingual Series: Strategies to Support Multilingual Learners	Outlines strategies for educators to effectively support multilingual learners through inclusive practices and language development.	**Link**
Leslie Owen Wilson	Anderson and Krathwohl Bloom's Taxonomy Revised	Discusses the 2001 revision of Bloom's Taxonomy, introducing a two-dimensional framework that categorizes cognitive processes and types of knowledge.	**Link**
Mathematica, the Bill & Melinda Gates Foundation, and Mirror Group:	Education-to-Workforce Indicator Framework	Outlines indicators to assess and guide the alignment between education systems and workforce outcomes.	**Link**
Migration Policy Institute	The Impacts on English Learners of Key State High School Policies and Graduation Requirements	Examines the variability in state policies affecting English learners, highlighting the need for more consistent and supportive educational practices.	**Link**
National Bureau of Economic Research (NBER)	Dropout Prevention and College Prep	This chapter reviews research on high school dropout prevention and college preparatory programs, emphasizing their potential to reduce poverty by addressing critical educational transition points.	**Link**
National College Attainment Network (NCAN)	Summer Melt Resources	Offers tools and strategies to help students transition from high school to college, addressing the phenomenon where students fail to enroll despite intentions.	**Link**
National College Attainment Network (NCAN)	Building Momentum at the State Level	This report summarizes state-level policy priorities and strategies to improve postsecondary attainment and equity.	**Link**
National College Attainment Network (NCAN)	E-Learning for College Access & Success	Offers self-paced online modules to train professionals in college access and success advising.	**Link**
National College Attainment Network (NCAN)	Signal Vine text Messages and Schedule Template	Provides sample messages for educators to communicate with students during the summer to encourage college enrollment.	**Link**

Organization	Publication	Description	Link
National College Attainment Network (NCAN)	Survey Data Strengthen Association Between FAFSA Completion and Enrollment	Highlights the positive correlation between FAFSA completion and college enrollment rates among students.	**Link**
National Dropout Prevention Center/ Network (NDPC/N)	15 Effective Strategies for Dropout Prevention	Outlines evidence-based strategies that schools can implement to reduce dropout rates and support student retention.	**Link**
National Education Association (NEA)	GPS Indicators Framework	Presents a comprehensive set of indicators to evaluate how well states, districts, and schools support student success across various domains.	**Link**
Policy Analysis for California Education (PACE)	Students with Growth Mindset Learn More in School	Demonstrates that students with a growth mindset achieve higher academic gains, equivalent to several weeks of additional learning annually.	**Link**
Prenatal-to-3 Policy Impact Center	Perinatal Telehealth Services	Reviews the potential of perinatal telehealth services to improve access to care and outcomes for mothers and infants.	**Link**
Rhode Island KIDS COUNT	Getting Ready: Findings from the National School Readiness Indicators Initiative A 17 State Partnership	Summarizes key school readiness indicators across states, focusing on early childhood development and outcomes.	**Link**
Roby Chatterji, Neil Campbell, Abby Quirk	Closing Advanced Coursework Equity Gaps for All Students	Examines disparities in access to advanced coursework and offers policy recommendations to close equity gaps for underrepresented students.	**Link**
Search Institute	Social Capital Assessment + Learning for Equity (SCALE) Measures User Guide	Offers guidance on implementing measures to assess social, emotional, and academic learning outcomes in educational settings.	**Link**
Shanan L. Chappell, Patrick O'Connor, Cairen Withington, Dolores A. Stegelin	A Meta-Analysis of Dropout Prevention Outcomes and Strategies	Analyzes the effectiveness of various dropout prevention strategies, identifying key practices that significantly reduce dropout rates.	**Link**
StriveTogether	A Guide to Racial and Ethnic Equity Systems Indicators	Offers a set of indicators to measure and promote racial and ethnic equity within education systems and related sectors.	**Link**

Organization	Publication	Description	Link
Tatianna Zambrano, M. Ed	Unfair Punishments: How School Discipline Disproportionately Targets Students with Disabilities	Highlights how disciplinary practices often disproportionately affect students with disabilities, leading to inequitable educational outcomes.	**Link**
The University of Chicago Consortium on Chicago School Research	Middle Grade Indicators of Readiness in Chicago Public Schools	Presents a framework to help stakeholders understand and improve college and career readiness and success.	**Link**
TNTP	Competency-Aligned Educator Interview Questions and Activities	Provides tools for hiring educators based on competencies aligned with effective teaching and student outcomes.	**Link**
U.S. Department of Education	Civil Rights Data Collection (CRDC)	Provides extensive data on key education and civil rights issues in U.S. public schools, including enrollment, discipline, and access to advanced courses.	**Link**
U.S. Department of Education	The Better FAFSA What High School Educators and College Access Counselors Need to Know	A practical guide for educators and counselors to support students in completing the FAFSA and accessing financial aid.	**Link**
Urban Institute	Upward Mobility Initiative	Offers a framework and tools to help local leaders understand and improve upward mobility and racial equity in their communities.	**Link**
Urban Institute	Robust and Equitable Measures to Identify Quality Schools	A detailed model assessing educational quality and equity across different schools and districts.	**Link**
Urban Institute	Boosting Upward Mobility Metrics to Inform Local Action (Second Edition)	Provides a set of metrics to help local leaders assess and enhance factors that influence upward mobility in their communities.	**Link**
Urban Institute	Promise Neighborhoods	Highlights a comprehensive, place-based approach to support children and families in distressed communities through cradle-to-career services.	**Link**
What Works Clearinghouse (WWC)	Preventing Dropout in Secondary Schools	Provides four evidence-based recommendations to reduce dropout rates and improve high school graduation, including monitoring student progress and creating personalized learning environments.	**Link**

B. Background research

Organization	Publication	Description	Link
A. Gregory, K. Clawson, A. Davis, J. Gerewitz	The Promise of Restorative Practices to Transform Teacher-Student Relationships and Achieve Equity in School Discipline	Proposes a research-based framework to address and reduce racial and gender disparities in school discipline practices.	**Link**
A. J. Reynolds, J. A. Temple, D. L. Robertson, E. A. Mann	Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools	Reviews research on the sustained impacts of early childhood programs on cognitive development and academic achievement.	**Link**
Achieve the Core	Using a Task as a Pre-Assessment	Discusses the use of specific tasks as pre-assessment tools to gauge student understanding and inform instructional planning.	**Link**
Advance CTE	Aligning to Opportunity: State Approaches to Setting High Skill, High Wage and In Demand	Discusses how states define and implement criteria for high-skill, high-wage, and in-demand occupations in CTE programs.	**Link**
Advance CTE	Without Limits: A Shared Vision for the Future of Career Technical Education Promotional Toolkit-Partners	Presents a vision for inclusive and equitable CTE systems that support all learners in achieving career success.	**Link**
Agency for Healthcare Research and Quality (AHRQ)	Medical Expenditure Panel Survey (MEPS)	A set of large-scale surveys providing data on health services usage, costs, and insurance coverage among U.S. residents.	**Link**
Aída Walqui & Margaret Heritage	Supporting English Learners' Oral Language Development	Explores effective instructional practices for English learners, emphasizing the importance of scaffolding and language development.	**Link**
Albert Shanker Institute	Reading Reform Across America: A Survey of State Legislation	Analyzes reading legislation from 2019 to 2022 across U.S. states, highlighting efforts to enhance reading instruction through comprehensive support systems.	**Link**

Organization	Publication	Description	Link
All4Ed	Paper Thin? Why All High School Diplomas Are Not Created Equal	Analyzes the varying rigor of high school diplomas across states, highlighting disparities that affect college and career readiness, especially among underserved students.	**Link**
Allison Bruhn, Sara Mcdaniel, and Christi Kreigh	Self-Monitoring Interventions for Students with Behavior Problems: A Systematic Review of Current Research	Discusses interventions and strategies for managing behavioral disorders in educational settings.	**Link**
AMANDA JANICE AND MAMIE VOIGHT	Toward Convergence: A Technical Guide for the Postsecondary Metrics Framework	This guide offers a standardized approach to measuring postsecondary outcomes to enhance accountability and transparency.	**Link**
American Economic Association	Priceless: The Nonpecuniary Benefits of Schooling	An exploration of the non-monetary benefits of education, such as improved health, decision-making, and social interactions.	**Link**
American Institutes for Research (AIR)	Early College, Early Success: Early College High School Initiative Impact Study	Evaluates the effectiveness of ECHSI in improving college enrollment and degree attainment among students.	**Link**
American Psychological Association (APA)	APA Website	Serves as the leading organization for psychologists, advancing psychological knowledge and practice to benefit society.	**Link**
American School Counselor Association (ASCA)	ASCA Position Statements	Outlines ASCA's official positions on various issues affecting school counseling and student development.	**Link**
American School Counselor Association (ASCA)	ASCA Student Standards: Mindsets & Behaviors for Student Success	Outlines the knowledge, skills, and attitudes students need for academic success, college and career readiness, and social/emotional development.	**Link**
America's Promise Alliance	Re-engagement: Bringing Students Back to America's Schools	Explores strategies for re-engaging out-of-school youth and improving graduation rates through community-based initiatives.	**Link**
Amy K Syvertsen, Laura Wray-Lake, Aaron Metzger	Youth Civic and Character Measures Toolkit	A toolkit providing validated measures for assessing civic engagement and character strengths in youth.	**Link**

Organization	Publication	Description	Link
Anastasia Goodwin, Claire Partain	More HISD students are passing AP exams than ever before. What's changed?	Reports on the significant increase in Advanced Placement exam passing rates within Houston ISD, attributing improvements to targeted instructional strategies and support.	**Link**
Andrew Fenelon, Michel Boudreaux, Natalie Slopen, Sandra J. Newman	The Benefits of Rental Assistance for Children's Health and School Attendance in the United States	Reviews evidence linking housing quality and stability to physical and mental health outcomes.	**Link**
Anil Rupasingha, Stephan J. Goetz	Social and political forces as determinants of poverty: A spatial analysis	This study explores how civic engagement activities contribute to positive youth development, emphasizing the role of community involvement in fostering adolescents' growth and societal participation.	**Link**
Ann Huff Stevens	What Works in Career and Technical Education (CTE)? A Review of Evidence and Suggested Policy Directions	Reviews evidence on Career and Technical Education (CTE), highlighting its potential to improve earnings and employment, while noting challenges like program quality transparency and funding limitations.	**Link**
Anna Farr, Cary Lou, Hannah Sumiko Daly	How Do Children and Society Benefit from Public Investments in Children?	Highlights economic and social benefits of government spending on children's programs.	**Link**
Anna J. Egalite	What We Know About Teacher Race and Student Outcomes	Examines research indicating that students benefit academically and socially when taught by teachers of the same race, particularly for Black students.	**Link**
Anne Gregory, Russell J. Skiba, Kavitha Mediratta	Eliminating Disparities in School Discipline: A Framework for Intervention	Proposes a research-based framework to address and reduce racial and gender disparities in school discipline practices.	**Link**
Annenberg Institute for School Reform	College Readiness Indicator Systems Building Effective Supports for Students	This issue explores the development and implementation of College Readiness Indicator Systems (CRIS) to support students' preparedness for postsecondary education.	**Link**

Organization	Publication	Description	Link
Ann-Marie Faria, Nicholas Sorensen, Jessica Heppen, Jill Bowdon, Suzanne Taylor, Ryan Eisner, Shandu Foster	Getting Students on Track for Graduation: Impacts of the Early Warning Intervention and Monitoring System After One Year	Evaluates the Early Warning Intervention and Monitoring System (EWIMS), finding it reduces chronic absenteeism and course failures but shows limited impact on GPA and credit accumulation after one year.	**Link**
Anthony S. Bryk	Learning to Improve	Advocates for continuous improvement in education through disciplined inquiry and collaborative efforts.	**Link**
April Sutton , Amy G Langenkamp , Chandra Muller , Kathryn S Schiller	Who Gets Ahead and Who Falls Behind During the Transition to High School? Academic Performance at the Intersection of Race/ Ethnicity and Gender	This research examines how the transition to high school affects academic performance across different race/ethnicity and gender groups, highlighting disparities in educational outcomes.	**Link**
Arthur J. Reynolds, Judy A. Temple, Barry A. White, Suh-Ruu Ou, Dylan L. Robertson	Age-26 Cost-Benefit Analysis of the Child-Parent Center Early Education Program	Highlights the long-term benefits of high-quality early childhood education programs on children's development and success.	**Link**
Association for Career and Technical Education (ACTE)	CTE Today!	Highlights the benefits and impact of Career and Technical Education programs on student engagement, graduation rates, and workforce readiness.	**Link**
Attendance Works	Continued High Levels of Chronic Absence, With Some Improvements, Require Action	Reports that despite slight improvements, chronic absenteeism remains a significant issue post-pandemic, necessitating targeted interventions.	**Link**
Attendance Works	Key Research: Why Attendance Matters for Achievement and How Interventions Can Help	This compilation presents research findings on the causes and consequences of chronic absenteeism and effective strategies to improve attendance.	**Link**
Attendance Works	Spring Attendance Slide	The resource discusses the decline in student attendance during the spring and offers interventions to counteract this trend.	**Link**

Organization	Publication	Description	Link
Attendance Works	Strategies for Connecting with Students and Families	Provides strategies for schools to reconnect with students and families, especially during disruptions like the COVID-19 pandemic.	**Link**
Attendance Works	The Urgent Need to Avoid Punitive Responses to Poor Attendance	The article emphasizes the importance of addressing the root causes of absenteeism through supportive measures rather than punishment.	**Link**
Attendance Works	Using Chronic Absence Data to Improve Conditions for Learning	This report outlines how analyzing chronic absence data can enhance learning environments and reduce absenteeism through targeted interventions.	**Link**
Attendance Works	Using R.E.A.L. to Welcome Families Back to School	This toolkit provides strategies for schools to engage families and promote consistent attendance at the start of the school year.	**Link**
Baltimore Education Research Consortium (BERC)	Destination Graduation: Sixth Grade Early Warning Indicators for Baltimore City Schools – Their Prevalence and Impact	The report identifies key indicators in sixth grade, such as chronic absenteeism and failing grades, that can predict students' risk of not graduating high school.	**Link**
Ben Erwin, Daizha Brown, Sharmila Mann	50-State Comparison: High School Graduation Requirements	Provides a comprehensive comparison of state policies on graduation requirements, including diploma options, course credits, and assessments.	**Link**
Bowen, Bradley D., Shume, Teresa	Educators in Industry: How Teacher Externships Influence K-12 Classroom Practices	Examines the impact of teacher externships in industry settings on classroom practices and student engagement.	**Link**
Brian P. Gill	Making Sure School Performance Measures Provide the Right Diagnosis to Improve Student Outcomes	Advocates for using comprehensive performance measures, including growth and value-added data, to more accurately assess school effectiveness.	**Link**
C. Kirabo Jackson, Rucker C. Johnson & Claudia Persico	The Effects of School Spending on Educational and Economic Outcomes: Evidence from School Finance Reforms	Investigates the impact of educational interventions on student achievement and long-term outcomes.	**Link**

Organization	Publication	Description	Link
California Department of Education	California Transformative SEL Competencies	Provides a framework outlining competencies for social and emotional learning aimed at fostering equitable and inclusive educational environments.	**Link**
California Department of Education	California Healthy Kids Survey (CHKS)	CHKS is a comprehensive youth health and resilience data collection system that supports school improvement efforts.	**Link**
California Department of Education	California School Dashboard	An online tool providing performance data on California schools and districts across multiple measures.	**Link**
California Department of Education / WestEd	California School Climate, Health, and Learning Surveys (CalSCHLS)	A comprehensive survey system assessing school climate, student engagement, and health to inform school improvement efforts.	**Link**
Camille L. Ryan and Julie Siebens	Educational Attainment in the United States: 2009	Provides statistics on family structures, household compositions, and living arrangements in the U.S. as of 2012.	**Link**
Carmen DeNavas-Walt, Bernadette D. Proctor, Jessica C. Smith	Income, Poverty, and Health Insurance Coverage in the United States: 2009	A report detailing the economic well-being of Americans, including income levels, poverty rates, and health insurance coverage in 2009.	**Link**
Caroline Hoxby and Sarah Turner	Expanding College Opportunities for High-Achieving, Low Income Students	Evaluates interventions that provide information and application fee waivers to high-achieving, low-income students, leading to increased applications and enrollments in selective colleges.	**Link**
Center for American Progress	The Funnel To Passing AP Exams	Explores disparities in Advanced Placement exam participation and success rates among different student demographics.	**Link**
Center for Policing Equity	K-12 Schools Recommendations	Examines the role of policing in schools and advocates for equitable approaches to ensure student safety.	**Link**
Center on PBIS	PBIS Website	PBIS provides a framework for schools to promote positive behavior and improve student outcomes through tiered support systems.	**Link**
Centers for Disease Control and Prevention (CDC)	CDC Website	Provides comprehensive information on public health topics, including disease prevention and health promotion.	**Link**
Centers for Disease Control and Prevention (CDC)	Health and academic achievement	This CDC document provides information on public health topics relevant to school health programs.	**Link**

Organization	Publication	Description	Link
Centers for Disease Control and Prevention (CDC)	National Health Interview Survey (NHIS)	A principal source of information on the health of the U.S. population through personal household interviews.	**Link**
Charles T. Clotfelter, Helen F. Ladd, Jacob L. Vigdor	Teacher credentials and student achievement: Longitudinal analysis with student fixed effects	Using a decade of North Carolina data, this study finds that teacher experience, test scores, and regular licensure positively impact student achievement—especially in math—with effects comparable to or greater than class size and student socioeconomic factors.	**Link**
Charlotte Danielson	Observing Classroom Practice	Discusses effective methods for observing and improving classroom teaching practices.	**Link**
Chenoa S. Woods and Thurston Domina	The School Counselor Caseload and the High School-to-College Pipeline	This study evaluates the relationship between access to school counselors and several critical indicators of student transitions between high school and college.	**Link**
Children's Funding Project	Voter-Approved Children's Funds	Describes how communities establish dedicated public funds through voter approval to support various children's services beyond K-12 education.	**Link**
Christopher Mulhern	Beyond Teachers: Estimating Individual School Counselors' Effects on Educational Attainment	Analyzes the impact of high school counselors on student outcomes, demonstrating their significant role in promoting academic achievement.	**Link**
Civic Enterprises & Everyone Graduates Center at the School of Education at Johns Hopkins University	Closing the College Gap: A Roadmap to Postsecondary Readiness and Attainment	Outlines strategies to improve postsecondary readiness and attainment, highlighting the need for equitable educational opportunities.	**Link**
Civic Enterprises & Hart Research Associates	Ready to Lead: A National Principal Survey on How Social and Emotional Learning Can Prepare Children and Transform Schools	This report shares insights from principals on the implementation and impact of SEL in schools.	**Link**

Organization	Publication	Description	Link
Civic Enterprises with Peter D. Hart Research Associates	The Missing Piece: A National Teacher Survey on How Social and Emotional Learning Can Empower Children and Transform Schools	This report presents findings from a national survey of teachers on the importance of social and emotional learning (SEL) in education.	**Link**
Clea McNeely, Hedy Nai-Lin Chang, Kevin Gee	Disparities in Unexcused Absences Across California Schools	The report highlights how punitive responses to unexcused absences disproportionately affect socioeconomically disadvantaged and minority students.	**Link**
Clive Belfield & Peter M. Crosta	Predicting Success in College: The Importance of Placement Tests and High School Transcripts	This publication analyzes how placement tests and high school transcripts can predict college success, informing placement policies.	**Link**
Clive R. Belfield and Henry M. Levin	The Price We Pay: Economic and Social Consequences of Inadequate Education	A comprehensive analysis of how inadequate education leads to significant economic and social costs, emphasizing the need for educational reforms.	**Link**
Collaborative for Academic, Social, and Emotional Learning (CASEL)	CASEL	Provides resources and research to support the implementation of social and emotional learning in schools.	**Link**
Colorado Department of Education	ON-TRACK/ EARLY WARNING SYSTEMS Colorado Dropout Prevention Framework	Outlines strategies for using data to identify students at risk of dropping out and implementing interventions.	**Link**
Colorado Department of Public Health and Environment	School-Based Health Centers	Provides primary medical and behavioral health care to children and young adults directly within Colorado schools.	**Link**
Communities In Schools	Communities In Schools	A national organization that works within public schools to help at-risk students stay in school and succeed.	**Link**
Community College Research Center (CCRC)	Dual Enrollment: A Strategy for Educational Advancement	Explores how dual enrollment programs can enhance college readiness and postsecondary success.	**Link**

Organization	Publication	Description	Link
Connecticut State Department of Education	Learner Engagement and Attendance Program (LEAP)	LEAP is an initiative aimed at improving student engagement and reducing chronic absenteeism through targeted interventions.	**Link**
Consortium on Chicago School Research	From High School to the Future: Potholes on the Road to College	Analyzes the challenges Chicago Public Schools students face in transitioning from high school to college, emphasizing the need for better support systems.	**Link**
Constance A. Lindsay and Cassandra M. D. Hart	Exposure to Same-Race Teachers and Student Disciplinary Outcomes for Black Students in North Carolina	Presents findings from a study showing that Black students perform better academically when assigned to Black teachers, suggesting the importance of teacher-student racial matching.	**Link**
Corporation for Public Broadcasting (CPB)	American Graduate Initiative: Jobs Explained	Launched in 2011, this public media initiative aims to help young people stay on the path to a high school diploma and explore career pathways through community engagement and media resources.	**Link**
Council for Aid to Education (CAE)	Empower Students for Future Success by Building Higher-Order Skills Today	Offers assessments and instructional materials to develop students' higher-order skills like critical thinking and problem-solving.	**Link**
Council of Chief State School Officers (CCSSO)	A Nation of Problem-Solvers: How State Leaders Can Help Every Student Achieve in Math	Provides state leaders with actionable strategies to improve math outcomes through high-quality materials, professional development, and data-driven instruction.	**Link**
Council of the Great City Schools	Academic Key Performance Indicators	Presents key indicators on the status and progress of education in the United States.	**Link**
Counselor Clique	From Off-Track to Graduation: Counselor Tips for Supporting At-Risk Students [Episode 119]	Provides strategies for school counselors to support at-risk students in achieving graduation, emphasizing relationship-building and individualized support.	**Link**
Daniel J. Losen, Tia Elena Martinez	Out of School and Off Track: The Overuse of Suspensions in American Middle and High Schools	Analyzes the overuse of suspensions in U.S. middle and high schools and their disproportionate impact on students of color.	**Link**
Danielson, Charlotte; McGreal, Thomas L.	Teacher Evaluation To Enhance Professional Practice	Examines how meaningful teacher evaluations can lead to improved teaching and learning outcomes.	**Link**

Organization	Publication	Description	Link
David T. Conley / Bill & Melinda Gates Foundation	Toward a More Comprehensive Conception of College Readiness	Proposes a multifaceted definition of college readiness, including cognitive strategies, academic behaviors, and contextual skills.	**Link**
De Gruyter Brill	Dropping Out: Why Students Drop Out of High School and What Can Be Done About It	An in-depth examination of the factors leading to high school dropouts and strategies to address them.	**Link**
Debra S. Osborn and Jennifer N. Baggerly	School Counselors' Perceptions of Career Counseling and Career Testing: Preferences, Priorities, and Predictors	A statewide survey of school counselors found they prefer trait/factor career counseling approaches but spend minimal time on career counseling and testing despite a strong desire to do more, with key predictors identified for actual and preferred time allocations.	**Link**
Deutsch, Jonah; Johnson, Matthew; Gill, Brian	The Promotion Power Impacts of Louisiana High Schools	Evaluates Louisiana high schools' effectiveness in promoting students' long-term success, considering factors like graduation rates and college enrollment.	**Link**
Dionne Grayman	Opinion: Punitive Discipline Makes School Feel Like a Prison, Not a Community	Advocates for restorative practices over punitive discipline to foster a more supportive and inclusive school environment.	**Link**
Douglas N. Harris, Tim R. Sass	Teacher training, teacher quality and student achievement	Examines the relationship between teacher qualifications and student performance, concluding that credentials like experience and licensure positively affect achievement.	**Link**
Dr. David Steiner	Making It Count: Teaching High-Quality Curriculum	Dr. David Steiner emphasizes that effective teaching of high-quality curriculum can mitigate educational disparities, advocating for sustained implementation supported by leadership and professional development.	**Link**
EAB	Are Districts the Nation's Adolescent Mental Health Care Providers?	This whitepaper discusses the increasing role of school districts in providing mental health services to adolescents and identifies barriers to effective support.	**Link**
Education Commission of the States (ECS)	Education Commission of the States Website	Provides comprehensive resources and policy tracking tools to support state education leaders in developing effective education policies.	**Link**

Organization	Publication	Description	Link
Education Strategy Group (ESG)	Aligning Advising Across K-12 and Postsecondary Systems is Better for Students, Institutions, and Communities	Highlights the benefits of coordinated advising systems to support students' transitions from high school to postsecondary education.	**Link**
Educational Opportunity Project at Stanford	Affluent Schools Are Not Always the Best Schools	Analyzes data showing that higher socioeconomic status does not always correlate with better learning rates, with some less affluent districts outperforming wealthier ones.	**Link**
Edutopia	Starting Each Class with a Warm Welcome	The video showcases techniques for teachers to create a welcoming classroom environment that fosters student engagement.	**Link**
ERIC (Education Resources Information Center)	Teacher Evaluation: A Comprehensive Guide to New Directions and Practices	Explores comprehensive approaches to teacher evaluation and their implications for educational practice.	**Link**
Eric Hanushek & Ludger Woessmann	Do better schools lead to more growth? Cognitive skills,	An analysis linking cognitive skills acquired through education to economic growth across countries.	**Link**
Erin Elizabeth Hubbard	25 SEL Emotional Check-Ins for Kids	The article provides activities to help students identify and express their emotions, supporting their social-emotional development.	**Link**
Evans, G. W., Li, D., & Whipple, S. S	Cumulative risk and child development.	This article explores the significant influence of parenting styles and behaviors on children's developmental outcomes.	**Link**
Federal Communications Commission (FCC)	Affordable Connectivity Program	A federal initiative providing discounts on internet service and devices to ensure affordable broadband access for eligible households.	**Link**
Federal Reserve Board	Report on the Economic Well-Being of U.S. Households	Offers an interactive tool illustrating how Americans handle unexpected financial expenses.	**Link**
Florida Department of Education	Guide to Calculating Perkins Secondary Accountability Measures	Provides methodologies for evaluating secondary Career and Technical Education (CTE) programs under Perkins V, focusing on graduation rates and academic proficiency.	**Link**
Foundation for Child Development (FCD)	Making the Most of Our Investments: How PK-3 Alignment Can Close the Achievement Gap from the Start	Advocates for aligning preschool through third-grade education to close achievement gaps early in children's academic careers.	**Link**

Organization	Publication	Description	Link
Frank Gresham, PhD, Stephen N. Elliott, PhD	Social Skills Improvement System (SSIS) Rating Scales	A multi-rater assessment evaluating social skills, problem behaviors, and academic competence in individuals aged 3–18.	**Link**
Government Finance Officers Association (GFOA)	GFOA's Smarter School Spending Framework	Presents a framework to help school districts align financial resources with student achievement goals through strategic budgeting.	**Link**
Graduation Ready	Early Warning Intervention and Monitoring System	Provides a 7-step process for educators to identify and support students at risk of falling off track in high school.	**Link**
Greg J. Duncan and Harry J. Holzer	Policies That Reduce Intergenerational Poverty	Discusses policy approaches that help break the cycle of poverty from parents to children.	**Link**
Gregory M. Walton, Claude L. Cohen	A brief social-belonging intervention improves academic and health outcomes of minority students.	Evaluates the effectiveness of a specific educational intervention on student outcomes.	**Link**
Harvard Graduate School of Education	Harvard Family Research Project	Provides research and resources on family engagement in education to support children's learning and development.	**Link**
Harvard Strategic Data Project	Summer Melt	Researches the phenomenon of students who intend to attend college but fail to enroll, offering strategies to mitigate this issue.	**Link**
Health Care Authority	Turquoise Care Overview	A Medicaid program offering comprehensive health coverage to eligible New Mexico residents.	**Link**
Hello Family Spartanburg	Got Kids? Need Resources or Support?	A collection of free services and programs in Spartanburg County designed to support parents and caregivers in raising young children.	**Link**
Hope Center for Children	Triple P Spartanburg A Positive Parenting Program	An evidence-based program offering various levels of support to help parents manage child behavior and promote positive development.	**Link**
IDI, LLC	Intercultural Development Inventory (IDI)	An assessment tool measuring intercultural competence and the ability to adapt behavior across cultures.	**Link**
Illinois Department of Human Services	Policy Memo: All Kids	Announces that all uninsured children in Illinois are eligible for medical benefits under the All Kids program, regardless of income or immigration status.	**Link**
Illinois State Board of Education	Postsecondary and Workforce Readiness (PWR) Act	Outlines strategies to prepare Illinois students for college and careers through competency-based education and transitional instruction.	**Link**

Organization	Publication	Description	Link
ImpactTulsa	2019 Community Impact Report	A data-rich analysis of education outcomes and equity metrics across the Tulsa region.	**Link**
Institute of Education Sciences	Using Promotion Power to Identify the Effectiveness of Public High Schools in the District of Columbia	The study introduces promotion power as a metric to assess high schools' effectiveness by isolating their impact on student outcomes—such as SAT scores, graduation, and college enrollment—from students' prior achievements and backgrounds, revealing significant variations among schools and offering a more equitable evaluation method.	**Link**
Institute of Education Sciences (IES) / REL Mid-Atlantic	Understanding Discipline Disparities in Maryland	Highlights persistent discipline disparities in Maryland schools and suggests strategies for equitable disciplinary practices.	**Link**
Internal Revenue Service (IRS)	Refundable Tax Credits	Provides information on tax credits that can result in refunds, even if no tax is owed, such as the Earned Income Tax Credit and Child Tax Credit.	**Link**
Isaac M. Opper	Understanding Teachers' Impact on Student Achievement	Discusses how teachers significantly influence student achievement and the complexities of measuring teacher effectiveness through statistical methods.	**Link**
James J. Heckman & Dimitriy V. Masterov	The Productivity Argument for Investing in Young Children	Presents an economic analysis advocating for early childhood investments to enhance future productivity and reduce inequality.	**Link**
James J. Kemple	Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood	Evaluates the long-term effects of Career Academies on students' educational and employment outcomes.	**Link**
James Thorp	Decisions without Direction: Career Guidance and Decision Making among American Youth	Investigates the challenges American youth face in making informed career decisions due to inadequate guidance.	**Link**
Jason A. Grissom, Luis A. Rodriguez, and Emily C. Kern	Teacher and Principal Diversity and the Representation of Students of Color in Gifted Programs: Evidence from National Data	Study finding that schools with larger numbers of Black teachers or a Black principal have greater representation of Black students in gifted programs and that a similar relationship for Hispanic teachers and representation of Hispanic students.	**Link**

Organization	Publication	Description	Link
Jeff Murray	New evidence of weak benefits to student-teacher matching on race	Discusses research that questions the strength of benefits associated with matching students and teachers by race, suggesting other factors may play more significant roles.	**Link**
Jeffrey T. Denning, Eric R. Eide, Richard W. Patterson, Kevin J. Mumford, Merrill Warnick	Lower Bars, Higher College GPAs: How Grade Inflation Is Boosting College Graduation Rates	The article explores how grade inflation in colleges is contributing to higher graduation rates, questioning the implications for academic standards.	**Link**
Jiun-Yu Wu, Jan N. Hughes. Oi-Man Kwok	Teacher student relationship quality type in elementary grades: Effects on trajectories for achievement and engagement	This literature review examines how various aspects of housing, such as quality, affordability, and stability, significantly influence physical and mental health outcomes.	**Link**
Jon Alfuth	Four Key Insights into Competency-based Graduation Requirements	Discusses emerging trends in competency-based education, advocating for graduation requirements that reflect students' mastery of skills.	**Link**
Jonah E. Rockoff	The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data	Demonstrates significant variability in teacher effectiveness and its substantial influence on student academic outcomes.	**Link**
Jonathan Smith	Can Applying to More Colleges Increase Enrollment Rates? Research Brief	Finds that students, especially from low-income backgrounds, who apply to more colleges have higher enrollment rates, suggesting that application behavior influences college attendance.	**Link**
Joseph A. Durlak, Roger P. Weissberg, Allison B. Dymnicki, Rebecca D. Taylor, Kriston B. Schellinger	The Impact of Enhancing Students' Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions	Examines how positive teacher-child relationships in preschool impact children's social and emotional development.	**Link**
Joseph L. Mahoney, Joseph A. Durlak, Roger P. Weissberg	An update on social and emotional learning outcome research	Reviews research on the outcomes of social and emotional learning programs in schools.	**Link**

Organization	Publication	Description	Link
Julie Harris, Miya Warner, Kaily Yee, Stephanie Wilkerson	Assessing the Alignment between West Virginia's High School Career and Technical Education Programs and the Labor Market	This study assessed how well West Virginia's high school CTE programs align with regional high-demand occupations requiring moderate postsecondary preparation, finding strong overall alignment in program availability but limited student enrollment in aligned programs, highlighting opportunities to better guide students toward career-ready pathways.	Link
Julien Lafortune	Understanding the Effects of School Funding	Analyzes the impact of school funding on educational outcomes, emphasizing the importance of equitable resource allocation to improve student achievement.	Link
Karen Appleyard, Byron Egeland, Manfred H.M. van Dulmen, L. Alan Sroufe	When more is not better: the role of cumulative risk in child behavior outcomes	This study examines how early adverse experiences contribute to the development of psychopathology in children and adolescents.	Link
Kenneth Leithwood, Karen Seashore Louis, Stephen Anderson and Kyla Wahlstrom	How Leadership Influences Student Learning	Examines the impact of educational leadership on student achievement and outlines effective leadership practices.	Link
Kim, Jinok	Relationships among and between ELL Status, Demographic Characteristics, Enrollment History, and School Persistence. CRESST Report 810	Examines how English Language Learner status and demographic factors influence student persistence in school.	Link
Kim, Jinok; Herman, Joan L.	When to Exit ELL Students: Monitoring Success and Failure in Mainstream Classrooms after ELLs' Reclassification. CRESST Report 779	Analyzes the outcomes of reclassified ELL students to determine optimal timing for exiting language support programs.	Link
KIPP Foundation	College Match Strategies Framework	Provides a framework for counselors to guide students in selecting and applying to colleges that fit their academic profiles.	Link
Lee, Valerie E.	Restructuring High Schools for Equity and Excellence: What Works. Sociology of Education Series.	Examines whether restructured high schools provide more equitable and effective education using data from the NELS:88 study.	Link

Organization	Publication	Description	Link
Linda Darling-Hammond, Jonathan Kaplan , Michael A. DiNapoli Jr.	How Education Funding Matters: Lessons from NAEP, the Pandemic, and Recovery Efforts	Analyzes the relationship between education funding, student performance, and recovery efforts post-pandemic.	**Link**
Linda S. Olson	Why September Matters: Improving Student Attendance	The brief analyzes early attendance patterns in Baltimore schools and their implications for student achievement.	**Link**
Louisiana Department of Education	Louisiana Content Leaders	Details a professional development program where trained educators support peers in implementing high-quality, curriculum-specific instruction, serving as a leadership pipeline.	**Link**
Louisiana Department of Health	Louisiana Receives Approval for Unique Strategy to Enroll SNAP Beneficiaries in Expanded Medicaid Coverage	Announces the launch of a new program aimed at improving health care access for underserved populations in Louisiana.	**Link**
Lumina Foundation	Stronger Nation	Provides data and strategies aimed at increasing the proportion of Americans with high-quality postsecondary credentials.	**Link**
Mahnaz Charania and Julia Freeland Fisher	The Missing Metrics: Emerging Practices for Measuring Students' Relationships and Networks	This report introduces a four-dimensional framework to assess students' social capital by measuring the quantity, quality, structure, and mobilization of their relationships, aiming to enhance educational equity and opportunity.	**Link**
Making Caring Common Project, Harvard Graduate School of Education	Relationship Mapping	Offers tools for educators to ensure every student has a positive relationship with at least one adult in the school.	**Link**
Manhattan Institute	Public High School Graduation and College-Readiness Rates	A working paper discussing educational policies and their impacts on student outcomes.	**Link**
Mark C. Long, Dylan Conger,Patrice Iatarola	Effects of High School Course-Taking on Secondary and Postsecondary Success	Provides evidence that increased school spending, particularly in low-income districts, leads to improved educational and economic outcomes.	**Link**
Mark Lieberman	Why Chronic Absenteeism Is a Budget Problem Too	Explores how high absenteeism rates impact school funding and emphasizes the need for systemic solutions to improve attendance.	**Link**

Organization	Publication	Description	Link
Maryland State Department of Education	Disproportionate Discipline - The Maryland Initiative	Provides resources and guidance to address and reduce disproportionate disciplinary actions in Maryland schools.	**Link**
Maryland State Department of Education	School-Based Health Centers	Offers comprehensive preventive and primary health services, including mental and oral health, on school campuses across Maryland.	**Link**
Matthew A. Kraft	Can Professional Environments in Schools Promote Teacher Development? Explaining Heterogeneity in Returns to Teaching Experience	This study finds that teachers improve at different rates over time, with those in more supportive professional environments showing significantly greater gains in effectiveness—38% more over ten years—than peers in less supportive schools.	**Link**
Matthew A. Kraft & John P. Papay	Can Professional Environments in Schools Promote Teacher Development?	Investigates how supportive professional environments contribute to teacher development and improved student achievement.	**Link**
Matthew Guzman	The Cost of the Cap: The Impact of Education Expenditures on Graduation Rates	Analyzes data from Illinois and Indiana, finding that a 10% increase in per-pupil instruction expenditures can lead to a 1.5% to 3.6% rise in graduation rates.	**Link**
Matthew M. Chingos and Grover J. "Russ" Whitehurst	Choosing Blindly: Instructional Materials, Teacher Effectiveness, and the Common Core	Argues that selecting high-quality instructional materials is a cost-effective strategy to improve student outcomes, yet lacks sufficient data on material effectiveness and usage.	**Link**
Matthew M. Chingos and Kristin Blagg	Do Poor Kids Get Their Fair Share?	Examines whether school funding formulas equitably allocate resources to low-income students, finding significant disparities.	**Link**
MDRC	Reconnecting Youth	Describes initiatives aimed at re-engaging young people who are disconnected from education and employment pathways.	**Link**
Melanie Leung-Gagné, Jennifer McCombs, Caitlin Scott, Daniel J. Losen	Pushed Out: Trends and Disparities in Out-of-School Suspension	This study examines the negative impacts of exclusionary discipline practices, particularly on students of color and those with disabilities.	**Link**
Melissa Roderick, Jenny Nagaoka, Vanessa Coca, Eliza Moeller	From High School to the Future: Potholes on the Road to College	Analyzes barriers Chicago Public Schools students face in the college application process, emphasizing the need for better support systems.	**Link**

Organization	Publication	Description	Link
Michael Hurwitz, Jessica Howell	Estimating Causal Impacts of School Counselors With Regression Discontinuity Designs	This article uses a causal regression discontinuity framework with national survey data to show that adding one high school counselor can increase 4-year college enrollment rates by 10 percentage points.	**Link**
Michael J Kieffer, William H Marinell, Sabina Rak Neugebauer	Navigating into, through, and beyond the middle grades: The role of middle grades attendance in staying on track for high school graduation	This longitudinal study investigates how middle school attendance patterns can predict students' likelihood of graduating from high school, emphasizing the importance of early intervention.	**Link**
Michelle Rones & Kimberly Hoagwood	School-Based Mental Health Services: A Research Review	This review analyzes 47 studies on school-based mental health services, highlighting effective programs and implementation strategies for children's emotional and behavioral issues.	**Link**
Ming-Te Wang, Salam Sheikh-Khalil	Does Parental Involvement Matter for Student Achievement and Mental Health in High School?	Investigates the correlation between early childhood education programs and reductions in later criminal behavior, suggesting long-term societal benefits.	**Link**
Mokher, Christine	Aligning Career and Technical Education with High-Wage and High-Demand Occupations in Tennessee. Summary. Issues & Answers. REL 2011-No. 111	Analyzes how Tennessee's CTE programs align with labor market demands, highlighting areas for improvement.	**Link**
Monica Saucedo and Adriana Ramos-Yamamoto	California Sees Health Gains for Undocumented Residents After Medi-Cal Expansion	Highlights improved health outcomes among non-citizen children following California's Medi-Cal expansion to all eligible residents, regardless of immigration status.	**Link**
Morgan, Ivy; Amerikaner, Ary	Funding Gaps 2018: An Analysis of School Funding Equity across the U.S. and within Each State	Analyzes disparities in school funding, revealing that many high-poverty and high-minority districts receive less funding than their counterparts.	**Link**
Nathan Smith	Economics Can Help State Broadband Leaders Rise to the Challenge of Universal Internet Access	Discusses how economic principles can guide state leaders in expanding broadband infrastructure to achieve universal internet access.	**Link**

Organization	Publication	Description	Link
National Association of Community and Restorative Justice (NACRJ)	Home - NACRJ	NACRJ advocates for restorative justice practices to build community and address harm through inclusive and equitable approaches.	**Link**
National Center for Children in Poverty (NCCP)	State Indicators for Early Childhood	Provides insights into the prevalence and effects of child poverty and recommendations for addressing it.	**Link**
National Center for Education Statistics (NCES)	Career and Technical Education (CTE) Statistics	Provides data on vocational education participation and outcomes at secondary, postsecondary, and adult education levels across the United States.	**Link**
National Center for Education Statistics (NCES)	Career and Technical Education Programs in Public School Districts: 2016–17	Presents data on the availability and characteristics of CTE programs across U.S. public school districts.	**Link**
National Center for Education Statistics (NCES)	DataLab	DataLab provides tools for analyzing a wide range of education-related data collected by NCES.	**Link**
National Center for Education Statistics (NCES)	Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2010–11	Provides comprehensive data on postsecondary education trends, including enrollment, persistence, and completion rates.	**Link**
National Center for Education Statistics (NCES)	Dual Enrollment Programs and Courses for High School Students at Postsecondary Institutions: 2010–11	Presents statistics on high school dropout rates, examining demographic variations and long-term trends.	**Link**
National Center for Education Statistics (NCES)	National Teacher and Principal Survey (NTPS)	NTPS collects data on the characteristics and experiences of teachers and principals to inform education policy and practice.	**Link**
National Center for Education Statistics (NCES)	Public School Graduates and Dropouts From the Common Core of Data: School Year 2005–06	A report providing statistical data on public school graduates and dropouts for the 2005–06 school year, offering insights into educational attainment trends.	**Link**

Organization	Publication	Description	Link
National Center for Education Statistics (NCES)	Trends in High School Dropout and Completion Rates in the United States	Provides statistical data on high school dropout and completion rates in the U.S., highlighting trends over time and differences among demographic groups.	**Link**
National Center for Education Statistics (NCES)	Trends in High School Dropout and Completion Rates in the United States - Indicator 3	Provides data on the percentage of individuals aged 16-24 who are not enrolled in school and have not earned a high school credential.	**Link**
National Center for Education Statistics (NCES)	Why Didn't Students Complete a Free Application for Federal Student Aid (FAFSA)? A Detailed Look	Examines the challenges and outcomes of first-generation college students in accessing and completing higher education.	**Link**
National Center for Homeless Education (NCHE)	Homeless Liaison Toolkit (2020 Edition)	Offers comprehensive guidance and resources for local liaisons to support the education of homeless children and youth, in alignment with the McKinney-Vento Act.	**Link**
National Center for Homeless Education (NCHE)	McKinney-Vento Homeless Assistance Act Overview	Provides an overview of the McKinney-Vento Act, the primary federal legislation ensuring educational rights and protections for children and youth experiencing homelessness.	**Link**
National Center on Safe Supportive Learning Environments	ED School Climate Surveys (EDSCLS)	Provides a suite of surveys to measure school climate, including engagement, safety, and environment.	**Link**
National Center on Safe Supportive Learning Environments	Information and Tools to Promote Student Mental Health	Provides resources and tools to help schools promote student mental health and create supportive learning environments.	**Link**
National Center on Safe Supportive Learning Environments	National Center on Safe Supportive Learning Environments Website	This resource center offers tools and information to help educational institutions create safe and supportive learning environments.	**Link**
National Conference of State Legislatures (NCSL)	State Broadband Task Forces, Commissions, or Authorities	Provides an overview of state-level broadband governance structures aimed at expanding internet access and digital literacy.	**Link**

Organization	Publication	Description	Link
National Council of Teachers of Mathematics (NCTM)	Asking Questions and Promoting Discourse	Provides strategies for teachers to enhance classroom discourse and student engagement through effective questioning techniques.	Link
National Council on Teacher Quality (NCTQ)	Teacher Prep Review: Program Diversity and Admissions 2021	Analyzes teacher preparation programs, highlighting the need for increased diversity and more rigorous admissions standards.	Link
National Dropout Prevention Center	National Dropout Prevention Center Website	Offers research-based strategies, professional development, and resources aimed at increasing high school graduation rates and reducing dropout rates.	Link
National Institute for Excellence in Teaching (NIET)	High-Quality Curriculum Implementation	Discusses strategies for effective implementation of high-quality curricula to enhance teaching and learning.	Link
Nebraska Department of Education	Nebraska Instructional Materials Collaborative	Offers independent reviews and resources for selecting high-quality, standards-aligned instructional materials in Nebraska.	Link
Nebraska Department of Labor	High Wage, High Skill, High Demand (H3) Occupations	Provides labor market information and analysis to support workforce development and policy planning in Nebraska.	Link
New America	School Funding Equity Factor	Introduces a metric to assess and promote equitable distribution of federal Title I funds to schools serving low-income students.	Link
New York City Department of Education	2020-21 School Quality Snapshot	Provides detailed performance data for NYC public schools, including metrics on student achievement, attendance, and school climate.	Link
New York State Education Department	Multilingual Learner and English Language Learner Graduation Rate Improvement and Dropout Prevention Planning Tool	Provides research-informed practices and tools to improve graduation rates among multilingual and English language learners.	Link
No Kid Hungry	Afterschool Meals	Provides guidance and resources to implement after school meal programs ensuring children receive nutritious meals outside school hours.	Link
North Carolina Department of Public Instruction	North Carolina Teacher Compensation Models and Advanced Teaching Roles – Request for Proposals	Outlines a plan to implement advanced teaching roles and career pathways to enhance teacher retention and student performance.	Link

Organization	Publication	Description	Link
North Carolina Department of Public Instruction	North Carolina Teacher Working Conditions Survey	Conducts biennial surveys to assess educators' perceptions of their working conditions, aiming to inform policy and improve school environments.	**Link**
Obama Foundation	My Brother's Keeper Alliance	A national initiative launched by President Obama to address opportunity gaps faced by boys and young men of color by fostering community-based solutions.	**Link**
Office of the Assistant Secretary for Planning and Evaluation (ASPE), U.S. Department of Health and Human Services	State-Funded Pre-Kindergarten: What the Evidence Shows	Analyzes the effectiveness of state-funded pre-kindergarten programs in improving children's readiness for school.	**Link**
Oregon Health Authority	Oregon Health Plan (OHP)	Provides health care coverage to low-income Oregonians through various programs under the state's Medicaid plan.	**Link**
Panorama Education	Panorama Student Survey	Offers a survey tool developed with Harvard researchers to capture student perceptions on school climate, teaching, relationships, and belonging, aiming to inform school improvement efforts.	**Link**
Partners for Rural Impact	AppC2C: A Vision for Rural Systems Transformation	Details a cradle-to-career approach aimed at transforming rural education systems through multi-sector partnerships.	**Link**
Patricia J. Martin	Transforming School Counseling: A National Perspective	This article examines the status of school counseling in the United States, highlighting the gap between counselor preparation and practice, and emphasizes the need for aligning school counselors' roles with student achievement and education reform efforts.	**Link**
Policy Analysis for California Education (PACE)	Enacting Social-Emotional Learning: Lessons from "Outlier Schools" in California's CORE Districts	Explores effective social and emotional learning practices in schools, emphasizing their role in student development and academic success.	**Link**
Prenatal-to-3 Policy Impact Center	2022 Evidence-Based Home Visiting Programs	A review of home visiting programs that effectively enhance child-parent relationships and promote healthy development.	**Link**
PROMISE PARTNERSHIP UTAH	Promise Partnership	Focuses on collaborative efforts to improve educational outcomes through community engagement and data-driven strategies.	**Link**

Organization	Publication	Description	Link
Prosperity Now	Baby Bonds	Advocates for establishing trust accounts for children at birth to reduce wealth inequality and promote financial security.	**Link**
Raj Chetty, Matthew O. Jackson, Theresa Kuchler, Johannes Stroebel, Abigail Hiller, Sarah Oppenheimer, and the Opportunity Insights Team	Social Capital and Economic Mobility	Explores the relationship between social capital and economic mobility, indicating that communities with higher social cohesion tend to have better upward mobility outcomes.	**Link**
Rebecca Bauer & Helen Westmoreland	What Is Whole Child Education?	This document advocates for a holistic educational approach that nurtures students' academic, social, emotional, and physical development.	**Link**
Results For America	Maintaining Safe and Healthy Housing	Discusses strategies for ensuring safe housing conditions, emphasizing proactive inspections and education to improve community health outcomes.	**Link**
Results for America	AVANCE Parent-Child Education Program (PCEP)	A culturally-relevant early childhood intervention aimed at increasing parenting knowledge and improving kindergarten readiness among Latino families.	**Link**
Results for America	Early Childhood Workforce Supports	Outlines strategies to train, recruit, and retain early childhood educators, emphasizing the importance of building a high-quality workforce for young children.	**Link**
Results for America	Engaging Young Men of Color in Early Childhood Education: Cincinnati, OH	Highlights a program that recruits young men of color into early childhood education roles to improve kindergarten readiness and diversify the educator workforce.	**Link**
Results for America	Healthy Home Environment Assessments	Describes programs that assess and mitigate health hazards in homes to ensure safe living conditions.	**Link**
Results for America	Housing and Community Development	Provides evidence-based strategies to enhance housing stability and community development, aiming to improve economic mobility and well-being.	**Link**
Results for America	Housing Rehabilitation Grant and Loan Programs	Highlights initiatives providing financial assistance for repairing and improving existing housing, particularly for low-income households.	**Link**

Organization	Publication	Description	Link
Results for America	Lead Paint Abatement Programs	Details programs aimed at eliminating lead-based paint hazards to protect residents, especially children, from lead poisoning.	**Link**
Results for America	ParentCorps	A school-based program that integrates professional development, parenting workshops, and social-emotional learning to support early childhood development.	**Link**
Results for America	School climate and student behavior	Offers evidence-based strategies to improve school climate and student outcomes through supportive practices.	**Link**
Results for America	School-Based Supports for Child Health and Well-Being	This strategy outlines how schools can implement health and well-being supports, including medical, dental, and mental health services, to enhance student outcomes.	**Link**
Results for America	The Economic Mobility Catalog	A repository of evidence-based strategies and programs aimed at improving public sector outcomes.	**Link**
Richard J. Murnane, John B. Willett, and Kathryn Parker Boudett	The Effects of High School Exit Exams on Graduation, Employment, Wages, and Incarceration	A study examining the impact of high school exit exams on various post-secondary outcomes, including graduation rates, employment, wages, and incarceration.	**Link**
Robert Balfanz, Liza Herzog, Douglas J. Mac Iver	Preventing student disengagement and keeping students on the graduation path in urban middle-grades schools: Early identification and effective interventions.	APA PsycNet is the American Psychological Association's platform providing access to a wide range of psychological research and publications.	**Link**
Roby Chatterji, Neil Campbell, Abby Quirk	Closing Advanced Coursework Equity Gaps for Students	Discusses disparities in access to advanced coursework among students of color and low-income students, advocating for policies to close these gaps.	**Link**
Ron Haskins and Cecilia Rouse	Closing Achievement Gaps	Discusses strategies to address disparities in school readiness among different racial and ethnic groups.	**Link**
Ross Wiener and Susan Pimentel	Practice What You Teach	Emphasizes the need for educators to model the skills and behaviors they expect from students, promoting deeper learning and equity.	**Link**
Rucker C. Johnson and Sean Tanner	Money and Freedom: The Impact of California's School Finance Reform	Analyzes how California's Local Control Funding Formula has affected resource allocation and educational equity across the state's schools.	**Link**

Organization	Publication	Description	Link
Russell J. Skiba, Robert H. Horner, Choong-Geun Chung, M.Karega Rausch, Seth L.May & Tary Tobin	Race Is Not Neutral: A National Investigation of African American and Latino Disproportionality in School Discipline	This study reveals that African American and Latino students are disproportionately subjected to expulsions and out-of-school suspensions compared to their White peers.	**Link**
Russell W. Rumberger	Dropping Out of Middle School: A Multilevel Analysis of Students and Schools	This study uses hierarchical linear modeling to analyze middle school dropout rates, revealing that individual factors like grade retention and institutional factors such as student demographics and school climate significantly influence dropout decisions, with notable differences across racial and socioeconomic groups.	**Link**
Ruth Curran Neild, Robert Balfanz	Unfulfilled Promise: The Dimensions and Characteristics of Philadelphia's Dropout Crisis, 2000–2005	This report analyzes dropout patterns in Philadelphia public schools, identifying key risk factors and suggesting systemic reforms to address the crisis.	**Link**
Sarah Schwartz	7 States Now Require Math Support for Struggling Students. Here's What's in the New Laws	Reports on new laws in seven states mandating additional math support for students who are struggling, aiming to improve proficiency rates.	**Link**
Saul Geiser, Maria Veronica Santelices	Validity of High School Grades in Predicting Student Success Beyond the Freshman Year:High-School Record vs. Standardized Tests as Indicators of Four-Year College Outcomes	The research assesses the effectiveness of high school grades as indicators of long-term college success beyond the first year.	**Link**
Scott Delhommer	High school role models and minority college achievement	Analyzes the impact of various types of teacher education and training on student achievement, finding that certain training programs significantly enhance teacher effectiveness.	**Link**

Organization	Publication	Description	Link
Scott Keeter	Three Core Measures of Community-Based Civic Engagement: Evidence from the Youth Civic Engagement Indicators Project	A study identifying key indicators for assessing civic engagement among youth in community settings.	**Link**
Sharon Kukla-Acevedo, Ignacio David Acevedo-Polakovich	Beyond Education Dollars: Does Social Safety Net Spending Affect High School Graduation Rates?	Investigates the impact of social safety net spending on high school graduation rates, suggesting that such investments can positively influence educational outcomes.	**Link**
Shaun M. Dougherty, Joshua S. Goodman, Darryl V. Hill, Erica G. Litke, and Lindsay C. Page	Middle School Math Acceleration and Equitable Access to Eighth-Grade Algebra: Evidence From the Wake County Public School System	This study examines a district policy using prior achievement to assign students to accelerated math and 8th-grade algebra, which reduced demographic disparities in course placement and increased algebra readiness, with future research planned on long-term academic impacts.	**Link**
Smart Growth America	About the Coalition	Promotes designing streets that safely accommodate all users, including pedestrians, cyclists, and drivers.	**Link**
Smart Growth America	Complete Streets Policy	An interactive map and database of Complete Streets policies across the U.S., used for evaluation and comparison.	**Link**
Sophia Jowett, Victoria E. Warburton, Lee C. Beaumont, Luke Felton	Teacher–Student relationship quality as a barometer of teaching and learning effectiveness: Conceptualization and measurement	Presents research findings on educational psychology topics; specific article details are unavailable.	**Link**
South Dakota Department of Education	Grants Awarded to Address Challenges of Absenteeism	Four South Dakota school districts received up to $500,000 each to implement programs aimed at improving student attendance and engagement.	**Link**
SPARQtools (Stanford University)	Growth Mindset Scale	A 3-item scale assessing beliefs about the malleability of intelligence and learning.	**Link**
SPARQtools (Stanford University)	Shift and Persist (Child)	A 5-item scale measuring children's strategies for coping with stress through acceptance and optimism.	**Link**
Spokane Public Schools	HEART Program	Supports students experiencing homelessness by providing resources to ensure their educational stability.	**Link**

Organization	Publication	Description	Link
SSTI (State Smart Transportation Initiative)	Measuring Accessibility	This report outlines methods to assess accessibility in transportation planning, emphasizing equity and mobility.	Link
Stephen V. Cameron and James J. Heckman	The Nonequivalence of High School Equivalents	An analysis highlighting that individuals with high school equivalency credentials, such as the GED, often experience different economic outcomes compared to traditional high school graduates.	Link
StriveTogether	StriveTogether – Their Future, Our Mission	A national network focused on improving outcomes for children and families through data-driven, community-based strategies.	Link
Susan M. Dynarski	ACT/SAT for All: A Cheap, Effective Way to Narrow Income Gaps in College	Advocates for universal college entrance exams to reduce income disparities in higher education access.	Link
Tennessee Department of Education	Administrator Evaluation	The TEAM Administrator Evaluation page outlines Tennessee's framework for assessing school administrators, combining self-reflection, observations, staff input, and student data to evaluate leadership effectiveness based on the Tennessee Instructional Leadership Standards	Link
Tennessee State Board of Education	2023-24 Vacancy Data Collection	Reports that 10.31% of teaching positions in Tennessee were either vacant or filled by teachers on emergency credentials during the 2023–24 school year, highlighting critical shortages in ESL, World Languages, Special Education, and Pre-K.	Link
Territorium	HeIghten Assessment Suite	A modular assessment suite measuring core skills critical for educational standards and career success.	Link
Texas Education Agency	Teacher Incentive Allotment (TIA)	Describes a program that provides funding to Texas districts to recruit, retain, and reward high-performing teachers, especially in high-need areas, through performance-based compensation.	Link
Texas Education Agency	Dual Credit	Provides information on dual credit programs in Texas, allowing high school students to earn college credits through partnerships with higher education institutions.	Link
Texas Education Agency (TEA)	Middle School Advanced Mathematics Program FAQ	Provides information on advanced math programs for middle school students in Texas, including eligibility and program structure.	Link
The Bell Foundation	EAL Strategies and Great Ideas	Offers practical strategies to support learners who use English as an Additional Language (EAL) in the classroom.	Link

Organization	Publication	Description	Link
The Bell Foundation	Resource Library	Provides a collection of teaching and learning resources tailored for EAL learners across various age groups.	**Link**
The Consortium on Chicago School Research at the University of Chicago	Freshman Year: The Make-it or Break-it Year	Identifies key indicators that predict high school graduation, offering insights for educators to support student success.	**Link**
The Education Trust	Educators of Color Make the Case for Teacher Diversity	Advocates for increasing teacher diversity, presenting data on disparities and recommending policy levers such as data transparency, setting diversity goals, and investing in retention strategies.	**Link**
The Education Trust–West	Recruiting & Retaining Educators of Color	Provides strategies for hiring and supporting educators of color, emphasizing the importance of diverse teaching staff for student success.	**Link**
The Hechinger Report	'Everything they need': A school transformed from one of New York City's worst to one of its best; then coronavirus shut its doors	Describes how a South Bronx school improved from one of NYC's worst to one of its best by implementing wraparound services and academic rigor within a community school model.	**Link**
The University of Chicago To&Through Project	The To&Through Project	An initiative that analyzes and shares data on the educational journeys of Chicago Public Schools students to improve high school and college success rates.	**Link**
Thomas J. Kane, Eric S. Taylor, John H. Tyler & Amy L. Wooten	Identifying Effective Classroom Practices Using Student Achievement Data	Investigates the relationship between educational quality and economic growth, emphasizing the importance of effective schooling.	**Link**
TNTP	The Opportunity Myth	Highlights the gap between students' aspirations and the quality of assignments and instruction they receive.	**Link**
Tripod Education Partners	Guide to Tripod's 7Cs™ Framework	Provides a framework focusing on seven components of effective teaching, aiding educators in improving instructional practices.	**Link**
U.S. Bureau of Labor Statistics	National Longitudinal Survey of Youth 1979 (NLSY79)	A longitudinal study tracking the labor market activities and other significant life events of a sample of Americans born between 1957 and 1964.	**Link**
U.S. Bureau of Labor Statistics (BLS)	Employment Projections	Shows the correlation between higher education levels, lower unemployment rates, and higher earnings.	**Link**

Organization	Publication	Description	Link
U.S. Census Bureau	Current Population Survey (CPS)	A monthly survey collecting labor force data, demographic characteristics, and other vital statistics about the U.S. population.	**Link**
U.S. Census Bureau	Quarterly Residential Vacancies and Homeownership, First Quarter 2025	Offers quarterly statistics on rental and homeowner vacancy rates and homeownership trends across the United States.	**Link**
U.S. Census Bureau	Survey of Income and Program Participation (SIPP)	Collects data on income, labor force participation, and program participation to assess the effectiveness of federal programs.	**Link**
U.S. Census Bureau	Year Built and Year Moved In	The U.S. Census Bureau's American Community Survey collects data on when housing units were built and when residents moved in to assess housing age, availability, and neighborhood stability, informing decisions on housing assistance programs and community development initiatives.	**Link**
U.S. Congress	Carl D. Perkins Career and Technical Education Improvement Act of 2006	Legislation aimed at enhancing career and technical education programs to better prepare students for the workforce.	**Link**
U.S. Department of Agriculture (USDA)	About WIC Works	An online resource center supporting WIC staff with education, training, and materials to administer the Special Supplemental Nutrition Program for Women, Infants, and Children.	**Link**
U.S. Department of Agriculture (USDA)	Food Access Research Atlas – Documentation	Offers detailed information on the methodology and data used to map food access indicators across the U.S.	**Link**
U.S. Department of Agriculture (USDA)	Food Security in the U.S. – Survey Tools	Provides standardized survey modules for assessing household food security and facilitating national comparisons.	**Link**
U.S. Department of Education	Career Clusters and Programs of Study	Describes career and technical education programs designed to prepare students for high-demand occupations through integrated academic and technical instruction.	**Link**
U.S. Department of Education	FAFSA Completion by High School and Public School District	Provides data on FAFSA completion rates by high school, aiding in tracking and improving student financial aid applications.	**Link**
U.S. Department of Education	Special Populations	Offers resources and guidance to support schools and students with special needs	**Link**
U.S. Department of Education	The EDFacts Initiative	EDFacts is a centralized data initiative aimed at improving the quality and use of education data for policymaking and accountability.	**Link**

Organization	Publication	Description	Link
U.S. Department of Education	The Toolbox Revisited: Paths to Degree Completion From High School Through College	Analyzes factors influencing college degree completion, emphasizing the importance of rigorous high school curricula and continuous enrollment.	**Link**
U.S. Department of Education, Office of Career, Technical, and Adult Education,	Strengthening States' Implementation of Program Quality Indicators for Career and Technical Education: Collecting and Analyzing Data for the Secondary Program Quality Indicators in the Carl D. Perkins Career and Technical Education Act of 2006.	Details quality indicators under the Perkins V legislation to assess and improve career and technical education programs.	**Link**
U.S. Department of Health & Human Services, Office of Planning, Research & Evaluation	Family and Provider/ Teacher Relationship Quality (FPTRQ) Provider/Teacher Measure	Offers a validated tool to assess the quality of relationships between early childhood educators and families.	**Link**
U.S. Department of Homeland Security (DHS)	Smart Cities	An overview of DHS's involvement in the Global City Teams Challenge (GCTC), focusing on integrating cybersecurity into smart-city systems to enhance their security, reliability, and privacy.	**Link**
U.S. Department of Housing and Urban Development (HUD)	Low Transportation Cost Index	A dataset estimating transportation expenses as a percentage of income for a specific household type, aiding in assessing neighborhood affordability.	**Link**
U.S. Government Accountability Office (GAO)	K-12 Education: Discipline Disparities for Black Students, Boys, and Students with Disabilities	Reports on the disproportionate rates of disciplinary actions among Black students, boys, and students with disabilities in K-12 education.	**Link**
UChicago Impact	5Essentials	A diagnostic tool assessing five key components of school effectiveness to guide improvement efforts.	**Link**
UChicago Network for College Success	Calculating Freshman On-Track	Offers tools and guidance for calculating and improving freshman on-track rates as indicators of high school success.	**Link**

Organization	Publication	Description	Link
UMass Global	How to Support Students of Color: Advice for Teachers	Provides strategies for educators to support students of color through culturally responsive teaching and fostering inclusive environments.	**Link**
UMass Global	What Is Universal Design for Learning? A Guide for Teachers	Introduces Universal Design for Learning (UDL) as a framework to create inclusive classrooms by offering multiple means of engagement, representation, and expression.	**Link**
Uncommon Schools	Data-Driven Counseling for College Success	Describes a counseling program that uses data to identify and support students needing academic improvement to enhance college readiness.	**Link**
United Way of Central Minnesota	UnitedWayHelps.org	Focuses on advancing education, financial stability, and health outcomes through community collaboration.	**Link**
University of Massachusetts Global	Innovative Strategies for Teaching English Language Learners	Offers practical approaches for educators to enhance instruction for English language learners, focusing on engagement and language development.	**Link**
University of Chicago Consortium on School Research	The Predictive Power of Ninth-Grade GPA	Demonstrates that ninth-grade GPA is a strong predictor of high school graduation and college enrollment, emphasizing the importance of early academic performance.	**Link**
University of Chicago Consortium on School Research & PERTS	Elevate: Measures Summary	A summary document outlining the measures and outcomes for the Elevate program during the 2023-24 period.	**Link**
University of Virginia	EHD Child-Parent Relationship Scale Short Form (1992)	Introduces a 15-item scale designed to assess the quality of teacher-student relationships, focusing on dimensions of closeness and conflict.	**Link**
Valentina Gonzalez	4 Practical Ways to Make Instruction Accessible for Multilingual Learners	Offers practical strategies for educators to make lessons more accessible to students who are learning English.	**Link**
Vincent J. Felitti, Robert F. Anda, Dale Nordenberg, David F. Williamson, Alison M. Spitz, Valerie Edwards, Mary P. Koss, James S. Marks	Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults	This research evaluates the impact of home visiting programs on improving maternal and child health indicators.	**Link**

Organization	Publication	Description	Link
Visible Learning	Collective Teacher Efficacy (CTE) According to John Hattie	Highlights that collective teacher efficacy has a significant positive effect on student achievement, surpassing other educational influences.	**Link**
WestEd	Long-Term English Learners: Spotlight on an Overlooked Population	Discusses challenges faced by students who remain in ELL programs for extended periods and strategies to support them.	**Link**
What Works Clearinghouse (WWC)	Helping Students Navigate the Path to College: What High Schools Can Do	A practice guide offering evidence-based recommendations for high schools to prepare students for college entry and success.	**Link**
What Works Clearinghouse (WWC)	WWC Intervention Report	Offers resources and guidance for supporting students from special populations, including English learners and homeless students.	**Link**
World Economic Forum	An extra $437 spent on every child boosts high school graduation rates, finds a new study. Here's how	Reports that increased public spending on education and support for vulnerable households correlates with higher graduation rates.	**Link**
Xitao Fan, Micheal Chen	Parental Involvement and Students' Academic Achievement: A Meta-Analysis	Synthesizes quantitative studies, finding a moderate positive relationship between parental involvement and student academic success.	**Link**

Organization	Publication	Description	Link

StriveTogether®

Every child. Cradle to career.

StriveTogether is a national network of community partnerships that join together neighbors, including youth and families, nonprofits, businesses, schools and more, to work toward a future where youth can thrive in their communities. Cradle to Career Network members change the way their communities work together by building connections, sharing resources and using data to put more young people on a path to economic mobility. Our work helps young people meet seven key life milestones so that they have the opportunities they need to reach their goals, and, ultimately, thrive.

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