
Core Function: High School/Opportunity to Learn

Effective Practice**Ensure content mastery and graduation**

Overview: High schools can provide several systems of support to ensure student content mastery and prevent drop-outs. Early warning systems that include attendance, behavior, and course performance (at a minimum) and provide frequent, real-time data can serve to identify students at risk for dropping out so that appropriate interventions can be implemented. High schools must also provide a system of tiered interventions that differentiate intervention and provide increasingly intensive strategies depending on student needs. Tutoring programs, particularly those that offer peer-learning and cross-age tutoring, can benefit at-risk students, as can co-curricular programs. Extended learning opportunities that increase instructional time for at-risk students (e.g., afterschool programs) have proven effective, as have content and credit recovery programs, particularly those used within blended learning contexts.

Evaluate Your Practice: What early warning system does your school use, and how efficiently are data used to support students? What tutoring options are available to at-risk students, and what is their level of effectiveness? What co-curricular opportunities are available to students, and what is the level of participation? What extended learning opportunities are available, and how are they aligned with learning content? What process does your school use to offer credit recovery options to students at-risk for dropping out? Can blended learning provide a cost-effective mechanism for credit recovery?

Introduction

Dropping out of high school has significant consequences to individuals, communities, and the nation. Individuals who drop out of high school have more difficulty finding jobs than those with higher levels of education (Amos, 2009), costing them millions of dollars in lost income over their lifetimes. Young adults, ages 16-24, who are high school dropouts have a particularly hard time, generating lower earnings and higher incarceration rates than their graduate peers (Sum, Khatiwada, McLaughlin, & Palma, 2009). Dropouts also tend not to participate in the civic lives of their communities, with much lower rates of volunteering, voting, and other indicators of civic health (Bruce, Bridgeland, Fox, & Balfanz, 2011). The U.S. economy loses billions of dollars in revenue from a lack of productive workers and increased social services.

A student's decision to drop out of high school does not arise suddenly, but rather slowly, through a process of disengagement, over a period of years. Warning signs of dropping out are apparent well before students actually leave school, signaling trouble for some as early as the elementary or initial middle grades. Research has converged around three categories of academic data that have been shown to be the most powerful predictors of whether or not a student will drop out in the future. These data points have become known as the "ABC's" – attendance or absenteeism, behavior problems, and course performance or failure (Bruce et al., 2011; Mac Iver & Mac Iver, 2009). The ABC's present an opportunity for schools to monitor student progress early and intervene to help students get on track to graduation. Research shows that most students at risk of falling off track could graduate if they were provided with the appropriate supports early enough and those supports were sustained (Bruce et al., 2011).

High schools can provide several systems of support to ensure that students master the core content and graduate on time with their peers. Early warning systems, academic supports such as tutoring and tiered interventions, extended learning time initiatives, and content/credit recovery courses have been shown to be effective in supporting student success and high school completion.

What supports can high schools provide to ensure content mastery and graduation?

Early Warning Systems. Early Warning Indicator and Intervention Systems (EWS) are part of the data-driven, outcomes-focused, high-impact education movement (Bruce et al., 2011). The purpose of these systems is to enable all students both to stay on track to graduate and to prepare for college and career. Using these systems increases educators' ability to identify, through analyzing data, those students who are falling behind far enough in advance to provide appropriate interventions. These systems "grew out of a simple premise that disengagement from school is a gradual process and that students show identifiable indicators that they are on the path to dropping out" (Bruce et al., 2011, p. 2). Research over the past 15 years has shown that EWS that measure attendance, behavior, and course performance indicators are better predictors of student outcomes than demographics or test scores (Neild, Balfanz, & Herzog, 2007; Pinkus, 2008). Chicago Public Schools uses an EWS called the On Track Indicator, which helps schools determine which students in their 9th grade year are completing the milestones needed to be on track for graduation. By tracking the course performance and credit accumulation of students in a purposeful way, schools are able to provide interventions in a timely manner to try to reduce future dropout rates and improve student outcomes (Allensworth & Easton, 2005). Research has shown this tool to be effective in both increasing the percentage of on-track students in 9th grade and improving both graduation rates and academic outcomes for these students (Roderick, Kelley-Kemple, Johnson, & Beechum, 2014). It is important to note that leadership team members or others working with student data to monitor progress will likely need professional development on ways to work with this data effectively in order to impact student performance and school improvement (Data Quality Campaign, 2009).

Tiered Interventions. An EWS presumes that there is also an existing system of tiered interventions at the school, in which the first tier has established a strong foundation for all students; for example, attendance and behavior policies or ninth grade transition activities should serve as "preventive" strategies (Center for Equity & Excellence in Education, 2012; Pinkus 2008). The second tier, "group strategies," should focus on the 10–20% of students who may need additional supports beyond

the schoolwide approaches. The final tier of "individual strategies" are for the 5–10% of students whose needs are so extensive that they need one on one supports, such as tutoring or counseling (Mac Iver & Mac Iver, 2009; Pinkus, 2008).

Tutoring and Co-Curricular Learning Opportunities.

Tutoring can be implemented as part of an academic afterschool program, as part of a mentoring program, or as a supplement for supporting a particular subject area of classroom instruction (Fluke, O'Connor, Hoff, & Peterson, 2014). Tutoring programs, especially peer tutoring, have been shown to positively impact performance, particularly for at-risk students (Bowman-Perrott, et al., 2013; Lauer et al., 2006; Scruggs, Mastropieri, & Mashak, 2012). Peer tutoring programs should be monitored and include heterogenous grouping (Lauer et al., 2006). At-risk students have also been shown to benefit from being tutors within cross-aged tutoring programs (Gausted, 1992; Giesieke, Cartledge, & Gardner, 1993; Robinson, Schofield, & Steers-Wentzell, 2005; Supik, 1991). Cross-age tutoring programs should not involve too large of an age or grade gap between tutor and tutee; the optimal age range for tutors is two to four years older than tutees (Robinson et al., 2005).

Student participation in co-curricular programming, which has been referred to as "extra-classroom energy in action" (Lawson & Lawson, 2013) has consistently been linked to positive developmental benefits, including higher grades, motivation, and school completion (Arcaira, Vile, & Reisner, 2010; Bohnert, Fredericks, & Randall, 2010; Feldman & Matjasko, 2005), as well as self-esteem (Kort-Butler & Hagewen, 2011) and civic involvement in terms of voting and volunteering beyond high school (Hart & Donnelly, 2007). Co-curricular programming may foster school connectedness and may be especially beneficial for at-risk students who may lack resources for participation outside of school (Marchetti, Wilson & Dunham, 2016; Massoni, 2011).

Extended Learning Opportunities. Extended learning (ELO) programs are those that provide additional instructional time to at-risk students beyond what their on-track peers receive. ELO programs can be structured in a variety of ways and may occur during the school day or after school and on the weekends. According to Chait, Muller, Goldware, and Housman (2007), many experts recommend focusing on ninth graders, which is

a key transition year for preventing dropouts. EL programs have been shown to increase academic achievement, student engagement, and attendance (American Youth Policy Forum, 2006; Council of Chief State School Officers, 2006; Silva, 2007). These programs have the potential to help close the achievement gap, increasing achievement, particularly, for low performing and high poverty students (Chait et al., 2007). Several approaches to EL programs include the following:

- Shadow classes provide an extra class period focusing on a particular subject. They immediately follow the regular class for that subject, but provide additional, individualized support to work toward mastery of concepts.
- Afterschool programs that offer student enrichment experiences in areas such as service learning, vocational activities, and recreation increase student engagement (Afterschool Alliance, 2009). The inclusion of arts in these programs have been found to increase at-risk students' grades, improve their self-esteem, and help them develop more positive relationships and behaviors (Charmaraman & Hall, 2011).
- Block scheduling increases the time spent in core courses and decreases the time spent changing classes by making class periods longer. The increase in class time provides more time for activities and hands-on projects and allows teachers to differentiate instruction more thoroughly.
- Catch-up courses are designed to prepare students for college preparatory courses by assisting them in catching up on their grade level work; they are not intended to recover missed credits. Semester-long catch-up courses in reading and math have been shown to increase the number of students passing standards-based classes (Quint, 2006).
- Summer programs, as the name suggests, take place during the summer and provide a bridge between school years. Summer programs that are highly structured, provide individual and small group instruction, and focus on reading and math skills have been shown to be effective in helping at-risk students stay on track (or catch up) academically (CCSSO, 2006).

Beckett, et al., (2009) recommend that ELO programs strive to 1) ensure connection with what and how learning happens during the school day; 2) adapt to meet the needs, preferences, and attendance habits of students and parents to maximize engagement; 3) provide students with highly trained instructors and opportunities for one-on-one or small group support; 4) use real-life examples, collaborative activities, and positive relationships to increase engagement and interest; and 5) evaluate the program through ongoing data collection and summative assessments.

Content and Credit Recovery Programs. Content and credit recovery (CCR) programs are those that allow students to pass and receive credit for a course that was previously failed, thus helping them meet grade level standards and stay on track to graduate on time (Chait, et al., 2007; Watson & Gemin, 2008). Schools are frequently turning to online credit recovery options as a cost-effective way to address dropout prevention while dealing with increases in demand and decreases in funding (Picciano, Seaman, Shea, & Swan, 2012; Trotter, 2008). Many schools have credit-retrieval “labs,” where students are scheduled to go during the school day—or in some cases, afterschool, at night, during the summer, or on weekends—to work on online versions of the courses they did not pass (Trotter, 2008; Watson & Gemin, 2009). CCR programs offered within blended learning models, in which an in-person teacher can identify student needs and differentiate instruction, provide the opportunity for students to feel success through individualized online content and in-person support (Dessoff, 2009).

Indicators to Support the Effective Practice
The school provides all students with academic supports (e.g., tutoring, co-curricular activities, tiered interventions) to keep them on track for graduation.
The school provides all students extended learning opportunities (e.g., summer bridge programs, afterschool and supplemental educational services, Saturday academies, enrichment programs) to keep them on track for graduation.
The school provides all students with opportunities for content and credit recovery that are integrated into the regular school day to keep them on track for graduation.

References

- Afterschool Alliance. (2009). *After-school: A dropout prevention tool*. Retrieved from <http://www.doe.in.gov/sites/default/files/cte/afterschool-dropout-prevention-tool.pdf>
- Allensworth, E., & Easton, J. (2005). *The on-track indicator as a predictor of high school graduation*. Chicago, IL: Consortium on Chicago School Research. Retrieved from <http://consortium.uchicago.edu/publications/track-indicator-predictor-high-school-graduation>
- American Youth Policy Forum. (2006). *Helping youth succeed through out of school time programs*. Washington, DC. Retrieved from <http://www.aypf.org/publications/HelpingYouthOST2006.pdf>
- Amos, J. (2009). The consequences of dropping out of high school: Average high school dropout has a negative net fiscal contribution to society of \$5200, says new report. *Take Action*, 9(20). Retrieved from <http://all4ed.org/articles/the-consequences-of-dropping-out-of-high-school-average-high-school-dropout-has-a-negative-net-fiscal-contribution-to-society-of-5200-says-new-report/>
- Arcaira, E., Vile, J. D., & Reisner, E. R. (2010). *Citizen Schools: Achieving high school graduation*. Policy Studies Associates, Inc. Retrieved from <http://www.policystudies.com/studies/?id=39>
- Beckett, M., Borman, G., Capizzano, J., Parsley, D., Ross, S., Schirm, A., & Taylor, J. (2009). *Structuring out-of-school-time to improve academic achievement: A practice guide* (NCEE #2009-012). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from <https://ies.ed.gov/ncee/wwc/PracticeGuide/10>
- Bloom, T., & Kissane, E. (2011, December). *Tracking our progress: Post-secondary outcomes and implications for our practice*. Hobsons, Inc. Retrieved from http://www.mnschoolcounselors.org/Resources/Tracking%20Our%20Progress_Industry%20Report_053012.pdf
- Bohnert, A., Fredericks, J. A., & Randall, A. (2010). Capturing unique dimensions of youth organized activity involvement: Theoretical and methodological considerations. *Review of Educational Research*, 80, 576–610.
- Bowman-Perrott, L., Davis, H., Vannest, K., Williams, L., Greenwood, C., & Parker, R. (2013). Academic benefits of peer tutoring: A meta-analytic review of single-case research. *School Psychology Review*, 42, 39–55.
- Bruce, M., Bridgeland, J. M., Fox, J. H. & Balfanz, R. (2011). *On track for success: The use of early warning indicator and intervention systems to build a graduation*. Washington, DC: Civic Enterprises. Retrieved November 2016 from <http://files.eric.ed.gov/fulltext/ED526421.pdf>
- Burns, J. (2016, January 16). *The first-year impact of Naviance*. Hobsons, Inc. Retrieved from https://www.hobsons.com/res/Case_Studies/8_Naviance_Success_Story_-_The_First_Year_Impact_with_Naviance.pdf
- Carrano, J. (2013). *Measuring academic tenacity: New Visions for Public Schools*. Vue. Annenberg Institute for School Reform. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1046427.pdf>
- Center for Equity and Excellence in Education: The George Washington University. (2012). *Evidence based resources for keeping students on track to graduation*. Arlington, VA. Retrieved from http://www.doe.virginia.gov/support/school_improvement/title1/1003_g/resources/evidence_based_resources.pdf
- Chait, R., Muller, R. D., Goldware, S., & Housman, N. G. (2007). *Academic interventions to help students meet rigorous standards: State policy options*. National High School Alliance. Retrieved from <http://sde.ok.gov/sde/sites/ok.gov.sde/files/ACE-NatAlliance.pdf>
- Charmaraman, L., & Hall, G. (2011). School dropout prevention: What arts-based community and out-of-school-time programs can contribute. *New Directions for Youth Development*, 2011(s1), 9–27. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3430132/>
- Council of Chief State School Officers. (2006). *Extended learning opportunities: A policy statement of the Council of Chief State School Officers*. Retrieved from http://www.ccsso.org/Documents/2006/ELO_exe_summary_2006.pdf.
- Data Quality Campaign (2009). *The next step: Using longitudinal data systems to improve student success*. Retrieved from http://dataqualitycampaign.org/wp-content/uploads/2016/03/384_NextStep.pdf
- Dessoiff, A. (2009, October). Reaching graduation with credit recovery. *District Administration*. Retrieved from <https://www.districtadministration.com/article/reaching-graduation-credit-recovery>
- Fairchild, S., Gunton, B., Donohue, B., Berry, C., Genn, R., & Knevals, J. (2011). *Student progress to graduation in New York City high schools: Part I: Core components*. New York, NY: New Visions for Public

- Schools. Retrieved from http://b.3cdn.net/nvps/c7b35850eec0162736_7pm6b0gx9.pdf
- Feldman, A. F., & Matjasko, J. L. (2005). The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of Educational Research, 75*(2), 159–201.
- Fluke, S., O'Connor, A., Hoff, N., & Peterson, R. L. (2014, September). *Academic support* (Strategy Brief). Lincoln, NE: Student Engagement Project, University of Nebraska-Lincoln and the Nebraska Department of Education. Retrieved from <http://k12engagement.unl.edu/strategy-briefs/Academic%20Supports%209-11-14.pdf>
- Gaustad, J. (1992). Tutoring for at-risk students. *OSSC Bulletin, 36*(3).
- Giesecke, D., Cartledge, G., & Gardner, R., III. (1993). Low-achieving students as successful cross-age tutors. *Preventing School Failure, 37*(3), 34–43.
- Hart, D., & Donnelly, D. M. (2007). High school community service as a predictor of adult voting and volunteering. *American Educational Research Journal, 44*(1), 197–219.
- Herbert, M. (2012, March). Minneapolis guidance department boosts grad rates with online tool: How Naviance improved Minneapolis' rate of college-bound graduates. *District Administration*. Retrieved from <https://www.districtadministration.com/article/minneapolis-guidance-department-boosts-grad-rates-online-tool>
- Herzog, L., Davis, M., & Legters, N. (2012). *Learning what it takes: An initial look at how schools are using early warning indicator data and collaborative response teams to keep all students on track to success*. Every-one Graduates Center. Retrieved from http://new.every1graduates.org/wp-content/uploads/2012/04/Learning_what_it_Takes.pdf
- Hobson, Inc. (2016). *Flagstaff High School increases college acceptance rate by 12.8 percentage points*. Retrieved from https://www.hobsons.com/res/Case_Studies/FINAL_Flagstaff_High_School_Case_Study.pdf
- Jerald, D. (2006). *Identifying potential dropouts: Key lessons for building an early warning data system. A dual agenda of high standards and high graduation rates*. Achieve, Inc. Retrieved from <http://www.jff.org/sites/default/files/publications/materials/IdentifyingPotentialDropouts.pdf>
- Kort-Butler, L. A., & Hageman, K. J. (2011). School-based extracurricular activity involvement and adolescent self-esteem: A growth-curve analysis. *Journal of Youth and Adolescence, 40*, 569–581.
- Lauer, P. A., Akiba, M., Wilkerson, S. B., Aphthorp, H. S., Snow, D., & Martin-Glenn, M. L. (2006). Out-of-school time programs: A meta-analysis of effects for at-risk students. *Review of Educational Research, 76*, 275–313.
- Lawson, M. A., & Lawson, H. A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research, 83*(3), 432–479.
- Mac Iver, M. A., & Mac Iver, D. J. (2009). *Beyond the indicators: An integrated school-level approach to dropout prevention*. George Washington University Center for Equity and Excellence in Education. Retrieved from <http://diplomasnow.org/wp-content/uploads/2013/06/dropout-report-8-11-09.pdf>
- Marchetti, R. H., Wilson, R. H., & Dunham, M. (2016). Academic achievement and extracurricular school activities of at-risk high school students. *Educational Research Quarterly, 39*(4), 3–20.
- Massoni, E. (2011). Positive effects of extracurricular activities on students. *ESSAI, 9*. Retrieved from <http://dc.cod.edu/cgi/viewcontent.cgi?article=1370&context=essay>
- Neild, R. C., Balfanz, R., & Herzog, L. (2007). An early warning system. *Educational Leadership, 65*(2), 28–33.
- Picciano, A., Seaman, J., Shea, P., & Swan, K. (2012). Examining the extent and nature of online learning in American K-12 education: The research initiatives of the Alfred P. Sloan Foundation. *Internet and Higher Education, 15*, 127–135. Retrieved from [http://sttechnology.pbworks.com/w/file/attach/67600646/Picciano_\(2011\)_Examining%20the%20extent%20and%20nature%20of%20online%20learning%20in%20K12%20education.pdf](http://sttechnology.pbworks.com/w/file/attach/67600646/Picciano_(2011)_Examining%20the%20extent%20and%20nature%20of%20online%20learning%20in%20K12%20education.pdf)
- Pinkus, L. (2008). *Using early-warning data to improve graduation rates: Closing cracks in the education system*. Alliance for Excellent Education Policy Brief. Retrieved from <http://www.schoolturnaroundsupport.org/sites/default/files/resources/Using%20Early%20Warning%20Data%20to%20Improve%20Graduation%20Rates,%20Closing%20Cracks%20in%20the%20Education%20System.pdf>

- Porter, K.E., Balu, R., Gunton, B., Pestronk, J., & Cohen (2016). *Rapid and iterative estimation of predictions of high school graduation and other milestones*. Society for Research on Educational Effectiveness. Retrieved from <http://files.eric.ed.gov/fulltext/ED567025.pdf>.
- Quint, J. (2006). *Meeting five critical challenges of high school reform*. New York, NY: MDRC. Retrieved from http://mdrc.org/sites/default/files/full_440.pdf.
- Robinson, D. R., Schofield, J. W., & Steers-Wentzell, K. L. (2005). Peer and cross-age tutoring in math: Outcomes and their design implications. *Educational Psychology Review, 17*, 327–362.
- Roderick, M., Kelley-Kemple, T., Johnson, D. W., & Beechum, N. O (2014, April). *Preventable failure: Improvements in long-term outcomes when high schools focused on the ninth grade year*. University of Chicago Consortium on Chicago School Research. Retrieved from <https://consortium.uchicago.edu/sites/default/files/publications/On-Track%20Validation%20RS.pdf>
- Scruggs, T. E., Mastropieri, M. A., & Marshal, L. (2012). Peer-mediated instruction in inclusive secondary social studies learning: Direct and indirect learning effects. *Learning Disabilities Research and Practice, 27*, 12–20.
- Silva, E. (2007). *On the clock: Rethinking the way schools use time*. Washington, DC: Education Sector Reports. Retrieved December 2016 from https://www.naesp.org/resources/1/A_New_Day_for_Learning_Resources/Making_the_Case/On_the_Clock_Rethinking_the_Way_Schools_Use_Time.pdf
- Spackey, R. (July 2013). *Tracking alumni outcomes with Naviance Alumni Tracker*. Hobsons, Inc. Retrieved from <http://www.slideshare.net/naviance/nsi-2013-alumni-tracking-hobsons>
- Sum, A., Khatiwada, I., McLaughlin, J., & Palma, S. (2009). *The consequences of dropping out of high school: Joblessness and jailing for high school dropouts and the high cost for taxpayers*. Center for Labor Market Studies at Northeastern University. Retrieved from https://repository.library.northeastern.edu/downloads/neu:376324?datastream_id=content
- Supik, J. D. (1991). Partners for valued youth: The final report. *IDRA Newsletter, 18*, 1–4.
- Trotter, A. (2008, May). Online options for “credit recovery” widen. *Education Week, 27*(38). Retrieved from http://www.edweek.org/ew/articles/2008/05/21/38credit_ep.h27.html
- Watson, J., & Gemin, B. (2008). *Promising practices in online learning: Using online learning for at-risk students and credit recovery*. North American Council for Online Learning. Retrieved from http://www.inacol.org/wp-content/uploads/2015/02/NACOL_CreditRecovery_PromisingPractices.pdf

