Evidence Based Resources for Keeping Students on Track to Graduation

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The George Washington University Center for Equity and Excellence in Education’s mission is to advance education reform so all students achieve to high standards. GW-CEEE conducts policy and applied research, designs and implements program evaluations, and provides professional development and technical assistance for clients in state education agencies, school districts, schools, foundations, and federal agencies.

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How Can Schools Prevent Students from Dropping Out?

Dropout prevention and recovery approaches typically focus either on comprehensive school reform or on programs targeted to individual students. Research suggests that it is crucial to combine the best components of both approaches. There is evidence, in fact, that only a few dropout prevention programs are effective in addressing three important outcomes: staying in school, progressing in school, and completing school. In a review of evaluations of federal dropout prevention programs, Dynarski and Gleason (2002, p. 44) conclude that “most programs did not reduce dropping out,” primarily because the programs were not sufficiently tailored to the particular needs of particular students (Dynarski & Gleason, 2002).

Generally, a patchwork of separate, non-integrated programs is not an effective approach. Instead, all issues need to be addressed simultaneously in a systemic and integrated way. A research-based framework (Balfanz, Herzog, & Mac Iver, 2007; Mac Iver & Mac Iver, 2009) for an integrated approach to dropout prevention would include the following elements:

- Identification of indicators of student at risk of dropping out;
- Development and implementation of an early warning system, and
- Development and implementation of an intervention system linked to an early warning system.

The strongest student indicators of dropping out of school are attendance, behavior, and course failure, or the ABCs (Allensworth & Easton, 2007; Neild, Balfanz, & Herzog, 2007). In developing an integrated approach to keeping students in school, it is important to bring together the ABCs, comprehensive school reform, and targeted interventions. The Virginia Department of Education’s Early Warning System (VEWS) offers an important starting point for developing an integrated approach to dropout prevention. The VEWS provides a tool to identify students at risk of dropping out based on the ABCs, their level of risk, and a mechanism for tracking and evaluating interventions.

An integrated intervention model offers a three-tiered approach, with district- and school-wide reforms focused on dropout prevention for all students, targeted intervention strategies for at-risk students, and more intensive intervention for students who need more support.

This three-tiered dropout prevention model directly addresses the ABCs of attendance, behavior, and course failure.

- **The primary stage**, or foundation, of the prevention model involves district- and school-wide reforms aimed at providing high-quality instruction that promotes engaged learning and successful high school completion for every student. This stage includes a whole-school approach to encouraging regular attendance and other positive behaviors. These primary prevention strategies alone often succeed with a large majority (two-thirds to three-quarters) of students.

- **The secondary stage** targets interventions on small groups of students, about 15-20% of students, who need additional supports beyond the school-wide reforms to address attendance, behavior, or academic struggles.
• **The tertiary stage** provides intensive intervention (often delivered one-on-one to students by specialists in social work, mental health, and so on) for the five to 10 percent of students who need more clinical support.

The model can be depicted graphically as a pyramid, as shown in figure 1.

![Three-tiered dropout prevention model](source: Mac Iver & Mac Iver, 2009)

**Figure 1.** Three-tiered dropout prevention model for districts and schools.

An integrated, comprehensive approach to dropout prevention would address interventions at each level of the model and for each of the ABCs. Figure 2 summarizes promising interventions at each of the three levels of the intervention model (schoolwide, targeted, and intensive) for attendance, behavior and course failure. It also suggests the percentage of the student population that should be the target of interventions at each level.
<table>
<thead>
<tr>
<th>Type of Intervention</th>
<th>Attendance</th>
<th>Behavior</th>
<th>Course Failures</th>
</tr>
</thead>
</table>
| **School-wide** (all students)    | Every absence brings a response  
Create a culture that says attending every day matters  
Positive social incentives for good attendance  
Data tracking by teacher teams                                                                 | Teach, model, and expect good behavior  
Positive social incentives and recognition for good behavior  
Advisory  
Data tracking by teacher teams                                                                 | Research-based instructional programs  
In-classroom support to enable active and engaging pedagogies  
Data tracking by teacher teams                                                                 |
| **Targeted** (15 to 20 percent of students) | Two or more unexcused absences in a month brings brief daily check by an adult  
Attendance team (teacher, counselor, administrator, parent) investigates and problem solves (why isn’t student attending?) | Two or more office referrals brings involvement of behavior team  
Simple behavior checklist students bring from class to class, checked each day by an adult  
Mentor assigned                                                                 | Elective extra-help courses—tightly linked to core curriculum—preview upcoming lessons and fill in knowledge gaps  
Targeted, reduced class size for students whose failure is rooted in social–emotional issues |
| **Intensive** (5 to 10 percent of students) | Sustained one-on-one attention and problem solving  
Appropriate social service or community supports                                                                 | In-depth behavioral assessment (why is student misbehaving?)  
Behavior contracts with family involvement  
Appropriate social service or community supports                                                                 | One-on-one tutoring                                                                                   |


*Figure 2.* Comprehensive plan for keeping students on the graduation path.
The following sections provide additional resources for schoolwide, targeted, and intensive interventions designed to address attendance, behavior, and course failure. It is important to remember that establishing a solid instructional foundation that promotes excellence, high quality instruction and a coherent curriculum, and a school-wide behavior system that promotes positive behaviors—including attendance—are fundamental to keeping students on track to graduate. Evidence of a solid schoolwide foundation can be determined by examining the percentage of students manifesting early warning indicators.

**Primary Level: Building a Solid, Schoolwide Foundation**

The components for building a strong instructional base include

- equipping teachers to provide high quality instruction,
- developing a culture that promotes a personalized and orderly learning environment, and
- building strong connections to students’ families.

Some schools can achieve a strong foundation without external help. Schools with specific challenges may consider adopting a comprehensive school reform model as a means of achieving a solid, schoolwide instructional foundation. Suggestions in each of these categories follow.

**Equipping teachers for high-quality instruction.**

To improve the quality and skills of the teaching staff so they can provide all students with high-quality instruction, teachers must be provided the following.

- Effective professional development opportunities that focus specifically on the content and pedagogy relevant to the classes teachers are teaching.
- Professional development delivered in a sustained format to a collective group of teachers from the same grade, school, or subject.
- Continual technical assistance and follow-up.
- High-quality instructional materials that are relevant to students’ lives.
- Curriculum that is relevant and keeps students engaged and motivated.
- School-wide consistency and coherence in curriculum and instruction.

In addition, there are other resources that can assist schools to develop a strong instructional foundation.

- The **Teaching Diverse Students Initiative (TDSI)** provides a set of tools designed to help educators enhance the learning opportunities and quality of teaching that is experienced by students of color. It focuses on classroom strategies, pedagogical techniques, and schooling conditions that can improve instruction and student engagement. [http://www.tolerance.org/tdsi/about_tdsi](http://www.tolerance.org/tdsi/about_tdsi)
- The **Equity Planning Tool (EPT)** is a research-based instrument designed to assist schools and district to assess how well they are progressing toward the goal of providing equitable schooling for all students. It provides a framework for helping districts and schools use equity relevant data to inform the school improvement process. [http://maec.ceee.gwu.edu/ept/](http://maec.ceee.gwu.edu/ept/)
Developing a personalized and orderly learning environment.

- The Positive Behavioral Interventions and Supports (PBIS) program—which supports students’ social competence and academic achievement, and staff behavior and decision making—provides an increasingly research-based public health model for implementing a school-wide prevention program. [http://www.pbis.org/]

- The School-Wide Information System (SWIS) is a web-based information system designed to help school personnel use office referral data to design school-wide and individual student interventions. SWIS provides schools with accurate, efficient, practical information for decision-making about school-wide discipline. [http://www.swis.org/]

- Key Components of a Model Discipline Policy from Ending the Schoolhouse to Jailhouse Track Advancement Project, provides suggestions for creating a model discipline policy, and supports its recommendations with examples from successful implementation sites in various school districts across the country. [http://www.stopschoolstojails.org/content/model-discipline-policies]

Building strong school–family connections.

- National Network of Partnership Schools works to strengthen school and family/community involvement. [http://www.csos.jhu.edu/p2000/]

- Teaching Tolerance provides a form that schools and teachers can use to assess the extent to which a climate that fosters family and community partnerships exists in the school or classroom. [http://www.tolerance.org/tdsi/asset/assessing-partnerships]

- In A New Wave of Evidence: The Impact of School, Family, and Community Connections on Student Achievement, Anne Henderson and Karen Mapp review the research on the effects of parent and community involvement on student achievement. The publication is available from the Southwest Educational Development Laboratory. [www.sedl.org/connections]

- School Connectedness and Meaningful Participation is a five-part, online professional development program from the U.S. Department of Education that provides examples, strategies, and resources on how to create connectedness in schools. [http://wingsforkids.org/files/School%20Connectedness%20and%20Meaningful%20Participation.pdf]

- The Comprehensive School Climate Inventory provides schools with an assessment tool for measuring the perceptions of students, parents, and school personnel concerning the school. It is available from the Center for Social and Emotional Education website. [http://www.schoolclimate.org/programs/csci.php]

Comprehensive school reform models.

Comprehensive school reform models offer an alternative for schools that may have difficulty creating a strong schoolwide foundation on their own. These models address many of the problems faced by low-performing schools and provide ongoing professional development and in-classroom coaching for teachers.

- At the middle grades level, Talent Development Middle Grades and Success for All offer considerable curriculum support that includes a positive, behavior-focused curriculum as well as professional development and coaching for teachers in the core academic subjects. [http://www.talentdevelopmentschools.com/TDMG.html http://www.successforall.org/]

- At the high school level, models such as Talent Development High Schools provide extensive curriculum support and ongoing professional development.
High Schools that Work focuses primarily on articulating key reform principles and providing professional development aimed at increasing the rigor and engaging quality of classroom instruction.

Career Academies were first developed some 35 years ago with the aim of restructuring large high schools into small learning communities and creating pathways between high school and further education and the workplace.

First Things First is a comprehensive school reform model focused on developing small learning communities and implementing a family advocate system for monitoring student progress.

Project GRAD partners with communities interested in creating a rigorous college-bound culture for their students. It targets schools serving economically disadvantaged students with the aim of increasing high school graduation and college entrance rates.

For a review of comprehensive school reform models and interventions for dropout prevention, go to What Works Clearinghouse.

Other strategies.
Schools may also consider adopting ninth-grade transition strategies, insuring access to counseling services, providing personalized graduation planning and frequent monitoring to insure students are on-track to graduation, and offering career planning and development. Since research indicates that youth who attend schools with concentrated poverty are likely to do more poorly than otherwise comparable youth who attend schools with less poverty (Kahlenberg, 2001), districts may want to adopt strategies that lead to more socioeconomically diverse schools. Student assistance programs that address students’ social-emotional needs are another strategy. These often take a three-tiered approach to prevention and intervention that complement a dropout prevention program.

Secondary and Tertiary Stages: Interventions for At-Risk Students
Schoolwide practices aimed at dropout prevention (at the primary stage) are successful for the large majority of students. But secondary and tertiary levels of intervention are essential to address the needs of students who are not successful with whole-school practices alone. For those students, a more targeted or intensive approach may be needed. The three-tiered model assumes that schools will first address problems with targeted interventions at the secondary stage, moving to more intensive interventions at the tertiary stage only when those at the secondary stage do not prove effective. The key is interventions that are tailored to the
particular needs of particular students. A collection of separate, non-integrated programs is less successful than when issues are addressed in a systematic, integrated way. By distinguishing between secondary and tertiary interventions, schools avoid the more costly intensive interventions by first attempting targeted interventions with small groups of students sharing similar problems.

Interventions at the secondary and tertiary levels may necessitate the recruitment of a second team of adults and/or near-peer young adults (e.g., AmeriCorps members, local college students, retired service organization members) who can help the school provide targeted and intensive supports to students on a scale that is needed.

Both targeted group and individual interventions are most successful when the school has a solid school-wide instructional foundation and behavior model in place. Also, research suggests that tier 2 and 3 level interventions are most successful when staff receives formal training on the targeted and intensive support services.

**Targeted interventions.**
Targeted interventions are often delivered in small groups and may include daily attendance check-ins with students and/or their families when students miss more than two days of school a month, the use of behavior checklists to monitor student behavior, and the provision of extra help for students, such as small group tutoring, when course failure is a possibility. The adoption of transition programs to ease the transition into high school is another good preventive approach, particularly for students who demonstrate early warning indicators prior to entering high school.

To help students at risk of course failure
- provide **small group tutoring** for students (12-15) who are at risk of course failure,
- create **extra help courses** (in place of electives) which link tightly to core curriculum and fill in knowledge gaps, and
- assign students to **smaller classes** if failure is rooted in socio-emotional issues.

Other models or programs that provide targeted interventions include the following.
- **Positive Behavioral Interventions and Supports (PBIS)**, also known as School Wide Positive Behavioral Interventions and Supports (SWPBIS), uses a three-tiered public health prevention model, with secondary and tertiary stages of intervention for students who do not respond positively to school-wide initiatives. The secondary stage provides small-group interventions, while the tertiary stage provides interventions to individual students. [http://www.pbis.org/](http://www.pbis.org/)
- The **School Wide Evaluation Tool (SET)** can be used to assess the degree to which schools implement key features of school wide PBIS. It is typically completed annually by a trained external observer. See [http://www.pbis.org/evaluation/evaluation_tools.aspx](http://www.pbis.org/evaluation/evaluation_tools.aspx) for tools used to implement SWPBIS. See also [http://www.modelprogram.com/images/SET.pdf](http://www.modelprogram.com/images/SET.pdf)
- The **Individual Student Systems Evaluation Tool (ISSET)** measures the features and types of additional supports provided to those students not responding adequately to SWPBIS. This assessment should be conducted by a trained external observer. [http://www.pbis.org/common/pbisresources/tools/ISSET_TOOL_v2.8_February_2011.pdf](http://www.pbis.org/common/pbisresources/tools/ISSET_TOOL_v2.8_February_2011.pdf)
• The **Check and Connect** program, reviewed favorably by the What Works Clearinghouse studies of dropout prevention, is another tiered intervention program. Based on close monitoring of student performance, it provides interventions for the ABCs of attendance, behavior, and course performance. For a review, go to [http://ies.ed.gov/ncee/wwc/reports/dropout/check_conn/](http://ies.ed.gov/ncee/wwc/reports/dropout/check_conn/). For program information, go to [http://checkandconnect.org/model/default.html](http://checkandconnect.org/model/default.html)

• **Check-In/Check-Out** is similar to Check and Connect, and provides a structure for students to receive positive, individual contact, feedback, and support for appropriate behavior that are tied to school-wide behavioral expectations. [http://miblsi.cenmi.org/MiBLSiModel/Implementation/ElementarySchools/TierIIsupports/Behavior/TargetBehaviorInterventions/CheckInCheckOut.aspx](http://miblsi.cenmi.org/MiBLSiModel/Implementation/ElementarySchools/TierIIsupports/Behavior/TargetBehaviorInterventions/CheckInCheckOut.aspx) or [http://www.bing.com/search?q=check-in+check-out&src=IE-SearchBox&FORM=IE8SRC](http://www.bing.com/search?q=check-in+check-out&src=IE-SearchBox&FORM=IE8SRC)

• **Functional Behavioral Assessment (FBA)** is a strategy to assess student behavior in relation to the context within which it occurs. FBA information is used to identify appropriate interventions that address specific behaviors. It is most often used with students who exhibit chronic behavior problems. [http://cecp.air.org/fba/](http://cecp.air.org/fba/)

**Intensive Interventions.**

In some cases, students may need specialized services or clinical support. The tertiary stage provides intensive interventions for a small group of students (5-10% of students) that require one-on-one attention. These services are usually delivered by specialists in social work, mental health, etc.

**Implementing an Early Warning System with Tiered Interventions**

To implement this model, researchers encourage the use of teacher teams to review data, develop intervention plans for students identified as in need of additional supports, monitor progress, and make adjustments as needed. Teacher teams, organized by grade level, typically include teachers, support staff, and administrators. These teams should receive data regularly from VEWS, hold regular (bi-weekly) meetings to review data and plan interventions, and follow-up on implemented interventions, making changes as needed.

A second team of adults and near-peer young adults (e.g., AmeriCorps members, City Corp, local college students, retired service organization members, etc.) should be recruited to assist in providing targeted and intensive supports. These volunteers can provide identified supports, make social service referrals, complete home visits, coordinate small-group and individual counseling sessions, develop peer support groups, and help to organize whole-school interventions (such as health screenings, career and college fairs, and other events).

**Summary**

This integrated approach to keeping students in schools replaces a patchwork of independent programs that often allow students to fall through the cracks, or even work at cross-purposes with one another in a fragmented, ineffective manner. There is evidence that implementing an early warning system, such as the VEWS and an integrated intervention strategy can yield results in a relatively short period of time. The earlier schools intervene, the better the outcomes because patterns of chronic absenteeism and failure can become entrenched, making intervention more difficult.
Following are some general tools to help schools and districts develop and implement early warning systems and tiered interventions designed to keep students on track to graduation.

- **The Everyone Graduates Center (EGC) at Johns Hopkins University** develops and disseminates strategies for ensuring that all students graduate from high school prepared for college, career, and civic life. The EGC provides states, communities, schools, and school districts with tools and models designed to keep students on the path to graduation. [http://every1graduates.org/](http://every1graduates.org/)

- The manual, **On Track for Success: The Use of Early Warning Indicators and Intervention Systems to Build a Grad Nation**, is designed to help educators implement Early Warning Indicators and an Intervention System that can increase educators’ effectiveness by helping them use data to identify those students who are on track to graduate, and those who are falling behind, far enough in advance to provide appropriate interventions. [http://every1graduates.org/images/pdfs/on_track_for_success.pdf](http://every1graduates.org/images/pdfs/on_track_for_success.pdf)

- **Grad Nation Guidebook: A Guidebook to Help Communities Tackle the Dropout Crisis**, commissioned by America’s Promise Alliance, is a tool comprising the best evidence-based practices for keeping young people in school paired with suggestions for effectively preparing them for life after high school. It is designed to help schools, districts, and communities develop plans to keep students on track to graduate and includes ready-to-use tools and other resources and guidance. [http://www.americaspromise.org/Our-Work/Dropout-Prevention/Grad-Nation-Guidebook.aspx](http://www.americaspromise.org/Our-Work/Dropout-Prevention/Grad-Nation-Guidebook.aspx) or [http://www.every1graduates.org/PDFs/GradNation_Guidebook_Final.pdf](http://www.every1graduates.org/PDFs/GradNation_Guidebook_Final.pdf)

- **The National High School Center** provides research, user-friendly tools and products, and technical assistance on high school improvement issues. It features information and tools on using Early Warning Systems and implementing an Early Warning intervention and monitoring system. Specific resources from the National High School Center are listed below. [http://www.betterhighschools.org/default.asp](http://www.betterhighschools.org/default.asp)


- **Tiered Interventions in High Schools: Using Preliminary “Lessons Learned” to Guide Ongoing Discussion** (2010) is from the National High School Center, National Center on Response to Intervention, and the Center on Instruction. This document – representing the initial work of the High School Tiered Interventions Initiative (HSTII), a collaborative project of the National High School Center, the National Center on Response to Intervention, and the Center on Instruction – summarizes what HSTII has learned thus far about effective RTI implementation in high schools. It provides a brief description of the RTI framework and the essential components of RTI, illustrates how the essential components of RTI were implemented at eight
visited schools, and highlights contextual factors unique to high schools and examines how these factors can affect school-level implementation of tiered interventions.


- **The California Dropout Research Project** synthesizes existing research and produces new research to inform policymakers and the larger public about the nature of, and potential solutions to, the dropout problem.
  http://www.imri.ucsb.edu/dropouts/index.htm

- **The Johns Hopkins Center for the Prevention of Youth Violence** conducts research and provides training designed to prevent youth violence and promote positive youth development. While the focus is on Baltimore and Maryland, it provides resources, education and training that is available to anyone.
  http://www.jhsph.edu/preventyouthviolence/index.html

- **The Silent Epidemic: Perspectives of High School Dropouts** approaches the dropout problem from the perspective of the students themselves. This report, using student survey data, examines why students dropped out of school and provides information on what supports might help students stay in school.
  http://www.ignitelearning.com/pdf/TheSilentEpidemic3-06FINAL.pdf

Following are case studies on schools and districts implementing early warning systems and tiered interventions.

- **Applying an On Track Indicator for High School Graduation: Adapting the Consortium on Chicago School Research Indicator for Five Texas Districts** (2011), from the REL Southwest. This study uses a measure of the on-track or off-track status of students at the end of grade 9 as an indicator of whether students in five Texas districts would graduate from high school in four years. In all five districts, on-time graduation rates were higher for students who were on track at the end of grade 9 than for students who were off track, both for students overall and for all racial/ethnic groups.

- **Meeting the Challenge: Fiscal Implications of Dropout Prevention in Massachusetts** (2011), from the Rennie Center for Education Research & Policy, explores the approaches, costs, and potential financial benefits of implementing dropout reduction strategies. It highlights a diverse group of five Massachusetts districts that substantially reduced their dropout rates over three years and identifies the district-wide policies and school-based strategies that superintendents and principals indicate contributed to reducing the number of students dropping out of school. The brief also presents two scenarios that illustrate how, for some districts, per pupil funding obtained from increased enrollment due to successful dropout prevention strategies can be allocated to serve at-risk students.
  http://renniecenter.issuelab.org/research/listing/meeting_the_challenge_fiscal_implications_of_dropout_prevention_in_massachusetts

- **Meeting the Challenge: Promising Practices for Reducing the Dropout Rate in Massachusetts Schools and Districts** (2009), from the Rennie Center for Education Research & Policy, analyzes practices and policies within schools and districts to help inform the work of educators and policymakers and to address the question: "In schools that are reducing their dropout rates, what is working?"
  http://renniecenter.issuelab.org/research/listing/meeting_the_challenge_promising
practices_for_reducing_the_dropout_rate_in_massachusetts_schools_and_districts

- Scaling City Year’s Impact: Growth Plans to Reach 50% of Off-Track Students in City Year’s 20 U.S. Locations, from City Year, outlines how City Year partners with school districts and communities to keep students on track to graduate. [http://www.cityyear.org/inschool_ontrack.aspx](http://www.cityyear.org/inschool_ontrack.aspx)

- Beyond the Indicators: An Integrated School-Level Approach to Dropout Prevention (2009) summarizes the research on why students drop out of school, explains the research implications for how to create an integrated dropout prevention strategy, and highlights an innovative pilot project that yielded results in a matter of months—a how-to example that works. [http://maec.ceee.gwu.edu/node/371](http://maec.ceee.gwu.edu/node/371) For paper, [http://maec.ceee.gwu.edu/sites/default/files/Dropout%20report%208.11.09.pdf](http://maec.ceee.gwu.edu/sites/default/files/Dropout%20report%208.11.09.pdf)
  To view webinar, go to [http://vimeo.com/6833380](http://vimeo.com/6833380) and for ‘ask the expert’ go to [http://maec.ceee.gwu.edu/sites/default/files/Beyond%20the%20Indicators%20Q&A_9.2009_0.pdf](http://maec.ceee.gwu.edu/sites/default/files/Beyond%20the%20Indicators%20Q&A_9.2009_0.pdf)

- Advancing the “Colorado Graduates” Agenda: Understanding the Dropout Problem and Mobilizing to Meet the Graduation Challenge (2009) from The Center for Social Organization of Schools, Johns Hopkins University. This research focused first on the statewide distribution of dropouts and then on five of the districts having the largest number of dropouts. [http://coloradograduates.org/reports/CGI.pdf](http://coloradograduates.org/reports/CGI.pdf) For additional resources related to this publication, see: [http://www.every1graduates.org/maciver-martha/item/93-advancing-the-“colorado-graduates”-agenda-understanding-the-dropout-problem-and-mobilizing-to-meet-the-graduation-challenge.html](http://www.every1graduates.org/maciver-martha/item/93-advancing-the-“colorado-graduates”-agenda-understanding-the-dropout-problem-and-mobilizing-to-meet-the-graduation-challenge.html)
References


