

Issue Brief: Early Warning Systems

September 2016

Introduction

In 2013–14, the high school graduation rate reached a record high of 82 percent (U.S. Department of Education 2015a). Despite the gains, over half a million students still drop out of high school each year (U.S. Department of Education 2015b). High schools have adopted various strategies designed to keep students who are at risk of not graduating in school and on track for earning the credits required to graduate. “At-risk” students are defined as those failing to achieve basic proficiency in key subjects or exhibiting behaviors that can lead to failure and/or dropping out of school. Dropout prevention strategies are diverse; they vary in type of program, services offered, frequency, intensity, and duration of contact with target students.

The U.S. Department of Education (Department) sponsored the **National Survey on High School Strategies Designed to Help At-Risk Students Graduate (HSS)**, which aimed to provide descriptive information on the prevalence and characteristics of dropout prevention strategies for at-risk students. The survey collected data in the 2014–15 school year from a nationally representative sample of 2,142 public high schools and focused on 13 specific high school improvement strategies¹ identified by a panel of external experts and senior Department officials. This brief on **Early Warning Systems** is the first in a series of briefs being released this fall with key findings about these high school improvement strategies.

Definition of Early Warning Systems

The HSS defines an early warning system as a system based on student data to identify students who exhibit behavior or academic performance that puts them at risk of dropping out of school. Early warning systems help districts and schools pinpoint student achievement patterns and school climate issues that may contribute to students dropping out of school (e.g., Osher et al. 2007). Educators create early warning systems from readily available student data to identify students at risk of missing key educational milestones, to diagnose the needs of at-risk students, and to identify interventions that may help at-risk students get back on track to graduate. For more information and resources on early warning systems, see <http://ies.ed.gov/ncee/edlabs/projects/ews.asp>.

Research on Early Warning Systems

Research has identified attendance, behavior, and course performance — the “ABCs” — as powerful predictors of high school completion (Bruce et al. 2011). Grade 9 course performance, in particular, was shown to correlate strongly with high school graduation (Allensworth and Easton 2005). An Institute of Education Sciences (IES) practice guide recommended the ABC data be used by educators to prevent students from dropping out of high school (Dynarski et al. 2008). This research has informed the type of

¹ The survey examined 13 strategies that are designed to improve high school outcomes for at-risk students. These strategies are: (1) Academic Support Classes, (2) Academic Tutoring, (3) Accelerated Academic Programs, (4) Adult Mentoring, (5) Career-Themed Curriculum, (6) Case Manager, (7) Credit Recovery, (8) Competency-Based Advancement, (9) Early Warning Systems, (10) Middle to High School Transitions, (11) Personalized Learning Plans, (12) Social Services, and (13) Student Support Teams.

data that can be used to identify at-risk students in early warning systems and the support these students need, which are often part of a comprehensive strategy to improve high school graduation. To date, there have been very few studies that examine the impact of early warning systems usage as a stand-alone strategy on important student outcomes, like high school graduation, but that is likely due to the fact that early warning systems are used in conjunction with several other strategies to improve student outcomes and that the impact of these systems largely depends on how educators use the data and the additional supports provided to students identified as at risk. IES is currently funding two efforts that will build more evidence on the effectiveness of early warning systems.²

Findings on Early Warning Systems

This brief describes the current use of early warning systems as a dropout prevention strategy. It does not measure the effectiveness of those systems, but instead describes current application of those systems in high schools across the country. The brief also reports on differences between the types of schools that use early warning systems, and only statistically significant differences (at $p < .05$ unless otherwise noted) are discussed in this brief; non-statistically significant differences are not reported.

Key Findings

- Nationwide, about half of public high schools implemented early warning systems in 2014–15 (52 percent).
- There were no differences in the prevalence of early warning systems when examining schools by graduation rate, poverty, or school locale; however, large schools were more likely to have early warning systems in place compared to small schools.³
- Most early warning systems included measures of attendance, behavior, and course performance (the “ABCs”), which research suggests are particularly strong predictors of high school completion.
- Some high schools were more likely to collect information beyond the ABCs. High-poverty and low-graduation-rate schools in particular used additional outside-of-school indicators such as homelessness or involvement with the juvenile justice system.
- Slightly more than half of high schools that used an early warning system (51 percent) reported limited coordination between their systems and the delivery of other school services.

What is the prevalence and type of schools using early warning systems?

In 2014–15, over half of all high schools across the country (52 percent) had an early warning system that could identify students who were at-risk of educational failure. There were no differences in the prevalence of early warning systems when examining schools by graduation rate, poverty, or school

² See the following websites for studies that are currently in progress:
<http://www.ies.ed.gov/funding/grantsearch/details.asp?ID=1319> and
<https://ies.ed.gov/ncee/edlabs/projects/project.asp?projectID=388>

³ School size categories were defined using 2013–14 student enrollment data from the Common Core of Data (CCD). The categories were small (fewer than 500 students), medium (500–1,199 students), and large (1,200 or more students). Poverty levels were based on 2013–14 free or reduced-price lunch (FRPL) and total school enrollment data from the CCD. The poverty categories were low (below 35 percent students with FRPL), medium (35–49 percent), and high (50 percent or more). School locale included three mutually exclusive locales from the CCD: rural, suburban/town, and city.

locale. When taking into account school size, however, large schools were more likely to have an early warning system compared to small schools (58 percent vs. 48 percent).

Which grade levels were targeted for support?

The majority of high schools that implemented early warning systems used them with all high school grade levels but more commonly targeted students in lower grades (9th and 10th grade) than students in upper grades (11th and 12th). This pattern persisted when data were disaggregated by school size, poverty level, school locale, and graduation rate.⁴ However, one exception is that low-graduation-rate high schools used early warning systems more with students in 10th to 12th grades than in 9th grade (Exhibit 1).

Exhibit 1. Grade level targeting of early warning systems, by graduation rate: 2014–15

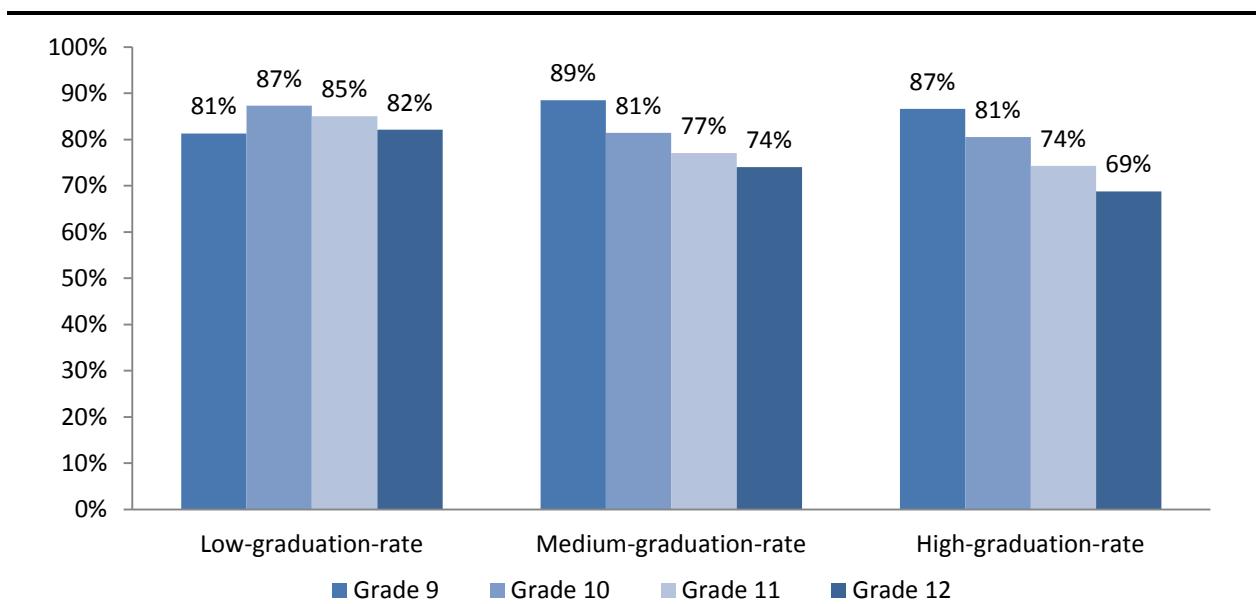


Exhibit reads: Among low-graduation-rate high schools that used early warning systems in 2014–15, 81 percent used them with 9th grade students, 87 percent with 10th grade students, 85 percent with 11th grade students, and 82 percent with 12th grade students.

Unweighted $n = 995$ high schools

SOURCE: Survey of high school administrators, 2015 (Question 85)

What data did schools collect?

The majority of schools collected student attendance (92 percent), course grades (91 percent), truancy and/or chronic absenteeism (82 percent), and discipline incidents including suspensions or expulsions (79 percent) in their early warning systems; these data align with the core ABC predictors of high school completion.

Some schools also collected data beyond the ABCs (between 16 percent and 44 percent of schools, depending on the data), with the specific data schools collect varying by characteristics like school graduation rates and poverty. For example, low-graduation-rate schools were more likely to collect data

⁴ The three graduation rate categories were low-graduation rate (67 percent or lower graduation rate), medium-graduation rate (68–89 percent), and high-graduation rate (90 percent or higher).

on outside-of-school indicators such as involvement with the criminal justice system, homelessness, pregnancy/teen parenthood than high-graduation-rate schools (Exhibit 2). Low-graduation-rate schools were also more likely to collect data on students' age to track those who were overage for their grade level. High-poverty schools were also more likely than low-poverty schools to collect data on these same indicators, as well as others. Thus, though the ABCs were a centerpiece of nearly all early warning systems, schools also exercised discretion in collecting additional data tailored to their educational contexts and to the populations they served.

Exhibit 2. Student data collected in early warning systems by high schools, by graduation rate and school poverty level: 2014–15

Indicator	All schools with early warning systems	Graduation rate		School poverty level	
		Low	High	High	Low
Attendance	92%	92%	94%	93%	93%
Course grades	91	89	93	89	93
Truancy/absenteeism	82	84	81	86*	79
Discipline incidents	79	78	76	82*	72
Credits accumulation	76	80	73	80	73
State achievement test scores	74	75	76	71	75
Homelessness	44	53*	37	48*	36
Involvement with criminal justice system	43	54*	41	47*	38
Limited English proficiency	41	40	38	43	38
Involvement with social services or foster care	39	46*	36	43*	33
Reports of substance abuse	38	46*	35	40	38
Overage for their grade level	36	52*	27	45*	21
Pregnancy/teen parenthood	31	46*	28	38*	21
Migrant status	16	14	17	21*	9

Exhibit reads: Among high schools that used early warning systems in 2014–15, 92 percent collected attendance data for their early warning systems.

* $p < .05$

NOTE: Differences across school characteristics with two categories were based on contrasts with the base case (or comparison category): low graduation compared with high graduation rate, high poverty compared with low poverty, and large compared with small high schools. The asterisk is placed on the base case.

Unweighted $n = 998$ high schools

SOURCE: Survey of high school administrators, 2015 (Question 86)

Data collected from early warning systems also varied by school size and locale.

Differences by school size. Early warning system users in large high schools (53 percent) were more likely than small high schools (35 percent) to collect data on limited English proficiency students.

Differences by school locale. The proportion of early warning system users that collected data on limited English proficiency students varied significantly among city (48 percent), suburban (41 percent), and rural (35 percent) schools. The proportion of users that collected data on

students who were overage for their grade level also varied among city (42 percent), suburban (35 percent), and rural (31 percent) schools. There was also significant variation in the proportion of users that collected data on students who were behind in credit accumulation for their grade level among city (79 percent), suburban (80 percent), and rural (70 percent) schools as well.

What data led to interventions?

Almost all high schools with an early warning system (97 percent) used more than one type of indicator from early warning systems to trigger interventions. The most common risk indicators to trigger an intervention were course grades (86 percent), attendance (82 percent), and truancy (71 percent) (Exhibit 3). On average, schools used six indicators to trigger interventions for at-risk students. The survey did not capture whether combinations of indicators (versus a single indicator) triggered interventions, nor did it examine how a data type could predict a student's likelihood of becoming at risk. The thresholds or cut points applied to each indicator also may have varied across schools.

Exhibit 3. Percentage of high schools that collected various risk indicators in early warning systems and reported intervention triggers: 2014–15

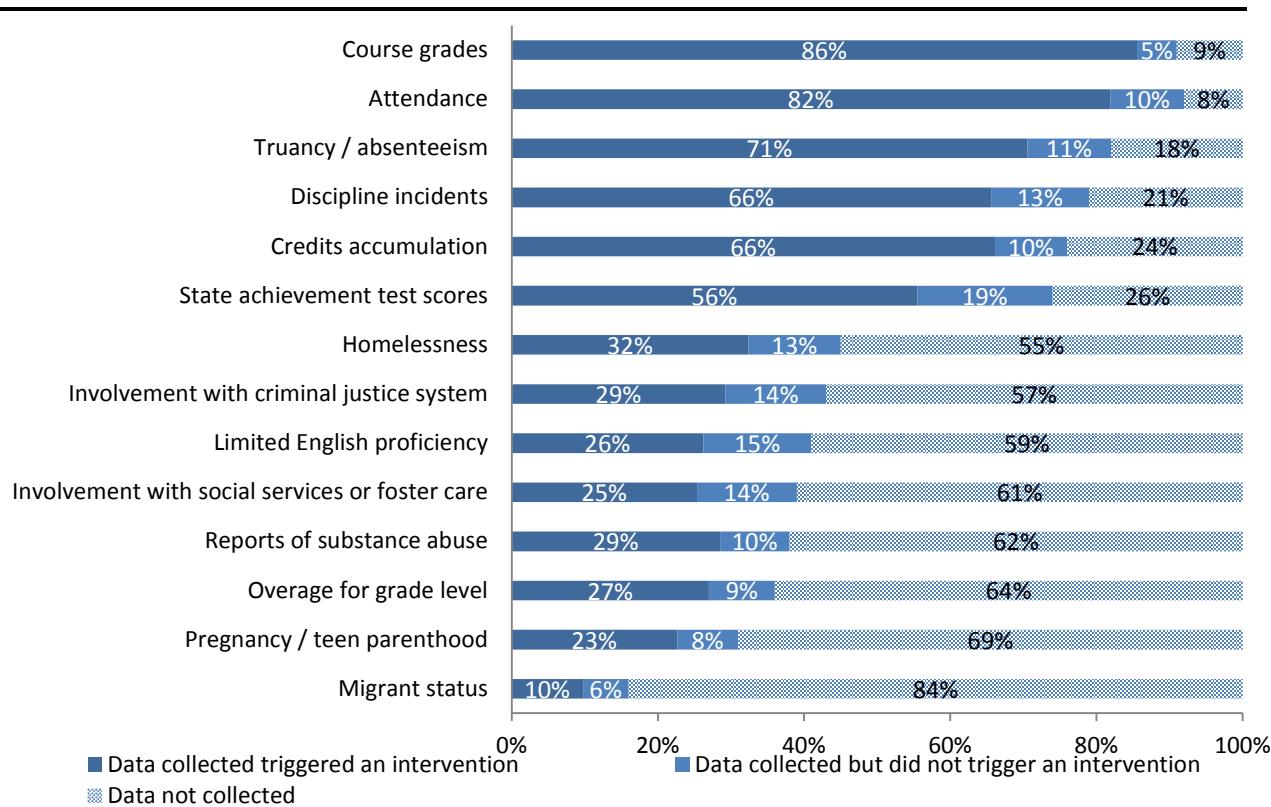


Exhibit reads: Among high schools that used early warning systems in 2014–15, 91 percent reported collecting course grades data. Eighty-six percent of high schools reported that course grades data triggered the use of interventions for students, 5 percent reported that the data did not trigger the use of interventions, and 9 percent did not collect course grades data for their early warning systems.

Unweighted $n = 998$ high schools for “Data collected” and $n = 995$ high schools for “Triggered intervention”

SOURCE: Survey of high school administrators, 2015 (Questions 86 and 87)

Although schools collected an assortment of student data, no single indicator triggered an intervention 100 percent of the time. For example, of the 82 percent of schools that measured truancy and/or chronic absenteeism, 86 percent reported that these measures triggered interventions (Exhibit 3). This means that 14 percent of schools that collected truancy/chronic absenteeism data did not establish truancy or chronic absenteeism thresholds to trigger an intervention.

The study findings provide an overview of the data collected and the data that triggered interventions in public high schools in 2014–15. This study did *not* collect data on indicator thresholds, the point at which a district defines a given indicator to flag a student at risk of dropping out.

What interventions were provided to students based on data from early warning systems?

Three types of student services or interventions were particularly common: a meeting of teachers and administrators (85 percent), a meeting with parents (83 percent), and the development of a student-level intervention plan (82 percent). Less common interventions included: referral to a student support team (68 percent), assignment to credit recovery courses (62 percent), assignment to mandatory tutoring (61 percent), assignment to academic support courses (41 percent), referral to social services (40 percent), assignment to an adult mentor (37 percent), and assignment to a case manager (30 percent).⁵

The way that school officials used the data from early warning systems to assign interventions varied by school poverty level, school size, graduation rate, and school locale.

Differences by poverty level. Early warning system users in high-poverty schools (42 percent) were more likely than users in low-poverty schools (26 percent) to assign adult mentors. Users in high-poverty schools (67 percent) were also more likely than users in low-poverty schools (54 percent) to assign students to credit recovery courses.

Differences by school size. Early warning system users in large high schools (78 percent) were less likely to call a meeting of teachers and administrators than those in small high schools (88 percent). System users in large schools (21 percent) were also less likely than users in small high schools (32 percent) to assign a case manager.

Differences by graduation rate. Early warning system users in low-graduation-rate high schools (51 percent) were more likely than users in high-graduation-rate schools (38 percent) to arrange access to social services. Users in low-graduation-rate schools (75 percent) were also more likely than users in high-graduation-rate schools (57 percent) to assign students to credit recovery courses.

Differences by school locale. The proportion of early warning system users that decided to develop intervention plans varied significantly among city (88 percent), suburban (79 percent), and rural (80 percent) schools. Moreover, the proportion of users that recommended credit recovery courses in response to collected risk indicators also varied significantly among city (71 percent), suburban (60 percent), and rural (57 percent) schools.

⁵ For more details on these additional interventions, please see the appropriate issue brief.

In general, early warning system indicators can identify the need for a variety of interventions. The most common actions from survey data involved school staff or parents, but schools can also have tapped existing strategies and resources — such as case managers and credit recovery courses — designed specifically to address the educational needs of at-risk students. Future research can contribute to this area by exploring which indicators (or combination of indicators) trigger which type(s) of interventions.

Survey data suggest there is room for improvement in the coordination between early warning systems and other supports and interventions. Among schools that used early warning systems, 48 percent reported that their systems were frequently coordinated with other high school strategies examined in the survey, but more than half (51 percent) reported they were sometimes or rarely coordinated. Since some schools tap into resources already offered on-site, schools hoping to make better use of their early warning systems may need to align the systems with other school services to support students at risk of dropping out.

Who monitored the early warning systems?

While an early warning system is designed to leverage available student data to identify at-risk students and connect them with supports, the system needs to be monitored by a designated authority for the school. Among schools that used an early warning system in 2014–15, 34 percent reported that school administrators were primarily responsible for monitoring the system. Another 34 percent reported that guidance or school counselors had that responsibility, and the remaining schools reported that other staff members — student support teams (14 percent), teachers (13 percent), case managers (3 percent), district administrators (1 percent), and adult mentors (less than 1 percent) — monitored the early warning system.

These aggregate patterns did not hold consistently by school graduation rate or size, however. For example, in 2014–15, low-graduation-rate schools (20 percent) were more likely than high-graduation-rate schools (10 percent) to assign primary early warning system responsibility to teachers. Moreover, low-graduation-rate schools (19 percent) were less likely than high-graduation-rate schools (40 percent) to assign this responsibility to guidance/school counselors. On the other hand, large schools (5 percent) were less likely to assign primary responsibility to teachers compared to small schools (19 percent). Also, large schools (44 percent) were more likely than small schools (28 percent) to assign this primary responsibility to guidance/school counselors. The survey did not examine the reasons for these differences.

How often are student data checked?

Schools were most likely to report that the person primarily responsible for the early warning system checked the data weekly (44 percent). Other schools reported monitoring data every other week (14 percent), once a month (19 percent), or less often than once a month (9 percent). Fewer than 10 percent of schools reported checking the data once a day (8 percent) while 6 percent of respondents did not know how frequently the data were checked. Resource constraints and staff capacity may influence the consistency of data monitoring, and the field would benefit from research on how data monitoring influences early warning systems effectiveness.

What did respondents think about their early warning systems in place?

Although they were not always the primary users of their early warning systems, survey respondents, when asked about the usability of data in early warning systems, were generally positive.⁶ For example, 92 percent either agreed or strongly agreed that the data in their systems were routinely accessible to those who needed them. Ninety-two percent of respondents also agreed or strongly agreed that the data in the system were easily interpreted, and 96 percent agreed or strongly agreed that the data were accurate (Exhibit 4). However, not all the feedback on early warning system connections to other school services was positive: 24 percent were dissatisfied with how their systems were linked to ongoing intervention tracking and progress monitoring (Exhibit 4). Though respondents were generally satisfied, future research could contribute to the field by gathering and analyzing data on user satisfaction of early warning systems.

Exhibit 4. High school respondents' view of the usability of early warning systems: 2014–15

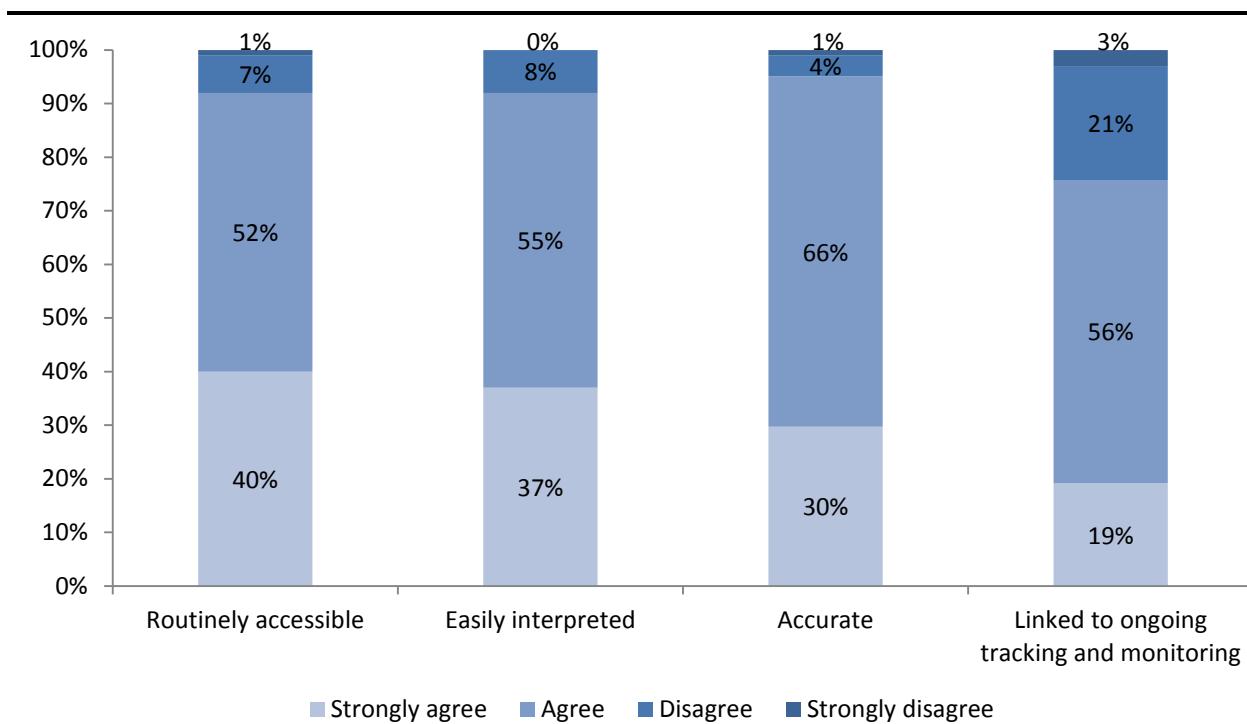


Exhibit reads: Among high schools that used early warning systems in 2014–15, 40 percent strongly agreed that the data in their system was routinely accessible to those who needed them, 52 percent agreed, 7 percent disagreed, and 1 percent strongly disagreed.

NOTE: Percentages may not sum to 100 because of rounding.

Unweighted n's = between 978–990 high schools

SOURCE: Survey of high school administrators, 2015 (Question 92)

⁶ As a reminder, HSS is a survey of high schools; either the principal or designee who was knowledgeable about programs and strategies at the school completed the online HSS survey.

Also, even though respondents' reviews of data usability were generally favorable, the results suggest a few areas for more targeted study. First, research is limited on how factors like school characteristics (e.g., school size, school locale) may influence the sophistication of early warning systems, and how this in turn affects data usability. Second, future work should address the relationship between early warning system usability and the quantity and quality of system data. Limited or incomplete data may limit predictive power, whereas too much data may present an unwieldy and overwhelming mass of diagnostic information.

Methodology

The *National Survey on High School Strategies Designed to Help At-Risk Students Graduate* was a survey of 13 high school strategies that are designed to improve graduation rates among students at risk of dropping out and was administered in the 2014–15 school year. The purpose of the survey was to inform education practitioners and policymakers about the prevalence, characteristics, and students served by these strategies in U.S. public high schools. The descriptive study did not measure the effectiveness of particular strategies but instead examined implementation factors in high schools across the country. The study team identified the 13 strategies and designed survey items for each strategy with input from a panel of external experts in the field and senior Department officials.

The researchers selected a nationally representative sample of high schools⁷ using a random sampling approach, stratifying high schools based on graduation rate (from *EDFacts*)⁸ and locale code (from NCES 2013–14 Common Core of Data). The survey collected data from high school principals (or designees knowledgeable about programs and strategies) at sampled schools. The survey response rate was 90 percent. The survey responses, after cleaning and processing, were analyzed in SAS and Stata using descriptive techniques that apply the appropriate statistical population weights to account for stratification by graduation rate and locale.

Results reported in this brief reflect the full survey sample unless otherwise noted and are representative of U.S. public high schools nationwide. References in the text to differences between subgroups based on sample data refer only to differences that are statistically significant using a significance level of 0.05. Adjustments to the alpha level were not made for multiple comparisons.

⁷ All U.S. public high schools providing instruction to 12th grade students in the fall of 2010 were included unless (1) the lowest offered grade was 11th grade or higher, (2) there were fewer than five students in grades 9 through 12, (3) the percentage of students enrolled in grades 9 through 12 was under 20 percent of the total school enrollment and the total number of students in grades 9 through 12 was fewer than 20, or (4) the school name contained one of nine keywords indicating juvenile detention center or hospital. Of the 103,813 total schools listed in the 2010–11 CCD, 22,447 high schools met the criteria to be included in the sampling frame.

⁸ There were 3,302 schools without graduation rate information in the *EDFacts* public use data set. The researchers used an imputation approach to assign these schools to either the high- or low-graduation-rate stratum. The imputation process began by examining the distribution of the High/Low graduation rate classification for the 19,145 schools by sampling locale. The percentage of schools classified as high graduation rate was calculated separately for each locale sampling stratum; 68.4 percent of rural schools were classified as high graduation rate, 63.0 percent of suburban schools were classified as high graduation rate, and 41.0 percent of city schools were classified as high graduation rate. The research team randomly assigned each of the 3,302 schools with unknown graduation rates to the high graduation rate stratum with probability 68.4 if the school was classified as rural, with probability 63.0 if the school was classified as suburban, and with probability 41.0 if the school was classified as urban. The sample size was adjusted upwards to account for potential misclassification due to this method. In analysis, the researchers used the restricted-use *EDFacts* data and graduation rates published on school and district websites to fill in this missing data.

References

- Allensworth, E. M., and Easton, J. Q. 2005. *The On-Track Indicator as a Predictor of High School Graduation*. Chicago, IL: Consortium on Chicago School Research.
- Bruce, M., Bridgeland, J. M., Fox, J. H., and Balfanz, R. 2011. *On Track for Success: The Use of Early Warning Indicator and Intervention Systems to Build a Grad Nation*. Washington, DC: Civic Enterprises.
- Dynarski, M., Clarke, L., Cobb, B., Finn, J., Rumberger, R., and Smink, J. 2008. *Dropout Prevention: A Practice Guide* (NCEE 2008-4025). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.
- Osher, D., Sprague, J., Weissber, R. P., Axelrod, J., Keenana, S., Kendziora, K., and Sins, J. E. 2007. "Promoting Social, Emotional, and Academic Growth in Contemporary Schools." *Best Practices in School Psychology* 4: 1–16.
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. 2015a. "Table 1. Public High School 4-Year Adjusted Cohort Graduation Rate (ACGR)." https://nces.ed.gov/ccd/tables/ACGR_RE_and_characteristics_2013-14.asp.
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. 2015b. "Table 219.57. Population of 15- to 24-Year Olds Enrolled in Grades 10 through 12, Number Who Dropped Out (Event Dropouts), Percentage Who Dropped Out (Event Dropout Rate), and Percentage Distribution, by Selected Characteristics: 2014." https://nces.ed.gov/programs/digest/d15/tables/dt15_219.57.asp.

Appendix: Early Warning Systems (Survey Excerpt)

National Survey on High School Strategies Designed to Help At-Risk Students Graduate

This section asks about **Early Warning Systems**. For the purposes of this survey, an early warning system is a system based on student-level data to detect students who exhibit behavior or academic performance issues that put them at risk of educational failure.

83. In the 2014-15 school year, does your school have an early warning system?

(Please select only one)

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

If your answer is no, skip these questions and go on to the next section.

84. On average, approximately what percentage of high school students in your school is flagged by the early warning system each year?

{Slide bar for 0% to 100%}

85. Is your early warning system used with any of the following grades?

(Check all that apply)

Before 9th grade

9th grade

10th grade

11th grade

12th grade

86. Are any of these data collected in your early warning system?

(Check all that apply)

State achievement test scores

Attendance

Truancy and/or chronic absenteeism

Course grades

Discipline incidents including suspensions or expulsions

Involvement with criminal justice system

Involvement with social services or foster care

Pregnancy/teen parenthood

Reports of substance abuse

Homelessness or frequent address change

Limited English proficiency

Migrant status

Students' average for their grade level

Students who are behind in accumulating credits for their grade level

Other

(Please specify _____)

87. Which of the following data trigger an intervention in your early warning system?

(Check all that apply)

- | | |
|---|--------------------------|
| State achievement test scores | <input type="checkbox"/> |
| Attendance | <input type="checkbox"/> |
| Truancy and/or chronic absenteeism | <input type="checkbox"/> |
| Course grades | <input type="checkbox"/> |
| Discipline incidents including suspensions or expulsions | <input type="checkbox"/> |
| Involvement with criminal justice system | <input type="checkbox"/> |
| Involvement with social services or foster care | <input type="checkbox"/> |
| Pregnancy/teen parenthood | <input type="checkbox"/> |
| Substance abuse | <input type="checkbox"/> |
| Homelessness or frequent address change | <input type="checkbox"/> |
| Limited English proficiency | <input type="checkbox"/> |
| Migrant status | <input type="checkbox"/> |
| Students average for their grade level | <input type="checkbox"/> |
| Students who are behind in accumulating credits for their grade level | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

(Please specify _____)

88. What action is taken if a student is flagged by an early warning system?

(Check all that apply)

- | | |
|---|--------------------------|
| Meeting of teachers and administrators | <input type="checkbox"/> |
| Meeting of parents | <input type="checkbox"/> |
| Develop an intervention plan | <input type="checkbox"/> |
| Assign a case manager
<i>{Answer only if "Yes" to Q5}</i> | <input type="checkbox"/> |
| Assign an adult mentor
<i>{Answer only if "Yes" to Q15}</i> | <input type="checkbox"/> |
| Arrange access to social services
<i>{Answer only if "Yes" to Q25}</i> | <input type="checkbox"/> |
| Assign to credit recovery courses
<i>{Answer only if "Yes" to Q33}</i> | <input type="checkbox"/> |
| Assign to double dose or academic support courses
<i>{Answer only if "Yes" to Q53}</i> | <input type="checkbox"/> |
| Assign to mandatory tutoring
<i>{Answer only if "Yes" to Q62}</i> | <input type="checkbox"/> |
| Refer to student support team
<i>{Answer only if "Yes" to Q75}</i> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

(Please specify _____)

89. Who has access to the data from early warning systems?

(Check all that apply)

- Students
Teachers
School administrators
District administrators
Guidance/school counselors
Case managers
{Answer only if "Yes" to Q5}
Adult mentors
{Answer only if "Yes" to Q15}
Student support team
{Answer only if "Yes" to Q75}
Other
(Please specify _____)

90. Who is primarily responsible for monitoring the early warning systems?

(Please select only one)

- Teachers
School administrators
District administrators
Guidance/school counselors
Case managers
Adult mentors
Student support team
Other
(Please specify _____)

91. On average, how often does the person primarily responsible for the early warning system check its data?

(Please select only one)

- Daily
Weekly
Every other week
Once a month
Less frequently than once a month
I don't know

92. To what extent do you agree that the data in your early warning systems is:

(Please select one option for each row)

	Strongly agree	Agree	Disagree	Strongly disagree
Routinely accessible to those who need it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easily interpreted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accurate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Linked to ongoing intervention tracking and progress monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The full survey is available at: <http://www2.ed.gov/about/offices/list/opepd/ppss/reports-high-school.html>