

Identifying Students At-Risk for Dropping Out of High School: Overview of a Tool for Developing Early Warning Systems

January 28, 2009

**Jessica Heppen, Ph.D.
Mindee O’Cummings, Ph.D.
Susan Bowles Therriault, Ed.D.
National High School Center**

Network of Content Centers and Regional Comprehensive Centers

Five Content Centers (CCs)

- ***National High School Center***
- Assessment and Accountability Comprehensive Center
- Center on Innovation and Improvement
- *National Comprehensive Center for Teacher Quality*
- *Center on Instruction*



Regional Comprehensive Centers (RCCs)

(16 Regional Centers)



State Education Agencies (SEAs)



Local Education Agencies (LEAs)

- Serve as the central source of research and information on high school improvement for the Regional Comprehensive Centers
- Identify, summarize and disseminate information on:
 - latest research and innovations
 - useful programs, tools, and products
 - high-quality technical assistance relating to high schools and their diverse student populations
- Build capacity of RCCs to promote and support high school improvement at all levels

True/ False Quiz

Nearly one-third of all high school students leave the public school system before graduating.	T	F
1.2 million students drop out of high school each year – a projected 12 million over the next decade.	T	F
Fifteen percent of U.S. high schools produce 50 percent of the country's dropouts.	T	F
It is hard to acquire good data that can predict whether a student is likely to drop out of high school.	T	F

This Presentation

- Overview of early warning systems to identify potential high school dropouts
 - Background on academic indicators of high school dropout
 - Lessons from research on “high yield” academic indicators
- Demonstration of data tool - Building EWS in schools
- Research-based dropout prevention interventions
- Building EWS in districts and states

Ninth Grade is a Critical Year

- Ninth grade is a “make or break year”
 - More students fail 9th grade than any other grade in high school
 - A disproportionate number of students who are held back in 9th grade subsequently drop out
- By the end of 9th grade or even during the first semester, powerful indicators exist that can predict whether students will complete high school
 - Engagement
 - Course performance
 - “On-Track” Indicator

Herlihy, C. (2007). *State and district-level supports for successful transition into high school*. Washington, DC: National High School Center.

Allensworth, E., & Easton, J.Q. (2007). *What matters for staying on-track and graduating in Chicago Public High Schools: A close look at course grades, failures and attendance in the freshman year*. Chicago: Consortium on Chicago School Research.

What are the Key 9th Grade Indicators?

Engagement

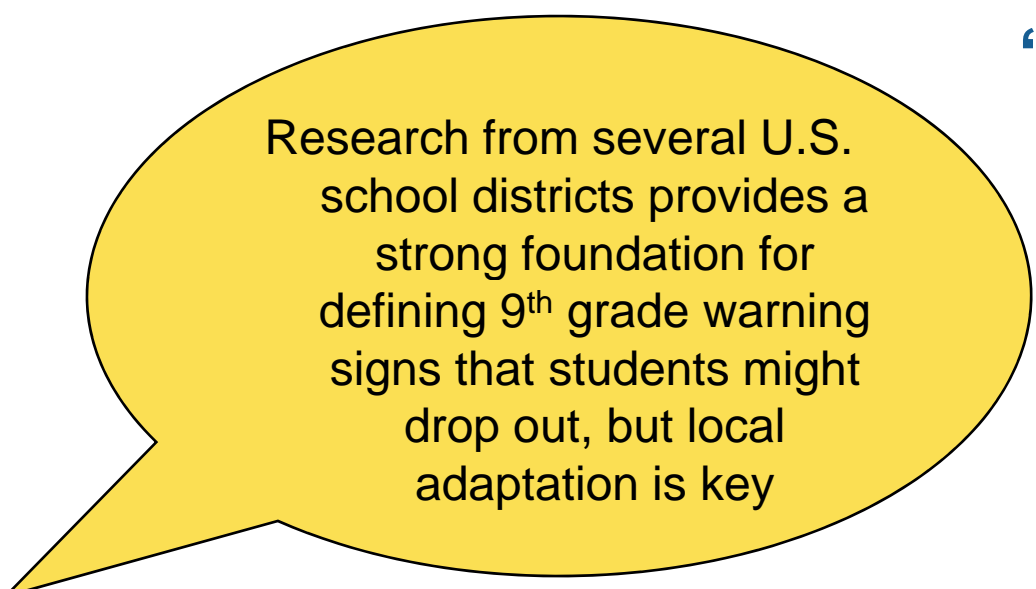
- Attendance/
absenteeism

Course Performance

- Course grades
- Number of credits earned

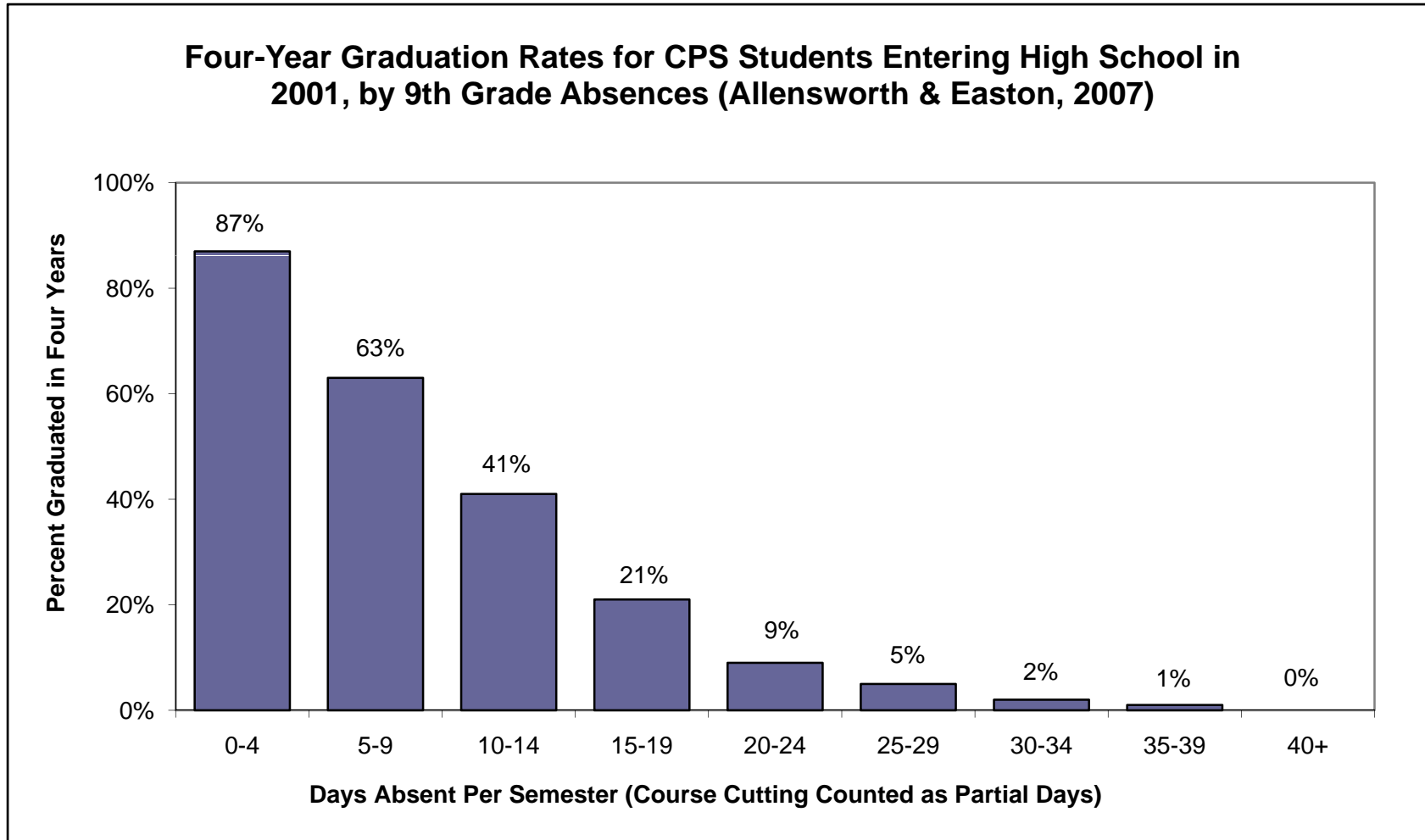
“On-track” Indicator

- Core course performance & accumulated credits

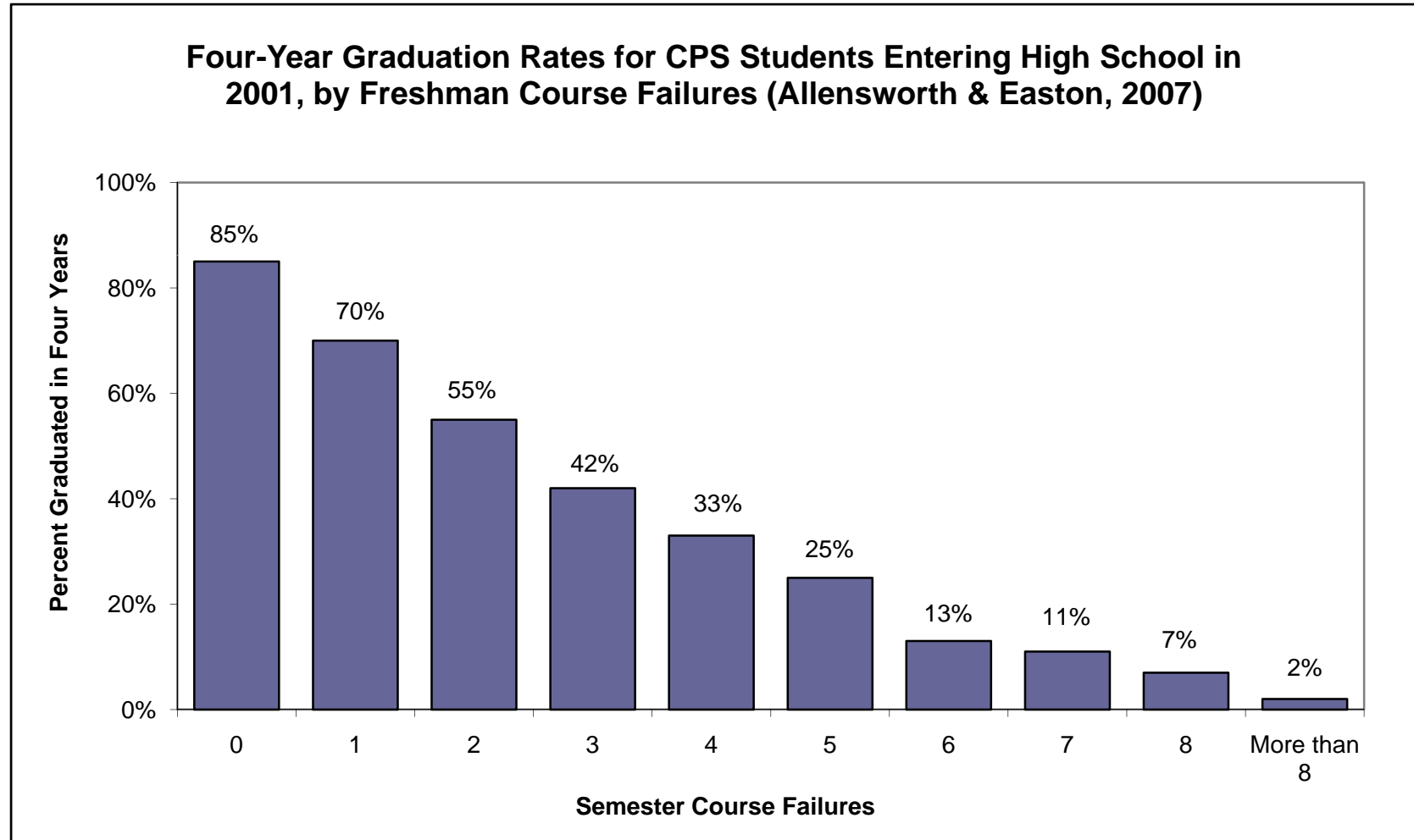


Research from several U.S. school districts provides a strong foundation for defining 9th grade warning signs that students might drop out, but local adaptation is key

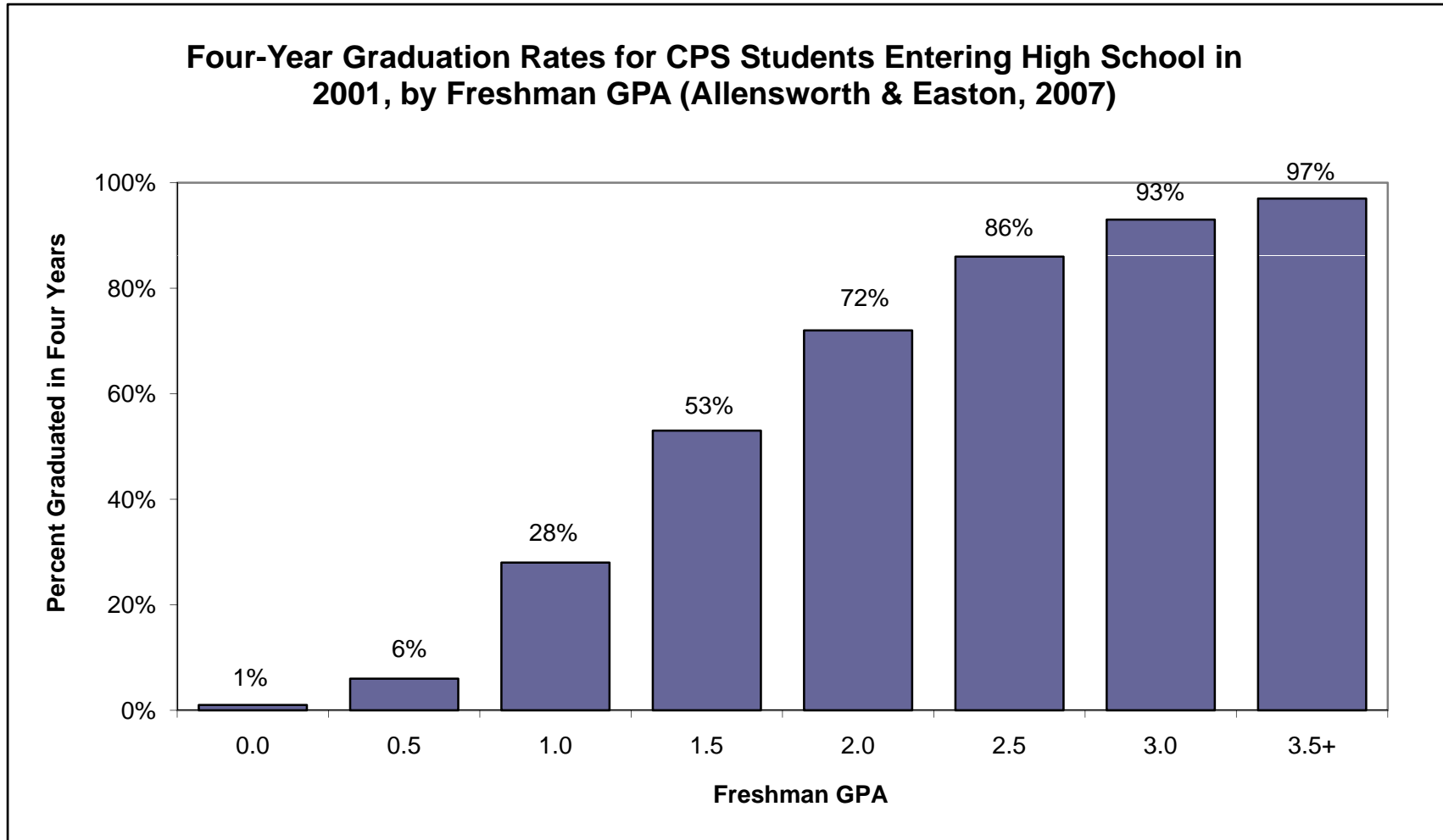
“High-Yield” Academic Indicators: Attendance



“High-Yield” Academic Indicators: Course Failures



“High-Yield” Academic Indicators: GPA



Chicago's "On-track" Indicator

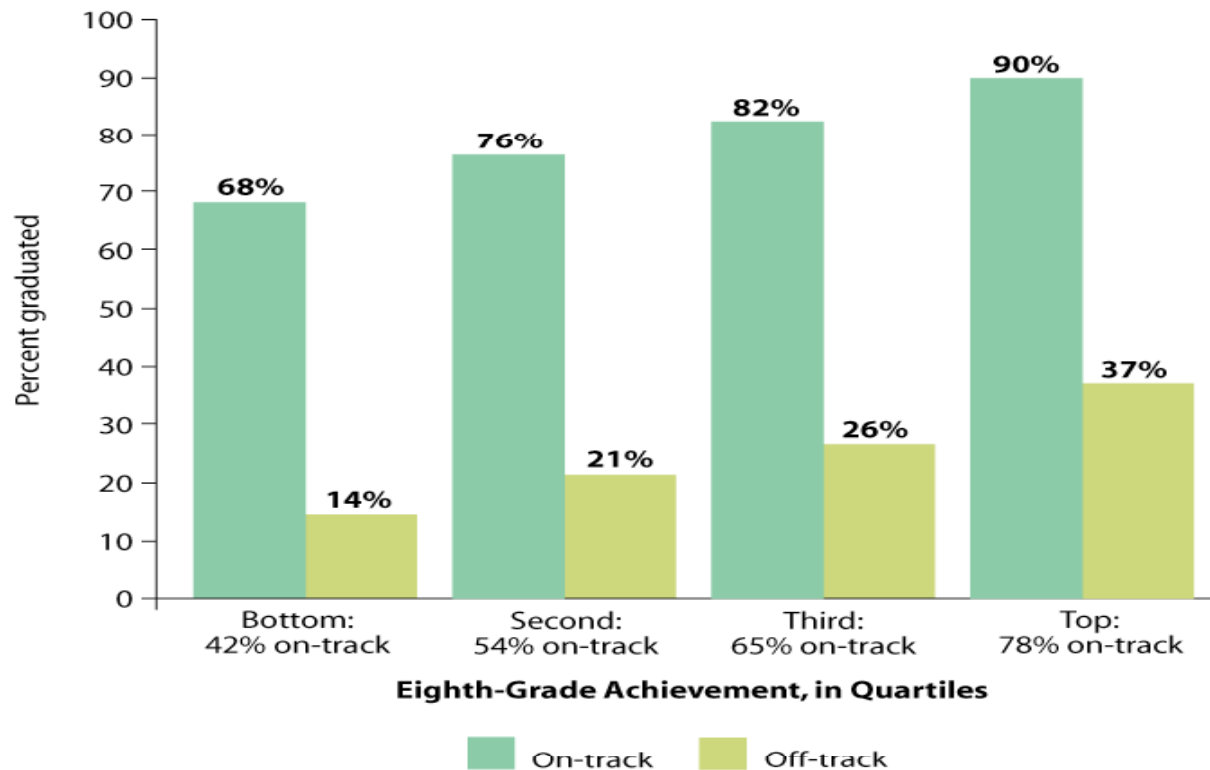
Students are "on-track", if they:

- 1) have not failed more than one semester long core course, **AND**
- 2) have accumulated enough credits for promotion to the 10th grade.

Number of Semesters with Fs in Core Courses	# of Credits Accumulated Freshman Year	
	Less than 5	5 or more
2 or more courses	Off-track	Off-track
0 or 1 courses	Off-track	On-track

On-Track Indicator

Four-Year Graduation Rates by On-Track Status after Freshman Year and Incoming Reading and Mathematics Achievement
Students entering high school in September 2000



Source: Allensworth & Easton (2005)

“High Yield” 9th Grade Indicators

Indicators	Benchmark (red flag)
Absenteeism	Missing 10% or more of instructional time
Course failures	One or more failed course
Grade point average	2.0 or lower (on a 4-point scale)
“On-track”	Fail two or more semester core courses, or accumulate fewer credits than the number required for promotion to the 10th grade

Building Early Warning Systems in High Schools

- Demonstration of simple tool designed to help high schools use data they already have for dropout prevention
 - http://www.betterhighschools.org/pubs/ews_guide.asp
 - <http://www.betterhighschools.org/pubs/EWStool.xls>

Dropout Prevention Strategies

- Focus on achievement in core courses

**Example Programs that
incorporate this strategy:**

- School Development Program
- America's Choice
- Talent Development High School
- First Things First

Dropout Prevention Strategies

- Focus on achievement in core courses
- **Content recovery courses**

Example Programs that incorporate this strategy:

- America's Choice
- Talent Development High School

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- **Tiered approaches**

Example Programs that incorporate this strategy:

- Academic Literacy Program
- PBIS
- Strategic Instruction Model
- RENEW

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- **Tutoring as an academic support**

Example Programs that incorporate this strategy:

- America's Choice
- Check and Connect
- Coca-Cola VYP
- Interpersonal Relations
Personal Growth Class
- NGP
- Quantum Opportunities
Program
- School Development
Program
- Talent Development
High School
- Twelve Together

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- **Attendance and behavior monitors**

Example Programs that incorporate this strategy:

- ALAS
- Check and Connect
- Coca-Cola VYP
- Interpersonal Relations
Personal Growth Class
- PBIS
- Project COFFEE
- Talent Development
High School
- Teen Outreach

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- **Advisories and team teaching**

Example Programs that incorporate this strategy:

- Middle College High School
- NGP
- School Transitional Environmental Program (STEP)

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- **Counseling and mentoring**

Example Programs that incorporate this strategy:

- ALAS
- Check and Connect
- First Things First
- Interpersonal Relations/
Personal Growth Class
- Project COFFEE
- Twelve Together

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- **Small learning communities and school within a school for greater personalization**

Example Programs that incorporate this strategy:

- Career Academies
- First Things First
- Middle College High School
- Academic Literacy Program
- NGP
- Project COFFEE
- STEP

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- Small learning communities and school within a school for greater personalization
- **Partnerships between high schools and feeder middle schools**

Example Programs that incorporate this strategy:

- Project GRAD

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- Small learning communities and school within a school for greater personalization
- Partnerships between high schools and feeder middle schools
- **Ninth grade transition programs**

Example Programs that incorporate this strategy:

- Career Academies
- Ninth Grade Success Academies
- STEP

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- Small learning communities and school within a school for greater personalization
- Partnerships between high schools and feeder middle schools
- Ninth grade transition programs
- **Support for students with disabilities outside of school**

Example Programs that incorporate this strategy:

- Check and Connect
- PBIS

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- Small learning communities and school within a school for greater personalization
- Partnerships between high schools and feeder middle schools
- Ninth grade transition programs
- Support for students with disabilities outside of school
- **Career and college awareness**

Example Programs that incorporate this strategy:

- Career Academies
- Learning to Work Program (NYC)
- Lifelong Options Program (LOP)
- Middle College High Schools
- Project COFFEE
- RENEW
- Twelve Together

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- Small learning communities and school within a school for greater personalization
- Partnerships between high schools and feeder middle schools
- Ninth grade transition programs
- Support for students with disabilities outside of school
- Career and college awareness
- **Family engagement**

Example Programs that incorporate this strategy:

- ALAS
- First Things First
- Support Center for Adolescent Mothers (Family Growth Center)
- NGP
- Talent Development High Schools
 - Twelve Together

Dropout Prevention Strategies

- Focus on achievement in core courses
- Content recovery courses
- Tiered approaches
- Tutoring as an academic support
- Attendance and behavior monitors
- Advisories and team teaching
- Counseling and mentoring
- Small learning communities and school within a school for greater personalization
- Partnerships between high schools and feeder middle schools
- Ninth grade transition programs
- Support for students with disabilities outside of school
- Career and college awareness
- Family engagement
- **Community engagement**

Example Programs that incorporate this strategy:

- ALAS
- America's Choice
- Career Academies
- Check and Connect
- Support Center for Adolescent Mothers
- Middle College High Schools
- NGP
- Quantum Opportunities Program
- Teen Outreach Program

District and State Roles in Building and Using Early Warning Systems

The District Role in Developing Early Warning Systems to Identify Potential Dropouts

- Readiness
- Local Adaptation
- Identification
- Accountability

- Taking inventory of readily available data and data elements collected
- Developing tools for use by district and school to support the key elements of the warning system
 - Data Collection
 - Data elements
 - Data systems
 - Accessibility of data
- Training staff
 - Data analysis for identifying key indicators
 - Using the early warning systems tool

- Conducting data analysis for the local context
 - Vertical analysis
 - Historical analysis
 - Persistent problems
 - Continuous analysis
- Resource: Jerald, C. (2006). *Identifying potential dropouts: Key lessons for building an early warning data system*. Washington, DC: Achieve, Inc.
(http://www.achieve.org/files/FINAL-dropouts_0.pdf)

Questions for Analysis

What percentage of students *with each risk factor (or combination)*...

1. Dropped out?
2. Graduated (in 4 or 5 years)?

What percentage of students *without each risk factor (or combination)*...

1. Dropped out?
2. Graduated (in 4 or 5 years)?

	Displayed Early Warning Sign in 9 th Grade?	
Graduated in 4 (or 5) Years?	YES	NO
YES	<i>False Positive (or Effective Intervention)</i>	Accurate Prediction
NO	Accurate Prediction	<i>False Negative</i>

- Identifying areas of need (e.g., schools, student subgroups)
- Targeting resources to support schools
 - intervention strategies for at-risk students
 - collaboration among high schools across the district or region

- Developing strategies to refine and improve continuously the predictive power of indicators in the local context
- Including the on-track indicator as an accountability measure for schools in the district

The State Role in Developing Early Warning Systems to Identify Potential Dropouts

The State Role

- Readiness
 - Inventory
 - Tools
 - Training
- Targeted Assistance
 - Allocating resources based on critical areas of need
 - Identifying “drop-out factories” (Balfanz & Legters, 2004) (<http://www.msnbc.msn.com/id/21532193>)
- Accountability
 - Progress
 - Interventions
- Communication

**For more information from the
National High School Center on Dropout
Prevention and
Early Warning Systems:**

<http://www.betterhighschools.org/topics/DropoutWarningSigns.asp>