

The On-Track Indicator as a Predictor of High School Graduation

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THE CONSORTIUM ON CHICAGO SCHOOL RESEARCH
AT THE UNIVERSITY OF CHICAGO / URBAN EDUCATION INSTITUTE

Who will graduate?

A number of students' background characteristics have been associated with dropping out...

- Eighth grade test scores
- Mobility prior to high school
- Over-age for grade
- Race
- Economic status
- Gender
- Neighborhood poverty



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Who will graduate?

	Prediction of graduates in 4 years	Prediction of non-graduates
Eighth grade test scores Race Economic status Gender Mobility prior to high school Over-age for grade	65% Correctly identified, using all background information	48% Correctly identified, using all background information



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The “on-track” indicator

A measure of progress during the first year of high school

- An on-track student has accumulated five full course credits (in any subject)
 - The number required to move to 10th grade in Chicago
- An on-track student has no more than one semester F in a core subject
 - English, math, science, or social studies



Who will graduate?

Indicator of Future Graduation/Dropout...	Prediction of graduates in 4 years	Prediction of non-graduates
Eighth grade test scores Race Economic status Gender Mobility prior to high school Over-age for grade	65% correctly identified, using all background information	48% correctly identified, using all background information
On-track in 9th grade	80% correctly identified, using only the on-track indicator	72% correctly identified, using only the on-track indicator

Who will graduate?

Indicator of Future Graduation/Dropout...	Prediction of graduates in 4 years	Prediction of non-graduates
Eighth grade test scores, mobility, overage, race, economic status, gender	65%	48%
On-track in ninth grade	80%	72%
All of the above	81%	72%



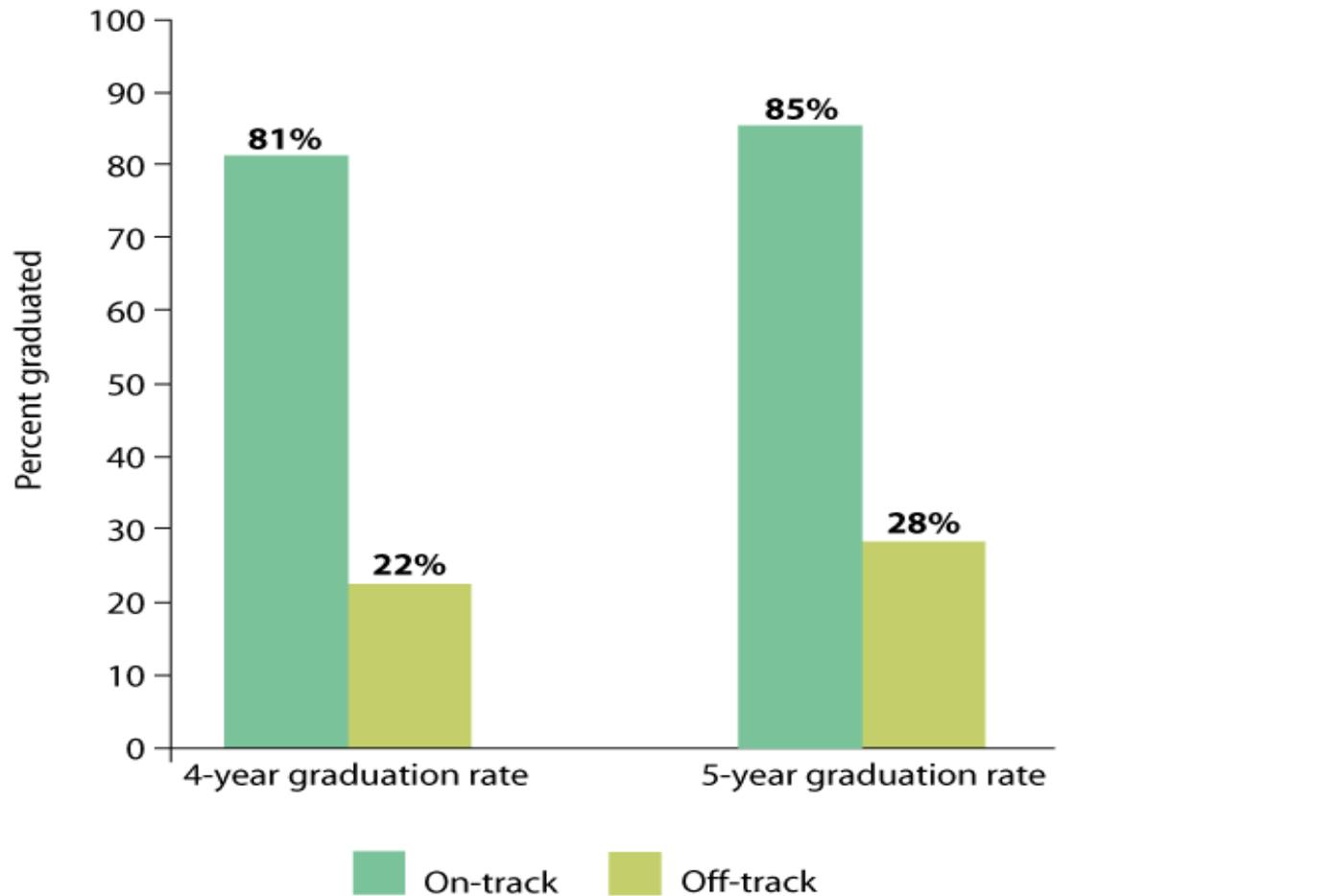
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Being “on-track” in the ninth grade indicates who will graduate

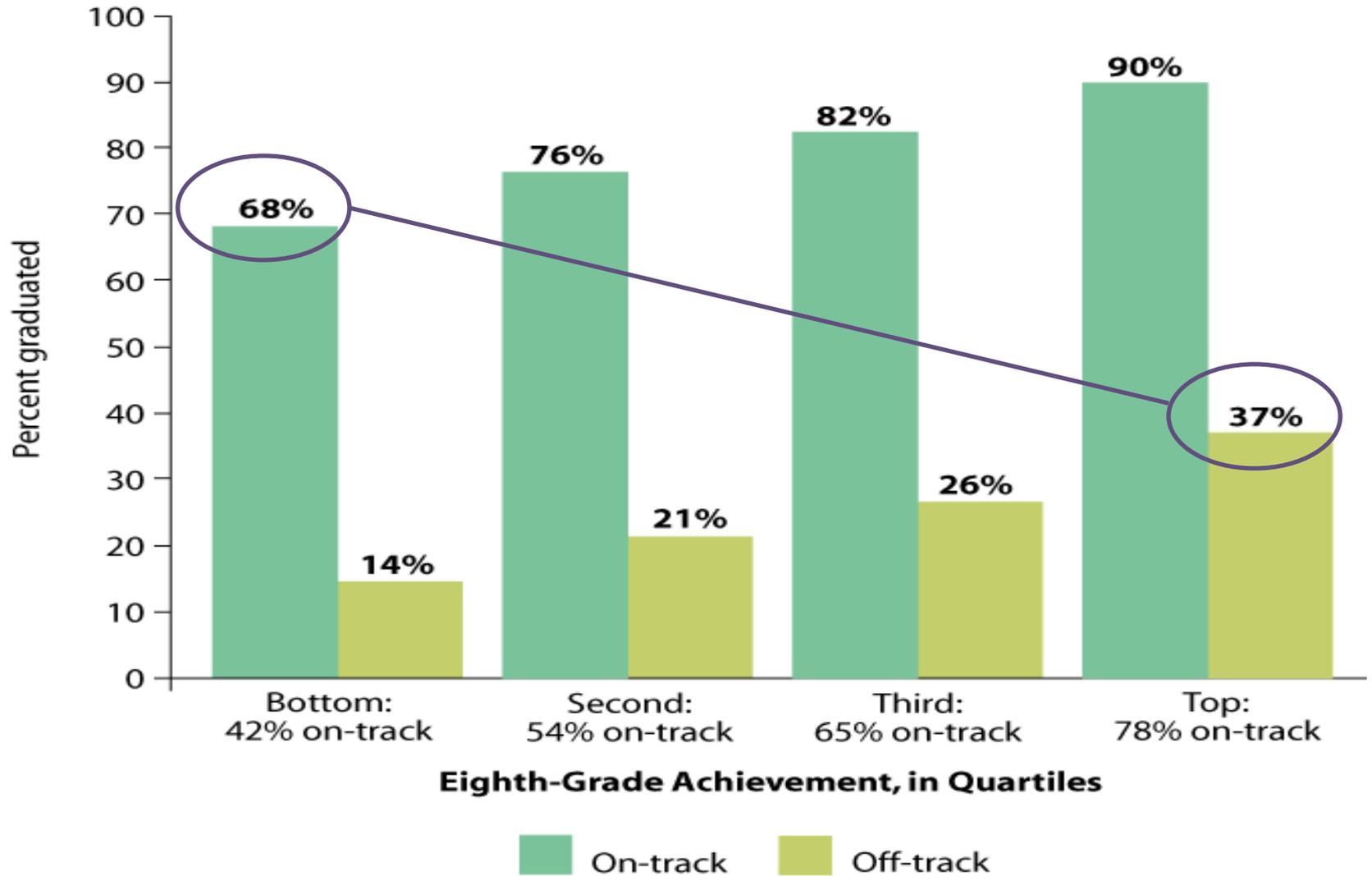
Four- and Five-Year Graduation Rates by Whether On-Track at the End of the Freshman Year

Students entering high school in September 1999



Four-Year Graduation Rates by On-Track Status after Freshman Year and Incoming Reading and Mathematics Achievement

Students entering high school in September 2000



Who will graduate?

Indicator of Future Graduation/Dropout...	Prediction of graduates in 4 years	Prediction of non-graduates
Eighth grade test scores, mobility, overage, race, economic status, gender	65%	48%
On-track in 9th grade	80%	72%
9 th Grade GPA	80%	73%
9 th Grade Course Failures	80%	66%
9 th Grade Absences	77%	59%

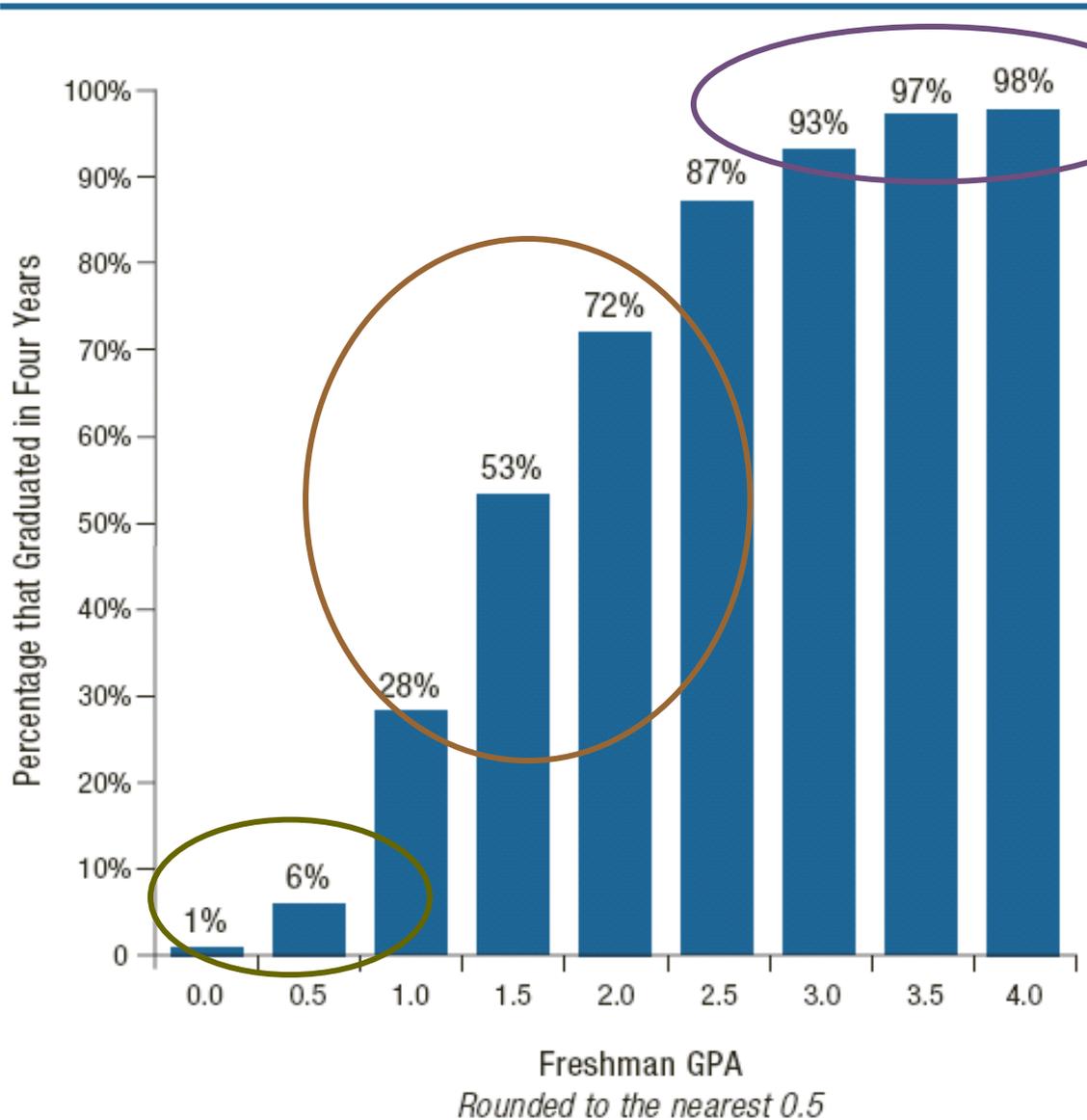


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Freshman Year Grades & Failures Can Precisely Identify Students' Risk of Not Graduating

Four-Year Graduation Rates by Freshman GPA



Virtually all students with a "B" average or higher in their first year will graduate in 4 years

Students with D+/C- GPAs could go either way

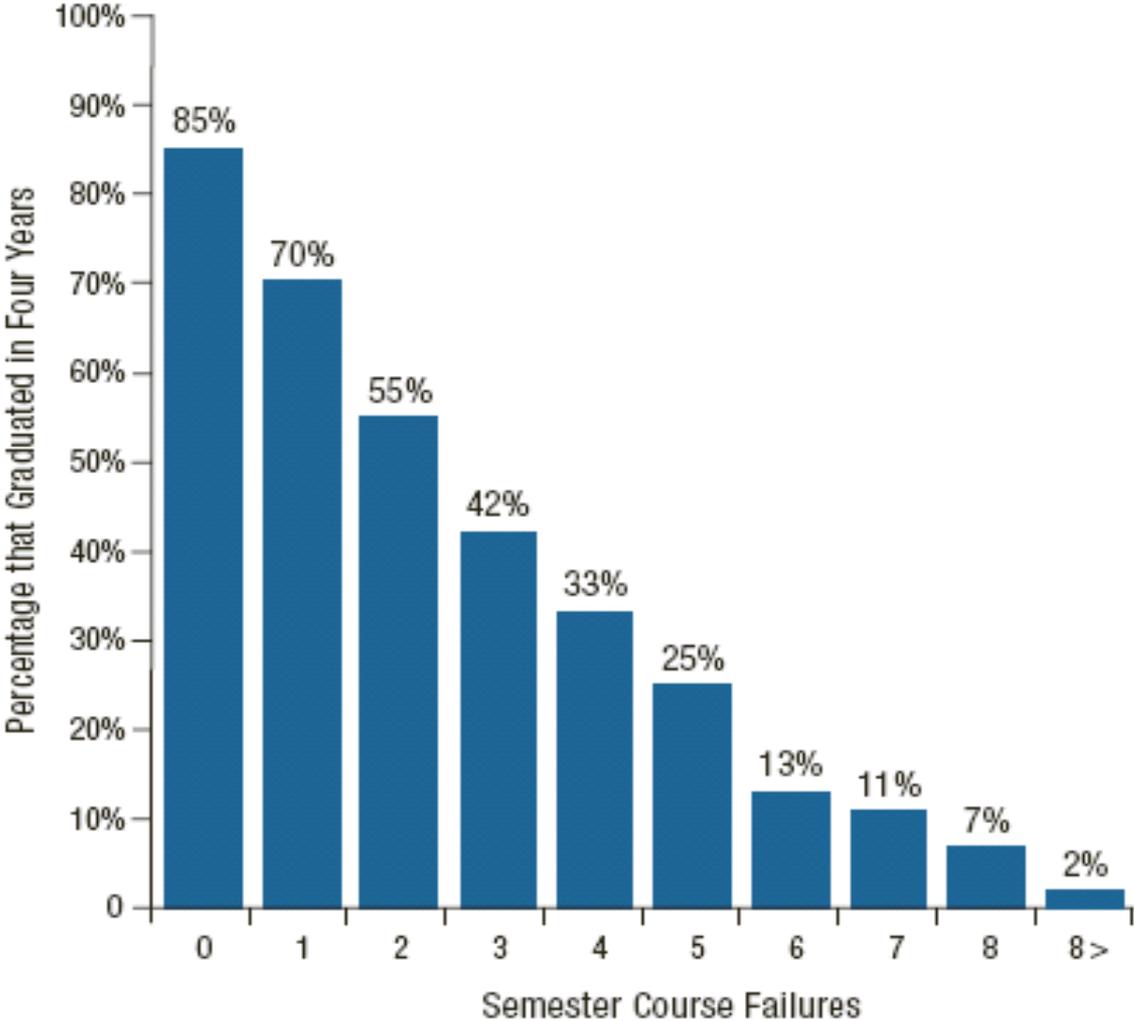
Virtually all students with less than a "D" average in their first year will fail to graduate



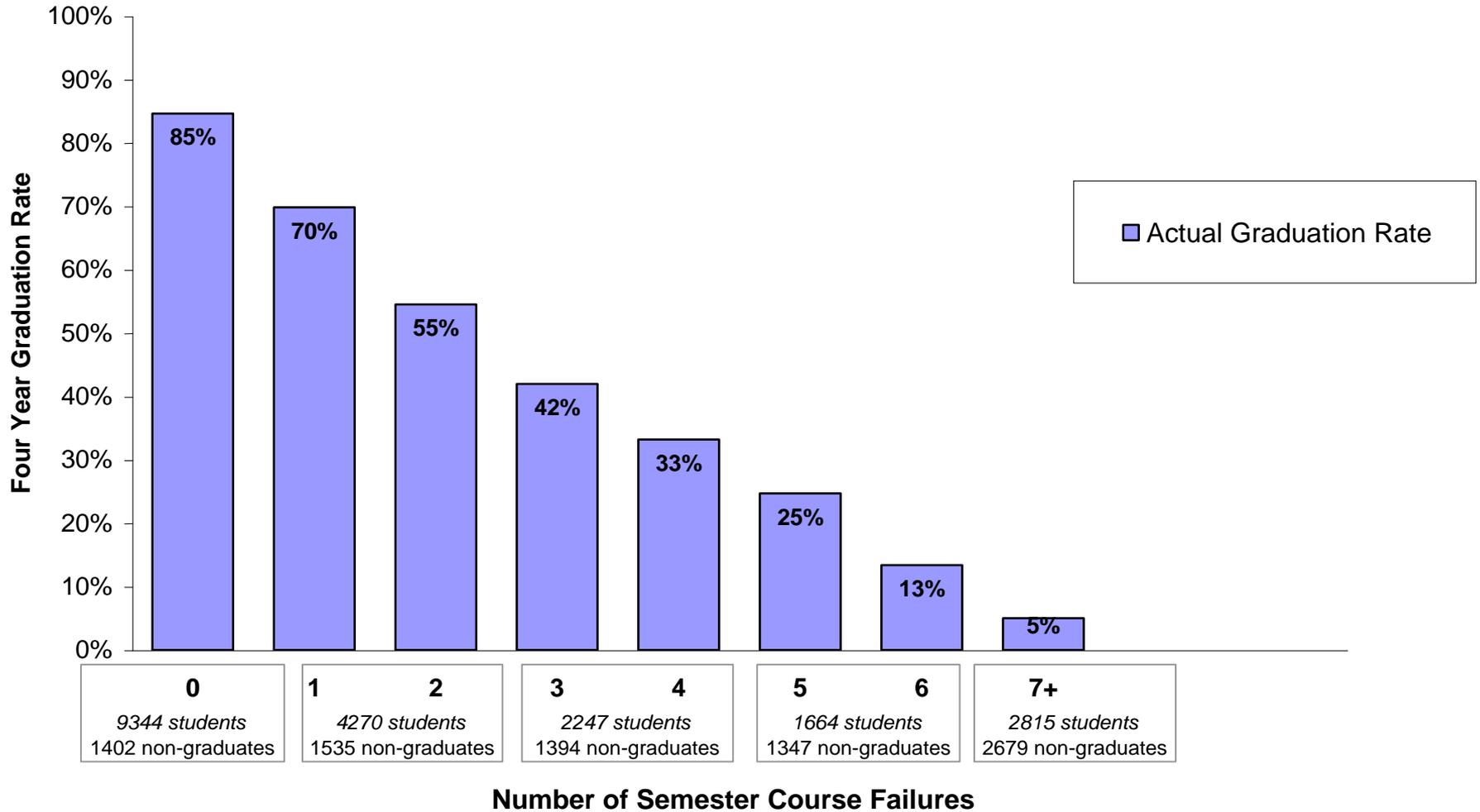
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Freshman Year Grades & Failures Can Precisely Identify Students' Risk of Not Graduating

Four-Year Graduation Rates by Freshman Course Failures

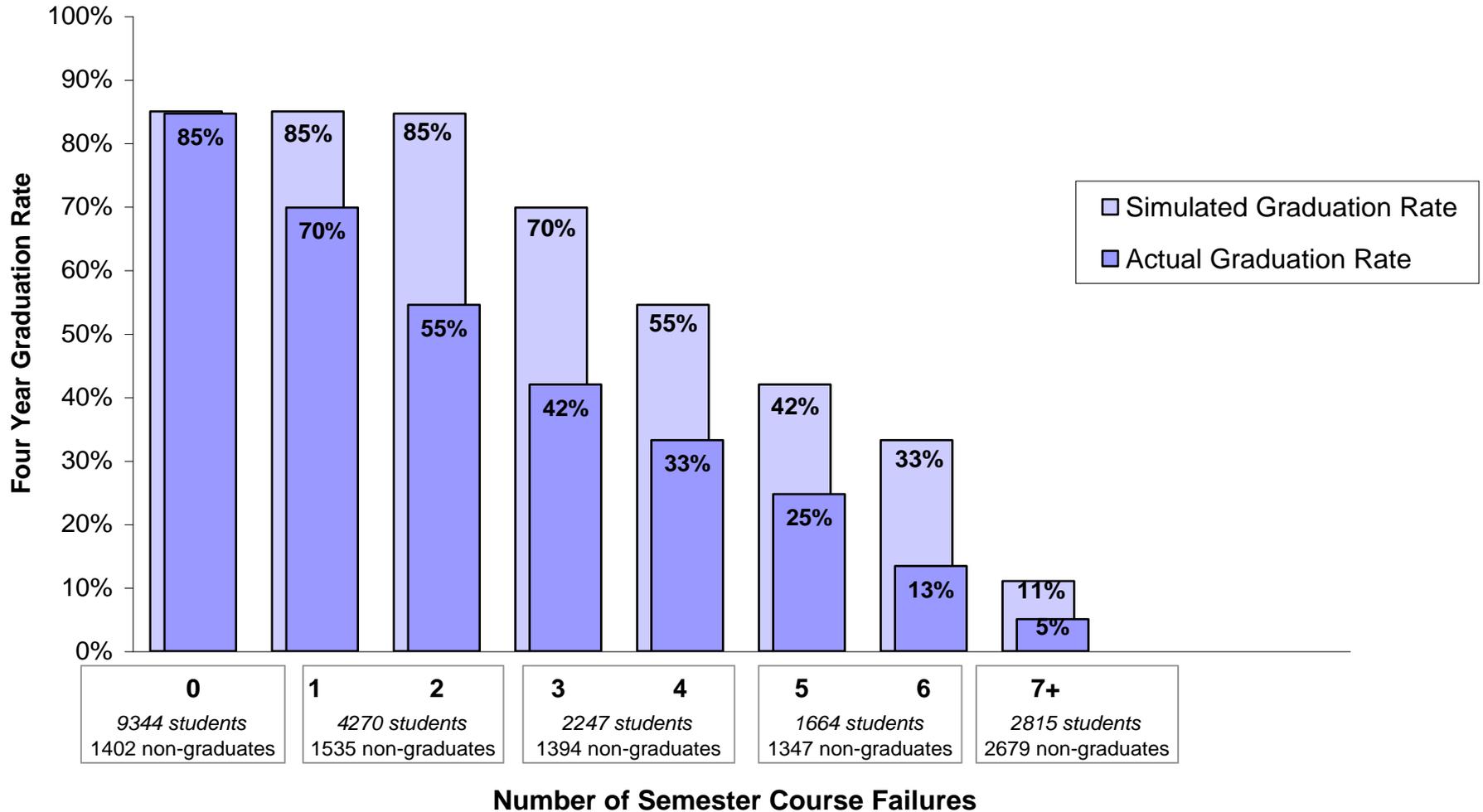


Who should be targeted?



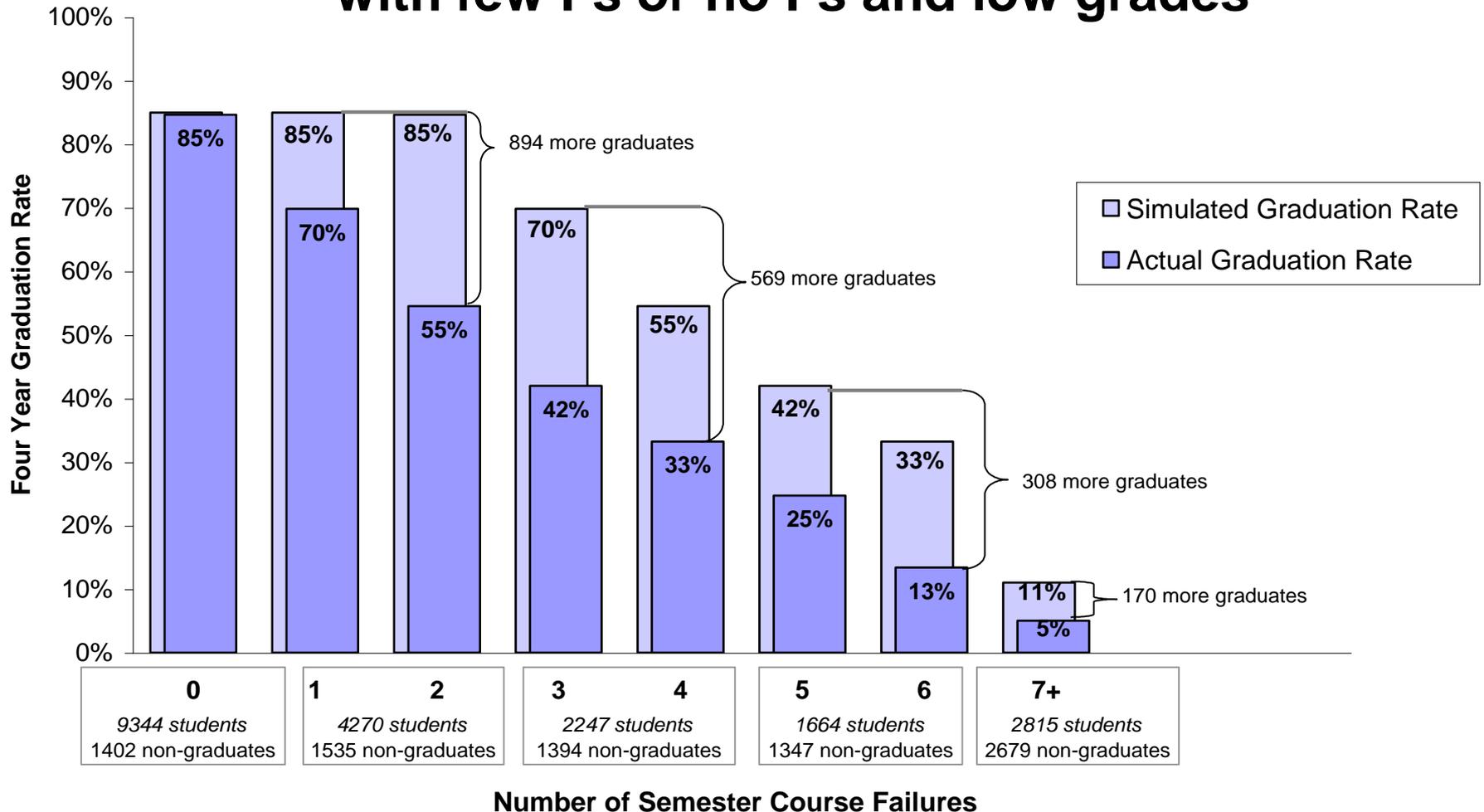
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Who should be targeted?



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Modest intervention may be most effective for students with few Fs or no Fs and low grades



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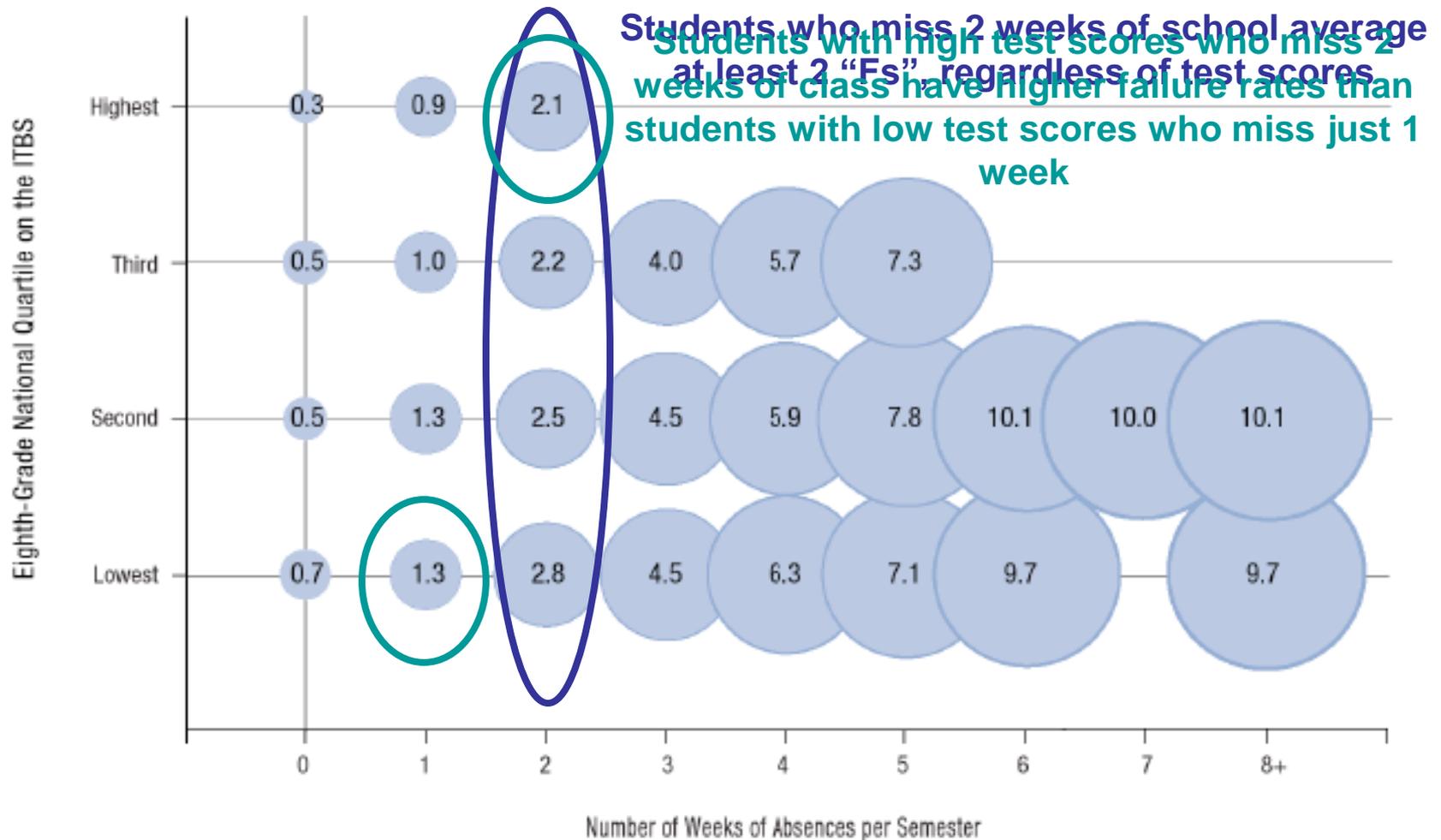
Why do students fail courses?

- Attendance is 8 times more predictive of failure than prior test scores
 - Demographic & economic background characteristics explain 7% of course failures
 - Eighth-grade test scores explain an additional 5% (12% total)
 - Student behaviors--absences and effort- explain an additional 61% (73% total)
- Attendance is also the strongest predictor of course grades (As & Bs), although academic skills are also important for high grades



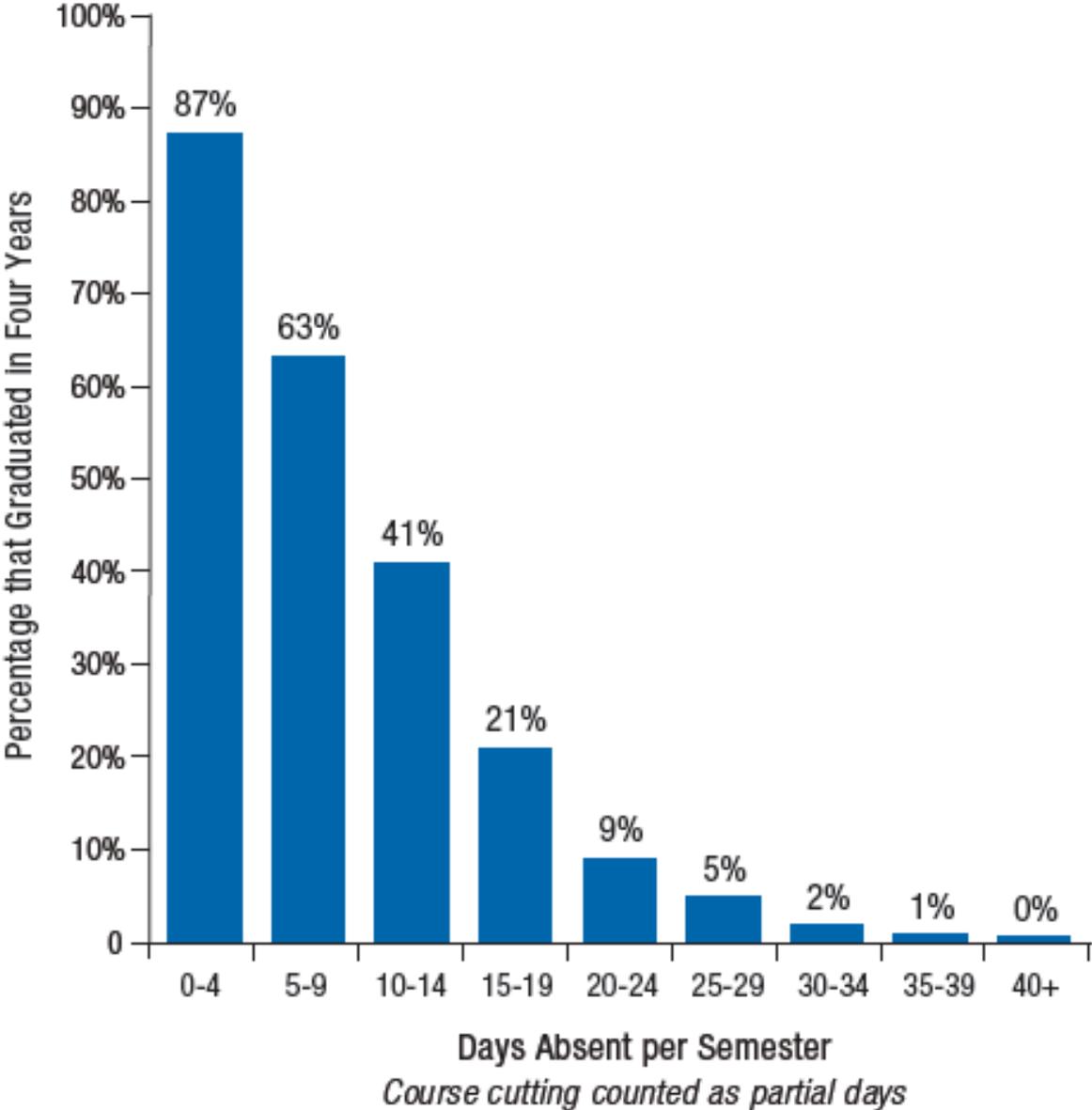
Failures are much more strongly related to course absence than to incoming achievement.

Average Number of Fs by Absences and Eighth-Grade Test Scores



This figure only includes students still enrolled in school at the end of their freshman year. Only cells with at least 5 percent of students are included.

Each week of absence in ninth grade is associated with a dramatically reduced likelihood of graduating



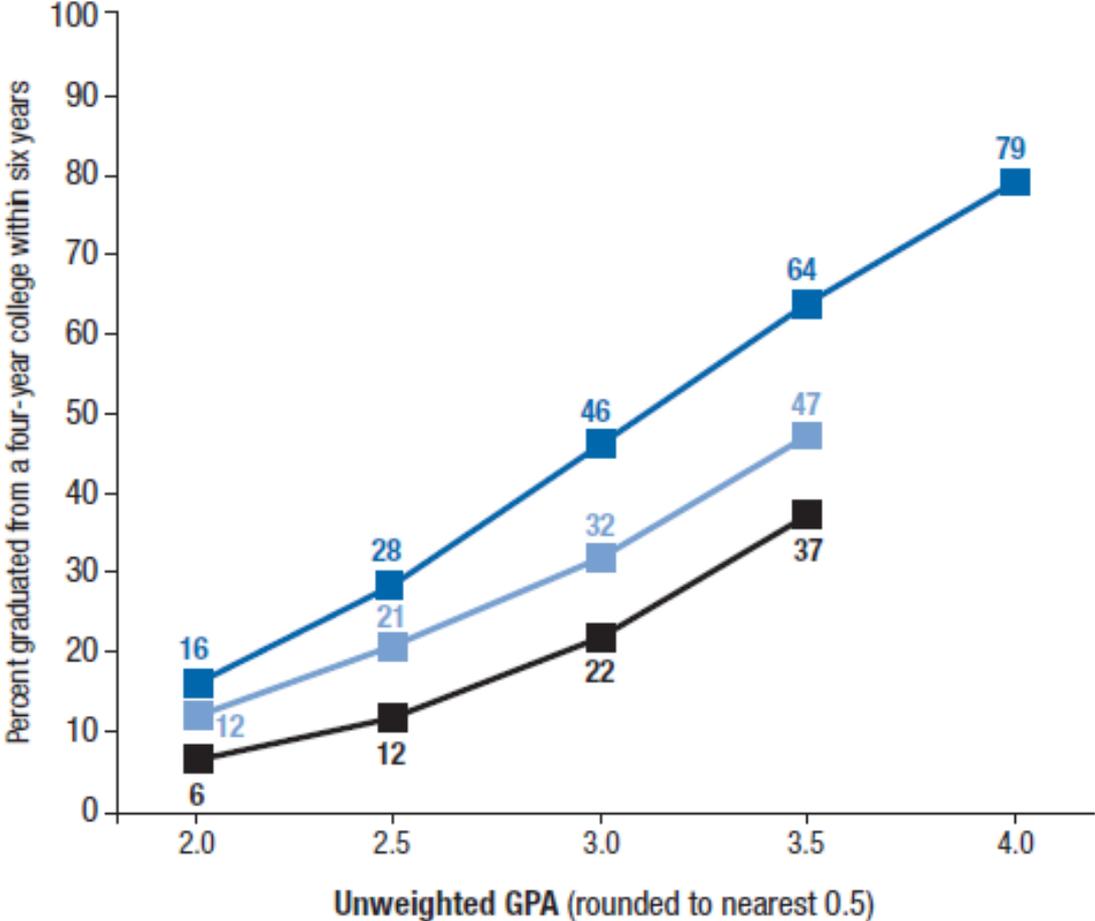
Implications: Improving students' attendance & grades should bring higher graduation rates

- Efforts aimed coursework will have a large impacts on graduation, compared to efforts aimed at external factors
 - Course performance is **directly** tied to graduation
 - Course performance is more under the control of schools than external factors
- Effective dropout prevention programs monitor students' grades and attendance
 - E.g., Check & Connect, ALAS
 - Other programs with common elements (case management, mentoring) but without monitoring of performance not successful
- Students do better where programs help students in their coursework



High school grades are more predictive of college graduation than test scores or curricular track

College graduation rates by high school GPAs of students in different curricular tracks

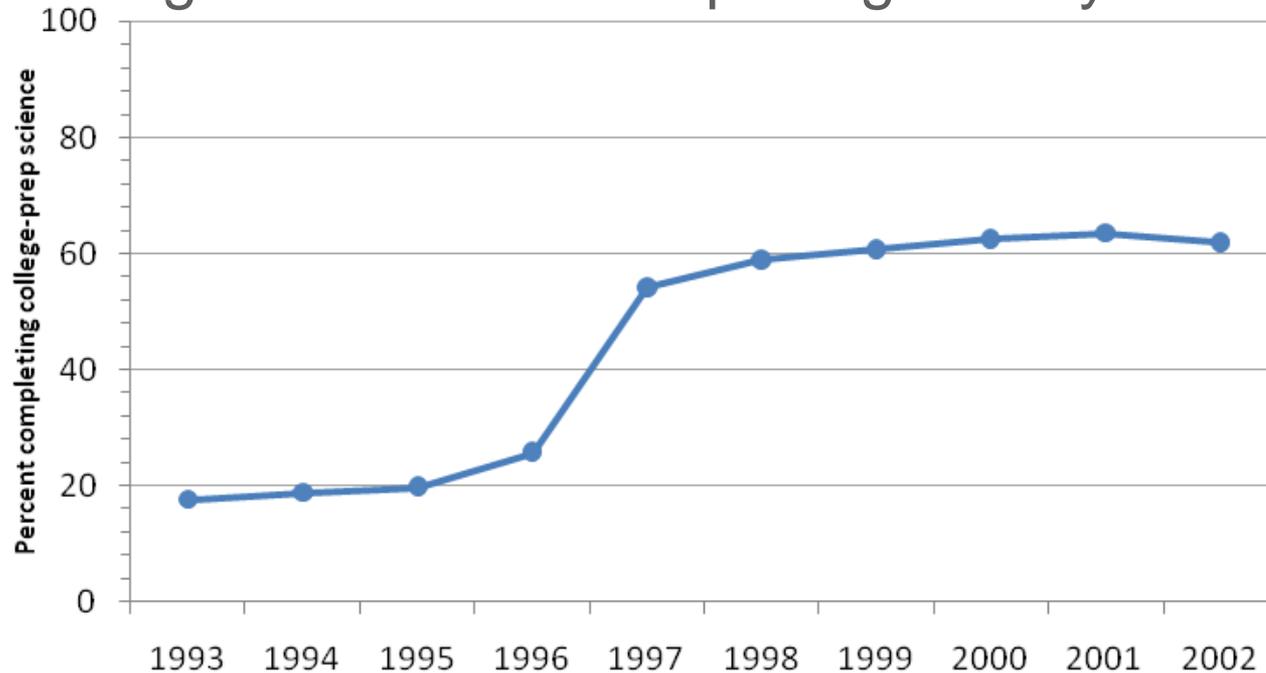


■ High TAP, honors track ■ Average TAP, limited honors ■ Low TAP, no honors

Increased course rigor isn't enough to raise achievement...

College Prep Curriculum for All Policy

Percentage of students completing three years of science



Ninth Grade Cohort

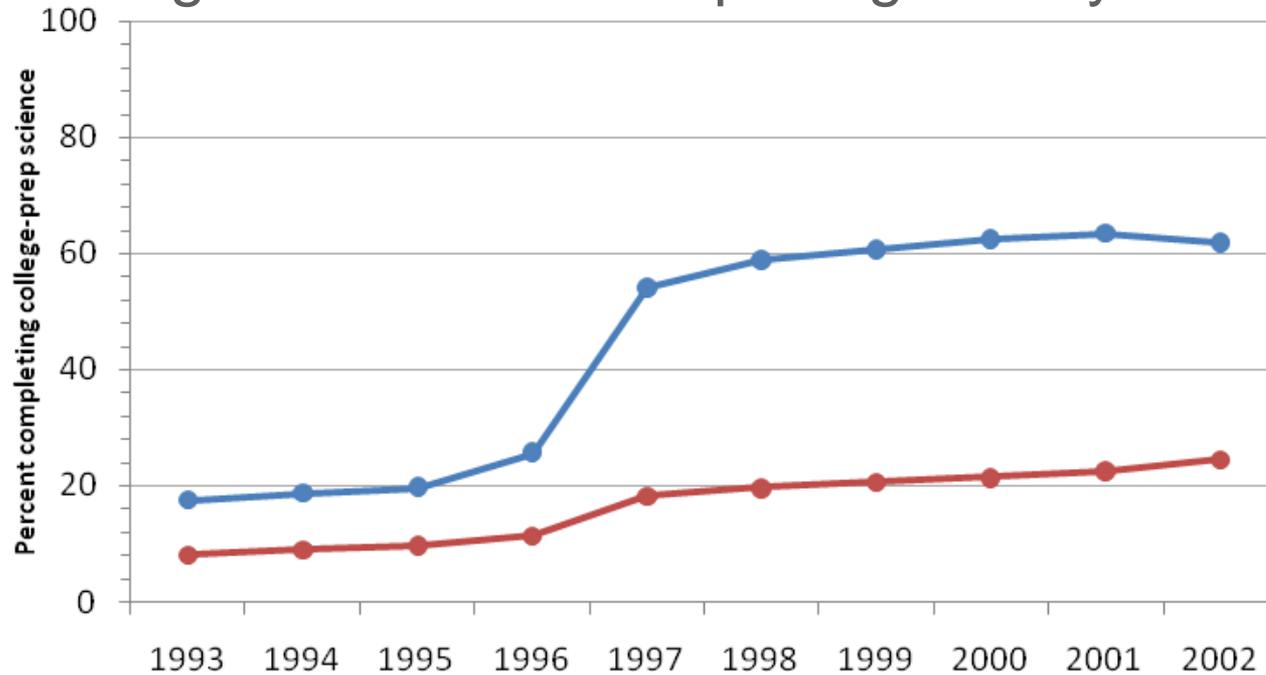
—●— Pass

Sample includes all students that stayed in CPS until graduation or dropping out

...if students aren't engaged in those rigorous courses

College Prep Curriculum for All Policy

Percentage of students completing three years of science



Ninth Grade Cohort

—●— Pass —●— Pass with B or higher

Sample includes all students that stayed in CPS until graduation or dropping out

There are systematic differences across schools in ninth grade attendance, failure rates and grades

... even after accounting for differences in the backgrounds and qualifications of students at those schools



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Comparing schools that serve similar students...

Attendance and grades are better at schools with...

- Good teacher-student relationships
- Where students see high school as relevant for their future
- Teachers work in a coordinated way
 - Programs and instruction are coordinated and sustained over time
 - Teachers take collective responsibility for the whole school, not just their own students



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How do you use early warning indicators?



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What's happening in Chicago around data on early warning indicators

- District accountability around on-track rates
- Department of Graduation Pathways
 - Watchlists and Success Reports
 - Practice guide for using data
- Data and Practice collaborative (CCSR and school networks)
 - Ninth grade reports with trends and patterns
 - Across-school data sharing and analysis



Having data is just the first step

Steps to use the data...

- Understand the patterns around indicators and later outcomes
- Data reporting tools
 - Reports on individual students for monitoring and targeting
 - Reports on patterns of attendance and grades in the school
- Practices around data use



Practices around data use

CPS Department of Graduation Pathways
On-Track Labs has developed some
strategies around..

- Tutoring
- Team meetings
- Parent-student conferences
- Individual student action plans



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Research summaries for students, parents, and teachers

http://ccsr.uchicago.edu/content/publications.php?pub_id=116



Freshman Year: The Make-it or Break-it Year

You are about to start the most important year of high school—perhaps the most important year of school so far. This is the year that will set the stage for whether you will graduate and whether you will be ready for college.

How do we know this? Because researchers at the University of Chicago—the Consortium on Chicago School Research—have spent years trying to understand what really matters when it comes to graduating from Chicago Public Schools. Working in cooperation with the district, the Consortium researchers have analyzed years of data—surveys, standardized tests, student grades, attendance records—and uncovered some connections that might surprise you.

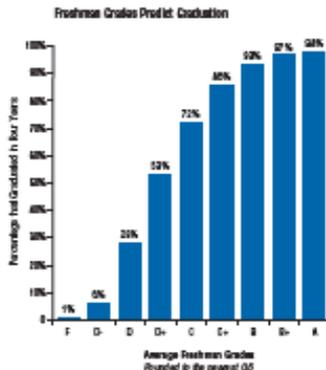
It's not about your 8th grade test scores, or even the ACT test that you will face in the 11th grade, although these tests do matter. It's not about where you live and how much money your family earns, although those facts get a lot of attention when educators talk about drop-out statistics.

Here's what really matters far more than anything: **GRADES AND ATTENDANCE.**

No one wants to be a drop-out statistic. So as you begin this crucial year, consider what research tells us about Chicago freshmen and the factors that influence whether or not they will graduate four years later.

GRADES

- More than 95 percent of students with a B average or better in their freshman year graduate.
- Freshmen who earn a B average or better have an 80-percent chance of finishing high school with at least a 3.0 GPA.
- Freshmen with less than a C average are more likely to drop out than graduate.



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Grades and Attendance



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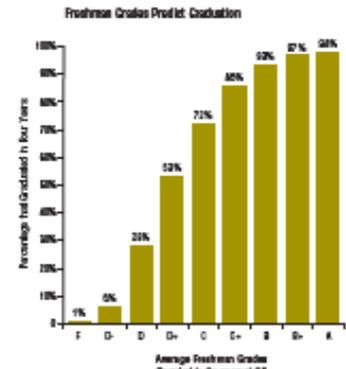
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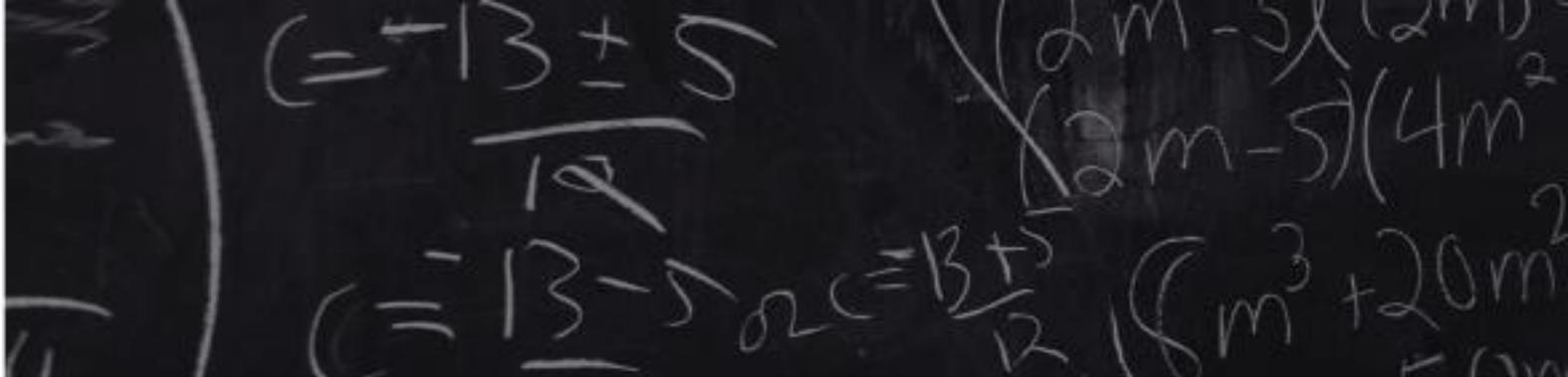
Grades and Attendance



Summary

Data on early indicators can be useful:

- **To help schools focus efforts on the factors that directly affect graduation**
 - Breaking down the problem—where do we stand
 - Gauging progress on the factors that drive graduation/dropout
- **To identify levels of risk for targeting programs for different students**
 - Providing information to adults working with students so they can be more effective
- **To begin to ask questions about practice**
 - Finding variation to across subgroups within schools and across schools
- **To challenge assumptions that lead away from addressing the problem**



For more information visit
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