

What Matters for Staying On-Track and Graduating in Chicago Public High Schools

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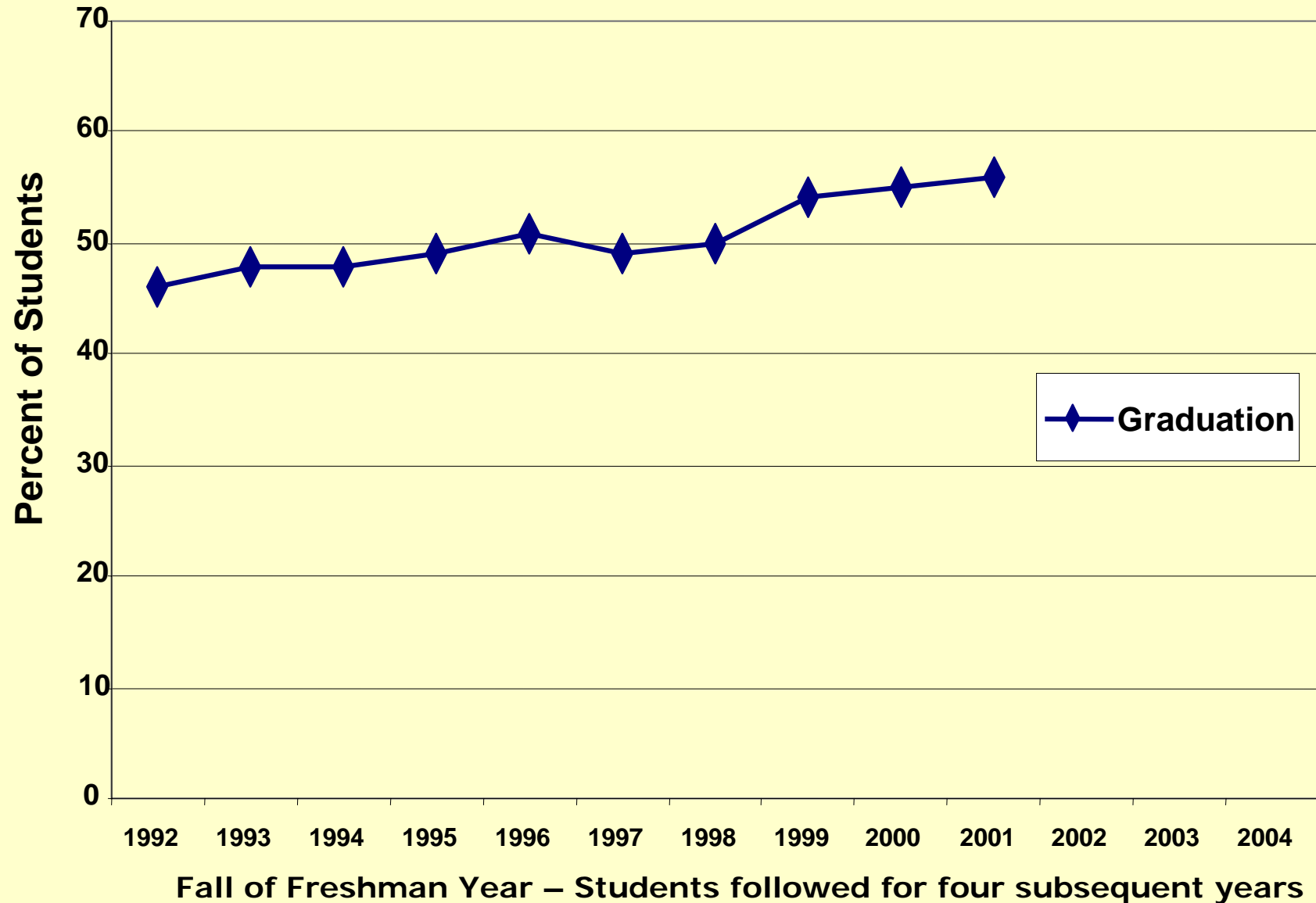
Who will graduate?

Graduation is a predictable event

We can tell with surprising accuracy who is going to eventually graduate by looking at students' grades in the freshman year



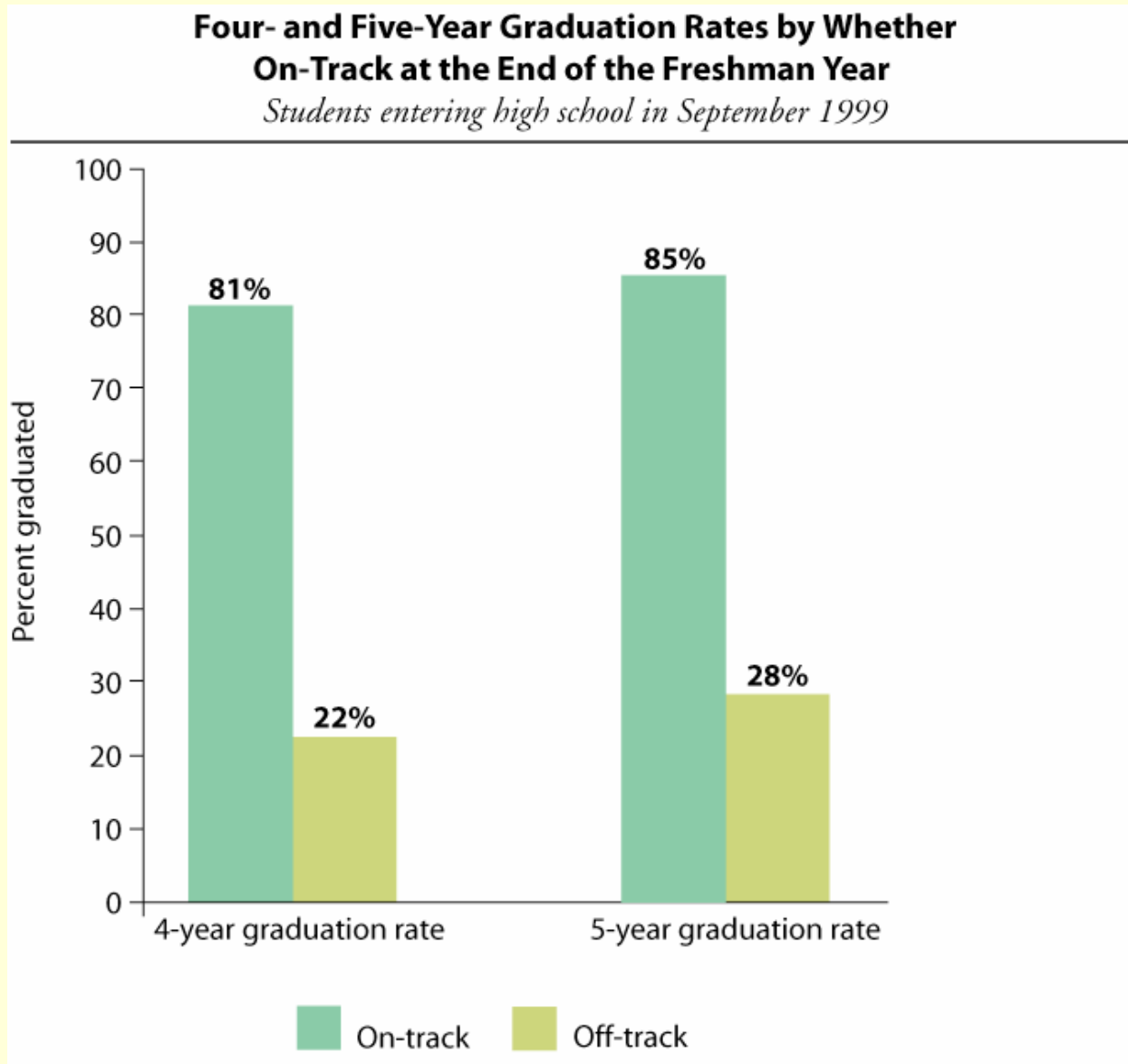
Graduation Rates in Chicago



Graduation and Freshman On-Track Rates

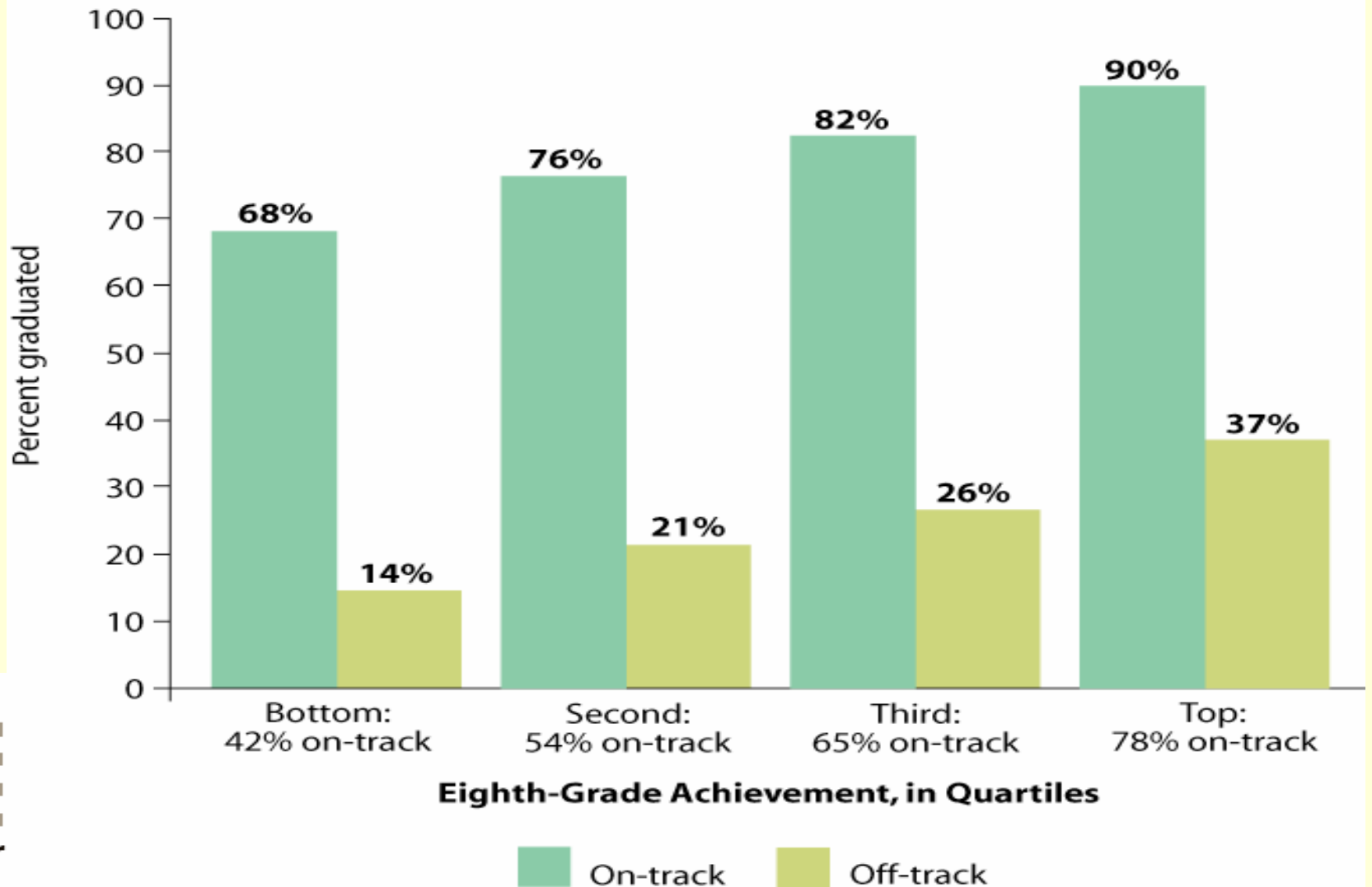


How is On-Track Related to Graduation?

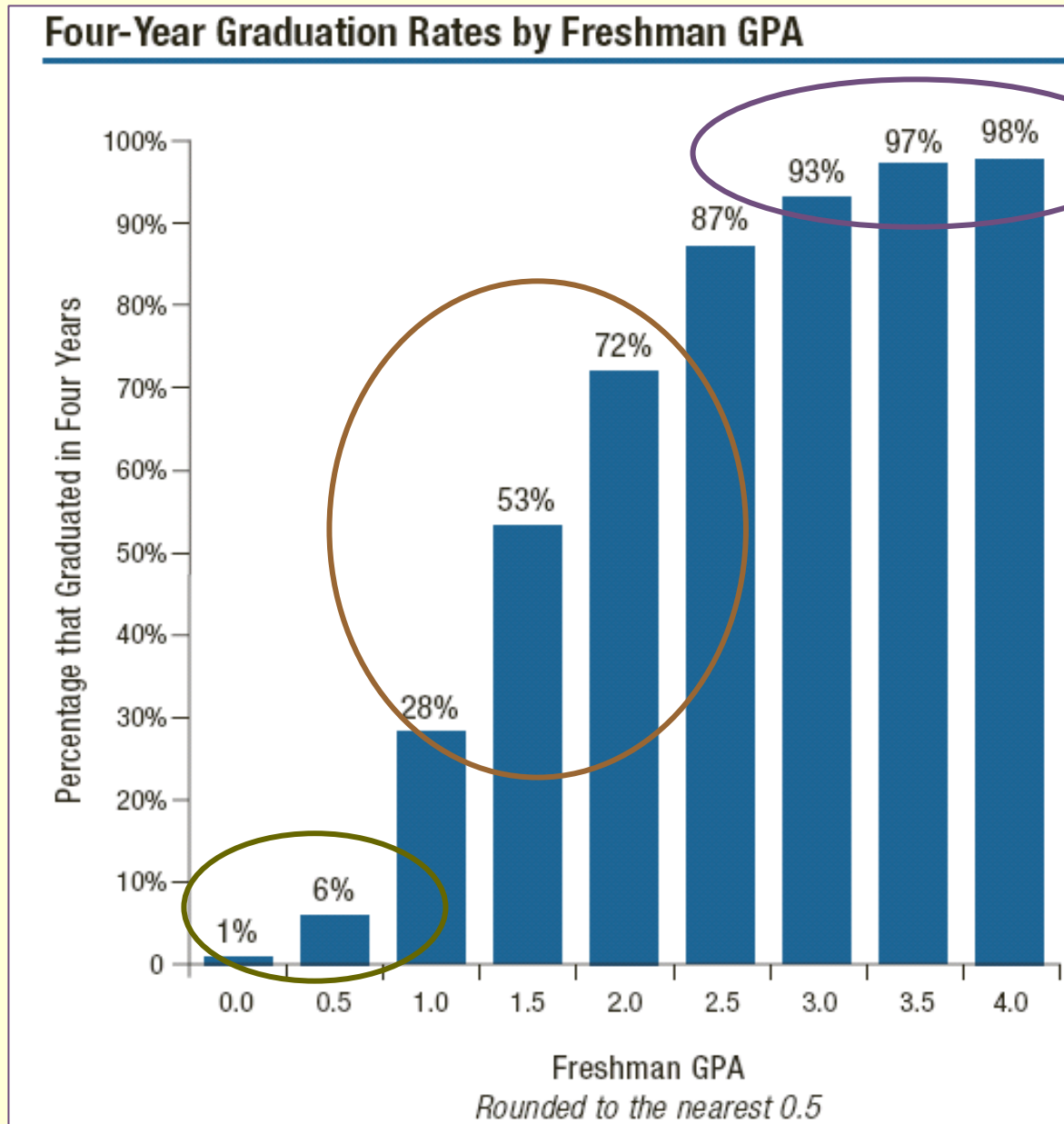


Four-Year Graduation Rates by On-Track Status after Freshman Year and Incoming Reading and Mathematics Achievement

Students entering high school in September 2000



Freshman year GPA, failure rates & on-track rates each predict graduation with 80% accuracy

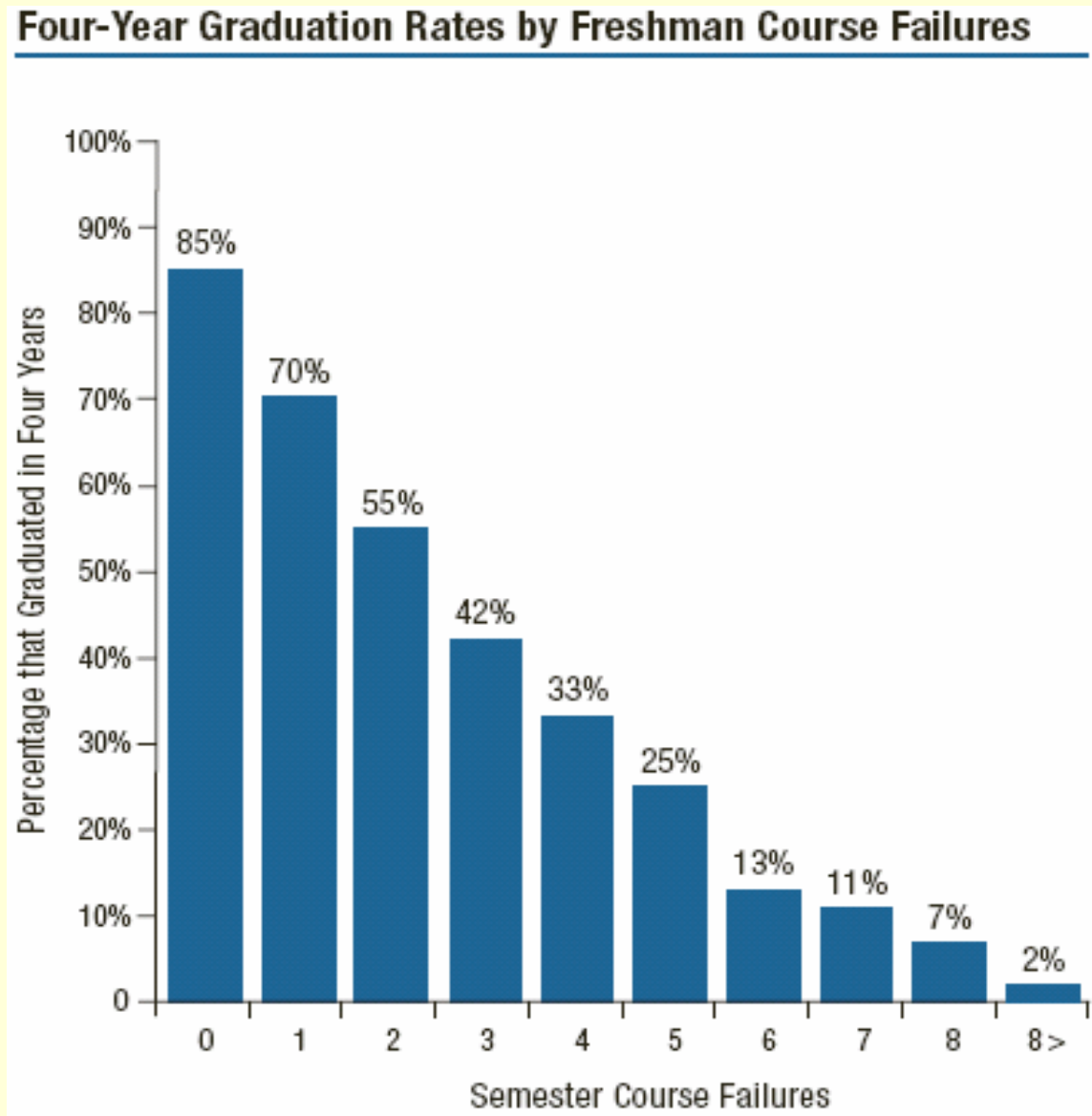


Virtually all students with a "B" average or higher in their first year will graduate in 4 years

Prediction is less certain among students with D+ / C- GPAs who could go either way

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

Freshman year grades, failure rates & on-track rates each predict high school graduation with 80% accuracy



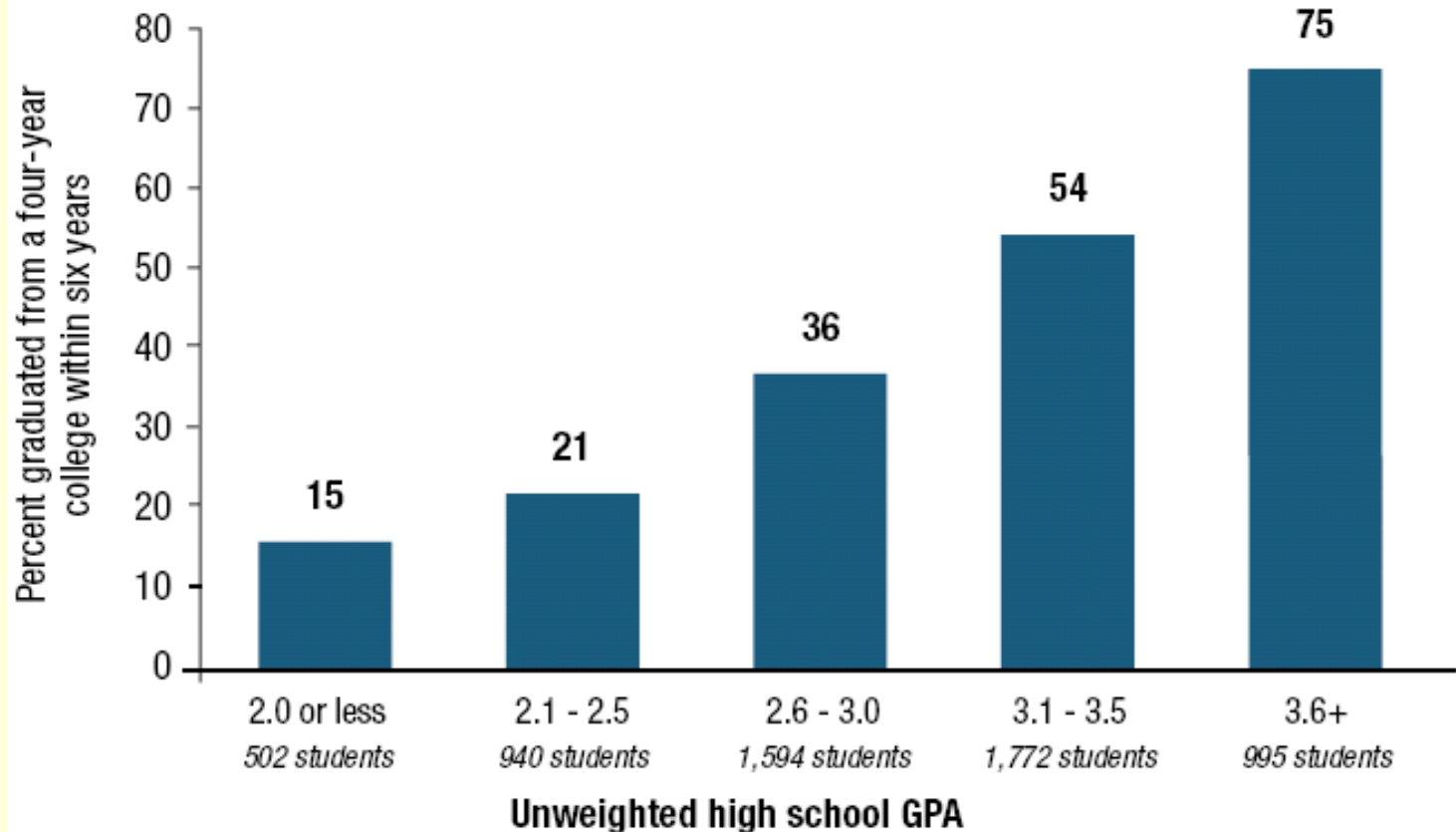
Graduation is determined by performance in high school courses

Once we know students' freshman year grades, other background information doesn't help us predict who will graduate.

Students' backgrounds affect graduation by affecting students' performance in their courses.

High school course grades also predict college success, better than test scores

College graduation rates by unweighted high school GPA



Note: These were CPS alumni who enrolled full time in a four-year college by spring following their high school graduation and enrolled in a college for which we have graduation information.

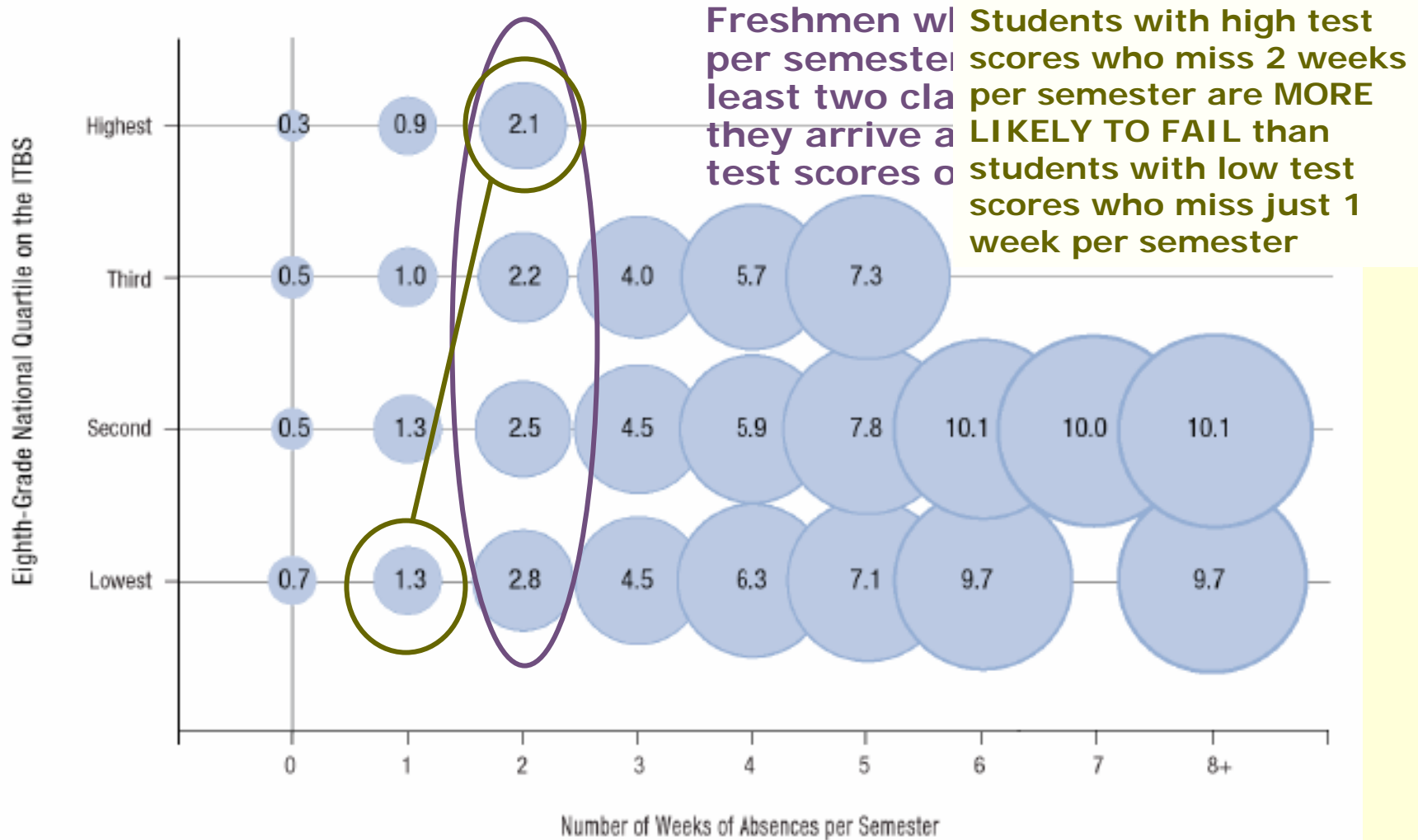
If graduation is determined by course grades, what affects grades?

Students' behaviors are the main drivers of course failure

- 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, although prior academic ability is also very important for high grades

Even moderate amounts of absence/course cutting can have large effects on grades

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.

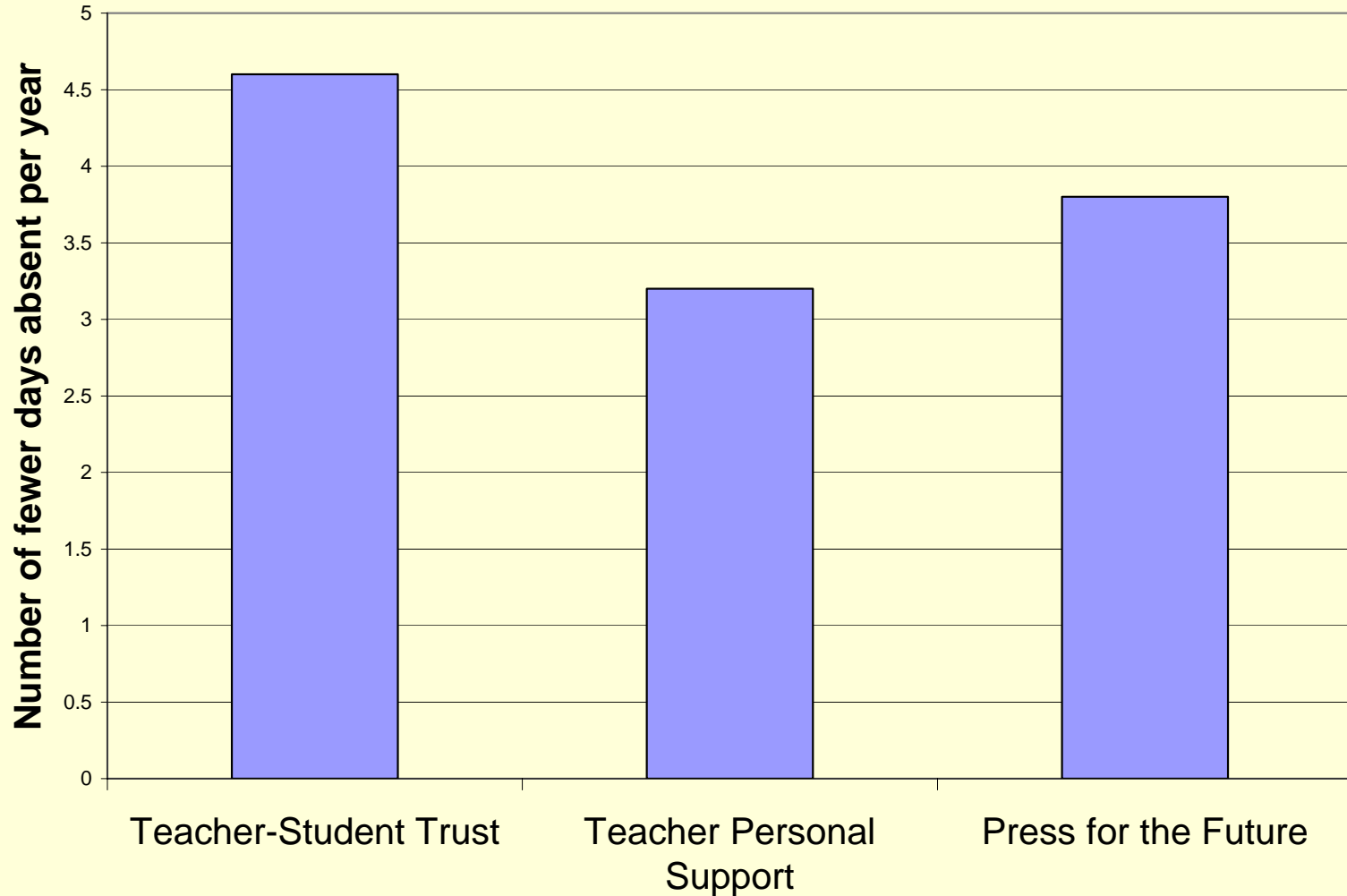
Comparing schools that serve similar students... grades, failure rates and attendance are better than expected at some schools than others

Attendance rates vary across schools by a month a year
among students with similar test scores

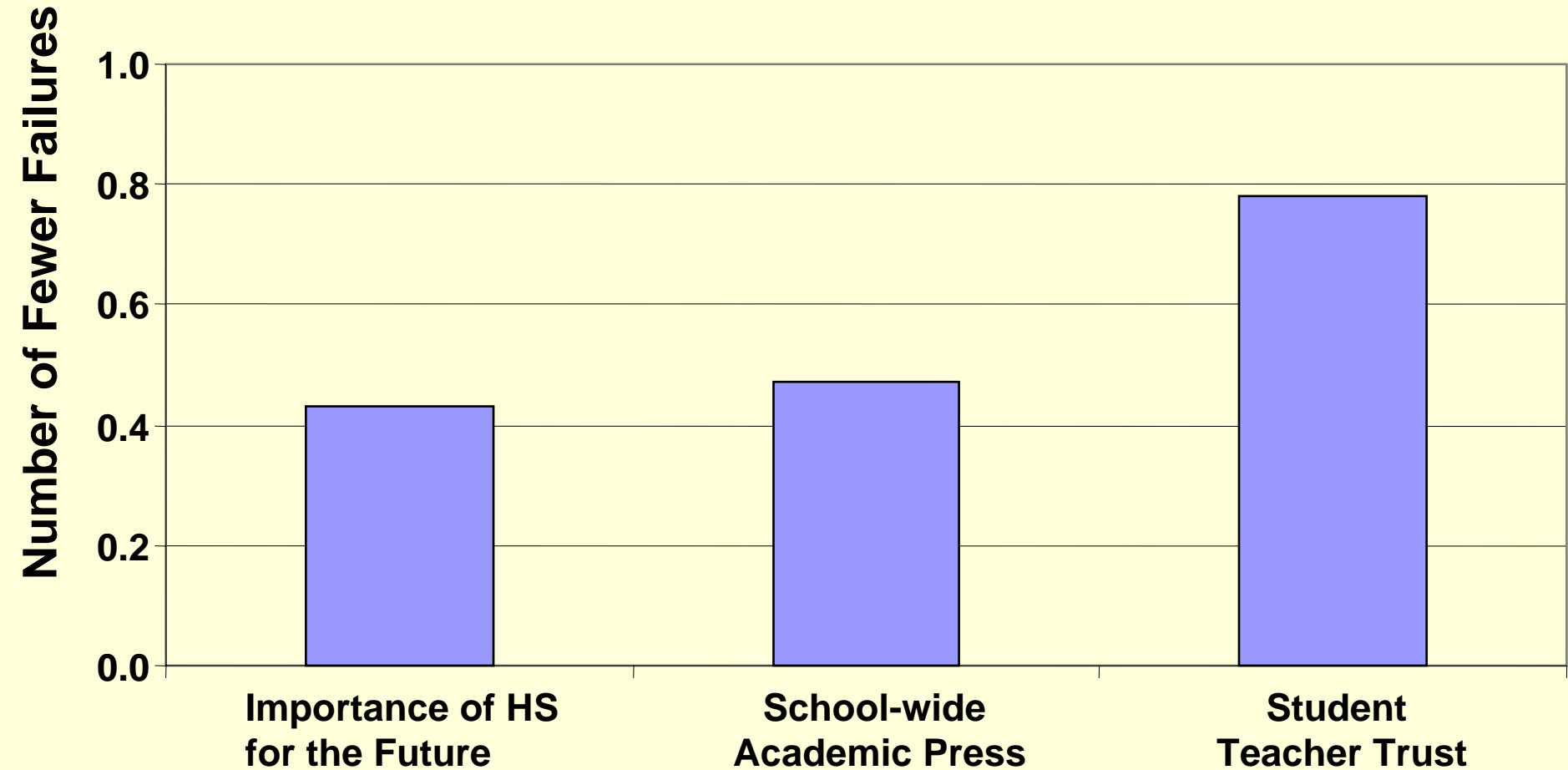
Attendance and grades are better at schools with...

- 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

Difference in Yearly Days Absent Between Schools with Strong vs. Poor Climate



Difference in Course Failures Between Schools with Strong vs. Poor Climate



Summary

- **The process by which students fall off the path to graduation is knowable through students' course grades**
 - We know who to target for different types of intervention
 - School improvement in graduation can be tracked & forecasted
 - Efforts to improve graduation and preparation for college should focus on students' performance in their courses
 - Attendance and effort are the main drivers of course failure, and these are behaviors that we can address
- **The factor that is most important for graduation (course performance) is under the influence of schools**
 - Schools vary considerably in how well they help similar students achieve good attendance and grades
 - Schools with specific features are most successful—personalization, connection of school to success in life, and instructional coherence

Data in this presentation

Data come from records of students in the Chicago Public Schools

- Records of all students are provided by CPS
- We follow cohorts of first-time 9th graders for four or five years, until they should have graduated

The data presented here are available in reports on graduation, on-track and the freshman year available at the Consortium on Chicago School Research:
ccsr.uchicago.edu

The “on-track” indicator

A measure of progress during the first year of high school

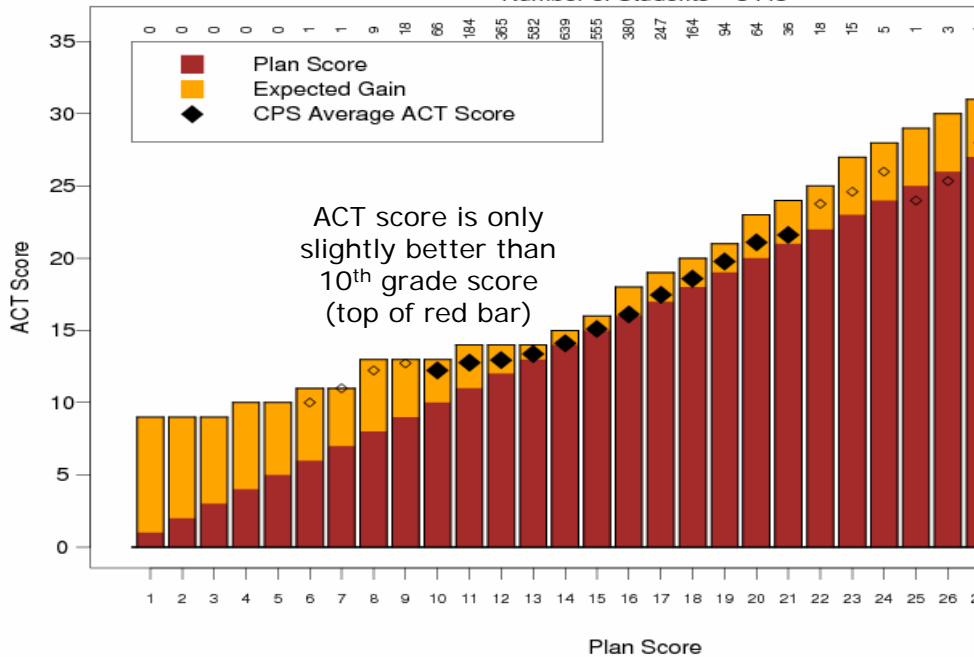
- An on-track student has accumulated five full course credits (in any subject)
 - The number required to move to 10th grade Chicago’s CPS policy
- An on-track student has no more than one semester F in a core subject
 - English, math, science, or social studies

Test score gains are strongly related to students' grades in the subject being tested

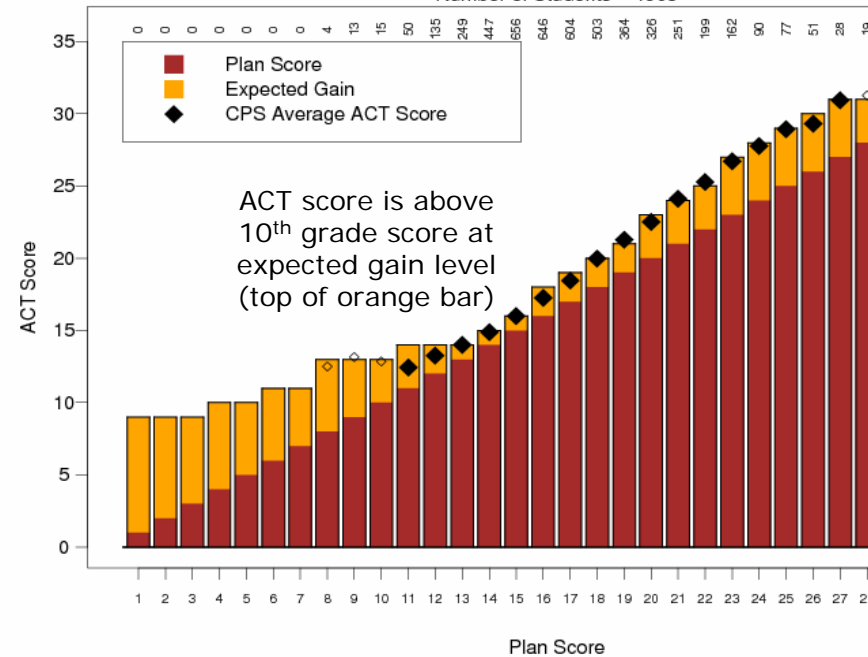
Gains from 10th Grade Test to 11th Grade ACT among students with a **D+ average**

Gains from 10th Grade Test to 11th Grade ACT among students with a **B average**

Students Making Expected Composite Gain, by Plan Score
Students Taking Plan in Fall 2004 and ACT in Spring 2006
Between-Test GPA ≤ 1.5
Number of Students = 3448



Students Making Expected Composite Gain, by Plan Score
Students Taking Plan in Fall 2004 and ACT in Spring 2006
Between-Test GPA Between 2.5 and 3.5
Number of Students = 4905



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