

Briefing Paper: Number 1 Predicting Future Need for Remediation

KEY DISCOVERY:

If 6th grade students are below proficient on math or reading CSAP, it is very likely that about 74% of them will need remediation in their first year of college.

Summary of New Research

The Colorado Department of Education has recently completed a study of Colorado high school graduates who may have attended Colorado middle school for 6th and 8th grade and later entered Colorado postsecondary institutions.

The report used Department of Higher Education remediation data, 11th grade ACT results, and CSAP results. The two academic subjects analyzed included reading and mathematics. Logistic regression analyses were conducted to predict actual college remediation status for 2009 and 2010 Colorado high school graduates. The results showed that 90% of students who later needed remediation were correctly classified by their 10th grade CSAP & 11th grade ACT reading or math results.

The results further showed that more than 75% of students who later needed remediation were correctly classified by their 6th and 8th grade CSAP reading or math results. The results also showed that 74% of students who later needed remediation were correctly classified by their 6th grade reading or math test scores alone (*see charts*).

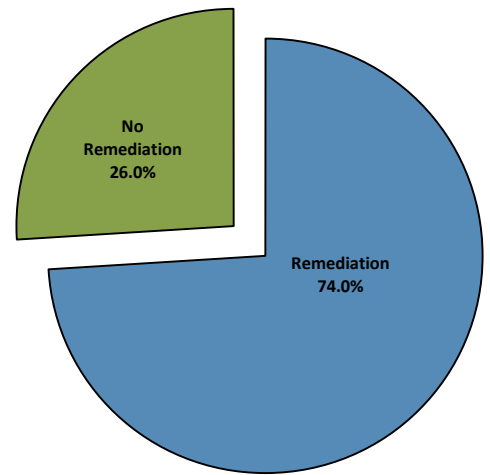
Teachers

Elementary School

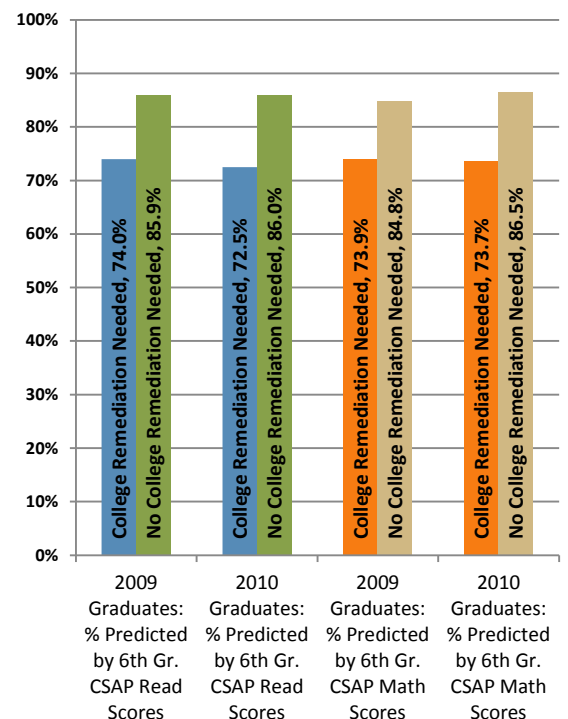
Unique lever – The fact that we can now convincingly pinpoint six years before graduation students who need extra help in both reading and math places elementary teachers in an exceptional position to do the most good.

Possible Action – Massachusetts, the best academically performing state in the US, posts the total number of students below proficiency. Its schools send letters to the families of non-proficient students signaling current learning risks and inviting immediate tailored supports.

2009 High School Graduates Attending Colorado Colleges: % College Reading Remediation Predicted from 6th Grade Reading Scores



2009 & 2010 High School Graduates Who Attended Colorado Colleges: % Remediation Accurately Predicted Using Their 6th Grade CSAP Scores



Middle School

Unique lever – This is the time teachers can check reading and math fluency and automaticity in preparation for when students apply those skills to more advanced learning in all subjects at the upper grades.

Possible Action – Discover for each middle school student the precise math /reading skills and knowledge needed for “on grade” growth in order to “catch up”, “keep up” and move ahead.

High School

Unique lever – Earning a high school diploma for exit involves students being proficient at reading and math.

Possible Action – Access in high school to tutoring, free online lessons, ACT feedback tools or assistance with community volunteers can help students achieve proficiency before they exit.

Local Administrators and Boards

Unique lever – By assuring each student is proficient, local districts control the costs of expensive remediation for high school graduates and the personal and community consequences related to high school dropout decisions.

Possible Action – Disaggregate student’s performance, prioritize what are necessary schedules, expand learning opportunities and re-purpose all assets so students are advancing when they are proficient at the current grade and prepared for the challenge of the next grade.

Higher Education

Unique lever –K-12 “educators-to-be” can be trained, while still in college to more precisely diagnose students’ formative learning needs before sixth grade.

Possible Action – Extensive practice during pre-service programs to accurately identify and analyze student learning confusion can dramatically improve later teacher effectiveness and diminish local district professional development costs.

State Policy

Unique lever – What gets measured and reported in a state education system greatly factors into what gets done.

Possible Action – Measure both a high school’s graduation rate and, as possible, college remediation rates of its graduates two years later.

Learn More...

Shining a Light on Remediation –

CDE-DHE remediation paper 2/28/2011 at the Colorado Department of Education

www.cde.state.co.us/cdegen/downloads/Shiningalightonremediation2-28-2011.pdf

One State: Two Educational Systems 11/14/2012

<http://www.cde.state.co.us/research/download/pdf/TwoEducationalSystems.pdf>

The Colorado Department of Higher Education

<http://highered.colorado.gov/dhedefault.html>

Find Out...

How many of your 6th grade students were below proficient in reading and math on the 2012 TCAP?

https://edx.cde.state.co.us/SchoolView/DataCenter/reports.ispx?_afWindowMode=0&_afLoop=2738142122574691&_adf.ctrl-state=1dnann7pli_4

Which of your high school graduates needed non-credit bearing remediation classes when they began attending college?

<http://highered.colorado.gov/Publications/Reports/Remedial/FY2011/FindHS.asp>

How can you find underlying skill gaps of learning so students improve their results in 2013?

<http://www.cde.state.co.us/research/download/pdf/GuidingQuestionsStudentStrengthsWeaknesses.pdf>

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