

# CASE *Issue* Brief

COLORADO ASSOCIATION OF SCHOOL EXECUTIVES

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## Admission and Remediation Requirements at Higher Education Institutions in Colorado

**K**-12 educators have been hit with accusations that the K-12 education experience in Colorado does a poor job of preparing students for higher education. Is this true? If not, how can the perceptions be countered? And if it is true, what can be done?

This issue brief will provide a background discussion of admissions and remedial education in higher education. It will explore the ranges of admission requirements at the wide variety of Colorado public higher education institutions, the definition of remedial education, how the need for remediation is determined, and the calculation of remediation rates for Colorado's institutions of higher education and K-12 districts and schools. After providing a handle on the technical issues, this brief will discuss the implications for K-12 education in Colorado.

### **What are the admission requirements for public colleges and universities in Colorado?**

This discussion starts with the admission requirements for higher education in Colorado, because determination of the need for remedial education does not come up until after a student has been admitted to some form of post-secondary education.

There are 12 four-year public institutions of higher education (IHEs) in Colorado, and 15 community colleges that offer degree and certification programs lasting two years or less. The Colorado Commission on Higher Education is charged with ensuring that all Colorado students can have access to high-quality, affordable post-secondary education. As part of its authority, CCHE determines the roles and missions of the various IHEs to provide for a comprehensive range of post-secondary offerings.

CCHE monitors the accessibility of the four-year IHEs by creating an Admissions Index that mandates a distribution of selectivity among the IHEs. The Index is based on SAT and/or ACT composite test scores, on one axis, and GPAs or class rankings on the other. This allows for different levels of performance on tests and in school to be considered. Different combinations of test scores and school performance indicators yield different numbers, which are used to set minimum floors for admissions to the different institutions. (To view the current Admissions Index, go to <http://www.state.co.us/cche/policy/newpolicies/i-partf-index.pdf>.)

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### **CCHE report to the Governor and General Assembly, December 2005:**

*Remedial Education: One-Third of Incoming College Students Unprepared by K-12 High Schools.*

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To provide a sense of perspective, an Admissions Index score of 110 (applicable to the highly selective School of Mines) can be obtained through a combination of a 3.3 GPA and an ACT composite score of 25, among other combinations. A score of 76 (applicable to Metro State, a "modified open enrollment" institution) can be earned through a combination of a 2.7 GPA and an ACT score of 14, for example.

Institutions are allowed to admit a certain percentage of students who do not have the minimum index scores but are within specified windows. In the case of the more highly selective schools, however, most admitted students are well above the minimum requirements set by the index. For example, as of fall 2004, a student

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wishing to apply to the University of Colorado at Boulder needed a minimum index score of 103, which could be acquired by the combination of an ACT composite score of 23 and a 3.0 GPA. In fact, given the competition to attend CU, its most recent entering class had a composite ACT score of 25 and a 3.53 GPA.

## CCHE ADMISSIONS SCORES FOR FIRST-TIME FRESHMEN

Institution	Index Score
Adams State College	80
Colorado School of Mines	110
Colorado State University	101
Colorado State University – Pueblo	86
Fort Lewis College	80
Mesa State College	80
Metro State College of Denver	76
University of Colorado – Boulder	103
University of Colorado – Colorado Springs	92
University of Colorado – Denver	93
University of Northern Colorado	94
Western State College	80

These requirements apply only to the state’s four-year schools. There are no admissions requirements for the state’s 15 community colleges – they are considered “open enrollment” institutions, regardless of prior academic performance or coursework. Thus, it is possible for a student with a dreary record of performance

in high school to attend any community college and even to gain admission into several of the state’s less selective four-year institutions. This is true across the country. A recent study by the National Center on Public Policy and Higher Education estimated that approximately 80 percent of college students enroll in “broad access” institutions with relaxed admission requirements.

## What is remedial education?

As it is used in higher education, the term “remedial education” refers to preliminary coursework in reading, writing, and/or mathematics that some incoming college students are required to take in order to be considered to have the basic skills necessary for college-level work. Remedial education courses are often referred to as “basic skills” courses. By definition, the need for remediation is determined only after a student has been admitted to an institution of higher education.

The need for post-secondary remedial education is not new, nor is it unique to Colorado. Some students have always needed extra help with the basic skills of reading, writing, and/or math to succeed in college. The National Center for Education Statistics reported that 28 percent of all entering freshmen nationwide in 2000 needed at least one remedial course. A more recent report by the Institute for Education Leadership, the National Center for Public Policy and Higher Education, and the Stanford Institute for Higher Education Research cites NCES data stating that 40 percent of four-year college students and 63 percent of two-year college students end up needing at least one remedial course.

It is important to distinguish remedial education requirements from other institutional placement requirements. For example, different schools within an institution may test students for placement among the variety of courses offered and use different measures for their placement determination. In such cases, students are ready for college level work, but the level at which they will begin needs to be determined. These placement decisions are often made on the basis

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of content knowledge. In contrast, with remedial education, the student is deemed not yet ready for college-level work because he or she lacks basic skills. A few especially competitive programs or departments may require students to take remedial coursework even though the student has exceeded the CCHE requirements, but these situations are rare due to the competitive admissions processes at these programs.

### How are students assigned to remediation?

Typically, different higher education institutions across the country have different standards for determining eligibility for remediation. In Colorado, however, the Commission on Higher Education has set uniform standards for remediation eligibility. These standards apply to virtually all first-time, degree-seeking freshmen at Colorado's public higher education institutions.

The road to this policy change began in 2000. In an effort to identify the scope of the need statewide in Colorado, the state legislature decided to require each institution of higher education (IHE) to have a formal policy stating how students who needed basic skills education were identified. Because the policies were so different and so many different placements tests were used, in 2004, CCHE adopted a Statewide Remedial Education Policy that set minimum guidelines for IHEs to use in identifying students in need of basic skills education so that data could be compared between IHEs.

In general, an entering student's basic skill level is ascertained in one of three ways: from ACT scores; SAT scores; or scores on the Accuplacer test, a standardized test of basic skills that can quickly be taken online. Every Colorado 11th grader, with few exceptions, is required to take the ACT. The Accuplacer is readily available on most campuses.

In some cases, individual institutions may choose to review transcripts or look for other evidence of college readiness for students who do not meet cut-off scores. Students who have already successfully completed college-level coursework while in high school (for example, in early college

programs) are exempt from being assessed for remediation in the subject.

CCHE's policy sets the following as the minimum scores that must be met to waive basic skills courses.

Skill Area	ACT Subscore	SAT Subscore	Accuplacer Score
Mathematics	Math:19	Math:460	Elem. Algebra:85
Writing	English:18	Verbal: 440	Sentence Skills: 95
Reading	Reading:17	Verbal: 430	Reading Comp: 80

In comparison, the statewide ACT average score in 2005 for all test-takers was 18.6 in Math, 18.2 in English, and 19.4 in Reading. In other words, the average scores of Colorado 11th graders are uncomfortably close to the minimum scores required for college readiness. In math, the average Colorado student actually scores below the CCHE remediation cut-off.

To complicate matters further, there is some concern by the IHEs that these subscores are too low for true college readiness. Initially, CCHE staff recommended an ACT subscore of 23 to signal readiness in college-level math, but that number was lowered when the state average math score was considered, simply due to the logistics

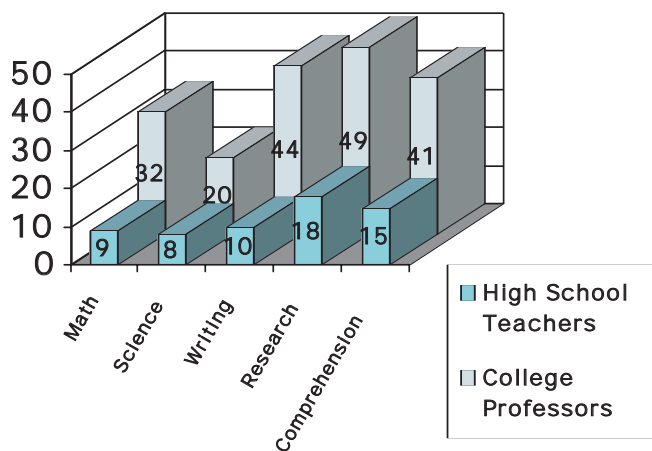
Subject	ACT Score Needed to Waive Remediation	State Average ACT Score
Mathematics	19	18.6
Writing	18	18.2
Reading	17	19.4

involved in remediating the vast majority of students. Northeastern Junior College

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recommends that students score a 23 in all areas of the ACT to be truly ready for college work. ACT itself has correlated entering students' test scores with the likelihood of successful completion of college coursework. While its recommended writing score of 18 is equal to Colorado's score, ACT recommends a mathematics subscore of 22.

## PERCENTAGE OF STUDENTS WHO ARE NOT WELL PREPARED FOR COLLEGE WORK



Surveys of faculty members at higher education institutions provide confirmation that many students are not ready for college work. Alarming, there is a large difference between the views of high school teachers and college professors as to the readiness of students for college work. *The Chronicle of Higher Education* recently asked teachers and professors to assess how ready students are for college-level work. The chart above shows the percentage of teachers and professors who rated students as “not well prepared” – defined as displaying large gaps in preparation, struggling.

Finally, many students themselves think they are not well-prepared for college work. In a 2005 national poll conducted for Achieve, Inc., 61 percent of recent high school graduates considered themselves generally prepared for the demands of college, but 39 percent reported gaps in their preparation. This statistic differed only slightly between full-time students who were

attending four-year colleges (37 percent reporting gaps) and full-time students attending two-year colleges (41 percent reporting gaps). Well over half of all students reported gaps in their study habits, and in fact students at four-year colleges reported that they most wish high school had prepared them in this area, while students at two-year colleges reported they most wish high school had better prepared them in mathematics.

## How does remedial education work?

A student identified as in need of basic skills education must take and pass the recommended courses within the first year of college. In many cases, in an attempt to avoid the time and cost of remediation, the institution recommends that the student retake the placement exam and provides help in studying for the test.

The state provides funding for offering basic skills courses only to community colleges and to Mesa State and Adams State, both of which offer two-year, as well as four-year degrees. In 2003-04, the state spent \$10.5 million for remedial education. The other IHE's can offer their own cash-funded basic skills courses, or they can contract with a community college to provide the courses for their students. Students at four-year colleges generally enroll in a local community college to take the extra courses. Remedial courses are not transferable towards either two-year or four-year degrees. In other words, it costs students both time and money to take basic skills courses. Students who are required to take remedial education classes have a lower retention and success rate than other students (which can conceivably be explained by their lack of skills, but also perhaps by the added time and expense).

## What do CCHE's remedial education statistics mean for Colorado's districts and schools?

CCHE's December 2005 report on the need for remediation at Colorado public institutions of higher education reported the following noteworthy statistics:

- In the fall of 2004, the percentage of first-time recent Colorado high school

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graduates assessed and assigned to remedial education in at least one subject was 29.6 percent, or 8,366 students.

- The most common subject for remedial education in 2004 was mathematics, with 24.6 percent of students requiring a math basic skills course.
- From 2003 to 2004, the number of students requiring a remedial course in writing skills jumped by nearly 24 percent, and the number of students requiring a remedial course in reading skills jumped by 17 percent.
- Minority, low-income, and female students required remedial courses at higher rates than other students.
  - ◆ 35 percent of Hispanic/Latino students attending four-year colleges and 63 percent of those attending two-year colleges required remedial courses.
  - ◆ The remedial education rate is relatively steady across income levels for students attending two-year colleges, but it is substantially higher for lower-income students at four-year colleges.

CCHE's report is very pointed in its criticism of K-12 in Colorado, asserting that much of our remediation needs stem from a lack of academic rigor in high school. The report points out that students who took a recommended college preparation curriculum in high school tended to have less need for remediation in college.

For the most part, Colorado's K-12 educators have been less than receptive to the delivery of this message. Much of K-12's objection to the 2005 report and the subsequent public conversation stems from its broad brush. From the deliberately provocative title, not to mention the directly accusing text, a member of the public might assume that every school district is failing one-third of its students, no matter what future educational track they choose. Parsing the numbers tells the more important and relevant stories needed to understand the entirety of the issue.

So who is included in the nearly one-third of all students who need remediation? First, let's look at the group as a whole. As discussed above, CCHE's remediation policy only covers those students admitted as degree-seeking, first-time freshmen directly after high school graduation to a state IHE. So the number does not include presumably higher-performing students who attend college out-of-state, or presumably higher-performing students who attend private colleges in Colorado. However, these are relatively small numbers of students.

Because a student must be admitted to a state IHE to even be evaluated for remediation, we are not measuring the college readiness of students who do not apply to college, including high school dropouts. This is a much larger group of students. So if CCHE were reporting on the percentage of students who take high school coursework who are prepared for college, versus the percentage of students admitted to college who require remedial coursework, it would likely be fully entitled to draft an even harsher headline on its report. CCHE's numbers also do not distinguish between students who take one remedial course in a particular subject versus those who need several remedial courses, and so the numbers may be underestimating the need in that regard. Nor does the CCHE policy require assessment of students entering certificate programs at two-year institutions.

### Institutional differences

Distinguishing between remediation rates at different institutions is important. Remediation numbers vary widely depending upon the type of post-secondary institution, and among individual IHEs themselves. This is due to the differing selectivity of admission requirements – remember that students must be admitted to an IHE before they are evaluated for their remediation needs.

Not surprisingly, then, the reported remediation need at community colleges (55 percent) is much higher than at four-year institutions (18 percent). The students with the academic horsepower to be admitted to the more selective institutions are much less likely to need remediation once there. However, even within these categories, individual

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remediation rates are wildly different. In the community college sector, just 13 percent of students at Morgan Community College were assigned to remediation, but 68 percent of those at Pueblo Community College needed remediation. Only five entering students at the University of Colorado at Colorado Springs, or .53 percent, needed remediation. Similarly, remedial coursework was needed by just 1 percent of CU-Boulder students, 3 percent of CSU students, and 4 percent of students at the School of Mines. On the other hand, 53 percent of students entering Adams State needed remediation.

So, the “one-third” number is both much worse and much better than one might think at first glance. The vast percentage of students who are heading into the relatively elite four-year college experience in Boulder, Golden, or Greeley already possess the knowledge and skills they need to succeed in college. In other words, K-12 is still educating well those students that it has always educated well.

## Differences among high schools

In addition to looking at variations among IHEs, one also needs to look at variations among the remediation rates of different high schools to get a full picture. CCHE, in its aggressive efforts to highlight the K-12 connection to remedial education, has obligingly created a very user-friendly online system that allows the public to call up any public high school in the state and see what percentage of its college-going students require remediation, in addition to other information such as CSAP (Colorado Student Assessment Program) scores, SAR (Student Accountability Report) ratings, and graduation rates. This information is available at <http://highered.colorado.gov>, at “High School Profiles and Remedial Report.”

Using the Cherry Creek School District as an example (selected because no reasonable person can accuse this district of complacency), the online user can find information on that district’s five high schools with sufficient numbers of college-going students to provide statistically meaningful remediation data. Interestingly, or perhaps not to those who are not new to

	% of students attending college who need remediation	% FRL of all students in high school
Cherry Creek High School	15	5
Grandview High School	22	8
Smoky Hill High School	29	16
Eagle Crest High School	34	15
Overland High School	35	35
DISTRICT TOTALS	26	18

education, remediation rates for the high schools correspond directly to their percentage of students eligible for free or reduced lunch, with just one exception. This connection between income levels and remediation rates mirrors the connection between income levels and other academic indicators, such as CSAP scores.

## Conclusion

Nearly 30 percent of the students who enter college from high school are not prepared for college-level work. That statistic is confirmed by the standardized reporting required by CCHE, by the surveyed perceptions of college professors, and by the surveyed perceptions of students themselves. While the specific numbers vary depending on a variety of factors, including the selectivity of the higher education institutions and the specific high schools involved, the issue is quite pervasive across the state. Short of arguing that some students should not attend college, a position that is contrary to our notions of social justice and equal opportunity, Colorado’s K-12 system must consider ways to improve student

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preparation for college work. That is not to say that no other sectors of our society bear responsibility for helping to solve this problem; but our K-12 schools and districts are in a unique position to begin and coordinate this hard work.

*By Kelly Hupfeld, Public Sector Solutions*

*Contact CASE for more information and resources relating to this issue.*

## Resources

The Bridge Project. This project, based at Stanford University, studies and makes recommendations concerning alignment between K-12 and higher education. More information available at <http://www.stanford.edu/group/bridgeproject/>.

Colorado Commission on Higher Education. "Admission Index." Available online at <http://www.state.co.us/cche/policy/newpolicies/i-partf-index.pdf>.)

Colorado Commission on Higher Education. "High School Profiles" database. Available online at <http://highered.colorado.gov/FindHighSchool.asp>.

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John Hefty, executive director

Jana Caldwell, editor & director of communications

Sara Norwood, layout

4101 S. Bannock St. , Englewood, CO 80110-4606

Phone 303.762.8762, Fax 303.762.8697

Web site: [www.co-case.org](http://www.co-case.org)

E-mail: [case@co-case.org](mailto:case@co-case.org)

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