



ACCESS TO HIGH-QUALITY, AFFORDABLE EDUCATION FOR ALL COLORADANS

**REMEDIAL EDUCATION:
ONE-THIRD OF INCOMING COLLEGE STUDENTS
UNPREPARED BY K-12 HIGH SCHOOLS**

REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

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This report is prepared pursuant to Colorado Revised Statute C.R.S. 23-1-113.3. The report's purpose is to describe the condition of basic skills instruction in Colorado's public colleges and universities, including statewide needs for basic skills and data on assessed and remediated students collected from Colorado public higher education institutions on students assigned to college- vs. remedial-level courses.

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For information on specific high schools and their student achievement rates, including remediation data, visit: <http://highered.colorado.gov/findhighschool.asp>

REMEDIAL EDUCATION: ONE-THIRD OF INCOMING COLLEGE STUDENTS UNPREPARED BY K-12 HIGH SCHOOLS

EXECUTIVE SUMMARY

Enrollments in Colorado's public colleges and universities are on the rise¹, validating reports that more students today aspire to college than at any other time, but so too is the demand for remedial (basic skills) courses in mathematics, writing and reading, suggesting that many college-bound students continue to be inadequately prepared in high school.

According to ACT research, only 24 percent of Colorado seniors are prepared for college level biology, 36 percent for college Algebra, and 62 percent for college English (ACT Office of Policy Research, 2004b, page 3)². In each of these categories, Colorado ranks below the national average for preparation (ACT Office of Policy Research, 2004b, page 2).

Complicating matters are the impending demographic shifts that may alter the student composition of K-12 education in Colorado. Hispanic/Latino students currently represent roughly 14% of all students enrolled in the K-12 education in Colorado. Ten years from now, in 2015, the Western Interstate Commission on Higher Education predicts that the Hispanic/Latino share of students will grow to roughly 25%, raising the overall minority proportion to 36% (Western Interstate Commission on Higher Education, 2004).

In light of evidence that African-American and Hispanic/Latino students matriculate to (National Center for Education Statistics, 2005, on-line) and persist in (Colorado Commission on Higher Education, 2005, on-line) college at generally lower rates and have higher remedial education rates compared to Caucasian students (see Table 11 herein), it appears that K-12 instruction and services need to be improved to assist minority students and close the achievement gap.

The situation is compounded by the fact that students needing remediation enjoy lower graduation rates compared to students requiring none. That is, longitudinal evidence reported by the National Center for Education Statistics shows that students placed in remedial courses are less likely to earn a degree or certificate in college (30-57% of enrolling cohort, depending on types and amount of remediation) compared to students needing no remediation (69%; National Center for Education Statistics, 2005a, on-line).

So why are so few Coloradans adequately prepared for and succeeding in college, and why do so many students matriculate to college needing remediation in basic subjects? The

¹ Fall headcount enrollment in 2002: 213,676; fall headcount in 2004: 220,024. Data source: Colorado Commission on Higher Education Student Unit Record Data System (SURDS).

² This statistic employs preparation standards developed by ACT. This figure is not reflective of students' ability to meet the Colorado State Board of Education's curriculum standards or admission requirements adopted by the Colorado Commission on Higher Education.

answer may be partially explained by the fact that graduation requirements at many high schools are incongruent with contemporary postsecondary admission requirements.

Completing a rigorous high school curriculum in “core” academic subjects such as English, mathematics, natural science, and the social sciences is a necessary precondition to success in college. Recent research from the ACT Office of Policy Research corroborates this, revealing that specific courses have a profound influence on student performance in college. According to “Crisis at the Core: Preparing All Students for College and Work: Executive Summary for Colorado,” courses “such as Biology, Chemistry, Physics, and upper-level mathematics beyond Algebra II—have a startling effect on student performance and college readiness” (ACT Office of Policy Research, 2004b, page 1).

Across all ethnic groups, students in Colorado who complete core academic courses perform better on college entrance examinations (Table 1), and, presumably, less often require remedial instruction. The problem is that too few high school students actually complete adequate coursework in core subjects.

Remedial education is a complicated topic, encompassing institutional, economic, social, and personal elements. Though the topic is complex, the general questions answered in this report are not. Simply, the broad goal of this report is to provide descriptive evidence to answer the following questions:

- a. How well have the state’s high schools prepared students for successful academic transitions to college?
- b. Who needed remedial education and where did they enroll?
- c. How much does remedial education cost the state and its students?

In investigating these basic questions, Commission staff uncovered the following findings:

- Between 2002-03 and 2003-04, total demand for remedial instruction among first-time students increased from 28% of all such students to 30%.
- The subject with the most students assigned to remedial instruction was mathematics, but the largest one-year change was in writing.
- School districts and high schools vary considerably concerning their proportions of recent graduates assigned to remedial instruction.
- The rate of assignment to remedial instruction among two-year college students declined between 2002-03 and 2003-04, while the rate of assignment to remedial instruction among four-year college students increased during the same time.
- Female students were more often assigned to remedial instruction compared to males.

- African-American, Hispanic/Latino, and Native American students were more often assigned to remedial instruction compared to Caucasian or Asian/Pacific Islander students.
- Total General Fund (state) support for remedial instruction in 2003-04 was roughly \$10.5 million.

In summary, remedial education is a widespread challenge that cuts across all ethnic, gender, and income groups. In light of the fact that the National Center For Education Statistics believes that remediation, specifically in reading, is the “most serious barrier to degree completion” (2005a, on-line) facing our students, successfully addressing this issue is a statewide imperative requiring multi-agency collaboration and response, for access to college should not be encumbered by contradictory policies between the K-12 and postsecondary education sectors. It is time for the state to take an earnest look at the root causes of and determine the best approach to minimize remedial instructional needs among its recent high school graduates.

How Well Does Your High School Prepare Students for College?

- How many incoming college freshmen had to take remedial courses?
- How many ninth graders were enrolled in high school four years later?
- How well do students perform on the ACT college entrance exam?
- How many students are proficient in reading, math and writing?

To find out the answers, visit:

<http://highered.colorado.gov/findhighschool.asp>

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INTRODUCTION

This report portrays the enrollment, placement, achievement, and persistence of entering students. Thus this report presents first the basic skills needs for the fall 2004 cohort of first-time enrolling students from Colorado public high schools, disaggregated by school district and high school. Second, this report presents two years' data on students assigned to remedial instruction, disaggregated by sector (two-year and four-year) and institution, as well as one year's data disaggregated by gender, ethnicity, and income (based upon financial aid application information). Then, this report presents data on student performance in remedial courses, including one-year institutional retention. Finally, this report concludes with the presentation of information on the costs associated with remedial education.

I. COLLEGE PREPARATION IN COLORADO

According to a recent report entitled "The Governance Divide: A Report on a Four-State Study on Improving College Readiness and Success," published by the National Center for Public Policy and Higher Education, more than 90% of all high school seniors today aspire to higher education (Venezia et al, 2005, page viii). In spite of this encouraging figure, the reality is that too few students are well prepared for the academic rigors of college.

Academic success in postsecondary environments is related to a number of noncognitive factors, including institutional type and control (two-year or four-year, public or private), environmental engagement, personal self-efficacy and intentions, support, finances, and others (Lotkowski et al., 2004). However, no single variable has greater predictive validity with regard to readiness for and success in college than the intensity and quality of academic preparation (Adelman, 1999).

Completing a rigorous high school curriculum in "core" academic subjects such as English, mathematics, natural science, and social sciences is a necessary precondition to success in college. Recent research from the ACT Office of Policy Research corroborates this, revealing that specific courses have a profound effect on student performance in college. According to "Crisis at the Core: Preparing All Students for College and Work: Executive Summary for Colorado," courses "such as Biology, Chemistry, Physics, and upper-level mathematics beyond Algebra II—have a startling effect on student performance and college readiness" (ACT Office of Policy Research, 2004b, page 1).

Across all ethnic groups, students in Colorado who complete core academic courses perform better on college entrance examinations (Table 1), and, presumably, less often require remedial instruction. The problem is that too few students actually complete adequate coursework in core subjects.

While the foregoing may seem to suggest that a rigorous high school curriculum should be limited to students with superior abilities and motivation, a closer examination reveals that this not necessarily the case. Indeed, completing a rigorous core curriculum is an essential precondition to preparing for and succeeding in college. However, the performance of all students is improved by their enrolling in rigorous courses. Results of research by The Education Trust-West (2004) suggest that, while somewhat counterintuitive, lower performing students improve their academic performance when they are enrolled in rigorous, college preparatory courses, suggesting that there is a positive effect from simply being exposed to an engaging, rigorous curriculum.

So why are so few Coloradans adequately prepared for and succeeding in college, and why do so many students that matriculate to college eventually need remediation in basic subjects? The answer may be partially explained by the fact that graduation requirements at many high schools are incongruent with contemporary postsecondary admission requirements.

Though all of the curriculums found in Colorado's high schools are comprised of courses meeting the State Board of Education's model content standards, according to ACT research, only 24 percent of Colorado seniors are prepared for college level Biology, 36 percent are ready for college Algebra, and 62 percent for college English (ACT Office of Policy Research, 2004b, page 3)³. In each of these categories, Colorado ranks below the national average for preparation (ACT Office of Policy Research, 2004b, page 2).

Furthermore, among Colorado high school seniors, students that are members of certain ethnic groups are much less likely to be college ready:

Colorado's Native Americans are about one and a half times less likely than the total state population to be ready for college Biology. Hispanic Americans are about two and a half times less likely, and African Americans are about five times less likely to be ready. For college Algebra, the percentages for these groups meeting the benchmark were not much higher...[And] Native Americans, Hispanic Americans, and African Americans were about one and a half to two times less likely to meet [the college readiness] benchmark than all ACT-tested Colorado students (ACT Office of Policy Research, 2004b, page 2).

The positive effect of a rigorous high school curriculum is apparent in the performance on the ACT college test, a compulsory assessment for Colorado's 11th grade students. In 2004 (Table 1), high school juniors that enrolled in a rigorous college preparatory curriculum, or "core" curriculum, performed better on the ACT assessment compared to students not enrolled in a core curriculum. A similar disparity was found among high school seniors. That is, the "core difference" persists across the entire population of 11th and 12th grade students (see ACT Office of Policy Research, 2004a).

³ This statistic employs preparation standards developed by ACT. This figure is not reflective of students' ability to meet the Colorado State Board of Education's curriculum standards or admission requirements adopted by the Colorado Commission on Higher Education.

TABLE 1: ACT PERFORMANCE, 2003-04 COLORADO STUDENTS

Class Level in 2003-04 Academic Year	Number Tested	Average Composite Score	Core Completers Composite Score	Non-Core Completers Composite Score	Core Difference
Colorado Juniors	47,412	18.8	21.6	17.7	+3.9
Colorado Seniors	46,183	20.3	22.1	18.5	+3.6
National Overall	1,171,460	20.9	21.9	19.4	+2.5

Source: ACT

Disparities were also found across all racial/ethnic groups among Colorado's recent high school graduates (Table 2)

TABLE 2: ACT PERFORMANCE, 2003-04 COLORADO STUDENTS, BY RACE/ETHNICITY.

Race/Ethnicity	Core Completers Composite Score	Non-Core Completers Composite Score	Core Difference
African American	17.9	16.4	+1.5
Asian American	21.9	18.3	+3.6
Caucasian	22.9	19.5	+3.4
Hispanic/Latino	18.9	16.1	+2.8
Native American	19.8	17.2	+2.7

Source: ACT

To address directly this crisis of preparation and send clear, unambiguous signals to students, parents, teachers, and counselors about how to prepare adequately for success in college, the Colorado Commission on Higher Education adopted new higher education admission requirements in 2003 (see CCHE Academic Affairs Policy I:F). According to this policy, effective fall 2008, all students seeking admission to a public four-year institution must complete four years of English, three years of mathematics (at the Algebra I level and higher), three years of science (two years in lab-based courses), and three years of social sciences in order to qualify. Moreover, effective 2010 and all years thereafter, the mathematics requirement increases to four years at the Algebra I level or higher and two years of foreign language in the same language will be required (see Table 3).

**TABLE 3: COLORADO COMMISSION ON HIGHER EDUCATION HIGHER EDUCATION
ADMISSION REQUIREMENTS, 2008 & 2010.**

Discipline	2008	2010
English (College preparatory)	4 Years	4 Years
Mathematics (Algebra I and above)	3 Years	4 Years
Natural/Physical Science (2 years lab-based)	3 Years	3 Years
History/Social Science	3 Years	3 Years
Foreign Language (In same language)	--	2 Years
Academic Electives	2 Years	2 Years
<i>Total Years (Credits)</i>	<i>15</i>	<i>18</i>

Source: CCHE Academic Affairs Policies

If the 2008 admission standards had been applied to the 2004 cohort of high school seniors, only 53 percent of these students would have been eligible for regular admission to four-year institutions, according to data reported by ACT. Moreover, only 53 percent scored above the CCHE math remediation cut score (score: 19) and only 62 percent scored above the writing remediation cut score (18) (ACT Office of Policy Research, 2004a).

These discouraging statistics suggest that more needs to be done to align Colorado's K-12 and postsecondary educational systems. Resulting from local control—a rule provided by the Colorado Constitution—Colorado's school districts have been free to adopt academic requirements often unaligned with contemporary college admission standards. Similarly culpable, prior to the adoption of the CCHE's higher education admission requirements in 2003, the postsecondary sector in Colorado historically provided only vague guidance to students and parents on how to navigate secondary curriculums and prepare for college. These circumstances, complicated unnecessarily by years of separation, impose needless barriers to curriculum alignment between high school and college that can ultimately undermine students' success.

It is a fact: If curriculums in the K-12 and postsecondary sectors are not better aligned, and students are not better prepared for college, the Colorado Paradox⁴ will intensify. Doing nothing in spite the evidence presented herein ensures this.

II. COMPARISON OF STATEWIDE REMEDIATION NEEDS, FY2003 AND FY 2004

In fall 2003, the total number of first-time recent high school graduates assessed and assigned to remedial education was 7,061 or roughly 28 percent of the cohort. In fall 2004,

⁴ The "Colorado Paradox" is the expression used to describe the following situation: that Colorado, as a state, has one of the nation's most educated populations (according to reports from the U.S. Census) and a below-average college-going rate among recent high school graduates.

the number of first-time recent high school graduates assessed and assigned to remedial education increased to 8,366 students or roughly 30 percent of the cohort (Table 4). Overall, the one-year change in the remediation rate increased 5.8%.

TABLE 4: COMPARISON OF STATEWIDE REMEDIATION NEEDS, BY ACADEMIC SUBJECT, 2003 AND 2004

	Total in Cohort	Assigned to Remediation		Math		Writing		Reading	
	#	#	%	#	%	#	%	#	%
2003	25,246	7,061	27.97%	6,088	24.11%	2,883	11.42%	2,927	11.59%
2004	28,268	8,366	29.60%	6,953	24.60%	3,994	14.13%	3,834	13.56%
ACTUAL CHANGE	+3,022	+1,305	+1.63 points	+865	+0.48 points	+1,111	+2.71 points	+907	+1.97 points
CHANGE IN ENROLLMENT	+12.0%	+18.5%		+14.2%		+38.5%		+31.0%	
CHANGE IN RATE			+5.8%		+2.0%		+23.7%		+17.0%

Source: CCHE Student Unit Data System

Turning to the individual subjects in which students were assessed and assigned to remedial instruction, in 2004 the most common subject for remedial instruction was math, as had also been the case in 2003, but the largest change was in writing. The total proportion of students needing remedial instruction in math increased somewhat by 0.48 percentage points to 24.60 percent of all enrolling students or 2% change overall. The proportion of students assessed and assigned to writing and reading remedial instruction increased more markedly by 2.71 percentage points (24% change) and 1.97 percentage points (17% change), respectively.

Importantly, the information tabulated above is not disaggregated by instructional level. That is, because all course data are collapsed into generic categories, we cannot compare, for example, the number of students assigned to a basic arithmetic course versus a pre-college Algebra course. As a result, the numbers presented in Table 4 above and elsewhere throughout this report underestimate total remedial instruction demand, as some students may have needed only one remedial course within an academic area while others may have needed several.

III. REMEDIATION NEEDS, BY SCHOOL DISTRICT AND HIGH SCHOOL

The need for remediation for entering students varies considerably by school district and high school. Table 5 below presents five large, medium, and small school districts⁵ with the highest need for remediation (see Appendix A for a complete list of school level data and Appendix B for a complete list of district level data). Table 6 shows the same information

⁵ For the purpose of this analysis, district size was determined based upon the number of students enrolling at public colleges, not actual district enrollment.

for school districts with the lowest need for remediation. Importantly, caution should be used in interpreting the results below, as statistics for schools within school districts can vary dramatically. For example, in the state's largest school district, Jefferson County 1, the remediation need for recent college enrollees by high school varies from 1.39% at D'Evelyn High School to 72.01% at Jefferson County Open High School (see Appendix A), though the overall remedial assessment rate was 31.43%. Moreover, remediation rates reflect the skills of graduates that matriculated to public colleges and universities only; that is, non-matriculating high school graduates, dropouts, and students that enrolled in private or out-of-state colleges are not considered in the analysis.

TABLE 5: COLORADO SCHOOL DISTRICTS WITH THE HIGHEST REMEDIATION RATES, BY NUMBER OF STUDENTS ENROLLED AT PUBLIC COLLEGES, 2004⁶.

School District	Enrolled Students	Assigned to Remediation	
Large School Districts (>300 Enrolled Students)			
PUEBLO CITY 60	507	262	51.68%
DENVER COUNTY 1	1,093	540	49.41%
ADAMS-ARAPAHOE 28]	533	244	45.78%
MESA COUNTY VALLEY 51	592	223	37.67%
NORTHGLENN-THORNTON 12	887	318	35.85%
Medium School Districts (100 - 299 Enrolled Students)			
HARRISON 2	170	88	51.76%
ENGLEWOOD 1	121	59	48.76%
WESTMINSTER 50	215	103	47.91%
WIDEFIELD 3	238	114	47.90%
BRIGHTON 27]	131	56	42.75%
Small School Districts (25 - 99 Enrolled Students)			
EAST OTERO R-1	73	47	64.38%
LAS ANIMAS RE-1	25	15	60.00%
ADAMS COUNTY 14	62	36	58.06%
TRINIDAD 1	53	30	56.60%
MAPLETON 1	82	46	56.10%

⁶ Table excludes schools districts with fewer than 25 enrolling students.

TABLE 6: COLORADO SCHOOL DISTRICTS WITH THE LOWEST REMEDIATION RATES, BY NUMBER OF STUDENTS ENROLLED AT PUBLIC COLLEGES, 2004⁷.

School District	Enrolled Students	Assigned to Remediation	
Large School Districts (>300 Enrolled Students)			
BOULDER VALLEY RE 2	1030	212	20.58%
DOUGLAS COUNTY RE 1	1280	267	20.86%
LITTLETON 6	631	145	22.98%
ACADEMY 20	704	168	23.86%
CHERRY CREEK 5	1684	437	25.95%
Medium School Districts (100 - 299 Enrolled Students)			
LEWIS-PALMER 38	188	28	14.89%
CHEYENNE MOUNTAIN 12	164	26	15.85%
ROARING FORK RE-1	138	26	18.84%
FORT MORGAN RE-3	104	21	20.19%
MONTROSE COUNTY RE-1J	119	31	26.05%
Small School Districts (25 - 99 Enrolled Students)			
EAST GRAND 2	45	8	17.78%
STRASBURG 31J	32	6	18.75%
PARK (ESTES PARK) R-3	39	8	20.51%
BUENA VISTA R-31	29	6	20.69%
JOHNSTOWN-MILLIKEN RE-5J	28	6	21.43%

Tables 7 & 8 refocus the unit of analysis from the school district to the high school⁸, including information on remedial instruction by subject.

⁷ Table excludes schools districts with fewer than 25 enrolling students.

⁸ For the purpose of this analysis, school size was determined based upon the number of students enrolling at public colleges, not actual enrollment.

TABLE 7: HIGHEST REMEDIATION RATES FOR ENTERING FIRST-TIME STUDENTS, BY HIGH SCHOOL AND NUMBER OF ENROLLED STUDENTS, 2004⁹.

Large (>150 Enrolled Students)							
High School	School District	Enrolled Students	Assigned to Remediation		Math	Writing	Reading
JOHN F KENNEDY HIGH SCHOOL	DENVER COUNTY 1	160	77	48.13%	66	40	29
SOUTH HIGH SCHOOL	PUEBLO CITY 60	178	79	44.38%	72	38	39
ARVADA HIGH SCHOOL	JEFFERSON COUNTY R-1	163	68	41.72%	60	22	25
THORNTON HIGH SCHOOL	NORTHGLENN-THORNTON 12	186	76	40.86%	55	38	39
RANGEVIEW HIGH SCHOOL	ADAMS-ARAPAHOE 28]	196	79	40.31%	73	35	34
EAST HIGH SCHOOL	DENVER COUNTY 1	170	66	38.82%	62	33	37
LITTLETON HIGH SCHOOL	LITTLETON 6	156	60	38.46%	55	27	30
NORTHGLENN HIGH SCHOOL	NORTHGLENN-THORNTON 12	202	76	37.62%	60	44	34
STANDLEY LAKE HIGH SCHOOL	JEFFERSON COUNTY R-1	230	84	36.52%	62	45	39
POMONA HIGH SCHOOL	JEFFERSON COUNTY R-1	236	84	35.59%	72	38	35
Medium (50 - 149 Enrolled Students)							
High School	School District	Enrolled Students	Assigned to Remediation		Math	Writing	Reading
WEST HIGH SCHOOL	DENVER COUNTY 1	94	63	67.02%	60	48	40
ABRAHAM LINCOLN HIGH SCHOOL	DENVER COUNTY 1	65	43	66.15%	37	30	28
LA JUNTA HIGH SCHOOL	EAST OTERO R-1	73	47	64.38%	41	29	26
SIERRA HIGH SCHOOL	HARRISON 2	69	44	63.77%	40	21	25
ADAMS CITY HIGH SCHOOL	ADAMS COUNTY 14	57	36	63.16%	32	25	18
EAST HIGH SCHOOL	PUEBLO CITY 60	67	42	62.69%	36	18	24
CENTRAL HIGH SCHOOL	PUEBLO CITY 60	121	75	61.98%	69	41	38
MONTBELLO HIGH SCHOOL	DENVER COUNTY 1	73	42	57.53%	38	24	24
NORTH HIGH SCHOOL	DENVER COUNTY 1	82	47	57.32%	42	22	30
TRINIDAD HIGH SCHOOL	TRINIDAD 1	53	30	56.60%	27	17	18
Small (25 - 49 Enrolled Students)							
High School	School District	Enrolled Students	Assigned to Remediation		Math	Writing	Reading
JEFFERSON COUNTY OPEN HIGH SCH	JEFFERSON COUNTY R-1	29	21	72.41%	21	5	5
JEFFERSON HIGH SCHOOL	JEFFERSON COUNTY R-1	49	32	65.31%	30	21	25
COLORADO'S FINEST ALTERNATIVE	ENGLEWOOD 1	27	17	62.96%	17	7	7
LAS ANIMAS HIGH SCHOOL	LAS ANIMAS RE-1	25	15	60.00%	12	10	7
CROWLEY COUNTY HIGH SCHOOL	CROWLEY COUNTY RE-1-J	27	15	55.56%	14	8	7
CENTAURI HIGH SCHOOL	NORTH CONEJOS RE-1]	47	24	51.06%	21	13	16
FREDERICK SENIOR HIGH SCHOOL	ST VRAIN VALLEY RE 1J	36	18	50.00%	13	10	10
PAGOSA SPRINGS HIGH SCHOOL	ARCHULETA COUNTY 50 JT	46	23	50.00%	20	11	8
MONTE VISTA SENIOR HIGH SCHOOL	MONTE VISTA C-8	39	19	48.72%	19	9	8
BAYFIELD HIGH SCHOOL	BAYFIELD 10 JT-R	37	18	48.65%	13	7	8

⁹ Excludes schools with fewer than 25 enrolling students.

TABLE 8: LOWEST REMEDIATION RATES FOR ENTERING FIRST-TIME STUDENTS, BY HIGH SCHOOL AND NUMBER OF ENROLLED STUDENTS, 2004¹⁰.

Large (>150 Enrolled Students)							
High School	School District	Enrolled Students	Assigned to Remediation		Math	Writing	Reading
FAIRVIEW HIGH SCHOOL	BOULDER VALLEY RE 2	223	22	9.87%	13	9	6
ARAPAHOE HIGH SCHOOL	LITTLETON 6	207	21	10.14%	19	5	1
LEWIS-PALMER HIGH SCHOOL	LEWIS-PALMER 38	188	28	14.89%	24	13	13
CHERRY CREEK HIGH SCHOOL	CHERRY CREEK 5	413	62	15.01%	44	26	26
CHEYENNE MOUNTAIN HIGH SCHOOL	CHEYENNE MOUNTAIN 12	164	26	15.85%	18	12	14
PONDEROSA HIGH SCHOOL	DOUGLAS COUNTY RE 1	235	41	17.45%	26	24	21
CHAPARRAL HIGH SCHOOL	DOUGLAS COUNTY RE 1	196	37	18.88%	30	16	16
BOULDER HIGH SCHOOL	BOULDER VALLEY RE 2	205	40	19.51%	30	23	20
HIGHLANDS RANCH HIGH SCHOOL	DOUGLAS COUNTY RE 1	271	55	20.30%	37	26	24
MONARCH HIGH SCHOOL	BOULDER VALLEY RE 2	221	45	20.36%	33	21	19
Medium (50 - 149 Enrolled Students)							
High School	School District	Enrolled Students	Assigned to Remediation		Math	Writing	Reading
D'EVELYN SENIOR HIGH SCHOOL	JEFFERSON COUNTY R-1	72	1	1.39%	0	0	1
GLENWOOD SPRINGS HIGH SCHOOL	ROARING FORK RE-1	72	10	13.89%	9	6	4
PLATTE CANYON HIGH SCHOOL	PLATTE CANYON 1	52	9	17.31%	8	6	2
SUMMIT HIGH SCHOOL	SUMMIT RE-1	65	13	20.00%	8	6	3
GREELEY CENTRAL HIGH SCHOOL	GREELEY 6	84	18	21.43%	9	8	10
BRUSH HIGH SCHOOL	BRUSH RE-2(J)	60	13	21.67%	10	5	9
FORT MORGAN HIGH SCHOOL	FORT MORGAN RE-3	96	21	21.88%	17	12	9
MONTROSE HIGH SCHOOL	MONTROSE COUNTY RE-1J	98	22	22.45%	19	13	10
EVERGREEN HIGH SCHOOL	JEFFERSON COUNTY R-1	117	27	23.08%	24	12	8
CONIFER SENIOR HIGH SCHOOL	JEFFERSON COUNTY R-1	142	34	23.94%	30	13	10
Small (25 - 49 Enrolled Students)							
High School	School District	Enrolled Students	Assigned to Remediation		Math	Writing	Reading
BATTLE MOUNTAIN HIGH SCHOOL	EAGLE COUNTY RE 50	40	3	7.50%	3	0	0
MIDDLE PARK HIGH SCHOOL	EAST GRAND 2	45	8	17.78%	7	4	4
STRASBURG HIGH SCHOOL	STRASBURG 31J	32	6	18.75%	6	3	2
HOTCHKISS HIGH SCHOOL	DELTA COUNTY 50(J)	36	7	19.44%	6	3	3
ESTES PARK HIGH SCHOOL	PARK (ESTES PARK) R-3	39	8	20.51%	7	3	5
BUENA VISTA HIGH SCHOOL	BUENA VISTA R-31	29	6	20.69%	5	2	0
JEFFERSON CHARTER ACADEMY SENI	JEFFERSON COUNTY R-1	29	6	20.69%	6	1	2
ROOSEVELT HIGH SCHOOL	JOHNSTOWN-MILLIKEN RE-5J	28	6	21.43%	5	4	1
LIMON JUNIOR-SENIOR HIGH SCHOO	LIMON RE-4J	27	6	22.22%	5	1	2
YUMA HIGH SCHOOL	YUMA 1	25	6	24.00%	5	1	3

¹⁰ Excludes schools with fewer than 25 enrolling students.

IV. REMEDIATION NEEDS, BY ENROLLING INSTITUTION AND STUDENT DEMOGRAPHICS

With the notable exception of the state's combined two- and four-year institutions (Mesa State College and Adams State College), four-year institutions of higher education are prohibited from offering remedial instruction on a state-funded basis (though several offer remedial education on a cash-funded [state funds ineligible] basis or through inter-institutional agreements with community colleges). As a result, students who are enrolled at a four-year institution and assessed and assigned to remedial instruction must either (a) retake and pass an approved basic skills assessment, (b) take a basic skills course through a cash-funded program, if available, or (c) enroll in and complete required remedial instruction at a community college. Note that credit hours earned in completed remedial-level courses are not transferable into academic degree programs, such as the associate of arts or bachelor of science. Consequently, students assigned to remedial courses may fall behind their peers in amassing credit hours that apply to degree programs.

While the total proportion of students assigned to remedial instruction increased in 2004 (Table 9), the proportion of students assigned to remedial instruction within each sector type (two-year and four-year) changed in different ways. The proportion of students assigned to remedial instruction who were enrolled at two-year institutions decreased from 59.50% in 2003 to 55.06% in 2004, though the total number of students assigned to remedial instruction increased in magnitude from 3,876 students to 4,879, reflecting overall enrollment growth or an increase in the proportion of first-time students or both in the two-year sector. The total proportion of students assigned to remedial instruction in the four-year sector increased by nearly one full percentage point, from 17.00% in 2003 to 17.97% in 2004.

Changes in the total proportion of students assigned to remedial instruction vary more dramatically by institution within sectors. Several smaller two-year institutions experienced dramatic changes in the proportion of students assigned to remediation, though 13 of the 15 institutions experienced overall declines in the proportion of students assigned to remedial instruction, suggesting that community colleges attracted more able and better prepared first-time 17, 18, and 19 year-old students in 2004 compared to the previous year. Generally speaking, and excluding the institutions enrolling fewer than 200 students in 2004, which are very susceptible to dramatic statistical swings resulting from their smaller size, the proportion of students assigned to remedial instruction in the two-year sector ranges from about 52% to 68%, with an overall mean rate of 55.06%.

Again excluding Adams State College and Mesa State College, both of which maintain two-year and four-year academic programs, the total proportion of students assigned to remedial instruction at four-year institutions varied dramatically between .53% at the University of Colorado at Colorado Springs to 52.44% at Metropolitan State College of Denver, the state's only "modified open enrollment" institution. To a large degree, the differences in proportions of students assigned to remedial instruction reflect institutions' varying, statutorily defined roles and missions. That is, the "modified open" and "moderately

selective” institutions (Adams State College, Fort Lewis College¹¹, Mesa State College, Metropolitan State College of Denver, and Western State College) typically had higher proportions, while the “selective” and “highly selective institutions” (Colorado School of Mines, Colorado State University System, University of Colorado System, and the University of Northern Colorado) typically had smaller proportions. Nonetheless, regardless of institutional selectivity, every institution in the Colorado public higher education system assigned at least one first time student to remedial instruction.

¹¹ Fort Lewis College’s statutorily defined selectivity changed from “moderately selective” to “selective” in 2005.

TABLE 9: FIRST-TIME FRESHMAN ASSIGNED TO REMEDIAL COURSES, BY SECTOR AND INSTITUTION, 2003 & 2004.

Sector / Institution	2004			2003		
	Number of 1st Time Students*	Assigned to Remediation in at least one subject		Number of 1st Time Students*	Assigned to Remediation in at least one subject	
Two Year Public	#	#	%	#	#	%
Aims Community College	475	245	51.58%	395	154	38.99%
Arapahoe Community College	732	448	61.20%	496	329	66.33%
Colorado Mountain College	89	39	43.82%	28	15	53.57%
Colorado Northwestern Community College	159	37	23.27%	130	71	54.62%
Community College of Aurora	523	309	59.08%	389	258	66.32%
Community College of Denver	1,203	500	41.56%	536	454	84.70%
Front Range Community College	2,023	1,147	56.70%	1,576	932	59.14%
Lamar Community College	258	133	51.55%	126	73	57.94%
Morgan Community College	139	18	12.95%	76	42	55.26%
Northeastern Junior College	379	222	58.58%	422	251	59.48%
Otero Junior College	248	160	64.52%	242	160	66.12%
Pikes Peak Community College	1,218	765	62.81%	915	311	33.99%
Pueblo Community College	377	258	68.44%	328	273	83.23%
Red Rocks Community College	763	410	53.74%	596	359	60.23%
Trinidad State Junior College	276	188	68.12%	259	194	74.90%
Two Year Total	8,862	4,879	55.06%	6,514	3,876	59.50%
Four Year Public	#	#	%	#	#	%
Adams State College	367	195	53.13%	383	125	32.64%
Colorado School of Mines	732	31	4.23%	678	19	2.80%
Colorado State University	4,024	134	3.33%	3,728	113	3.03%
Colorado State University – Pueblo	729	360	49.38%	635	346	54.49%
Fort Lewis College	918	423	46.08%	868	271	31.22%
Mesa State College	1,063	541	50.89%	927	368	39.70%
Metropolitan State College of Denver	1,947	1,021	52.44%	1,746	1,068	61.17%
University of Colorado – Boulder	5,115	59	1.15%	5,542	87	1.57%
University of Colorado - Colorado Springs	945	5	0.53%	913	9	0.99%
University of Colorado – Denver	706	188	26.63%	644	313	48.60%
University of Northern Colorado	2,382	353	14.82%	2,064	278	13.47%
Western State College	478	177	37.03%	604	188	31.13%
Four Year Total	19,406	3,487	17.97%	18,732	3,185	17.00%
Grand Total	28,268	8,366	29.60%	25,246	7,061	27.97%

Source: CCHE SURDS UAF 2003 & 2004

Turning to differences in remedial instructional needs based upon demographics of enrolling students, Table 10 presents data on the differences in students assigned to remedial instruction disaggregated by gender and institutional sector. This table reveals that female students, as a group, were more often assigned to remedial instruction than were male students. This disparity is present at both the two-year and four-year institutional sectors.

TABLE 10: FIRST-TIME MATRICULATED HIGH SCHOOL STUDENTS ASSIGNED TO AT LEAST ONE REMEDIAL COURSE, BY SECTOR AND GENDER, 2004.

	# of Students	Students Assigned to Remediation in at Least One Discipline		Students Requiring No Remediation	
		# of Students	% of Group	# of Students	% of Group
TWO YEAR PUBLIC INSTITUTION					
FEMALE	4,653	2,643	56.80%	860	18.48%
MALE	4,198	2,227	53.05%	990	23.58%
TOTAL	8,851	4,870	55.02%	1,850	20.90%
FOUR YEAR PUBLIC INSTITUTION					
FEMALE	10,092	2,015	19.97%	7,568	74.99%
MALE	9,314	1,472	15.80%	7,513	80.66%
TOTAL	19,406	3,487	17.97%	15,081	77.71%

Source: CCHE SURDS UAF, Fall 2004

Disparities in remedial instructional needs are also found when the data are disaggregated by ethnicity (Table 11). Excluding Non-resident Alien students, African-American, Hispanic/Latino, and Native American students were assigned to remedial instruction more often than were Asian or Pacific Islander and White, non-Hispanic students. And at the two-year sector level, seven out of ten (70.41%) first-time African-American students were assigned to remedial instruction.

At the four-year sector level, the proportions of African-American, Hispanic/Latino, and Native American students assigned to remedial instruction were two to three times greater than the similar proportion of White, non-Hispanic or Asian or Pacific Islander students.

TABLE 11: FIRST-TIME MATRICULATED HIGH SCHOOL STUDENTS ASSIGNED TO AT LEAST ONE REMEDIAL COURSE, BY SECTOR AND ETHNICITY, 2004

	# of Students	Students Assigned to Remediation in at Least One Discipline		Students Requiring No Remediation	
		# of Students	% of Group	# of Students	% of Group
Two Year Public Institution					
ASIAN OR PACIFIC ISLANDER	269	134	49.81%	56	20.82%
AFRICAN-AMERICAN, NON-HISPANIC	463	326	70.41%	34	7.34%
HISPANIC/LATINO	1,509	950	62.96%	192	12.72%
NATIVE AMERICAN	118	68	57.63%	20	16.95%
NON-RESIDENT ALIEN	109	86	78.90%	9	8.26%
WHITE, NON-HISPANIC	6,052	3,157	52.16%	1,452	23.99%
UNKNOWN ETHNICITY	342	158	46.20%	88	25.73%
TOTAL	8,862	4,879	55.06%	1,851	20.89%
Four Year Public Institution					
ASIAN OR PACIFIC ISLANDER	914	159	17.40%	733	80.20%
AFRICAN-AMERICAN, NON-HISPANIC	510	216	42.35%	281	55.10%
HISPANIC/LATINO	1,821	637	34.98%	1,114	61.18%
NATIVE AMERICAN	317	149	47.00%	162	51.10%
NON-RESIDENT ALIEN	98	23	23.47%	52	53.06%
WHITE, NON-HISPANIC	14,932	2,155	14.43%	12,112	81.11%
UNKNOWN ETHNICITY	814	148	18.18%	627	77.03%
TOTAL	19,406	3,487	17.97%	15,081	77.71%

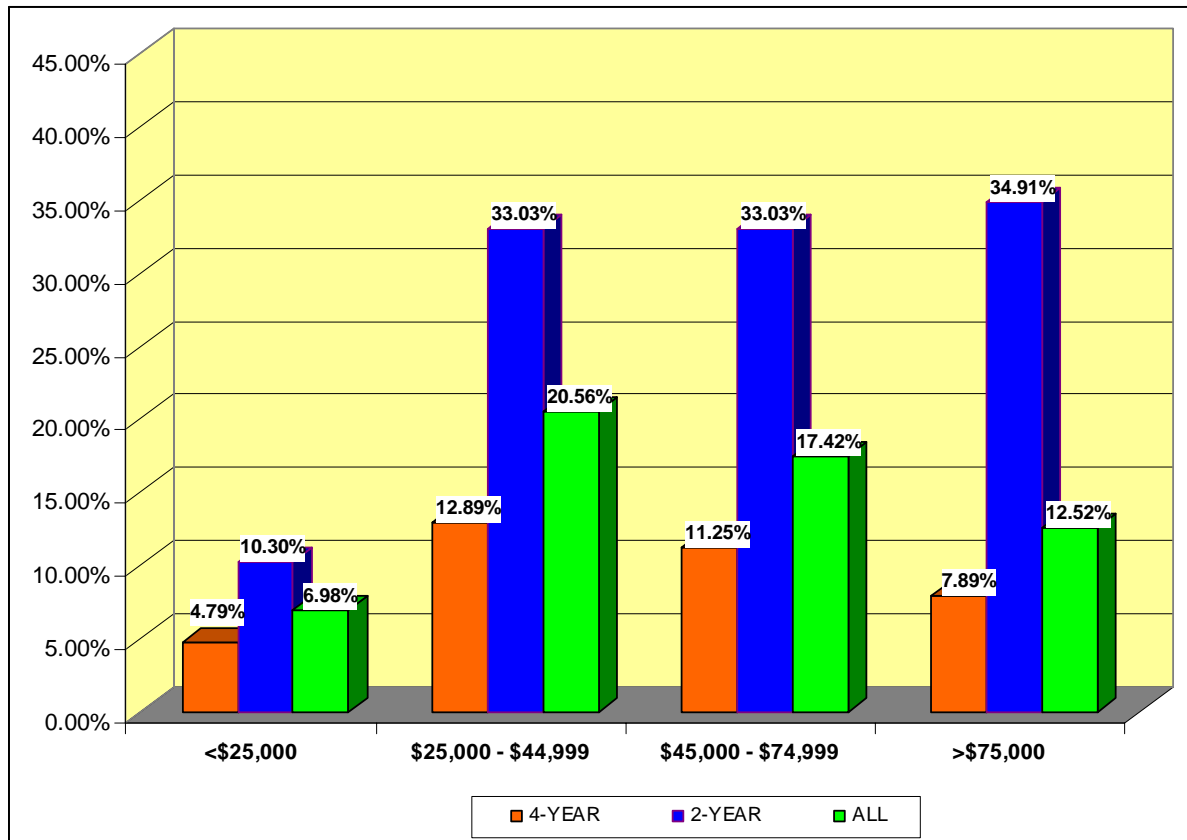
Source: CCHE SURDS UAF Fall 2004

Finally, Figure 1 illustrates the relationship between students' adjusted gross income (AGI) and assignment to remedial courses. Though the data used in this analysis are limited to financial aid recipients only and therefore are not representative of all students enrolled in remedial courses, the data in this sample are constructive nonetheless. Data in Figure 1 are disaggregated into each of four AGI ranges—under \$25,000, \$25,000 – 44,999, \$45,000 – 75,000, and greater than \$75,000—and then again by college sector (two-year and four-year). As has been seen elsewhere in this report, community college students were more often assigned to remedial courses compared to students at four-year institutions. Several other trends within the data are worth mentioning, however.

First, the proportions of students from the lowest AGI group (<\$25,000) assigned to remedial courses were dramatically lower compared to corresponding groups within the other AGI categories. While a full analytical exploration of this point is beyond the scope of this descriptive report, this somewhat counterintuitive finding is perhaps explained by the fact that students from the lowest income families are less likely to complete high school compared to students from more affluent families (National Center for Education Statistics, 2000, on-line) and, for those who do complete high school, are less likely to matriculate to college (National Center for Education Statistics, 2005a, on-line). Consequently, it is possible that the lower remediation rate for the lowest AGI group illustrates that only the most well prepared students from very low income families enroll in college immediately following high school, or, stated conversely, the less well prepared or able high school

graduates from the lowest AGI families are more inclined to pursue work over postsecondary education.

FIGURE 1: REMEDIATION RATES, BY SECTOR AND ADJUSTED GROSS INCOME¹², 2004.



Source: CCHE SURDS Financial Aid Files, 2004.

Another point of interest is that, while the total proportion of students from the highest three AGI categories who enrolled in community colleges needing remediation is relatively consistent, the remediation rate for these students at the four-year sector and, consequently the overall remediation rate, decline steadily from the \$25,000 – 45,000 AGI group to the >\$75,000 AGI group. This trend is noteworthy, as preparation for college-level work appears to be related to income. Nonetheless, the fact remains: remedial education is a widespread need that cuts across all ethnic, gender, and income groups.

¹² Records used in this analysis were limited to public high school graduates from Colorado who were first-time enrollees in fall 2003; were dependents; were classified as in-state students for tuition purposes; were 17, 18 & 19 years of age; and whose information was reported in the CCHE SURDS remedial and financial aid (FY 2004) files. The following data were used to derive the remediation rates illustrated in Figure 1: Total HC <\$25,000 = 11,407 [4,536 2-year; 6,871 4-year]; Total HC \$25,000 – 44,999 = 4,860 [1,850; 3,010]; Total HC \$45,000 – 75,000 = 6,284 [1,777; 4,507]; Total HC >\$75,000 = 7,428 [1,272; 6,156]; Remedial Assignment HC: Rem HC <\$25,000 = 773 [444 2-year; 329 4-year]; Rem HC \$25,000 – 44,999 = 976 [588; 388]; Rem HC \$45,000 – 75,000 = 1,065 [558; 507]; Rem HC >\$75,000 = 922 [436; 486].

V. REMEDATION ACHIEVEMENT, BY ENROLLING INSTITUTION

Data in Tables 12 and 13 below illustrate students' achievement in remedial-level courses, by sector and institution, for both the fall 2004 (Table 12) and spring 2005 (Table 13) academic terms. While institutional differences exist, perhaps the most salient aspect of the table is the fact that the two-year sector overall enjoyed a higher overall pass rate in remedial-level courses in English and reading compared to the four-year sector, in spite of the fact that many more students in the two-year sector enrolled in remedial level courses.

TABLE 12: ACHIEVEMENT IN REMEDIAL-LEVEL COURSES, BY SECTOR AND INSTITUTION, FALL 2004.

INSTITUTION NAME	MATHEMATICS			ENGLISH			READING		
	Total	# Passed	% Passed	Total	# Passed	% Passed	Total	# Passed	% Passed
Two Year Public									
Aims Community College	543	363	66.85%	160	110	68.75%	236	163	69.07%
Arapahoe Community College	905	618	68.29%	524	355	67.75%	375	266	70.93%
Colorado Mountain College	501	288	57.49%	294	180	61.22%	206	120	58.25%
Colorado Northwestern CC	197	160	81.22%	86	64	74.42%	60	52	86.67%
Community College of Aurora	861	591	68.64%	533	397	74.48%	264	198	75.00%
Community College of Denver	2,476	1,601	64.66%	1,399	964	68.91%	1,102	804	72.96%
Front Range Community College	2,099	1,431	68.18%	1,246	954	76.57%	364	289	79.40%
Lamar Community College	101	59	58.42%	61	42	68.85%	46	28	60.87%
Morgan Community College	119	103	86.55%	57	43	75.44%	40	31	77.50%
Northeastern Junior College	276	209	75.72%	158	123	77.85%	92	70	76.09%
Otero Junior College	264	213	80.68%	190	143	75.26%	137	104	75.91%
Pikes Peak Community College	2,193	1,447	65.98%	1,035	744	71.88%	401	302	75.31%
Pueblo Community College	1,562	1,094	70.04%	668	477	71.41%	487	324	66.53%
Red Rocks Community College	677	471	69.57%	285	219	76.84%	97	76	78.35%
Trinidad State Junior College	291	211	72.51%	159	124	77.99%	165	125	75.76%
2 YEAR SUBTOTAL	13,065	8,859	67.81%	6,855	4,939	72.05%	4,072	2,952	72.50%
Four Year Public									
Adams State College	219	84	38.36%	55	33	60.00%	59	38	64.41%
Colorado School of Mines*	1	0	0.00%	18	18	100.00%	--	--	--
CSU – Pueblo	418	169	40.43%	211	157	74.41%	99	83	83.84%
Fort Lewis College	454	343	75.55%	183	155	84.70%	91	81	89.01%
Mesa State College	694	436	62.82%	465	342	73.55%	--	--	--
CU – Colorado Springs	41	12	29.27%	43	42	97.67%	--	--	--
University of Northern CO	163	88	53.99%	--	--	--	--	--	--
Western State College	72	44	61.11%	20	15	75.00%	--	--	--
4 YEAR SUBTOTAL	2,062	1,176	57.03%	995	762	76.58%	249	202	81.12%
GRAND TOTAL	15,127	10,035	66.34%	7,850	5,701	72.62%	4,321	3,154	72.99%

*CSM course is in basic skills.

Source: CCHE SURDS Remedial Course File, Fall 2004

TABLE 13: ACHIEVEMENT IN REMEDIAL-LEVEL COURSES, BY SECTOR AND INSTITUTION, SPRING 2005.

INSTITUTION NAME	MATHEMATICS			ENGLISH			READING		
	Total	# Passed	% Passed	Total	# Passed	% Passed	Total	# Passed	% Passed
Two Year Public									
Aims Community College	429	301	70.16%	81	54	66.67%	163	113	69.33%
Arapahoe Community College	670	486	72.54%	356	223	62.64%	250	167	66.80%
Colorado Mountain College	230	189	82.17%	124	98	79.03%	86	69	80.23%
Colorado Northwestern CC	139	106	76.26%	52	39	75.00%	33	30	90.91%
Community College of Aurora	822	548	66.67%	490	349	71.22%	275	205	74.55%
Community College of Denver	2,200	1,364	62.00%	1,065	674	63.29%	768	547	71.22%
Front Range CC	1,933	1,291	66.79%	1,066	804	75.42%	304	222	73.03%
Lamar Community College	80	50	62.50%	36	23	63.89%	24	12	50.00%
Morgan Community College	125	108	86.40%	42	34	80.95%	24	19	79.17%
Northeastern Junior College	188	134	71.28%	87	76	87.36%	43	37	86.05%
Otero Junior College	200	145	72.50%	159	119	74.84%	139	112	80.58%
Pikes Peak Community College	1,908	1,254	65.72%	817	516	63.16%	267	200	74.91%
Pueblo Community College	1,383	923	66.74%	587	383	65.25%	370	239	64.59%
Red Rocks Community College	594	427	71.89%	215	168	78.14%	80	58	72.50%
Trinidad State Junior College	232	158	68.10%	103	68	66.02%	95	75	78.95%
2 YEAR SUBTOTAL	11,133	7,484	67.22%	5,280	3,628	68.71%	2,921	2,105	72.06%
Four Year Public									
Adams State College	170	83	48.82%	22	5	22.73%	16	10	62.50%
Colorado School of Mines*	--	--	--	4	4	100.00%	--	--	--
CSU – Pueblo	346	147	42.49%	53	38	71.70%	25	17	68.00%
Fort Lewis College	237	175	73.84%	23	21	91.30%	12	11	91.67%
Mesa State College	634	378	59.62%	177	99	55.93%	--	--	--
CU - Colorado Springs	12	8	66.67%	9	8	88.89%	--	--	--
University of Northern CO	57	30	52.63%	--	--	--	--	--	--
Western State College	71	40	56.34%	20	13	65.00%	--	--	--
4 YEAR SUBTOTAL	1,527	861	56.39%	308	188	61.04%	53	38	71.70%
GRAND TOTAL	12,660	8,345	65.92%	5,588	3,816	68.29%	2,974	2,143	72.06%

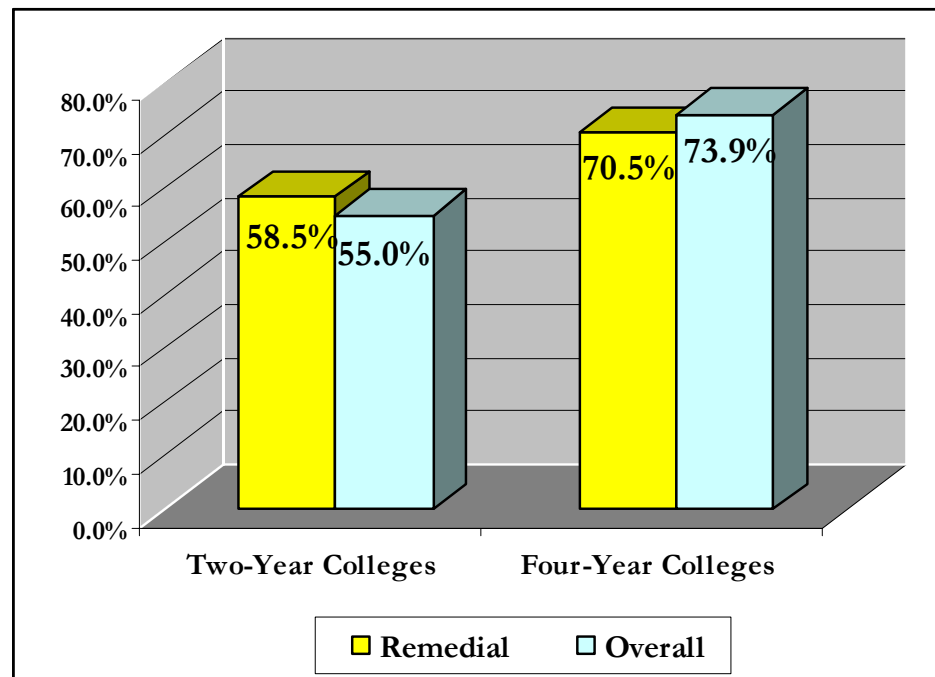
*CSM course is in basic skills.

Source: CCHE SURDS Remedial Course File, Spring 2005

The retention rates of students assigned to remedial courses are presented in Table 14 and Figure 2 below. Students at four-year institutions were retained at higher rates compared to students at two-year institutions. This is not altogether unexpected, as students at four-year institutions generally have fewer academic deficiencies compared to students at two-year institutions. Excluding Colorado Mountain College, where few students were assigned to remediation, most two-year institutions enjoyed strong retention of students assigned to remedial courses. As Figure 2 shows, in fall 2004, the retention rate of two-year students assigned to remedial instruction (59%) surpassed the overall two-year sector retention rate (55%).

The retention rates of students assigned to remediation at four-year institutions varied considerably, but follow predictable patterns related to institutional selectivity; that is, more selective institutions enroll fewer students needing remedial instruction and, historically, enjoy higher overall retention rates. Consequently, retention rates at Colorado State University (85%), the University of Colorado – Boulder (90%), and the Colorado School of Mines (79%) were roughly ten to twenty percentage points higher than those at moderately selective institutions.

FIGURE 2: COMPARISON OF ONE-YEAR RETENTION RATES, BY SECTOR: STUDENTS ASSIGNED TO REMEDIATION VERSUS ALL STUDENTS, FALL 2003 TO FALL 2004.



Source: CCHE SURDS Enrollment Files

TABLE 14: ONE-YEAR RETENTION OF FIRST-TIME RECENT HIGH SCHOOL GRADUATES ASSIGNED TO REMEDIAL COURSES, BY SECTOR AND INSTITUTION, FALL 2003 TO FALL 2004.

Institution Name/Sector	Assigned to remediation in at least one subject	Retained After One Year*	Percent Retained
Two Year Public Institutions	#	#	%
Aims Community College	154	85	55.19%
Arapahoe Community College	329	177	53.80%
Colorado Mountain College	15	1	6.67%
Colorado Northwestern Community College	71	36	50.70%
Community College of Aurora	258	147	56.98%
Community College of Denver	454	274	60.35%
Front Range Community College	932	550	59.01%
Lamar Community College	73	45	61.64%
Morgan Community College	42	30	71.43%
Northeastern Junior College	251	166	66.14%
Otero Junior College	160	102	63.75%
Pikes Peak Community College	311	179	57.56%
Pueblo Community College	273	155	56.78%
Red Rocks Community College	359	216	60.17%
Trinidad State Junior College	194	103	53.09%
Two Year Total	3,876	2,266	58.46%
Four Year Public Institutions	#	#	%
Adams State College	125	86	68.80%
Colorado School of Mines	19	15	78.95%
Colorado State University	113	96	84.96%
Colorado State University – Pueblo	346	243	70.23%
Fort Lewis College	271	167	61.62%
Mesa State College	368	244	66.30%
Metropolitan State College of Denver	1,068	726	67.98%
University of Colorado – Boulder	87	78	89.66%
University of Colorado - Colorado Springs	9	6	66.67%
University of Colorado – Denver	1	-	0.00%
University of Northern Colorado	278	234	84.17%
Western State College	188	130	69.15%
Four Year Total	2,873	2,025	70.48%
Grand Total	6,749	4,291	63.58%

*Also includes students who graduated.

Source: CCHE SURDS Enrollment and UAF Files

VI. REMEDICATION COSTS, BY ENROLLING INSTITUTION

Data presented in Table 15 reveal the total costs of providing remedial instruction in fiscal year 2003-04. Overall, the general fund tax dollars spent on remediation totaled nearly \$11 million. Local district colleges—Aims Community College and Colorado Mountain College—spent \$707,000 on remedial instruction, and cash funded (state funds ineligible) courses offered by the University of Colorado at Colorado Springs, the University of Northern Colorado, and Western State College cost a total of \$84,000. Overall, the public and cash-funded direct investment in remedial instruction totaled \$11.4 million.

Importantly, the figures presented in Table 15 do not take into consideration total direct and indirect costs to students enrolled in remedial courses. In other words, the figures do not consider tuition and fees above state or local district support, housing costs, books and other like expenses, or, perhaps most costly in the long run, earnings foregone. Concerning this final cost type, it is important to appreciate that being placed in remedial instruction can have a high indirect cost to students. The time spent in non-transferable courses (i.e., not applicable to a degree program) can impede students' academic progress, may increase time to degree, and can lead to increased earnings foregone (time out of the workforce).

To better appreciate this cost type, assume that the average college graduate earns an income consistent with the current national median for adults with a bachelor's degree, currently \$42,087 according to the Current Population Study of the U.S. Census and Bureau of Labor Statistics (2005, on-line). This salary is equivalent to \$3,507 in monthly earnings or \$877 per week. Therefore, for each 15-week semester that a would-be college graduate remains in college and not in the workforce, the long term cost in earnings foregone to the student is \$13,152 minus any income the student earns while in college. Equivalently, the cost to the state for the same student is tax revenues foregone on the student's earnings while enrolled in college compared to his or her potential earnings as a college graduate. And, if the student never finishes college, the costs to the student and the state "increase," as the sunk costs may be irretrievable through individual and state returns to degree¹³. Indeed, the costs of remedial instruction can be high.

¹³ For a more complete discussion on individual and social returns to degree, see Leslie, L. & P. Brinkman. (1988). The economic value of higher education. New York: MacMillan Publishing Company.

TABLE 15: REMEDIAL EDUCATION EXPENDITURES, BY SECTOR, FUND TYPE, AND INSTITUTION, 2004.

Institution Name	Total Credit Hours	Total Remedial FTE	Remedial Instruction Cost
TWO YEAR PUBLIC			
Arapahoe Community College	9,010	300	\$577,825
Colorado Northwestern Community College	1,805	60	283,747
Community College of Aurora	9,715	324	623,615
Community College of Denver	26,583	886	1,723,804
Front Range Community College	22,262	742	1,159,279
Lamar Community College	1,022	34	149,863
Morgan Community College	1,498	50	181,197
Northeastern Junior College	2,533	84	319,660
Otero Junior College	3,484	116	369,076
Pikes Peak Community College	19,811	660	1,228,014
Pueblo Community College	14,914	497	1,177,266
Red Rocks Community College	5,934	198	371,077
Trinidad State Junior College	3,060	102	377,806
Two Year Subtotal	121,631	4,054	\$8,542,230
FOUR YEAR PUBLIC			
Adams State College	1,548	52	\$354,080
Colorado State University - Pueblo*	4,220	141	510,372
Fort Lewis College*#	2,174	72	197,146
Mesa State College	8,434	281	1,034,650
Four Year Subtotal	16,376	546	\$2,096,249
<i>Grand Total Public General Fund</i>	<i>138,007</i>	<i>4,600</i>	<i>\$10,638,478</i>
TWO YEAR LOCAL DISTRICT COLLEGES			
Aims Community College	4,500	150	\$270,900
Colorado Mountain College	5,318	177	436,076
Local District College Subtotal	9,818	327	\$706,976
FOUR YEAR PUBLIC - CASH FUNDED COURSES			
University of Colorado - Colorado Springs**	209	7	\$15,750
University of Northern Colorado***	660	22	46,200
Western State College****	366	12	21,960
4 Year Cash Funded Subtotal	1235	41	\$83,910
Grand Total Tuition & General Fund Costs	149,060	4,969	\$11,429,364

*Remedial Courses Offered by PCC

** Students pay a flat fee of \$150.00/course

***Students pay \$70.00/credit hour

**** Students pay a flat fee of \$180.00/course

does not include FLC's Spring 05 students taking remedial courses

Source: CCHE SURDS Fall 2004 FTE Enrollment File & Remedial Files.

VIII CONCLUSIONS AND RECOMMENDATIONS

College enrollments are on the rise, confirming reports that more students today aspire to college than at any other time, but so too is the demand for remedial (basic skills) courses in mathematics, writing and reading, suggesting that the state’s “college-bound” students are not being adequately prepared in high school.

Complicating matters, the need for remediation is differentially related to distinct groups of students: female students require remediation more often than male students; African-American, Hispanic/Latino, and Native American students require remediation more often than Asian and Caucasian students; and students enrolled at two-year and less-selective four-year colleges need remediation more often compared to students enrolled at selective and highly selective four-year colleges.

Placement in remedial courses varies considerably across school districts and high schools throughout the state, possibly illustrating the effect of secondary curriculum policies incongruent with postsecondary preparation expectations.

In total, the annual direct costs to provide basic skills instruction exceeds ten million dollars of general fund tax dollar support and nearly an additional one million dollars in cash-funded courses paid for by students and parents or local district college tax revenues. However, the long-term costs to students and the state in the form of earnings and tax revenues foregone likely exceed the direct costs many times over.

It is plain: reducing the need for remediation among Colorado’s first-time students is a noteworthy public policy matter that, if successfully addressed, could lead to improved student performance in college, reduced time to complete a college degree, and diminished disparities regarding participation and success across gender and racial/ethnic groups.

The following represent specific actions items state policymakers and educators should consider to reduce the demand for remedial instruction:

Improve Alignment As a matter of routine, postsecondary and K-12 instructors and administrators should discuss and align the content standards between in the secondary and college-level sectors. Aligning standards and expectations in critical content areas like mathematics, English, science, history (social sciences), and foreign languages would make apparent the skills needed to prepare for and succeed in college.

College Prep Curriculum Default High schools and school districts could increase students’ readiness for college-level coursework or the workforce by simply requiring each high school graduate to complete the state’s higher education admission requirements as part of his or her compulsory secondary-level curriculum.

Raise Expectations If standards are held at the level of the lowest common educational denominator, students will likely respond accordingly, resulting in less than optimal outcomes and protracting the Colorado Paradox. State policymakers, educators, school board members, and, most important, parents, should raise their expectations, insisting that

all students are offered the opportunity to enroll in and complete a curriculum that, minimally, meets the higher education admission requirements.

Improve College Knowledge: Today, we know more about what it takes to succeed in college than we did twenty years ago when “A Nation at Risk” (National Commission on Excellence in Education, 1983) sounded the alarm regarding the inferior quality of education that our current high school students’ parents received. To complicate matters, school district policies seemingly assume that parents today have the requisite knowledge (i.e., social capital) to make appropriate academic decisions for their children. This is often mistaken and contradicts the rhetoric about proactively addressing the Colorado Paradox. Improving parents’ knowledge of contemporary expectations concerning college preparation should be a principal state goal.

Create Early Warning Systems Students struggle with challenging and abstract concepts. This is normal. Choosing to dropout or tune out, however, is not. If the Colorado Paradox is ever to be reversed, then our K-12 system must do a better job identifying and dealing with basic academic deficiencies before the student’s first year in college. Teachers and school administrators should use currently administered assessments like the ACT or CSAP to determine the likelihood that a student will need remediation in college. This information should be shared with students’ parents as early and often as is practical.

Permit the Sharing of Data Various state agencies currently house millions and millions of records on students, employees, entitlement beneficiaries, and so on. The amount of information maintained by state data systems is enormous. In spite of this embarrassment of information riches, few state agencies share data for research purposes. If policymakers and government administrators are serious about accountability and longitudinal, outcomes-based research, then matching data systems should be a state priority. Whether accomplished through a central state agency or by way of memoranda of understanding, matching state records for the purposes of accountability and research should be considered seriously.

Improve Teacher Preparation and Performance Perhaps most important of all, high quality classroom teachers must be in every college preparatory course in every high school. In addition to being “highly qualified” in a content area, teachers in today’s classrooms must understand how to prepare students for college, be familiar with higher education admission requirements, and be equipped to identify and deal with students’ academic deficiencies before they become acute.

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APPENDIX A:
HIGH SCHOOL LEVEL DATA¹⁴

Individual high schools and district remediation data, as well as ACT scores, retention rates and CSAP scores may easily be searched at:

<http://higherred.colorado.gov/findhighschool.asp>

¹⁴ Data from schools with fewer than 25 enrolling students are not included herein.

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
ACADEMY 20	AIR ACADEMY HIGH SCHOOL	163	34	20.86%	30	14	16
ACADEMY 20	ASPEN VALLEY HIGH SCHOOL	14	X	X	X	X	X
ACADEMY 20	LIBERTY HIGH SCHOOL	167	39	23.35%	36	18	14
ACADEMY 20	PINE CREEK HIGH SCHOOL	158	39	24.68%	36	13	14
ACADEMY 20	RAMPART HIGH SCHOOL	180	44	24.44%	36	16	24
ACADEMY 20	THE CLASSICAL ACADEMY CHARTER	22	X	X	X	X	X
ADAMS COUNTY 14	ADAMS CITY HIGH SCHOOL	57	36	63.16%	32	25	18
ADAMS COUNTY 14	LESTER R ARNOLD HIGH SCHOOL	5	X	X	X	X	X
ADAMS-ARAPAHOE 28J	AURORA CENTRAL HIGH SCHOOL	76	41	53.95%	34	21	26
ADAMS-ARAPAHOE 28J	GATEWAY HIGH SCHOOL	124	54	43.55%	34	32	21
ADAMS-ARAPAHOE 28J	HINKLEY HIGH SCHOOL	127	62	48.82%	55	38	32
ADAMS-ARAPAHOE 28J	RANGEVIEW HIGH SCHOOL	196	79	40.31%	73	35	34
ADAMS-ARAPAHOE 28J	WILLIAM SMITH HIGH SCHOOL	10	X	X	X	X	X
AGATE 300	AGATE JUNIOR-SENIOR HIGH SCHOOL	2	X	X	X	X	X
AGUILAR REORGANIZED 6	AGUILAR JUNIOR-SENIOR HIGH SCHOOL	6	X	X	X	X	X
AKRON R-1	AKRON HIGH SCHOOL	19	X	X	X	X	X
ALAMOSA RE-11J	ALAMOSA HIGH SCHOOL	88	40	45.45%	34	18	18
ALAMOSA RE-11J	ALAMOSA OPEN SCHOOL	7	X	X	X	X	X
ARCHULETA COUNTY 50 JT	PAGOSA SPRINGS HIGH SCHOOL	46	23	50.00%	20	11	8
ARICKAREE R-2	ARICKAREE UNDIVIDED HIGH SCHOOL	4	X	X	X	X	X
ARRIBA-FLAGLER C-20	FLAGLER SENIOR HIGH SCHOOL	9	X	X	X	X	X
ASPEN 1	ASPEN HIGH SCHOOL	40	10	25.00%	9	6	4
AULT-HIGHLAND RE-9	HIGHLAND HIGH SCHOOL	24	X	X	X	X	X
BAYFIELD 10 JT-R	BAYFIELD HIGH SCHOOL	37	18	48.65%	13	7	8
BENNETT 29J	BENNETT HIGH SCHOOL	23	X	X	X	X	X
BETHUNE R-5	BETHUNE JUNIOR-SENIOR HIGH SCHOOL	4	X	X	X	X	X
BIG SANDY 100J	SIMLA HIGH SCHOOL	13	X	X	X	X	X
BOULDER VALLEY RE 2	ARAPAHOE RIDGE HIGH SCHOOL	11	X	X	X	X	X
BOULDER VALLEY RE 2	BOULDER HIGH SCHOOL	205	40	19.51%	30	23	20

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
BOULDER VALLEY RE 2	BOULDER PREP CHARTER HIGH SCHOOL	4	X		X	X	X
BOULDER VALLEY RE 2	BROOMFIELD HIGH SCHOOL	191	47	24.61%	38	0	20
BOULDER VALLEY RE 2	CENTAURUS HIGH SCHOOL	122	37	30.33%	29	20	18
BOULDER VALLEY RE 2	FAIRVIEW HIGH SCHOOL	223	22	9.87%	13	9	6
BOULDER VALLEY RE 2	MONARCH HIGH SCHOOL	221	45	20.36%	33	21	19
BOULDER VALLEY RE 2	NEDERLAND MIDDLE-SENIOR HIGH SCHOOL	27	8	29.63%	6	2	3
BOULDER VALLEY RE 2	NEW VISTA HIGH SCHOOL	26	7	26.92%	6	2	2
BRANSON REORGANIZED 82	BRANSON ALTERNATIVE SCHOOL	1	X	X	X	X	X
BRANSON REORGANIZED 82	BRANSON UNDIVIDED HIGH SCHOOL	8	X	X	X	X	X
BRIGGSDALE RE-10	BRIGGSDALE UNDIVIDED HIGH SCHOOL	6	X	X	X	X	X
BRIGHTON 27]	BRIGHTON CHARTER SCHOOL	4	X	X	X	X	X
BRIGHTON 27]	BRIGHTON HIGH SCHOOL	127	56	44.09%	47	25	21
BRUSH RE-2()	BRUSH HIGH SCHOOL	60	13	21.67%	10	5	9
BUENA VISTA R-31	BUENA VISTA HIGH SCHOOL	29	6	20.69%	5	2	0
BUFFALO RE-4	MERINO JUNIOR SENIOR HIGH SCHOOL	11	X	X	X	X	X
BURLINGTON RE-6]	BURLINGTON HIGH SCHOOL	23	X	X	X	X	X
BYERS 32]	BYERS JUNIOR-SENIOR HIGH SCHOOL	13	X	X	X	X	X
CALHAN RJ-1	CALHAN HIGH SCHOOL	22	X	X	X	X	X
CAMPO RE-6	CAMPO UNDIVIDED HIGH SCHOOL	6	X	X	X	X	X
CANON CITY RE-1	CANON CITY HIGH SCHOOL	128	48	37.50%	39	18	17
CANON CITY RE-1	GARDEN PARK HIGH SCHOOL	1	X	X	X	X	X
CENTENNIAL BOCES	WELD OPPORTUNITY HIGH SCHOOL	3	X	X	X	X	X
CENTENNIAL R-1	CENTENNIAL HIGH SCHOOL	8	X	X	X	X	X
CENTER 26 JT	CENTER HIGH SCHOOL	12	X	X	X	X	X
CHERAW 31	CHERAW HIGH SCHOOL	13	X	X	X	X	X
CHERRY CREEK 5	CHERRY CREEK HIGH SCHOOL	413	62	15.01%	44	26	26
CHERRY CREEK 5	EAGLECREST HIGH SCHOOL	349	119	34.10%	97	52	49
CHERRY CREEK 5	GRANDVIEW HIGH SCHOOL	338	73	21.60%	57	31	37
CHERRY CREEK 5	OVERLAND HIGH SCHOOL	249	88	35.34%	71	44	49

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
CHERRY CREEK 5	P.R.E.P. (ALTERNATIVE) HIGH SCHOOL	6	X		X	X	X
CHERRY CREEK 5	SMOKY HILL HIGH SCHOOL	329	95	28.88%	71	54	44
CHEYENNE COUNTY RE-5	CHEYENNE WELLS HIGH SCHOOL	18	X	X	X	X	X
CHEYENNE MOUNTAIN 12	CHEYENNE MOUNTAIN HIGH SCHOOL	164	26	15.85%	18	12	14
CLEAR CREEK RE-1	CLEAR CREEK HIGH SCHOOL	24	X	X	X	X	X
COLORADO SCHOOL FOR THE DEAF AND BLIND	COLORADO SCHOOL FOR THE DEAF AND BLIND	8	X	X	X	X	X
COLORADO SPRINGS 11	CIVA CHARTER SCHOOL	14	X	X	X	X	X
COLORADO SPRINGS 11	COMMUNITY PREP CHARTER SCHOOL	2	X	X	X	X	X
COLORADO SPRINGS 11	CORONADO HIGH SCHOOL	167	40	23.95%	35	18	17
COLORADO SPRINGS 11	DOHERTY HIGH SCHOOL	249	83	33.33%	78	40	32
COLORADO SPRINGS 11	GLOBE CHARTER SCHOOL	5	X	X	X	X	X
COLORADO SPRINGS 11	MITCHELL HIGH SCHOOL	88	36	40.91%	30	22	17
COLORADO SPRINGS 11	NIKOLA TESLA EDUCATION OPPORTUNITY CENTER	7	X	X	X	X	X
COLORADO SPRINGS 11	PALMER HIGH SCHOOL	190	44	23.16%	36	22	25
COLORADO SPRINGS 11	WASSON HIGH SCHOOL	95	43	45.26%	37	18	18
COTOPAXI RE-3	COTOPAXI JUNIOR-SENIOR HIGH SCHOOL	21	X	X	X	X	X
CREEDE CONSOLIDATED 1	CREEDE JUNIOR-SENIOR HIGH SCHOOL	6	X	X	X	X	X
CRIPPLE CREEK-VICTOR RE-1	CRIPPLE CREEK-VICTOR JUNIOR-SENIOR HIGH SCHOOL	11	X	X	X	X	X
CROWLEY COUNTY RE-1-J	CROWLEY COUNTY HIGH SCHOOL	27	15	55.56%	14	8	7
CUSTER COUNTY S.D.	CUSTER COUNTY HIGH SCHOOL	22	X	X	X	X	X
DE BEQUE 49JT	DE BEQUE UNDIVIDED HIGH SCHOOL	5	X	X	X	X	X
DEER TRAIL 26J	DEER TRAIL JUNIOR-SENIOR HIGH SCHOOL	6	X	X	X	X	X
DEL NORTE C-7	DEL NORTE HIGH SCHOOL	22	X	X	X	X	X
DELTA COUNTY 50(J)	CEDAREDGE HIGH SCHOOL	37	10	27.03%	7	5	5
DELTA COUNTY 50(J)	DELTA HIGH SCHOOL	42	13	30.95%	10	3	5
DELTA COUNTY 50(J)	HOTCHKISS HIGH SCHOOL	36	7	19.44%	6	3	3
DELTA COUNTY 50(J)	PAONIA HIGH SCHOOL	25	9	36.00%	7	4	3
DENVER COUNTY 1	ABRAHAM LINCOLN HIGH SCHOOL	65	43	66.15%	37	30	28

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
DENVER COUNTY 1	COLORADO HIGH SCHOOL	21	X		X	X	X
DENVER COUNTY 1	CONTEMPORARY LEARNING ACADEMY HIGH SCHOOL	1	X		X	X	X
DENVER COUNTY 1	DENVER SCHOOL OF THE ARTS	26	9	34.62%	8	3	5
DENVER COUNTY 1	EAST HIGH SCHOOL	170	66	38.82%	62	33	37
DENVER COUNTY 1	EMILY GRIFFITH OPPORTUNITY SCHOOL	10	X		X	X	X
DENVER COUNTY 1	FLORENCE CRITTENTON HIGH SCHOOL	1	X		X	X	X
DENVER COUNTY 1	FRED N THOMAS CAREER EDUCATION CENTER	9	X		X	X	X
DENVER COUNTY 1	GEORGE WASHINGTON HIGH SCHOOL	141	49	34.75%	41	25	33
DENVER COUNTY 1	JOHN F KENNEDY HIGH SCHOOL	160	77	48.13%	66	40	29
DENVER COUNTY 1	MILLENIUM QUEST SCIENCE ACADEMY AT MANUAL	2	X		X	X	X
DENVER COUNTY 1	MONTBELLO HIGH SCHOOL	73	42	57.53%	38	24	24
DENVER COUNTY 1	NORTH HIGH SCHOOL	82	47	57.32%	42	22	30
DENVER COUNTY 1	P.S.1 CHARTER SCHOOL	1	X		X	X	X
DENVER COUNTY 1	SOUTH HIGH SCHOOL	117	63	53.85%	58	34	33
DENVER COUNTY 1	THOMAS JEFFERSON HIGH SCHOOL	120	60	50.00%	50	21	18
DENVER COUNTY 1	WEST HIGH SCHOOL	94	63	67.02%	60	48	40
DOLORES COUNTY RE NO.2	DOLORES COUNTY HIGH SCHOOL	10	X		X	X	X
DOLORES RE-4A	DOLORES HIGH SCHOOL	20	X		X	X	X
DOUGLAS COUNTY RE 1	CHAPARRAL HIGH SCHOOL	196	37	18.88%	30	16	16
DOUGLAS COUNTY RE 1	DANIEL C OAKES HIGH SCHOOL--CASTLE ROCK	2	X		X	X	X
DOUGLAS COUNTY RE 1	DANIEL C OAKES HIGH SCHOOL--CA	5	X		X	X	X
DOUGLAS COUNTY RE 1	DOUGLAS COUNTY HIGH SCHOOL	281	69	24.56%	58	20	26
DOUGLAS COUNTY RE 1	EAGLE ACADEMY	13	X		X	X	X
DOUGLAS COUNTY RE 1	HIGHLANDS RANCH HIGH SCHOOL	271	55	20.30%	37	26	24
DOUGLAS COUNTY RE 1	MOUNTAIN VISTA HIGH SCHOOL	1	X		X	X	X
DOUGLAS COUNTY RE 1	PONDEROSA HIGH SCHOOL	235	41	17.45%	26	24	21
DOUGLAS COUNTY RE 1	THUNDERRIDGE HIGH SCHOOL	276	58	21.01%	52	23	21

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
DURANGO 9-R	DURANGO HIGH SCHOOL	128	48	37.50%	44	20	13
DURANGO 9-R	THE EXCEL CHARTER SCHOOL	3	X	X	X	X	X
EADS RE-1	EADS HIGH SCHOOL	20	X	X	X	X	X
EAGLE COUNTY RE 50	BATTLE MOUNTAIN HIGH SCHOOL	40	3	7.50%	3	0	0
EAGLE COUNTY RE 50	EAGLE VALLEY HIGH SCHOOL	58	18	31.03%	16	7	10
EAGLE COUNTY RE 50	RED CANYON HIGH SCHOOL	1	X	X	X	X	X
EAST GRAND 2	MIDDLE PARK HIGH SCHOOL	45	8	17.78%	7	4	4
EAST OTERO R-1	LA JUNTA HIGH SCHOOL	73	47	64.38%	41	29	26
EATON RE-2	EATON HIGH SCHOOL	36	13	36.11%	11	5	6
EDISON 54 JT	EDISON JUNIOR-SENIOR HIGH SCHOOL	2	X	X	X	X	X
ELBERT 200	ELBERT JUNIOR-SENIOR HIGH SCHOOL	10	X	X	X	X	X
ELIZABETH C-1	ELIZABETH HIGH SCHOOL	98	29	29.59%	24	13	10
ELLCOTT 22	ELLCOTT SENIOR HIGH SCHOOL	17	X	X	X	X	X
ENGLEWOOD 1	COLORADO'S FINEST ALTERNATIVE HIGH SCHOOL	27	17	62.96%	17	7	7
ENGLEWOOD 1	ENGLEWOOD HIGH SCHOOL	94	42	44.68%	38	19	14
EXPEDITIONARY BOCES	EXPEDITIONARY LEARNING SCHOOL	5	X	X	X	X	X
FALCON 49	FALCON HIGH SCHOOL	73	27	36.99%	23	16	16
FALCON 49	SAND CREEK HIGH SCHOOL	118	34	28.81%	26	18	18
FLORENCE RE-2	FLORENCE HIGH SCHOOL	57	25	43.86%	20	11	11
FORT MORGAN RE-3	FORT MORGAN HIGH SCHOOL	96	21	21.88%	17	12	9
FORT MORGAN RE-3	LINCOLN HIGH SCHOOL	8	X	X	X	X	X
FOUNTAIN 8	FOUNTAIN-FORT CARSON HIGH SCHOOL	96	43	44.79%	35	24	22
FOWLER R-4J	FOWLER HIGH SCHOOL	9	X	X	X	X	X
FRENCHMAN RE-3	FLEMING HIGH SCHOOL	5	X	X	X	X	X
GARFIELD 16	GRAND VALLEY HIGH SCHOOL	12	X	X	X	X	X
GARFIELD RE-2	RIFLE HIGH SCHOOL	52	18	34.62%	12	9	6
GENOA-HUGO C113	GENOA-HUGO SENIOR HIGH SCHOOL	2	X	X	X	X	X
GILPIN COUNTY RE-1	GILPIN COUNTY UNDIVIDED HIGH SCHOOL	9	X	X	X	X	X

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
GRANADA RE-1	GRANADA UNDIVIDED HIGH SCHOOL	14	X	X	X	X	X
GREELEY 6	COLORADO HIGH SCHOOL OF GREELEY	15	X	X	X	X	X
GREELEY 6	FRONTIER CHARTER ACADEMY	2	X	X	X	X	X
GREELEY 6	GREELEY CENTRAL HIGH SCHOOL	84	18	21.43%	9	8	10
GREELEY 6	GREELEY WEST HIGH SCHOOL	130	40	30.77%	29	17	21
GREELEY 6	NORTHRIDGE HIGH SCHOOL	77	24	31.17%	17	9	13
GREELEY 6	TRADEMARK LEARNING CENTER	1	X	X	X	X	X
GREELEY 6	UNION COLONY PREPATORY SCHOOL	4	X	X	X	X	X
GREELEY 6	UNIVERSITY SCHOOLS	28	8	28.57%	6	2	0
GUNNISON WATERSHED RE1J	CRESTED BUTTE COMMUNITY SCHOOL	12	X	X	X	X	X
GUNNISON WATERSHED RE1J	GUNNISON HIGH SCHOOL	40	10	25.00%	8	4	1
GUNNISON WATERSHED RE1J	GUNNISON VALLEY SCHOOL	2	X	X	X	X	X
HANOVER 28	HANOVER JUNIOR-SENIOR HIGH SCHOOL	5	X	X	X	X	X
HARRISON 2	HARRISON HIGH SCHOOL	79	39	49.37%	36	26	19
HARRISON 2	JAMES IRWIN CHARTER HIGH SCHOOL	22	X	X	X	X	X
HARRISON 2	SIERRA HIGH SCHOOL	69	44	63.77%	40	21	25
HAXTUN RE-2J	HAXTUN HIGH SCHOOL	14	X	X	X	X	X
HAYDEN RE-1	HAYDEN HIGH SCHOOL	16	X	X	X	X	X
HI-PLAINS R-23	HI PLAINS UNDIVIDED HIGH SCHOOL	2	X	X	X	X	X
HOEHNE REORGANIZED 3	HOEHNE HIGH SCHOOL	12	X	X	X	X	X
HOLLY RE-3	HOLLY JUNIOR-SENIOR HIGH SCHOOL	30	14	46.67%	12	9	7
HOLYOKE RE-1J	HOLYOKE JUNIOR-SENIOR HIGH SCHOOL	17	X	X	X	X	X
HUERFANO RE-1	JOHN MALL HIGH SCHOOL	21	X	X	X	X	X
IDALIA RJ-3	IDALIA JUNIOR-SENIOR HIGH SCHOOL	7	X	X	X	X	X
IGNACIO 11 JT	IGNACIO HIGH SCHOOL	17	X	X	X	X	X
JEFFERSON COUNTY R-1	ALAMEDA HIGH SCHOOL	88	44	50.00%	32	16	18
JEFFERSON COUNTY R-1	ARVADA HIGH SCHOOL	163	68	41.72%	60	22	25
JEFFERSON COUNTY R-1	ARVADA WEST HIGH SCHOOL	209	73	34.93%	60	32	31
JEFFERSON COUNTY R-1	BEAR CREEK HIGH SCHOOL	204	64	31.37%	52	25	28

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
JEFFERSON COUNTY R-1	CENTER FOR DISCOVERY LEARNING CHARTER SCHOOL	1	X	X	X	X	X
JEFFERSON COUNTY R-1	CHATFIELD HIGH SCHOOL	295	67	22.71%	54	25	31
JEFFERSON COUNTY R-1	COLLEGIATE CHARTER ACADEMY	17	X	X	X	X	X
JEFFERSON COUNTY R-1	COLUMBINE HIGH SCHOOL	281	73	25.98%	59	32	25
JEFFERSON COUNTY R-1	CONIFER SENIOR HIGH SCHOOL	142	34	23.94%	30	13	10
JEFFERSON COUNTY R-1	DAKOTA RIDGE SENIOR HIGH SCHOOL	236	79	33.47%	64	33	25
JEFFERSON COUNTY R-1	D'EVELYN SENIOR HIGH SCHOOL	72	1	1.39%	0	0	1
JEFFERSON COUNTY R-1	EVERGREEN HIGH SCHOOL	117	27	23.08%	24	12	8
JEFFERSON COUNTY R-1	GOLDEN HIGH SCHOOL	144	41	28.47%	38	21	14
JEFFERSON COUNTY R-1	GREEN MOUNTAIN HIGH SCHOOL	216	69	31.94%	52	35	22
JEFFERSON COUNTY R-1	JEFFERSON CHARTER ACADEMY SENIOR HIGH SCHOOL	29	6	20.69%	6	1	2
JEFFERSON COUNTY R-1	JEFFERSON COUNTY OPEN HIGH SCHOOL	29	21	72.41%	21	5	5
JEFFERSON COUNTY R-1	JEFFERSON HIGH SCHOOL	49	32	65.31%	30	21	25
JEFFERSON COUNTY R-1	LAKEWOOD HIGH SCHOOL	165	47	28.48%	42	17	16
JEFFERSON COUNTY R-1	LONGVIEW HIGH SCHOOL	2	X	X	X	X	X
JEFFERSON COUNTY R-1	MC LAIN HIGH SCHOOL	19	X	X	X	X	X
JEFFERSON COUNTY R-1	POMONA HIGH SCHOOL	236	84	35.59%	72	38	35
JEFFERSON COUNTY R-1	RALSTON VALLEY SENIOR HIGH SCHOOL	234	61	26.07%	57	30	28
JEFFERSON COUNTY R-1	STANDLEY LAKE HIGH SCHOOL	230	84	36.52%	62	45	39
JEFFERSON COUNTY R-1	WHEAT RIDGE HIGH SCHOOL	172	58	33.72%	51	23	24
JOHNSTOWN-MILLIKEN RE-5J	ROOSEVELT HIGH SCHOOL	28	6	21.43%	5	4	1
JULESBURG RE-1	JULESBURG HIGH SCHOOL	9	X	X	X	X	X
KARVAL RE-23	KARVAL JUNIOR-SENIOR HIGH SCHOOL	2	X	X	X	X	X
KEENESBURG RE-3(J)	WELD CENTRAL SENIOR HIGH SCHOOL	28	10	35.71%	9	8	5
KIM REORGANIZED 88	KIM UNDIVIDED HIGH SCHOOL	7	X	X	X	X	X
KIOWA C-2	KIOWA HIGH SCHOOL	13	X	X	X	X	X
KIT CARSON R-1	KIT CARSON JUNIOR-SENIOR HIGH SCHOOL	15	X	X	X	X	X
LA VETA RE-2	LA VETA JUNIOR-SENIOR HIGH SCHOOL	10	X	X	X	X	X

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
LAKE COUNTY R-1	LAKE COUNTY HIGH SCHOOL	13	X		X	X	X
LAMAR RE-2	LAMAR HIGH SCHOOL	64	25	39.06%	22	14	16
LAS ANIMAS RE-1	LAS ANIMAS HIGH SCHOOL	25	15	60.00%	12	10	7
LEWIS-PALMER 38	LEWIS-PALMER HIGH SCHOOL	188	28	14.89%	24	13	13
LIBERTY J-4	LIBERTY JUNIOR-SENIOR HIGH SCHOOL	3	X		X	X	X
LIMON RE-4J	LIMON JUNIOR-SENIOR HIGH SCHOOL	27	6	22.22%	5	1	2
LITTLETON 6	ARAPAHOE HIGH SCHOOL	207	21	10.14%	19	5	1
LITTLETON 6	HERITAGE HIGH SCHOOL	268	64	23.88%	51	35	22
LITTLETON 6	LITTLETON HIGH SCHOOL	156	60	38.46%	55	27	30
LONE STAR 101	LONE STAR UNDIVIDED HIGH SCHOOL	2	X		X	X	X
MANCOS RE-6	MANCOS HIGH SCHOOL	7	X		X	X	X
MANITOU SPRINGS 14	MANITOU SPRINGS HIGH SCHOOL	58	19	32.76%	18	11	8
MANZANOLA 3J	MANZANOLA JUNIOR-SENIOR HIGH SCHOOL	10	X		X	X	X
MAPLETON 1	SKYVIEW HIGH SCHOOL	82	46	56.10%	37	33	28
MC CLAVE RE-2	MC CLAVE UNDIVIDED HIGH SCHOOL	16	X		X	X	X
MEEKER RE1	MEEKER HIGH SCHOOL	12	X		X	X	X
MESA COUNTY VALLEY 51	CENTRAL HIGH SCHOOL	148	58	39.19%	44	37	25
MESA COUNTY VALLEY 51	FRUITA MONUMENT HIGH SCHOOL	187	66	35.29%	54	35	32
MESA COUNTY VALLEY 51	GATEWAY SCHOOL	3	X		X	X	X
MESA COUNTY VALLEY 51	GRAND JUNCTION HIGH SCHOOL	179	58	32.40%	41	38	24
MESA COUNTY VALLEY 51	PALISADE HIGH SCHOOL	64	33	51.56%	26	19	11
MESA COUNTY VALLEY 51	R-5 HIGH SCHOOL	11	X		X	X	X
MIAMI/YODER 60 JT	MIAMI/YODER JUNIOR-SENIOR HIGH SCHOOL	6	X		X	X	X
MOFFAT 2	MOFFAT SENIOR HIGH SCHOOL	6	X		X	X	X
MOFFAT COUNTY RE:NO 1	MOFFAT COUNTY HIGH SCHOOL	83	30	36.14%	26	18	16
MONTE VISTA C-8	BYRON SYRING DELTA CENTER	3	X		X	X	X
MONTE VISTA C-8	MONTE VISTA ON-LINE ACADEMY	2	X		X	X	X
MONTE VISTA C-8	MONTE VISTA SENIOR HIGH SCHOOL	39	19	48.72%	19	9	8
MONTEZUMA-CORTEZ RE-1	MONTEZUMA-CORTEZ HIGH SCHOOL	51	15	29.41%	12	8	9

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
MONTEZUMA-CORTEZ RE-1	SOUTHWEST OPEN CHARTER SCHOOL	2	X	X	X	X	X
MONTROSE COUNTY RE-1J	MONTROSE HIGH SCHOOL	98	22	22.45%	19	13	10
MONTROSE COUNTY RE-1J	OLATHE HIGH SCHOOL	20	X	X	X	X	X
MONTROSE COUNTY RE-1J	VISTA ADULT HIGH SCHOOL	1	X	X	X	X	X
MOUNTAIN BOCES	YAMPAH MOUNTAIN SCHOOL	1	X	X	X	X	X
MOUNTAIN VALLEY RE 1	MOUNTAIN VALLEY SENIOR HIGH SCHOOL	5	X	X	X	X	X
NORTH CONE OS RE-1J	CENTAURI HIGH SCHOOL	47	24	51.06%	21	13	16
NORTH PARK R-1	NORTH PARK JUNIOR-SENIOR HIGH SCHOOL	5	X	X	X	X	X
NORTHGLENN-THORNTON 12	ACADEMY OF CHARTER SCHOOLS	27	7	25.93%	6	3	3
NORTHGLENN-THORNTON 12	HORIZON HIGH SCHOOL	225	77	34.22%	61	41	39
NORTHGLENN-THORNTON 12	LEGACY HIGH SCHOOL	239	82	34.31%	70	46	41
NORTHGLENN-THORNTON 12	NORTHGLENN HIGH SCHOOL	202	76	37.62%	60	44	34
NORTHGLENN-THORNTON 12	PINNACLE CHARTER SCHOOL	4	X	X	X	X	X
NORTHGLENN-THORNTON 12	THORNTON HIGH SCHOOL	186	76	40.86%	55	38	39
NORTHGLENN-THORNTON 12	VANTAGE POINT	4	X	X	X	X	X
NORWOOD R-2J	NORWOOD HIGH SCHOOL	11	X	X	X	X	X
OTIS R-3	OTIS JUNIOR-SENIOR HIGH SCHOOL	8	X	X	X	X	X
OURAY R-1	OURAY SENIOR HIGH SCHOOL	5	X	X	X	X	X
PARK (ESTES PARK) R-3	ESTES PARK HIGH SCHOOL	39	8	20.51%	7	3	5
PARK COUNTY RE-2	SOUTH PARK HIGH SCHOOL	15	X	X	X	X	X
PAWNEE RE-12	PAWNEE JUNIOR-SENIOR HIGH SCHOOL	3	X	X	X	X	X
PEYTON 23 JT	PEYTON HIGH SCHOOL	26	9	34.62%	8	2	3
PLAINVIEW RE-2	PLAINVIEW JUNIOR-SENIOR HIGH SCHOOL	2	X	X	X	X	X
PLATEAU RE-5	PEETZ JUNIOR-SENIOR HIGH SCHOOL	4	X	X	X	X	X
PLATEAU VALLEY 50	GRAND MESA HIGH SCHOOL	1	X	X	X	X	X
PLATEAU VALLEY 50	PLATEAU VALLEY HIGH SCHOOL	8	X	X	X	X	X
PLATTE CANYON 1	PLATTE CANYON HIGH SCHOOL	52	9	17.31%	8	6	2
PLATTE VALLEY RE-3	REVERE JUNIOR-SENIOR HIGH SCHOOL	2	X	X	X	X	X
PLATTE VALLEY RE-7	PLATTE VALLEY HIGH SCHOOL	28	10	35.71%	5	5	7

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
POUDRE R-1	CENTENNIAL HIGH SCHOOL	10	X		X	X	X
POUDRE R-1	FORT COLLINS HIGH SCHOOL	264	64	24.24%	51	32	36
POUDRE R-1	FRONTIER HIGH SCHOOL	4	X	X	X	X	X
POUDRE R-1	POUDRE HIGH SCHOOL	233	67	28.76%	55	29	35
POUDRE R-1	RIDGEVIEW CLASSICAL CHARTER SCHOOLS	2	X	X	X	X	X
POUDRE R-1	ROCKY MOUNTAIN HIGH SCHOOL	333	82	24.62%	69	30	28
PRAIRIE RE-11	PRAIRIE JUNIOR-SENIOR HIGH SCHOOL	6	X	X	X	X	X
PRIMERO REORGANIZED 2	PRIMERO JUNIOR-SENIOR HIGH SCHOOL	6	X	X	X	X	X
PRITCHETT RE-3	PRITCHETT HIGH SCHOOL	12	X	X	X	X	X
PUEBLO CITY 60	CENTENNIAL HIGH SCHOOL	140	66	47.14%	57	36	33
PUEBLO CITY 60	CENTRAL HIGH SCHOOL	121	75	61.98%	69	41	38
PUEBLO CITY 60	EAST HIGH SCHOOL	67	42	62.69%	36	18	24
PUEBLO CITY 60	KEATING CONTINUING EDUCATION	1	X	X	X	X	X
PUEBLO CITY 60	SOUTH HIGH SCHOOL	178	79	44.38%	72	38	39
PUEBLO COUNTY RURAL 70	PUEBLO COUNTY HIGH SCHOOL	112	42	37.50%	38	13	11
PUEBLO COUNTY RURAL 70	PUEBLO TECHNICAL ACADEMY	5	X	X	X	X	X
PUEBLO COUNTY RURAL 70	PUEBLO WEST HIGH SCHOOL	99	46	46.46%	40	14	20
PUEBLO COUNTY RURAL 70	RYE HIGH SCHOOL	31	11	35.48%	9	6	6
RANGELY RE-4	RANGELY HIGH SCHOOL	28	9	32.14%	7	4	2
RIDGWAY R-2	RIDGWAY HIGH SCHOOL	12	X	X	X	X	X
ROARING FORK RE-1	BASALT HIGH SCHOOL	37	12	32.43%	10	4	3
ROARING FORK RE-1	BRIDGES	7	X	X	X	X	X
ROARING FORK RE-1	GLENWOOD SPRINGS HIGH SCHOOL	72	10	13.89%	9	6	4
ROARING FORK RE-1	ROARING FORK HIGH SCHOOL	22	X	X	X	X	X
ROCKY FORD R-2	ROCKY FORD HIGH SCHOOL	22	X	X	X	X	X
SALIDA R-32	SALIDA HIGH SCHOOL	24	X	X	X	X	X
SANFORD 6J	SANFORD JUNIOR/SENIOR HIGH SCHOOL	12	X	X	X	X	X
SANGRE DE CRISTO RE-22J	SANGRE DE CRISTO UNDIVIDED HIGH SCHOOL	16	X	X	X	X	X

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
SARGENT RE-33]	SARGENT JUNIOR-SENIOR HIGH SCHOOL	15	X	X	X	X	X
SHERIDAN 2	SHERIDAN HIGH SCHOOL	33	16	48.48%	14	8	8
SIERRA GRANDE R-30	SIERRA GRANDE SENIOR HIGH SCHOOL	11	X	X	X	X	X
SILVERTON 1	SILVERTON HIGH SCHOOL	3	X	X	X	X	X
SOUTH CONEJOS RE-10	ANTONITO HIGH SCHOOL	11	X	X	X	X	X
SOUTH ROUTT RE 3	SOROCO HIGH SCHOOL	15	X	X	X	X	X
SPRINGFIELD RE-4	SPRINGFIELD HIGH SCHOOL	21	X	X	X	X	X
ST VRAIN VALLEY RE 1J	ADULT EDUCATION/LINCOLN CENTER	7	X	X	X	X	X
ST VRAIN VALLEY RE 1J	ERIE MIDDLE/SENIOR HIGH SCHOOL	39	15	38.46%	15	5	6
ST VRAIN VALLEY RE 1J	FREDERICK SENIOR HIGH SCHOOL	36	18	50.00%	13	10	10
ST VRAIN VALLEY RE 1J	LONGMONT HIGH SCHOOL	165	46	27.88%	39	15	20
ST VRAIN VALLEY RE 1J	LYONS MIDDLE/SENIOR HIGH SCHOOL	25	10	40.00%	5	3	4
ST VRAIN VALLEY RE 1J	NIWOT HIGH SCHOOL	162	35	21.60%	30	8	7
ST VRAIN VALLEY RE 1J	OLDE COLUMBINE HIGH SCHOOL	4	X	X	X	X	X
ST VRAIN VALLEY RE 1J	SILVER CREEK SCHOOL	97	32	32.99%	30	12	9
ST VRAIN VALLEY RE 1J	SKYLINE HIGH SCHOOL	133	55	41.35%	38	30	26
ST VRAIN VALLEY RE 1J	UTE CREEK SECONDARY CHARTER ACADEMY	20	X	X	X	X	X
STEAMBOAT SPRINGS RE-2	STEAMBOAT SPRINGS HIGH SCHOOL	61	16	26.23%	13	7	5
STRASBURG 31J	STRASBURG HIGH SCHOOL	32	6	18.75%	6	3	2
STRATTON R-4	STRATTON SENIOR HIGH SCHOOL	9	X	X	X	X	X
SUMMIT RE-1	SUMMIT HIGH SCHOOL	65	13	20.00%	8	6	3
SWINK 33	SWINK JUNIOR-SENIOR HIGH SCHOOL	20	X	X	X	X	X
TELLURIDE R-1	TELLURIDE HIGH SCHOOL	11	X	X	X	X	X
THOMPSON R-2J	BERTHOUD HIGH SCHOOL	82	23	28.05%	20	9	8
THOMPSON R-2J	HAROLD FERGUSON HIGH SCHOOL	8	X	X	X	X	X
THOMPSON R-2J	LOVELAND HIGH SCHOOL	170	44	25.88%	28	22	27
THOMPSON R-2J	MOUNTAIN VIEW HIGH SCHOOL	112	38	33.93%	33	16	15
THOMPSON R-2J	THOMPSON VALLEY HIGH SCHOOL	169	43	25.44%	34	20	19
TRINIDAD 1	TRINIDAD HIGH SCHOOL	53	30	56.60%	27	17	18

DISTRICT NAME	SCHOOL NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
VALLEY RE-1	CALICHE JUNIOR-SENIOR HIGH SCHOOL	12	X		X	X	X
VALLEY RE-1	SMITH HIGH SCHOOL	1	X		X	X	X
VALLEY RE-1	STERLING HIGH SCHOOL	80	26	32.50%	23	11	12
VILAS RE-5	VILAS UNDIVIDED HIGH SCHOOL	14	X		X	X	X
WALSH RE-1	WALSH HIGH SCHOOL	13	X		X	X	X
WELD COUNTY RE-1	VALLEY HIGH SCHOOL	47	12	25.53%	10	5	4
WELD COUNTY S/D RE-8	FORT LUPTON HIGH SCHOOL	49	19	38.78%	17	11	7
WELDON VALLEY RE-20(J)	WELDON VALLEY HIGH SCHOOL	9	X		X	X	X
WEST END RE-2	NUCLA HIGH SCHOOL	8	X		X	X	X
WEST GRAND 1-JT.	WEST GRAND HIGH SCHOOL	12	X		X	X	X
WESTMINSTER 50	IVER C. RANUM HIGH SCHOOL	101	47	46.53%	41	29	26
WESTMINSTER 50	WESTMINSTER HIGH SCHOOL	114	56	49.12%	47	33	23
WIDEFIELD 3	DISCOVERY HIGH SCHOOL	1	X		X	X	X
WIDEFIELD 3	MESA RIDGE HIGH SCHOOL	127	64	50.39%	58	26	37
WIDEFIELD 3	WIDEFIELD HIGH SCHOOL	110	50	45.45%	42	25	28
WIGGINS RE-50(J)	WIGGINS JUNIOR-SENIOR HIGH SCHOOL	23	X		X	X	X
WILEY RE-13 JT	WILEY JUNIOR-SENIOR HIGH SCHOOL	16	X		X	X	X
WINDSOR RE-4	WINDSOR HIGH SCHOOL	85	32	37.65%	23	14	20
WOODLAND PARK RE-2	WOODLAND PARK HIGH SCHOOL	96	29	30.21%	27	14	16
WOODLIN R-104	WOODLIN UNDIVIDED HIGH SCHOOL	2	X		X	X	X
WRAY RD-2	WRAY HIGH SCHOOL	26	7	26.92%	5	4	2
YUMA 1	YUMA HIGH SCHOOL	25	6	24.00%	5	1	3

APPENDIX B:
SCHOOL DISTRICT LEVEL DATA¹⁵

¹⁵ Data from districts with fewer than 25 enrolling students are not reported herein.

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
ACADEMY 20	704	168	23.86%	147	69	73
ADAMS COUNTY 14	62	36	58.06%	32	25	18
ADAMS-ARAPAHOE 28J	533	244	45.78%	204	129	118
AGATE 300	2	X	X	X	X	X
AGUILAR REORGANIZED 6	6	X	X	X	X	X
AKRON R-1	19	X	X	X	X	X
ALAMOSA RE-11J	95	40	42.11%	34	18	18
ARCHULETA COUNTY 50 JT	46	23	50.00%	20	11	8
ARICKAREE R-2	4	X	X	X	X	X
ARRIBA-FLAGLER C-20	9	X	X	X	X	X
ASPEN 1	40	10	25.00%	9	6	4
AULT-HIGHLAND RE-9	24	X	X	X	X	X
BAYFIELD 10 JT-R	37	18	48.65%	13	7	8
BENNETT 29J	23	X	X	X	X	X
BETHUNE R-5	4	X	X	X	X	X
BIG SANDY 100J	13	X	X	X	X	X
BOULDER VALLEY RE 2	1030	212	20.58%	159	81	92
BRANSON REORGANIZED 82	9	X	X	X	X	X
BRIGGSDALE RE-10	6	X	X	X	X	X
BRIGHTON 27J	131	56	42.75%	47	25	21
BRUSH RE-2(J)	60	13	21.67%	10	5	9
BUENA VISTA R-31	29	6	20.69%	5	2	0
BUFFALO RE-4	11	X	X	X	X	X
BURLINGTON RE-6J	23	X	X	X	X	X
BYERS 32J	13	X	X	X	X	X
CALHAN RJ-1	22	X	X	X	X	X
CAMPO RE-6	6	X	X	X	X	X
CANON CITY RE-1	129	48	37.21%	39	18	17

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDIATION RATE	MATH	WRITING	READING
CENTENNIAL BOCES	3	X	X	X	X	X
CENTENNIAL R-1	8	X	X	X	X	X
CENTER 26 JT	12	X	X	X	X	X
CHERAW 31	13	X	X	X	X	X
CHERRY CREEK 5	1684	437	25.95%	340	207	205
CHEYENNE COUNTY RE-5	18	X	X	X	X	X
CHEYENNE MOUNTAIN 12	164	26	15.85%	18	12	14
CLEAR CREEK RE-1	24	X	X	X	X	X
COLORADO SCHOOL FOR THE DEAF AND BLIND	8	X	X	X	X	X
COLORADO SPRINGS 11	817	254	31.09%	224	121	112
COTOPAXI RE-3	21	X	X	X	X	X
CREEDE CONSOLIDATED 1	6	X	X	X	X	X
CRIPPLE CREEK-VICTOR RE-1	11	X	X	X	X	X
CROWLEY COUNTY RE-1-J	27	15	55.56%	14	8	7
CUSTER COUNTY SCHOOL DISTRICT	22	X	X	X	X	X
DE BEQUE 49JT	5	X	X	X	X	X
DEER TRAIL 26J	6	X	X	X	X	X
DEL NORTE C-7	22	X	X	X	X	X
DELTA COUNTY 50(J)	140	39	27.86%	30	15	16
DENVER COUNTY 1	1093	540	49.41%	482	286	285
DOLORES COUNTY RE NO.2	10	X	X	X	X	X
DOLORES RE-4A	20	X	X	X	X	X
DOUGLAS COUNTY RE 1	1280	267	20.86%	210	111	110
DURANGO 9-R	131	48	36.64%	44	20	13
EADS RE-1	20	X	X	X	X	X
EAGLE COUNTY RE 50	99	21	21.21%	19	7	10
EAST GRAND 2	45	8	17.78%	7	4	4
EAST OTERO R-1	73	47	64.38%	41	29	26

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
EATON RE-2	36	13	36.11%	11	5	6
EDISON 54 JT	2	X	X	X	X	X
ELBERT 200	10	X	X	X	X	X
ELIZABETH C-1	98	29	29.59%	24	13	10
ELLICOTT 22	17	X	X	X	X	X
ENGLEWOOD 1	121	59	48.76%	55	26	21
EXPEDITIONARY BOCES	5	X	X	X	X	X
FALCON 49	191	61	31.94%	49	34	34
FLORENCE RE-2	57	25	43.86%	20	11	11
FORT MORGAN RE-3	104	21	20.19%	17	12	9
FOUNTAIN 8	96	43	44.79%	35	24	22
FOWLER R-4J	9	X	X	X	X	X
FRENCHMAN RE-3	5	X	X	X	X	X
GARFIELD 16	12	X	X	X	X	X
GARFIELD RE-2	52	18	34.62%	12	9	6
GENOA-HUGO C113	2	X	X	X	X	X
GILPIN COUNTY RE-1	9	X	X	X	X	X
GRANADA RE-1	14	X	X	X	X	X
GREELEY 6	341	102	29.91%	73	41	50
GUNNISON WATERSHED RE1J	54	11	20.37%	8	5	1
HANOVER 28	5	X	X	X	X	X
HARRISON 2	170	88	51.76%	78	49	46
HAXTUN RE-2J	14	X	X	X	X	X
HAYDEN RE-1	16	X	X	X	X	X
HI-PLAINS R-23	2	X	X	X	X	X
HOEHNE REORGANIZED 3	12	X	X	X	X	X
HOLLY RE-3	30	14	46.67%	12	9	7
HOLYOKE RE-1J	17	X	X	X	X	X

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDATION RATE	MATH	WRITING	READING
HUERFANO RE-1	21	X	X	X	X	X
IDALIA RJ-3	7	X	X	X	X	X
IGNACIO 11 JT	17	X	X	X	X	X
JEFFERSON COUNTY R-1	3350	1053	31.43%	884	450	421
JOHNSTOWN-MILLIKEN RE-5J	28	6	21.43%	5	4	1
JULESBURG RE-1	9	X	X	X	X	X
KARVAL RE-23	2	X	X	X	X	X
KEENESBURG RE-3(J)	28	10	35.71%	9	8	5
KIM REORGANIZED 88	7	X	X	X	X	X
KIOWA C-2	13	X	X	X	X	X
KIT CARSON R-1	15	X	X	X	X	X
LA VETA RE-2	10	X	X	X	X	X
LAKE COUNTY R-1	13	X	X	X	X	X
LAMAR RE-2	64	25	39.06%	22	14	16
LAS ANIMAS RE-1	25	15	60.00%	12	10	7
LEWIS-PALMER 38	188	28	14.89%	24	13	13
LIBERTY J-4	3	X	X	X	X	X
LIMON RE-4J	27	6	22.22%	5	1	2
LITTLETON 6	631	145	22.98%	125	67	53
LONE STAR 101	2	X	X	X	X	X
MANCOS RE-6	7	X	X	X	X	X
MANITOU SPRINGS 14	58	19	32.76%	18	11	8
MANZANOLA 3J	10	X	X	X	X	X
MAPLETON 1	82	46	56.10%	37	33	28
MC CLAVE RE-2	16	X	X	X	X	X
MEEKER RE1	12	X	X	X	X	X
MESA COUNTY VALLEY 51	592	223	37.67%	172	132	94
MIAMI/YODER 60 JT	6	X	X	X	X	X

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
MOFFAT 2	6	X	X	X	X	X
MOFFAT COUNTY RE:NO 1	83	30	36.14%	26	18	16
MONTE VISTA C-8	44	19	43.18%	19	9	8
MONTEZUMA-CORTEZ RE-1	53	15	28.30%	12	8	9
MONTROSE COUNTY RE-1J	119	31	26.05%	27	15	13
MOUNTAIN BOCES	1	X	X	X	X	X
MOUNTAIN VALLEY RE 1	5	X	X	X	X	X
NORTH CONEJOS RE-1J	47	24	51.06%	21	13	16
NORTH PARK R-1	5	X	X	X	X	X
NORTHGLENN-THORNTON 12	887	318	35.85%	252	172	156
NORWOOD R-2J	11	X	X	X	X	X
OTIS R-3	8	X	X	X	X	X
OURAY R-1	5	X	X	X	X	X
PARK (ESTES PARK) R-3	39	8	20.51%	7	3	5
PARK COUNTY RE-2	15	X	X	X	X	X
PAWNEE RE-12	3	X	X	X	X	X
PEYTON 23 JT	26	9	34.62%	8	2	3
PLAINVIEW RE-2	2	X	X	X	X	X
PLATEAU RE-5	4	X	X	X	X	X
PLATEAU VALLEY 50	9	X	X	X	X	X
PLATTE CANYON 1	52	9	17.31%	8	6	2
PLATTE VALLEY RE-3	2	X	X	X	X	X
PLATTE VALLEY RE-7	28	10	35.71%	5	5	7
POUDRE R-1	846	221	26.12%	182	93	102
PRAIRIE RE-11	6	X	X	X	X	X
PRIMERO REORGANIZED 2	6	X	X	X	X	X
PRITCHETT RE-3	12	X	X	X	X	X
PUEBLO CITY 60	507	262	51.68%	234	133	134

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
PUEBLO COUNTY RURAL 70	247	99	40.08%	87	33	37
RANGELY RE-4	28	9	32.14%	7	4	2
RIDGWAY R-2	12	X	X	X	X	X
ROARING FORK RE-1	138	26	18.84%	23	10	7
ROCKY FORD R-2	22	X	X	X	X	X
SALIDA R-32	24	X	X	X	X	X
SANFORD 6J	12	X	X	X	X	X
SANGRE DE CRISTO RE-22J	16	X	X	X	X	X
SARGENT RE-33J	15	X	X	X	X	X
SHERIDAN 2	33	16	48.48%	14	8	8
SIERRA GRANDE R-30	11	X	X	X	X	X
SILVERTON 1	3	X	X	X	X	X
SOUTH CONEJOS RE-10	11	X	X	X	X	X
SOUTH ROUTT RE 3	15	X	X	X	X	X
SPRINGFIELD RE-4	21	X	X	X	X	X
ST VRAIN VALLEY RE 1J	688	218	31.69%	176	86	84
STEAMBOAT SPRINGS RE-2	61	16	26.23%	13	7	5
STRASBURG 31J	32	6	18.75%	6	3	2
STRATTON R-4	9	X	X	X	X	X
SUMMIT RE-1	65	13	20.00%	8	6	3
SWINK 33	20	X	X	X	X	X
TELLURIDE R-1	11	X	X	X	X	X
THOMPSON R-2J	541	148	27.36%	115	67	69
TRINIDAD 1	53	30	56.60%	27	17	18
VALLEY RE-1	93	31	33.33%	28	14	14
VILAS RE-5	14	X	X	X	X	X
WALSH RE-1	13	X	X	X	X	X
WELD COUNTY RE-1	47	12	25.53%	10	5	4

DISTRICT NAME	ENROLLED STUDENTS	ASSESSED FOR REMEDIATION	REMEDICATION RATE	MATH	WRITING	READING
WELD COUNTY S/D RE-8	49	19	38.78%	17	11	7
WELDON VALLEY RE-20(J)	9	X	X	X	X	X
WEST END RE-2	8	X	X	X	X	X
WEST GRAND 1-JT.	12	X	X	X	X	X
WESTMINSTER 50	215	103	47.91%	88	62	49
WIDEFIELD 3	238	114	47.90%	100	51	65
WIGGINS RE-50(J)	23	X	X	X	X	X
WILEY RE-13 JT	16	X	X	X	X	X
WINDSOR RE-4	85	32	37.65%	23	14	20
WOODLAND PARK RE-2	96	29	30.21%	27	14	16
WOODLIN R-104	2	X	X	X	X	X
WRAY RD-2	26	7	26.92%	5	4	2
YUMA 1	25	6	24.00%	5	1	3

APPENDIX C:
CCHE POLICIES AND DEFINITIONS

a. Remedial Policy

In August 2000, the Commission on Higher Education adopted its remedial policy (CCHE Policy I-Part E), which was designed to determine whether all enrolled first-time undergraduate students are prepared to succeed in college-level courses, that students assessed as needing remedial instruction have accurate information regarding course availability and options to meet the college entry-level competencies, and that Colorado public high schools are informed about the level of college readiness of their recent high school graduates.

The policy applies to all state-supported institutions of higher education (four-year and two-year colleges), and governing boards and institutions of the public system of higher education in Colorado are obligated to conform to the policies set by the Commission within the authorities delegated to it by C.R.S. 23-1-113.3, which include the following:

- 1) adopt and implement a remedial policy;
- 2) develop funding policies for remediation appropriate to institutional roles and missions;
- 3) design a reporting system that provides the General Assembly with information on the number, type, and costs of remediation;
- 4) establish comparability of placement or assessment tests; and
- 5) ensure each student identified as needing remediation is provided with written notification regarding cost and availability of remedial courses.

All public institutions of postsecondary education employ the following standard assessment “cut scores” (Table 12) to determine students’ needs for remedial courses. Importantly, public four-year institutions—with the notable exceptions of Adams State College and Mesa State College, which have both two- and four-year academic programs—are statutorily prohibited from offering basic skills courses for state funding. It is possible for a student to be deemed admissible to a four-year institution yet be assessed for placement in a remedial level course.

TABLE 12: CCHE BASIC SKILLS CUT SCORES

SKILLS AREA	ACT SUBSCORE	SAT SUBSCORE	ACCUPLACER SCORE
MATHEMATICS	19 (Math)	460 (Math)	85 (Elem. Algebra)
READING	17 (Reading)	430 (Verbal)	80 (Reading Comp)
WRITING	18 (English)	440 (Verbal)	95 (Sentence Skills)

b. FTE Policy

The Commission revised its FTE Policy in March 2001¹⁶, clearly identifying the public institutions that may claim state support for remedial education—Colorado community colleges, Adams State College, and Mesa State College—and the circumstances under which it may be claimed. A separate FTE reporting form was added to enable monitoring of state costs associated with the delivery of basic skills courses.

c. Definitions

The following terms are used in this report.

Assessment: Pursuant to Commission policy I-E, all first-time entering students must be assessed for basic skills instructional needs. Colorado accepts three assessment instruments for determining if the first-time student is college ready in mathematics, reading, and writing: ACT, SAT, and Accuplacer (math: Elementary Algebra; writing: Sentence Skills; reading: Reading Comprehension).

Cohort: The data found herein reflect a cohort approach rather than matching data from graduating high school seniors to that of entering freshman. For the purposes of this report, a cohort is defined as all first-time students ages 17 to 19 from Colorado high schools. Stated inversely, this report excludes information on adult (non-traditional) and out-of-state enrolling students. In addition, this report is limited to only those students that applied and enrolled in a public college or university in Colorado. Students that applied but did not enroll, did not apply at all, or enrolled in a private or out-of-state institution, are excluded from the research sample.

Remedial Instruction: According to statute (23-1-113.3 C.R.S.), this report is intended to present information on “basic skills” courses, which is a classification that, technically speaking, includes remedial instruction as well as other sub-college level work, such as English as a Second Language courses. Nonetheless, the focus of this report is on remedial education needs (or college-level proficiencies) of entering first-time students from Colorado high schools for writing (English), mathematics, and reading. As a result, the terms “remedial instruction” and “remedial courses” are used to describe, generically, basic skills courses in mathematics, reading, and English only.

During FY 2001, CCHE staff and representatives from the governing boards developed a reporting system in order to provide the General Assembly with information on remediated students and the type of remediation needed. Beginning Summer/ Fall 2001, institutions submitted the first data files.

¹⁶ The CCHE FTE Policy is currently being revised to reflect the changes in funding structures as a result of the implementation of the College Opportunity Fund (COF) stipend program.

School District/High School Information: Information on school districts and high schools was provided to the Colorado Commission on Higher Education by the Colorado Department of Education. No attempt was made by the Commission on Higher Education to modify, change, or exclude any school district or high school, except for information from districts or schools enrolling fewer than 25 students, which was excluded from this report to protect the identities of students from those institutions.