
COLORADO COMMISSION ON



HIGHER EDUCATION

ACCESS TO HIGH-QUALITY, AFFORDABLE EDUCATION FOR ALL COLORADANS

2006 LEGISLATIVE REPORT ON REMEDIAL EDUCATION

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I. INTRODUCTION

The Colorado Commission on Higher Education (CCHE) is required to prepare an annual report on students taking basic skills courses at Colorado's public higher education institutions. CCHE has prepared this report which summarizes: 1) Commission activities since adopting the Remedial Policy in 2000, and 2) data on assessed and remediated students collected from Colorado public higher education institutions; data on students enrolled in college basic skills courses; and data on the remedial needs of first-time enrolling students from Colorado public high schools. The report will be submitted to the Education Committees of the Senate and House of Representatives, the Joint Budget Committee, the Colorado Department of Education, and each Colorado public school district superintendent.

C.R.S. 23-1-113.3 defines five areas of responsibility for the Commission with regard to remedial education:

- 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.

This report documents Commission actions taken in response to these responsibilities.

II. CCHE POLICIES RELATED TO REMEDIATION

A. Remedial Policy

In August 2000, the Commission adopted a remedial policy designed to ensure that:

- All enrolled first-time undergraduate students are prepared to succeed in college-level courses.
- Students assessed as needing remedial instruction have accurate information regarding course availability and options to meet the college entry-level competencies.
- 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 (i.e., 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.

B. FTE Policy

The Commission revised its FTE Policy in March 2001, 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. Revised Remedial Policy

The Commission revised its Remedial Policy again in 2003, effective for fiscal year 2005 to clarify 1) a minimum passing score for placement in college-level mathematics 2) determining concordances for scores between different types of assessment tests 3) specifying the undergraduate student population to be assessed, and if necessary remediated; and 4) clarifying when institutions are required to enforce mandatory remediation.

III. REVISED REMEDIAL PLANS

Beginning in fiscal year 2005, institutions submitted course and student registration data files to CCHE that served as the basis for Colorado-specific evaluation of cut scores.

Another change in fiscal year 2005 was the additional assessment, and where necessary remediation of non-degree-seeking recent high school graduates, in addition to those converting to degree seeking status. The original undergraduate student population to be subject to entry-level assessment and possible remediation were first-time undergraduates and include first-time degree-seeking, and non-degree-seeking undergraduates changing to degree-seeking status.

CCHE staff continue to identify recent high school graduates in the SURDS files using year of high school graduation. When the year of high school graduation is not provided by institutions, date of birth is used to calculate a student's age as of September 15 of the specified year, and those students with a calculated age of 17, 18, or 19 years of age will be included in the frequencies. In fiscal year 2006, CCHE staff added students with a calculated age of 16 to the frequencies.

The final component of the revised remedial plans outlined how institutions advised students with academic deficiencies about options for meeting their responsibility to enroll in appropriate developmental coursework. Effective fiscal year 2005, assessed students not meeting the specific minimum cut score may be placed in college-level courses provided that a student's transcript(s) or secondary level assessment justifies such placement. Institutions were also required to implement mandatory advising of students with unmet basic skills deficiencies after 30 hours.

IV. Evaluation of Remedial Policy

In FY2007, an evaluation of the remedial policy will take place to determine whether the policy is carrying out what it was intended to do at its inception.

V. DATA ON ASSESSMENT AND REMEDIATION

During FY 2001, CCHE staff and representatives from 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.

A. Methodology and Data

1. **Methodology:** Student cohorts are based on: 1) entering degree-seeking and non-degree seeking undergraduates assessed by a Colorado public institution of higher education for the specified year; or 2) a recent Colorado public high school graduate¹. CCHE produced the calculations by linking student data from ACT and the College Board with CCHE's Student Unit Record Data System (SURDS) enrollment and applicant files. Graduation rates on students enrolling in basic skills courses will not be available until data is collected from the fiscal year 2007 degree files.
2. **Report Format:** This report presents information in four parts. Initially, data are provided on undergraduates assigned to remediation by Colorado public colleges and universities in fiscal year 2006. The second section focuses on recent high school graduates assigned to remediation, broken out by race/ethnicity and gender. In the third section, data are organized by school district and high school; reporting on the number of students from each high school assigned to remediation. The final section reports on the cost of remedial courses at Colorado public two-year institutions.
3. **Data Limitations:** In reviewing the following tables, one must be mindful that the data do not include recent graduates who enrolled in an out-of-state college, delayed entry into higher education for at least one year after completing high school, were not assessed in FY2005 or FY2006, or were reported by institutions with missing data (e.g., year of high school graduation, age, high school code, and/or assessment status).

As is often the case with an undertaking of this magnitude, some issues remain to be addressed by the higher education institutions that have affected rates from year to year and limit interpretation over multiple years. While data collection has improved over the five years, colleges and universities continue implementation of new assessment processes which

¹ Recent high school graduates are defined as students who a) have graduated from a Colorado public or private high school (or its equivalent) during the previous academic year; or b) are 16, 17, 18, or 19 years of age. Age will be calculated as of September 15 of the specified fiscal year.

subtly influence who is included in the population that is reported on. At the state level, revisions to the remedial policy were made in fiscal year 2005 which made significant changes to the population reported on with the inclusion of non-degree-seeking students. Only two years of data are available with the inclusion of the non-degree-seeking student population so no firm conclusions about trends in remediation can be drawn. Nonetheless, staff believe that the summary is a reasonable representation of remedial needs of the students entering higher education during fiscal year 2006.

B. Remedial Data Summary for All Assessed Undergraduates

In FY2006, (see **Table 1** – page 6) approximately 30% of all students were assigned to remediation in at least one discipline. At the two-year institutions the over all rate of students assigned to remediation was approximately 56% with a range of 24.8% at Colorado Northwestern Community College to 75.2% at Pueblo Community College. At the four-year institutions the over all rate of students assigned to remediation was approximately 20% with a range of approximately 1% at UCCS to 63.2% at Adams State College.

The subject with the highest number of students assigned for remediation is mathematics. (See Figures 1 & 2). This is true at both two-year and four-year institutions.

Figure 1 (see page 7) illustrates the percent of recent high school graduates assigned to remediation by discipline. 18.5% of entering students at two-year institutions are assigned to remediation in math, writing, and reading.

Figure 2 (see page 8) illustrates the percentage of recent high school graduates at four year public institutions assigned to remediation by subject area. 2.6% of entering students at four-year institutions are assigned to remediation in math, writing, and reading.

Table 2 (see page 9) is an overview of assessment activity for FY2005 & FY2006. There was little change in remediation rates across the two fiscal years. The overall remediation rate for both years was approximately 29% of all recent high school graduates assigned to remediation in at least one subject. The percent of students assigned to remediation in at least one subject at two-year institutions was also static over the two years 55.06 % in FY 2005 and 55.86% in FY2006. The remediation rate at the four year institutions shows a similar static pattern of 17.97 % in FY2005 and 19.58% in FY2006.

Table 1: First-Time Recent High School Graduates Assigned to Remediation by Sector and Institution, FY2006

Institutions/Sector	Number of 1st Time Students	Assigned to Remediation in at least one subject		Number of students assigned to Remediation by Subject						
				Math only	Writing only	Reading only	Math Writing only	Math Reading only	Writing Reading only	M, W, R only
Recent Colorado High School Graduates Two-Year Public	#	#	%	#	#	#	#	#	#	#
Aims Community College	121	65	53.72%	1	6	12	1	3	18	24
Arapahoe Community College	624	372	59.62%	146	14	15	42	59	15	81
Colorado Mountain College	110	36	32.73%	11	1	3	0	7	3	11
Colorado Northwestern Community College	125	31	24.80%	8	1	3	4	5	1	9
Community College of Aurora	484	273	56.40%	79	16	11	42	24	14	87
Community College of Denver	1040	410	39.42%	75	4	26	30	55	33	187
Front Range Community College	1712	978	57.13%	336	50	45	88	121	52	286
Lamar Community College	142	82	57.75%	25	4	8	2	11	8	24
Morgan Community College	109	49	44.95%	15	2	2	5	6	4	15
Northeastern Junior College	375	236	62.93%	56	16	17	33	23	11	80
Otero Junior College	227	143	63.00%	34	6	1	29	13	5	55
Pikes Peak Community College	1108	672	60.65%	229	19	31	62	103	15	213
Pueblo Community College	440	331	75.23%	89	7	12	25	47	4	147
Red Rocks Community College	731	400	54.72%	152	9	20	45	49	13	112
Trinidad State Junior College	230	155	67.39%	34	7	10	13	17	6	68
Two-Year Total	7,578	4,233	55.86%	1,290	162	216	421	543	202	1,399
Recent Colorado High School Graduates Four-Year Public										
Adams State College	433	274	63.28%	78	15	11	63	16	12	79
Colorado School of Mines	779	23	2.95%	0	8	7	0	0	8	0
Colorado State University	3850	435	11.30%	217	63	63	23	12	42	15
Colorado State University - Pueblo	609	275	45.16%	100	27	11	61	17	15	44
Fort Lewis College	851	376	44.18%	157	37	14	62	17	29	60
Mesa State College	1098	610	55.56%	218	64	26	130	29	17	126
Metropolitan State College of Denver	1912	1009	52.77%	494	83	36	187	46	41	122
University of Colorado - Boulder	4994	73	1.46%	72	0	0	1	0	0	0
University of Colorado - Colorado Springs	1021	10	0.98%	7	3	0	0	0	0	0
University of Colorado at Denver and Health Sciences	770	190	24.68%	110	22	14	13	7	16	8
University of Northern Colorado	2439	302	12.38%	214	25	15	24	5	7	12
Western State College	458	185	40.39%	85	21	11	24	9	9	26
Four-Year Total	19,214	3,762	19.58%	1,752	368	208	588	158	196	492
Grand Total	26,792	7,995	29.84%	3,042	530	424	1,009	701	398	1,891

FIGURE 1:

Recent High School Graduates Requiring Remediation
Two Year Public



44 % were
not assigned to
remediation

FIGURE 2:

Recent High School Graduates Requiring Remediation
Four Year Public



80.4% were
not assigned to
remediation

Table 2: First-Time Recent High School Graduates Assigned to Remediation in at Least One Subject, by Sector and Institution, FY2005 to FY2006						
Institution / Sector	FY2005			FY2006		
	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	
	#	#	%	#	#	%
Recent Colorado High School Graduates Two-Year Public						
Aims Community College	475	245	51.58%	121	65	53.72%
Arapahoe Community College	732	448	61.20%	624	372	59.62%
Colorado Mountain College	89	39	43.82%	110	36	32.73%
Colorado Northwestern Community College	159	37	23.27%	125	31	24.80%
Community College of Aurora	523	309	59.08%	484	273	56.40%
Community College of Denver	1,203	500	41.56%	1040	410	39.42%
Front Range Community College	2,023	1,147	56.70%	1712	978	57.13%
Lamar Community College	258	133	51.55%	142	82	57.75%
Morgan Community College	139	18	12.95%	109	49	44.95%
Northeastern Junior College	379	222	58.58%	375	236	62.93%
Otero Junior College	248	160	64.52%	227	143	63.00%
Pikes Peak Community College	1,218	765	62.81%	1108	672	60.65%
Pueblo Community College	377	258	68.44%	440	331	75.23%
Red Rocks Community College	763	410	53.74%	731	400	54.72%
Trinidad State Junior College	276	188	68.12%	230	155	67.39%
Two-Year Total	8,862	4,879	55.06%	7,578	4,233	55.86%
Recent Colorado High School Graduates Four-Year Public						
Adams State College	367	195	53.13%	433	274	63.28%
Colorado School of Mines	732	31	4.23%	779	23	2.95%
Colorado State University	4,024	134	3.33%	3850	435	11.30%
Colorado State University - Pueblo	729	360	49.38%	609	275	45.16%
Fort Lewis College	918	423	46.08%	851	376	44.18%
Mesa State College	1,063	541	50.89%	1098	610	55.56%
Metropolitan State College of Denver	1,947	1,021	52.44%	1912	1009	52.77%
University of Colorado - Boulder	5,115	59	1.15%	4994	73	1.46%
University of Colorado - Colorado Springs	945	5	0.53%	1021	10	0.98%
University of Colorado - Denver	706	188	26.63%	770	190	24.68%
University of Northern Colorado	2,382	353	14.82%	2439	302	12.38%
Western State College	478	177	37.03%	458	185	40.39%
Four-Year Total	19,406	3,487	17.97%	19,214	3,762	19.58%
Grand Total	28,268	8,366	29.60%	26,792	7,995	29.84%

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C. Remedial Data Summary for Recent High School Graduates

1. Demographics of Recent High School Graduates Assigned to College-Level vs. Remedial Coursework

Tables 3 and 4 (see pages 11 and 12) compare the demographic characteristics of recent high school graduates assigned to remediation by gender and by race/ethnicity.

- By gender, a slightly higher proportion of females was assigned to remediation in both institutional sectors. The percentage of students by gender assigned to remediation increased slightly from FY2005 to FY2006. The proportion of females to males assigned to remediation remained static across the two fiscal years.
- By race/ethnicity, at two-year institutions the range of remediation was 49.8% for Asian and Pacific Islander to 70.4% for African American students. 62.9% of Hispanic/Latino students were assigned to remediation and 57.6% of Native American students were assigned to remediation. Over the two fiscal years, the number of student assigned to remediation increased for Asian or Pacific Islanders and Hispanic/Latino students and decreased for Native American students. The percentage of African American students assigned to remediation remained static over the two fiscal years. At the four-year institutions, Native American students assigned to remediation decrease by 4%. The remediation rates in the other race/ethnicity categories remained fairly static over the two fiscal years.

Table 3: First-Time Recent High School Graduates Assigned to Remediation in at Least One Subject, by Sector and Gender, FY2005-FY2006

Gender	FY2005			FY2006		
	Number of Students	Assigned to Remediation in at least one subject		Number of Students	Assigned to Remediation in at least one subject	
Recent High School Graduates Two-Year Public	#	#	%	#	#	%
Female	4,653	2,643	56.80%	3,972	2,289	57.63%
Male	4,198	2,227	53.05%	3,606	1,944	53.91%
Unknown	11	9	81.82%			
Two-Year Total	8,862	4,879	55.06%	7,578	4,233	55.86%
Recent High School Graduates Four-Year Public						
Female	10,092	2,015	19.97%	9,930	2,112	21.27%
Male	9,314	1,472	15.80%	9,284	1,650	17.77%
Four-Year Total	19,406	3,487	17.97%	19,214	3,762	19.58%
Grand Total	28,268	8,366	29.60%	26,792	7,995	29.84%

Table 4: First-Time Recent High School Graduates Assigned to Remediation in at Least One Subject, by Sector and Race/Ethnicity, FY2005-FY2006

Ethnicity	FY2005			FY2006		
	Number of Students	Assigned to Remediation in at least one subject		Number of Students	Assigned to Remediation in at least one subject	
Recent High School Graduates Two-Year Public	#	#	%	#	#	%
Asian or Pacific Islander	269	134	49.81%	253	154	60.87%
African-American, Non Hispanic	463	326	70.41%	425	294	69.18%
Hispanic/Latino	1,509	950	62.96%	1288	879	68.25%
Native American	118	68	57.63%	107	52	48.60%
Non-Resident Alien	109	86	78.90%	102	83	81.37%
White, non-Hispanic	6,052	3,157	52.16%	5056	2616	51.74%
Unknown Ethnicity	342	158	46.20%	347	155	44.67%
Two-Year Total	8,862	4,879	55.06%	7,578	4,233	55.86%
Recent High School Graduates Four-Year Public						
Asian or Pacific Islander	914	159	17.40%	888	170	19.14%
African-American, Non Hispanic	510	216	42.35%	518	219	42.28%
Hispanic/Latino	1,821	637	34.98%	1804	638	35.37%
Native American	317	149	47.00%	358	154	43.02%
Non-Resident Alien	98	23	23.47%	87	16	18.39%
White, non-Hispanic	14,932	2,155	14.43%	14629	2339	15.99%
Unknown Ethnicity	814	148	18.18%	930	226	24.30%
Four-Year Total	19,406	3,487	17.97%	19,214	3,762	19.58%
Grand Total	28,268	8,366	29.60%	26,792	7,995	29.84%

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D. Remedial Data Summary for High Schools

1. Recent High School Graduates Assigned to Remediation by High School

Table 5 ([see Appendix A](#)) shows data on the number of students assigned to remediation by school district. The percentage of students assigned to remediation in at least one subject ranges from 5.13% to 74.2%. The remediation rates of high schools will have more meaning for school superintendents and principals who have a better understanding of the high schools in their districts. Data from high schools with enrollments of less than 25 recent high school graduates are not shown but the number assigned to remediation are included in the total number of students assigned to remediation.

V. COSTS ASSOCIATED WITH BASIC SKILLS

For FY2006, (see Table 6 – page 14) Colorado public higher education two-year institutions reported 3,796 fte were enrolled in remedial courses with a general fund cost of \$9,112,720.

**Table 6: Projected General Fund Cost of Remedial Course Work at Public Two-Year Institutions
FY 2006**

InstName	Total Credit Hours	Total Remedial FTE	Remedial Instruction Cost
Two-Year Public			
Arapahoe Community College	8,058	269	644,640
Colorado Northwestern Community College	1,043	35	83,440
Community College of Aurora	9,811	327	784,880
Community College of Denver	25,388	846	2,031,040
Front Range Community College	20,137	671	1,610,960
Lamar Community College	568	19	45,440
Morgan Community College	1,140	38	91,200
Northeastern Junior College	2,381	79	190,480
Otero Junior College	3,344	111	267,520
Pikes Peak Community College	19,249	642	1,539,920
Pueblo Community College	13,847	462	1,107,760
Red Rocks Community College	6,396	213	511,680
Trinidad State Junior College	2,547	85	203,760
Two-Year Subtotal	113,909	3,796	9,112,720
Grand Total General Fund Costs	113,909	3,796	9,112,720

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