

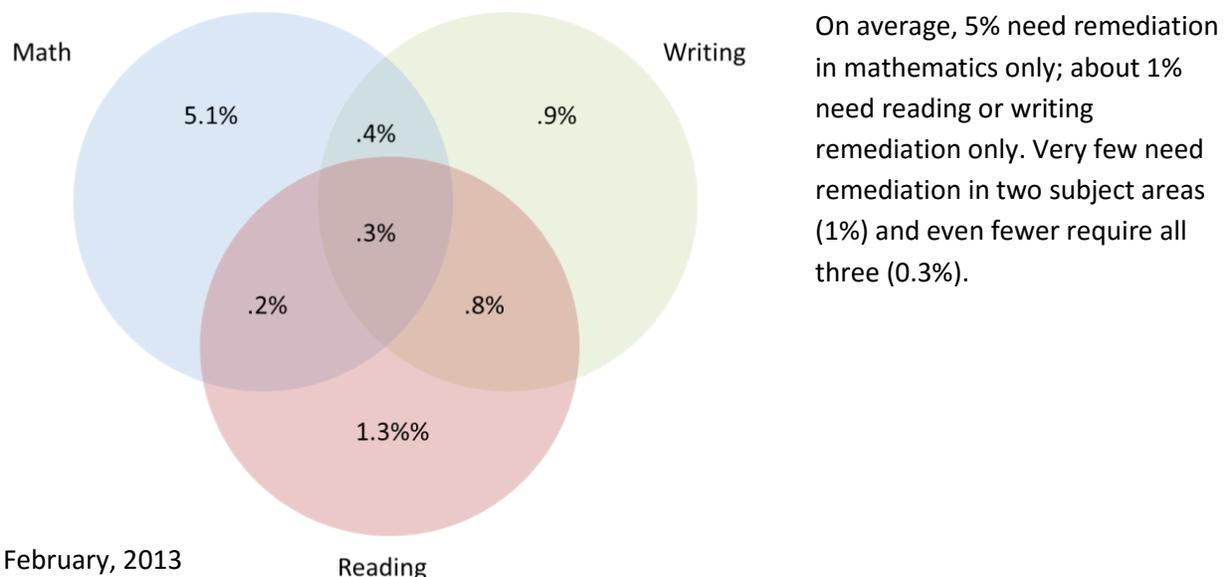
Describing the Relationship between Remediation and Retention and Graduation

The current report describes the retention and graduation rates for students identified as in need of remediation in one, two, or three areas of preparedness (math, reading, and writing). Results indicate that the number of areas of deficiency is negatively associated with retention/graduation and that the single area of deficiency most negatively associated with retention/graduation is mathematics for retention and reading for graduation. To provide context for this discussion, in August 2000, the Colorado Commission of Higher Education adopted a remedial policy designed to ensure that all first-time undergraduate students are prepared to succeed in college-level courses. This policy applies to all state supported institutions of higher education and new freshmen are deemed in need of remediation if they meet one of the following criteria:

- ✚ Scored an 18 or lower mathematics subscore, an 17 or lower writing (English) subscore, and 16 or lower reading (English) subscore on the ACT Assessment Test; or
- ✚ Scored less than 430 on the SAT Verbal (English) for reading, less than 440 on the SAT Verbal (English) for writing, and less than 460 on the SAT mathematics; or
- ✚ Scored less than an 85 on the Accuplacer Elementary Algebra test, less than a 95 on the Accuplacer Sentence Skills test, less than an 80 on the Accuplacer Reading Comprehension test

This discussion is important because about 9% of our new undergraduates each year meet the state definition of being in need of remediation in at least one subject. The majority of CSU students who are in need of remediation in writing or reading are identified based on their SAT or ACT scores. The majority of CSU students who need remediation in math are identified with CSU’s math placement exam. The Venn diagram below shows the percent of our incoming freshman who met the state’s definition of remediation by subject area between FA05 and FA11.

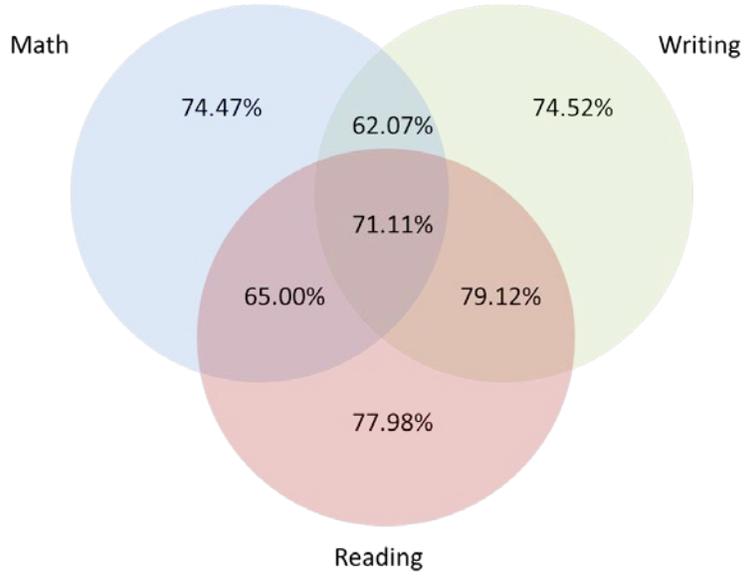
Figure 1. Percent of FA05 through FA11 Freshman Cohorts that Require Remediation



Freshman Retention

Freshman retention rates are lower for students in need of remediation. Figure 2 below shows the average retention rate for students in the FA05 through FA11 freshman cohorts by remediation subject area(s).

Figure 2. First Year Retention Rates for FA05-FA11 Freshman Cohorts by CDHE Remediation Area



Students in need of mathematics remediation are at the highest risk of not being retained after their first year especially if there is additional need for either reading or writing remediation. The higher retention rate for students in need of all three areas of remediation may be an artifact of the small number of students in this classification.

Students requiring remediation display lower retention rates compared to those who are not identified as in need of remediation. Table 2 displays the retention rates by cohort to provide context for assessing the magnitude of negative impact this in terms of the overall retention rate. On average, those in need of remediation pull the overall retention rate down about .8 of a percentage point.

Table 2.

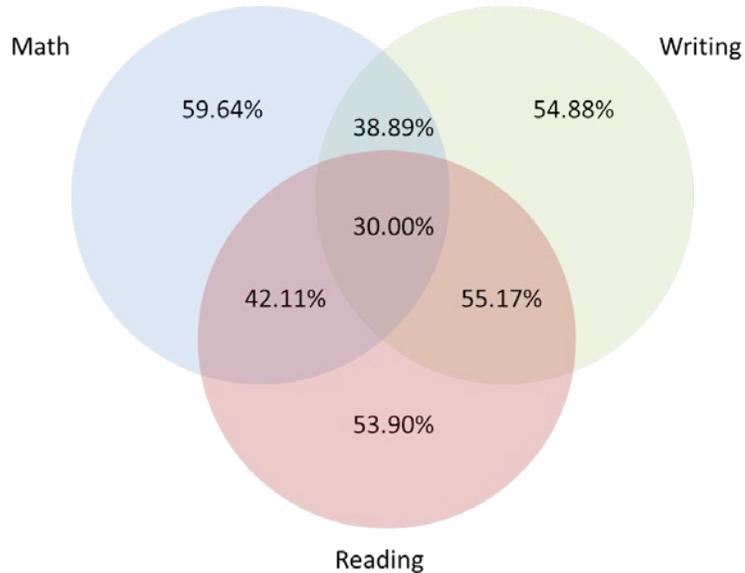
Cohort	Retention Rates by Remediation Status		
	Overall*	Not in need of remediation	In need of remediation
FA05	82.4%	83.4%	74.4%
FA06	81.5%	82.2%	72.8%
FA07	81.7%	82.5%	74.5%
FA08	82.5%	83.4%	73.5%
FA09	83.9%	84.8%	74.2%
FA10	82.6%	83.4%	75.4%
FA11	83.7%	84.3%	76.9%

*includes both full and part time students

Six-Year Graduation

The six-year graduation rates for students requiring remediation in one or more subject area is lower than CSU’s overall six year graduation rate. Figure 3, below, shows the average six year graduation rate for students in the FA05 and FA06 freshman cohorts by remediation subject area(s).

Figure 3. Six Year Graduation Rates for FA05 and FA06 Freshman Cohorts by CDHE Remediation Area



Students in need of reading or writing remediation are at the highest risk of not graduating within six years especially if there is additional need for mathematics remediation. Students who need remediation in all three subjects have lowest observed graduation rate.

Students requiring remediation display lower six year graduation rates compared to those who are not identified as in need of remediation. Table 3 displays the graduation rates by cohort to provide context for assessing the magnitude of negative impact this in terms of the overall retention rate. On average, those in need of remediation pull the overall six year graduation rate down about .8 of a percentage point.

Table 2.

Cohort	Six Year Graduation Rates by Remediation Status		
	Overall*	Not in need of remediation	In need of remediation
FA05	63.9%	64.6%	58.1%
FA06	62.5%	63.4%	51.6%

*includes both full and part time students