

# **COMMUNITY COLLEGE OF DENVER BREAKING THROUGH OUTCOMES REPORT**

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## **Introduction**

This report provides the most extensive description of student outcomes associated with the Breaking Through (BT) initiative at Community College of Denver (CCD) to date. This evaluation examines student outcomes in three ways. The first analysis compares student outcomes for three FastStart cohorts (Spring 2006, Fall 2006, and Spring 2007) to a similar baseline group of developmental students enrolled in Fall 2003. These results show the impact of FastStart students relative to a group of non-participating developmental students who had similar characteristics from the term of first enrollment through subsequent terms for a 24-month period.

The second analysis shows outcomes for students who started the FastStart program (math and English/reading) during one of the following seven semesters: Spring 2006, Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2008, and Spring 2009. These results show cumulative results outcomes for 376 students over the 3.5 year period since CCD's BT FastStart program began to operate as part of the Breaking Through (BT) initiative in Spring 2006. For each semester, results are disaggregated by three math cohorts (Math 030-060, Math 060-090, and Math 090-106) and two English cohorts (English 3 - English 090 + Reading 060-090, and English 4 - English 060-090 + Reading 060-090).

Finally, results are presented for FastStart students enrolled in Fall 2007 in Math 030-060, Math 060-090, and Math 090/106, and English (all course combinations). These results provide a finer grained analysis of outcomes for 94 FastStart students, detailing their sequential developmental and college level enrollment and retention. The data used for this analysis were provided by FastStart personnel using student records maintained at the program and institutional levels. This work conducted during the fall semester of 2008 and completed in December 2008.

This author wishes to acknowledge assistance with this study provided by CCD's Office of Institutional Research and Planning, including Darlene Nold, executive director, and Margaret Puryear and BJ Wiens, research associates. Other professionals associated with the BT FastStart program who contributed to the project were Elaine Baker, FastStart Project Director; Lisa Silverstein, Assistant Professor and current FastStart Coordinator; and Rosalinda Martinez, Case Manager. The final version of this report was shared with all of these professionals to gather feedback to insure accurate and meaningful interpretation of the results.

A limitation of the study that needs to be recognized is that all data were gathered and maintained at the program and institutional level; no data were available from other higher education institutions in the city of Denver, the state, or any other sources. In an urban area where multiple higher education institutions exist, and students have the opportunity to swirl among various schools and these data do not capture enrollment at multiple institutions,

potentially diminishing evidence of retention and credential attainment. This problem is especially important at CCD because the college shares a campus with Metropolitan State College of Denver (Metro). Though the exact number of students moving between the two colleges or dually enrolled in both colleges is unknown, previous analysis has shown many CCD students transfer to Metro after completion of the developmental sequence at CCD based on data collected from the National Student Clearinghouse. In addition, the research is limited by the accuracy of data collected through self-report (e.g., institutional forms and surveys completed by the students). Moreover, some measures maintained by the Office of Institutional Research and Planning have missing cases, hence missing data, including Pell grant recipients in 2008. As a consequence, the accuracy of these measures is not understood fully.

Before delving into the outcomes results, a brief description of the FastStart program is provided.

### **The Breaking Through Program at CCD**

The goal of CCD's Breaking Through project, titled FastStart, is to develop and implement curriculum using an accelerated and intensive instructional approach to the delivery of developmental math, English, and reading. The logic model shown in Table 1 provides a visual description of program goals, inputs, processes, target population, and intended outcomes (short- and long-term). FastStart uses a cohort-based learning community approach to provide a supportive classroom-based academic structure in conjunction with a first-year student success course, advising, tutoring, career exploration and other support services to supplement the formal learning experience. A case manager is assigned to FastStart students to assist them in navigating their initial experiences in CCD's developmental course work.

Core to CCD's FastStart program is accelerated developmental education. Colorado community colleges employ mandatory assessment and placement using the Accuplacer<sup>(R)</sup> placement test of the College Board, with a system-wide policy that requires students falling below established cut-off scores in math, English, and reading to enroll into developmental courses. FastStart represents one of three options that accelerate CCD students through developmental education in a compressed format that combines levels of developmental math and/or English/reading so that students can complete two (or more) developmental course levels in the time they would normally take one. The second option for accelerating instruction at CCD is a self-paced developmental education option that includes access to instructional technology, tutoring, and academic supports in a computer lab located on CCD's Auraria campus. The third and newest option is a bridge program called College Connection that is designed for out-of-school youth who are recent GED completers or high school graduates who test into developmental courses in two or more areas. College Connection is part of the US Department of Education's "Ready for College" initiative that is designed to enhance college transition for out-of-school youth age 18-24. Data presented in this report focus exclusively on the FastStart program (option one).

A brief description of the core components of the FastStart program follow:

- The FastStart model emphasizes accelerated developmental education through a learning community approach. In this program, students advance through two levels of developmental math, by combining the first and second levels (MAT 030-060), the

second and third levels (MAT 060-090), or the third level and first level of college studies in math (MAT 090-106). [Developmental education (Math, Reading, English) course level and grade equivalence follows: MAT 030-grade 3-5; MAT 060-grade 6-8, and MAT 090-grade 9-12.] The English/reading option combines course sequences (such as two levels of developmental English and reading) in one semester. In addition to accelerated curriculum, contextualized instruction and active learning strategies are used, and computer-based instruction supplements classroom learning.

- Learning communities integrate academic, career and social activities through formal and informal learning experiences. Students are encouraged to learn collaboratively and to support one another, with faculty playing an instrumental role in nurturing a supportive community of learners who strive to support the success of all.
- Diagnostic tools and processes are used to identify students likely to benefit from particular options. The assessment process is especially refined in determining the likelihood of a student succeeding in an accelerated pre-algebra and introductory algebra curricula.
- Educational advisors/case managers help students develop education and career plans and connect to an academic advisor or case manager who is affiliated with a degree program. Advisors/case managers assist students with all aspects of their education, career, and life planning, including identifying and using student support services, such as financial aid, tutoring, and so forth.
- Comprehensive supports include financial aid, career counseling, academic advising, and other services to create “wrap around” services. Of these, financial aid and advising seem to be the most important to student success. Part of the comprehensive support comes from CCD’s learning resource centers that focus on providing learning supports for students enrolled in developmental education. Labs are located throughout CCD offering computerized support packages and one-on-one tutors. Career development advising and career exploration is offered to all FastStart students, including students who participate in career-technical education programs funded by the federal Perkins IV CTE Act.

**Table 1. COMMUNITY COLLEGE OF DENVER—BREAKING THROUGH LOGIC MODEL**

CONTEXT		PROGRAM			STUDENT OUTCOMES		
CONTEXT		INPUTS	ACTIVITIES	PARTICIPANTS	SHORT-TERM	MID-TERM	LONG TERM
<ul style="list-style-type: none"> <li>• The college believes students entering at developmental level should have the opportunity to accelerate progress to college level studies.</li> <li>• Unless students are able to master foundational level reading, writing and math, they will not be successful at the college level.</li> <li>• The college has extensive experience and national recognition with developmental education</li> <li>• There is recognition of the lack of adequate preparation for college at the K-12 level and among adults in the Denver metropolitan area</li> <li>• There is recognition of the growing diversity of citizens in the Denver metropolitan area</li> </ul>		<ul style="list-style-type: none"> <li>• Innovative campus leaders who are committed to serving low-skilled populations</li> <li>• A high level of expertise at curriculum design and development among campus leaders</li> <li>• Active and committed programs and new program coordinator</li> <li>• High quality full-time and adjunct faculty who engage in professional development and regular communication</li> <li>• College level and program data systems</li> <li>• Collaboration among some relevant units on behalf of meeting low-skilled student needs</li> </ul>	<p><i>Each BT program participates in/receives:</i></p> <ul style="list-style-type: none"> <li>• Intensive and contextualized curriculum.</li> <li>• Learning community (cohort) approach.</li> <li>• Accelerated curriculum that integrates two levels of developmental education, extending from the lowest to the highest level.</li> <li>• Access to ongoing educational case management.</li> <li>• College orientation course.</li> <li>• Strong career guidance and educational planning component.</li> <li>• If eligible, access to Food Stamp Employment and Training funds</li> <li>• College bridge program called College Connection, for GED-to-college students.</li> <li>• Refined use of college placement tests and diagnostic tools</li> </ul> <p><i>In support of program:</i></p> <ul style="list-style-type: none"> <li>• Data are collected and analyzed on student progress.</li> <li>• BT team meets regularly to advance student success.</li> <li>• Professional development of faculty</li> </ul>	<p><i>Target:</i></p> <p>Approximately 100-150 students served per semester.</p> <p>A total of 415 served by the BT grant through Spring 2008.</p>	<p><i>Students complete the following milestones:</i></p> <ul style="list-style-type: none"> <li>• Completion of two levels of developmental education, extending from lowest to highest level developmental education and college-level in math.</li> <li>• Placement and enrollment into college level “gatekeeper” courses.</li> <li>• Retention and successful performance in college level “gatekeeper” academic courses.</li> <li>• Semester-to-semester retention of students in “good standing”.</li> <li>• Evidence of career exploration and decision making.</li> </ul>	<p>Earning college credits, including but not exclusively in occupational-technical program of study</p> <p>Retained in college level studies (in any major)</p>	<p>Completion and attainment of CCD certificate or degree</p> <p>Transfer to 4-year college or university</p> <p>Employment in good paying jobs in occupations with career ladders.</p> <p>College: BT practices influence college’s approach to supporting all students</p>

## Comparison of Three BT FastStart Cohorts to a Baseline Cohort

This analysis compares Spring 2006, Fall 2006 and Spring 2007 FastStart students who took MAT 030-060 (n=199) and MAT 060-090 (n=172) to the Fall 2003 baseline students who took MAT 030 (n=115) and MAT 060 (n=172), respectively. We use the Fall 2003 students as a baseline comparison group for this analysis. Outcomes are tracked for all groups for a 24-month period to provide a similar amount of time to compare results. Students in the baseline group enrolled in developmental math courses on the Auraria campus, excluding students enrolled in developmental math classes at branch campuses and/or online. These selection criteria were used to create a baseline group that was as comparable as possible to FastStart students. Thus, the primary difference between the groups was their developmental math courses rather than demographic and other educational or personal experiences. In terms of the developmental education intervention, baseline students took one developmental math course at a time (e.g., MAT 030 or MAT 060), while the FastStart students took combinations of developmental math (e.g., MAT 030 + 060 or MAT 060 + 090).

Table 2 shows demographic and educational characteristics of the baseline and FastStart student groups, including the percent that is non-traditional age, female, minority, below high school or GED, recipient of Pell, and native language is English. The results show that the groups are fairly comparable, though a higher percentage of FastStart students is non-traditional age than the baseline group while a higher percentage of the baseline group is minority and non-English speakers.

**Table 2**  
**Comparison of Demographics of Baseline and BT FastStart Math Cohorts, by Semester**

Cohort	n	Percent 23+ (non-trad)	Percent Female	Percent Minority	Percent below HS or GED	Percent Pell <sup>1</sup>	Percent Native Language English <sup>2</sup>
Baseline MAT 030	172	27.3	65.1	72.1	16.3	54.7	73.8
FastStart MAT 030-060	199	34.7	62.3	68.4	12.8	42.7	85.0
Baseline MAT 060	115	33.9	56.5	62.6	13.0	46.1	84.3
FastStart MAT 060-	172	62.2	63.4	57.0	17.5	52.9	93.6

**Table 2**  
**Comparison of Demographics of Baseline and BT FastStart Math Cohorts, by Semester**

090							
BT/FastStart MAT 030-060							
Spring 06	18	33.4	77.8	83.3	5.6	61.1	72.7
Fall 05	38	26.4	71.1	86.8	26.3	44.7	78.9
Spring 07	23	39.1	60.9	65.2	13	30.4	91.3
Fall 07	39	25.6	61.5	69.2	8.7	48.7	79.5
Spring 08	24	41.7	58.3	58.3	4.2	37.5	87.5
Fall 08	39	38.5	59.0	53.8	12.8	30.8	89.7
Spring 09	18	50	44.4	61.1	11.1	55.6	100.0
BT/FastStart MAT 060-090							
Spring 06	15	60.0	66.7	73.3	20.0	46.7	80.0
Fall 05	18	61.1	61.1	38.9	50.0	50.0	100.0
Spring 07	27	66.7	63.0	70.4	11.1	59.3	92.6
Fall 07	17	47.1	70.6	52.9	11.8	64.7	88.2
Spring 08	30	66.7	70.0	70.0	13.8	66.7	96.7
Fall 08	28	67.8	50.0	39.3	7.1	28.6	92.9
Spring 09	37	59.5	64.9	54.1	18.9	54.1	97.3

<sup>1</sup>Financial aid records from 2008 are incomplete, which could account for the drop in Pell in Fall 08. Moreover, many FastStart students apply and are eligible by income, but are denied.

<sup>2</sup>ESL is a self-reported, optional field on the enrollment form; also included in ESL designation is previous ESL enrollment. However, missing data raise questions about reliability of this variable.

Results shown in Table 3 compare the baseline and FastStart students on the percent that completed at least one level of developmental math with a passing grade, the percent that passed all developmental math making them “college ready” in math, the average total credits of developmental math passed, and the percent that passed a college math gatekeeper course. On all four measures, results of the FastStart students surpassed results of the baseline cohort. These results suggest the FastStart students are exceeding the baseline comparison group on completing developmental math courses (at least one course and all courses), accumulating credits in developmental math, and passing college math gatekeeper courses. They suggest the FastStart is providing the boost that program developers sought when creating the accelerated developmental program.

Results on developmental math performance are striking for FastStart students who enroll in MAT 060-090 compared to baseline students taking MAT 060. Slightly over 70% of FastStart students taking accelerated MAT 060-090 pass all developmental math courses to make them “college ready” compared to about 50% of the baseline group. Further, 35% of FastStart students taking MAT 060-090 pass a math gatekeeper course (wherein “gatekeeper” refers to a college

level class numbered 100 or greater and awarding college credit) compared to 23.5% of the baseline group. This substantial difference in pass rate between the FastStart and baseline groups taking intermediate and/or advanced developmental math and subsequent college level math is suggestive that FastStart may be a particularly useful way of moving students at the intermediate level to the college level through an accelerated approach.

**Table 3**  
**Comparison of Baseline and BT FastStart Cohorts on Developmental Math Performance, By Semester**

Cohort	n	Percent Completed at least One Level of Dev Math with Passing Grade	Percent Passed All Dev Math and College Ready in Math	Average Total Credits of Dev Math Passed	Percent Passed College Math Gatekeeper Course
Baseline MAT 030	172	65.7	23.8	5.39	9.9
BT/FastStart MAT 030-060	79	88.6	34.2	6.09	16.5
Baseline MAT 060	115	78.3	49.6	5.53	23.5
BT/FastStart MAT 060-090	60	86.7	71.7	6.21	35.0
BT/FastStart MAT 030-060					
Spring 2006	18	100.0	38.9	6.39	16.7
Fall 2006	38	97.4	42.1	6.32	21.1
Spring 2007	23	65.2	17.4	5.47	8.7
BT/FastStart MAT 060-090					
Spring 2006	15	86.7	80.0	6.69	40.0
Fall 2006	18	88.9	61.1	5.41	33.3
Spring 2007	27	85.2	74.1	6.48	33.3

Table 4 shows results for baseline and FastStart cohorts on various measures associated with retention, credentials, and college performance. Results show almost no students in either group graduated with a certificate or 2-year degree during the 24-month period of time that was used as the window for tracking outcomes for this analysis. This result is not surprising, given the relatively short timeframe for the follow-up analysis. More time is needed for students who begin at the developmental level to accumulate credits to receive a certificate or degree, especially considering the part-time enrollment and part- or full-time employment of many non-traditional students enrolled at CCD.

However, results shown in Table 4 provide evidence FastStart cohorts exceed the baseline cohort on two measures: still enrolled by 24 months and average last term or 24-month GPA. These two retention measures provide indication of retention and academic performance of FastStart students relative to the baseline group, and on both measures, results for the FastStart program are favorable. In fact, the percentage of FastStart 060-090 students still enrolled by 24 months nearly doubles that of the baseline 060 group.

On the last measure shown in Table 4, the average college credits earned by 24 months was higher for the FastStart MAT 060-090 group compared to the baseline MAT 060 group, but not for the FastStart MAT 030-060 group compared to baseline MAT 030 cohort. The average college credits earned by FastStart students enrolled in MAT 060-090 was nearly 2 percentage points higher than the average college credits earned by the baseline group. Again, these results suggest the FastStart program’s approach to acceleration of developmental math at the intermediate and advanced level may be an especially promising intervention for the target student population.

**Table 4**  
**Comparison of Baseline and BT FastStart Cohorts on Credentials, Retention and College Performance, by Semester**

Cohort	n	Percent Grad with Certificate	Percent Grad with 2-Year Degree	Percent Still Enrolled by 24 Months	Average Last Term or 24 Mo. GPA	Average college credits earned by 24 Months
Baseline MAT 030	172	1.7	0	13.4	2.29	9.5
BT FastStart MAT 030-060	79	0	1.3	17.7	2.72	8.9
Baseline MAT 060	115	1.7	0	14.8	2.28	12.6
BT/FastStart MAT 060-090	60	0	1.7	28.3	2.68	14.5

**Table 4**  
**Comparison of Baseline and BT FastStart Cohorts on Credentials, Retention and College Performance, by Semester**

BT/FastStart MAT 030-060						
Spring 2006	18	0	5.6	27.8	3.25	8.9
Fall 2006	38	0	0	5.3	2.72	11.1
Spring 2007	23	0	0	30.4	2.31	5.3
BT/FastStart 060-090						
Spring 2006	15	0	0	33.3	3.25	18.3
Fall 2006	18	0	0	11.1	2.73	14.4
Spring 2007	27	0	3.7	37.0	2.32	12.4

**Success of BT FastStart Cohorts (Spring 2006 through Spring 2009)**

Results shown in Tables 5-9 show detailed analysis of the cohorts (three math and two English) associated with enrollment in the FastStart program for up to seven semesters, starting with Spring 2006 or later. The results are presented using the BT Outcomes Template developed by evaluators Bragg and Barnett for the BT initiative.

Results presented in these tables portray a pattern of completion and retention that is logical and expected, based on the literature. Students taking developmental course work who are nearer the college level placement requirement are more likely than students needing more developmental education to pass the college gatekeeper course in the respective discipline of math and English/reading. For example, for FastStart students taking MAT 030-060, between 17.4% and 46.2% pass the college gatekeeper course in math (referring to a course 100 or above in the CCD course numbering schema). By comparison, between 52.9% and 83.3% of students taking MAT 060-090 pass the college gatekeeper course in math, and between 78.6% and 84.6% of students taking MAT 090-106 pass the college gatekeeper course in math. Because the MAT 090-106 course is relatively new, being offered three semesters only, the pass rate may increase MAT 090-106 for college gatekeeper in math as more cohorts get the opportunity to participate and more time passes subsequent to FastStart enrollment.

Whereas the majority of this report focuses on math, results for the FastStart groups are equally as compelling for English. The percentage of students associated with the two FastStart English programs completing the accelerated English/reading course sequence and passing the college gatekeeper English course ranged from 61.9% to 91.4% for

English 3 and from 63.6% to 84.2% for the English 4. These results suggest students required to take multiple developmental English and reading courses (up to 3-4 courses) can be accelerated through the course work and successful passing college level courses needed for continued study at the collegiate level.

**Table 5**  
**Community College of Denver**  
**Student Outcomes Report for Combined MAT 030-060 Cohorts – Spring 2006 through Spring 2009**  
**(as of July 2009)**

MEASURES		COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5	COHORT 6	COHORT 7
Start date		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009
Number of students in cohort		18	38	23	39	24	39	18
<b>ACCESS AND PARTICIPATION</b>								
Percent Adult (23+)		33.4	26.4	39.1	25.6	41.7	38.5	50.0
Percent Female		77.8	71.1	60.9	61.5	58.3	59.0	44.4
Percent Non-white		83.3	86.8	65.6	69.2	58.3	53.8	61.1
Percent Entering without HS credential or GED		5.6	26.3	13.0	8.7	4.2	12.8	11.1
Percent Pell grant recipient		61.1	44.7	30.4	48.7	37.5	30.8	55.6
Percent Native Language is English		72.7	78.9	91.3	79.5	87.5	89.7	100.0
<b>ADULT EDUCATION SUCCESS</b>								
Math	Number pre/post tested in TABE Math	NA	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in TABE Math scores	NA	NA	NA	NA	NA	NA	NA
Reading	Number pre/post tested in TABE Reading	NA	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in TABE Reading scores	NA	NA	NA	NA	NA	NA	NA
<b>DEVELOPMENTAL EDUCATION PERFORMANCE</b>								
Math	Number required to take Dev Ed Math	18	38	23	39	24	39	18
	Number and percent completing 1 level with passing grade	18 (100%)	37 (97.4%)	15 (65.2%)	34 (87.2%)	17 (70.8%)	32 (82.1%)	16 (88.9%)
	Number and percent completing 1 level with passing grade but not yet “college ready”	13 (72.2%)	16 (42.1%)	8 (34.8%)	12 (30.8%)	7 (29.2%)	13 (33.3%)	14 (77.8%)
	Number and percent who passed all levels to make them “college ready” in math	4 (22.2%)	16 (42.1%)	4 (17.4%)	18 (46.2%)	9 (37.5%)	11 (28.2%)	NA
Reading	Number required to take Dev Ed Reading	NA	NA	NA	NA	NA	NA	NA
	Number and percent completing 1 level with passing grade	NA	NA	NA	NA	NA	NA	NA
	Number and percent of students completing more than 1 level with passing grade, but less than all levels to be “college ready” in reading	NA	NA	NA	NA	NA	NA	NA

MEASURES		COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5	COHORT 6	COHORT 7
	Number and percent who passed all levels to make them “college ready” in reading	NA	NA	NA	NA	NA	NA	NA
<b>COLLEGE PLACEMENT</b>								
Math	Number who pre/post tested on College Placement Test (CPT) in Math	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Math	NA	NA	NA	NA	NA	NA	NA
Reading	Number & Percent who pre/post tested in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Reading	NA	NA	NA	NA	NA	NA	NA
<b>GATEKEEPER COURSE SUCCESS</b>								
Number & Percent passing the college math gatekeeper course		5 (27.8%)	9 (23.7%)	2 (8.7%)	5 (12.8%)	6 (25%)	3 (7.7%)	NA
Number & Percent passing the gatekeeper course in English		NA	NA	NA	NA	NA	NA	NA
Number & Percent passing the gatekeeper CTE course		NA	NA	NA	NA	NA	NA	NA
<b>ENROLLMENT AND RETENTION</b>								
Number & Percent passing any college credit course with passing grade		NA	NA	NA	NA	NA	NA	NA
Average college credits earned in developmental math		5.72	7.30	6.47	8.34	7.00	7.06	4.62
Average CTE credits earned		NA	NA	NA	NA	NA	NA	NA
Average college credits earned		16.06	16.52	6.61	7.81	9.13	4.95	2.56
Average college cumulative GPA		2.76	2.40	1.84	2.41	2.29	2.27	2.66
<b>COMPLETION</b>								
Number & Percent earning certificate		1 (5.6%)	2 (5.3%)	0	1 (2.6%)	0	1 (2.6%)	0
Number & Percent earning degrees		1 (5.6%)	1 (2.6%)	1 (4.3%)	0	0	0	0
Number & Percent still enrolled by Spring 2009		5 (27.8%)	15 (39.5%)	5 (21.7%)	17 (43.6%)	12 (50%)	28 (71.8%)	18 (100%)
<b>EMPLOYMENT</b>								
Number & Percent who moved into BT related job during/following program		NA	NA	NA	NA	NA	NA	NA
Number & Percent employed in BT related occupation		NA	NA	NA	NA	NA	NA	NA

Note: NA means Not Applicable or Not Available.

**Table 6**  
**Community College of Denver**  
**Student Outcomes Report for Combined MAT 060-090 Cohorts – Spring 2006 through Spring 2009**  
**(as of July 2009)**

<b>MEASURES</b>		<b>COHORT 1</b>	<b>COHORT 2</b>	<b>COHORT 3</b>	<b>COHORT 4</b>	<b>COHORT 5</b>	<b>COHORT 6</b>	<b>COHORT 7</b>
Start date		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009
Number of students in cohort		15	18	27	17	30	28	37
<b>ACCESS AND PARTICIPATION</b>								
Percent Adult (23+)		60.0	61.1	66.7	47.1	66.7	67.8	59.5
Percent Female		66.7	61.1	63.0	70.6	70.0	50.0	64.9
Percent Non-white		73.3	38.9	70.4	52.9	70.0	39.3	54.1
Percent Entering without HS credential or GED		20.0	50.0	11.1	11.8	13.8	7.1	18.9
Percent Pell grant recipient		46.7	50.0	59.3	64.7	66.7	28.6	54.1
Percent Native Language is English		80.0	100.0	92.6	88.2	96.7	92.9	97.3
<b>ADULT EDUCATION SUCCESS</b>								
Math	Number pre/post tested in TABE Math	NA	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in TABE Math scores	NA	NA	NA	NA	NA	NA	NA
Reading	Number pre/post tested in TABE Reading	NA	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in TABE Reading scores	NA	NA	NA	NA	NA	NA	NA
<b>DEVELOPMENTAL EDUCATION PERFORMANCE</b>								
Math	Number required to take Dev Ed Math	15	18	27	17	30	28	37
	Number and percent completing 1 level with passing grade	13 (86.7%)	17 (94.4%)	23 (85.2%)	13 (76.5%)	29 (93.1%)	26 (92.9%)	30 (81.1%)
	Number and percent completing more than 1 level with passing grade, but less than all levels to be “college ready”	NA	NA	NA	NA	NA	NA	NA
	Number and percent who passed all levels to make them “college ready”	12 (80%)	11 (61.1%)	20 (74.1%)	9 (52.9%)	25 (83.3%)	22 (78.6%)	21 (56.8%)
Reading	Number required to take Dev Ed Reading	NA	NA	NA	NA	NA	NA	NA
	Number and percent completing 1 level only with passing grade	NA	NA	NA	NA	NA	NA	NA
	Number and percent of students completing more than 1 level with passing grade, but less than all levels to be “college ready” in reading	NA	NA	NA	NA	NA	NA	NA

MEASURES		COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5	COHORT 6	COHORT 7
	Number and percent who passed all levels to make them "college ready" in reading	NA	NA	NA	NA	NA	NA	NA
<b>COLLEGE PLACEMENT</b>								
Math	Number who pre/post tested on College Placement Test (CPT) Math	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Math	NA	NA	NA	NA	NA	NA	NA
Reading	Number & Percent who pre/post tested in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Reading	NA	NA	NA	NA	NA	NA	NA
<b>GATEKEEPER COURSES</b>								
Number & Percent passing the college math gatekeeper course		5 (33.3%)	6 (33.3%)	10 (37.0%)	4 (23.5%)	16 (53.3%)	6 (21.4%)	NA
Number & Percent passing the gatekeeper course in English		NA	NA	NA	NA	NA	NA	NA
Number & Percent passing the gatekeeper CTE course		NA	NA	NA	NA	NA	NA	NA
<b>ENROLLMENT AND RETENTION</b>								
Number & Percent passing any college credit course with passing grade		NA	NA	NA	NA	NA	NA	NA
Average college credits earned in developmental math		7.27	5.76	7.73	6.67	7.93	7.27	6.62
Average CTE credits earned		NA	NA	NA	NA	NA	NA	NA
Average college credits earned		25.73	16.28	15.15	11.94	13.98	5.96	2.32
Average college cumulative GPA		3.25	2.73	2.32	2.82	2.88	3.00	2.50
<b>COMPLETION</b>								
Number & Percent earning certificate		0	0	0	0	0	1 (3.6%)	1 (2.7%)
Number & Percent earning degrees		1 (6.7%)	0	1 (3.7%)	0	1 (3.3%)	0	0
Number & Percent still enrolled by Spring 2009		2 (13.3%)	4 (22.2%)	10 (37.0%)	8 (47.1%)	19 (63.3%)	18 (64.3%)	NA
<b>EMPLOYMENT</b>								
Number & Percent who moved into BT related job during/following program		NA	NA	NA	NA	NA	NA	NA
Number & Percent employed in BT related occupation		NA	NA	NA	NA	NA	NA	NA

Note: NA means Not Applicable or Not Available.

**Table 7**  
**Community College of Denver**  
**Student Outcomes Report for Combined MAT 090/106 Cohorts – Spring 2008 through Spring 2009**  
**(as of July 2009)**

<b>MEASURES</b>					<b>COHORT 1</b>	<b>COHORT 2</b>	<b>COHORT 3</b>	
Start date		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009
Number of students in cohort		--	--	--	--	13	14	5
<b>ACCESS AND PARTICIPATION</b>								
Percent Adult (23+)		--	--	--	--	58.8	35.7	40.0
Percent Female		--	--	--	--	76.9	42.9	60.0
Percent Non-white		--	--	--	--	38.5	57.1	60.0
Percent Entering without HS credential or GED		--	--	--	--	0	21.4	40.0
Percent Pell grant recipient		--	--	--	--	30.8	28.6	40.0
Percent Native Language is English		--	--	--	--	100.0	100.0	100.0
<b>ADULT EDUCATION SUCCESS</b>								
Math	Number pre/post tested in TABE Math	--	--	--	--	NA	NA	NA
	Average most recent score in TABE Math	--	--	--	--	NA	NA	NA
	Average gain in TABE Math scores	--	--	--	--	NA	NA	NA
Reading	Number pre/post tested in TABE Reading	--	--	--	--	NA	NA	NA
	Average most recent score in TABE Reading	--	--	--	--	NA	NA	NA
	Average gain in TABE Reading scores	--	--	--	--	NA	NA	NA
<b>DEVELOPMENTAL EDUCATION PERFORMANCE</b>								
Math	Number required to take Dev Ed Math	--	--	--	--	13	14	5
	Number and percent completing 1 level only with passing grade	--	--	--	--	NA	NA	NA
	Number and percent completing more than 1 level with passing grade, but less than all levels to be "college ready"	--	--	--	--	NA	NA	NA
	Number and percent who passed all levels to make them "college ready"	--	--	--	--	84.6	78.6	80.0
Reading	Number required to take Dev Ed Reading	--	--	--	--	NA	NA	NA
	Number and percent completing 1 level only with passing grade	--	--	--	--	NA	NA	NA
	Number and percent of students completing more than 1 level with passing grade, but less	--	--	--	--	NA	NA	NA

MEASURES						COHORT 1	COHORT 2	COHORT 3
	than all levels to be “college ready”							
	Number and percent who passed all levels to make them “college ready”	--	--	--	--	NA	NA	NA
<b>COLLEGE PLACEMENT</b>								
Math	Number who pre/post tested on College Placement Test (CPT) Math	--	--	--	--	NA	NA	NA
	Average final score in CPT Math	--	--	--	--	NA	NA	NA
	Average gain in CPT Math	--	--	--	--	NA	NA	NA
Reading	Number & Percent who pre/post tested in CPT Reading	--	--	--	--	NA	NA	NA
	Average final score in CPT Reading	--	--	--	--	NA	NA	NA
	Average gain in CPT Reading	--	--	--	--	NA	NA	NA
<b>GATEKEEPER COURSES</b>								
Number & Percent passing the college course in math		--	--	--	--	9 (69.2%)	7 (50.0%)	3 (60.0%)
Number & Percent passing the gatekeeper course in English		--	--	--	--	NA	NA	NA
Number & Percent passing the gatekeeper CTE course		--	--	--	--	NA	NA	NA
<b>ENROLLMENT AND RETENTION</b>								
Number & Percent passing any college credit course with passing grade		--	--	--	--	NA	NA	NA
Average college credits earned in developmental math		--	--	--	--	4.0	4.0	4.0
Average CTE credits earned		--	--	--	--	NA	NA	NA
Average college credits earned						15.62	7.43	3.60
Average college cumulative GPA		--	--	--	--	2.81	1.92	2.61
<b>COMPLETION</b>								
Number & Percent earning certificate		--	--	--	--	0	0	0
Number & Percent earning degrees		--	--	--	--	0	0	0
Number & Percent still enrolled at Spring 09		--	--	--	--	NA	NA	NA
<b>EMPLOYMENT</b>								
Number & Percent who moved into BT related job during/following program		--	--	--	--	NA	NA	NA
Number & Percent employed in BT related occupation		--	--	--	--	NA	NA	NA

Note: NA means Not Applicable or Not Available.

**Table 8**  
**CCD Outcomes Report for Combined ENG-3 Cohorts – Spring 2006 through Spring 2009**  
**(as of July 2009)**

MEASURES			COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5
Start date	<b>Spring 2006</b>	<b>Fall 2006</b>	<b>Spring 2007</b>	<b>Fall 2007</b>	<b>Spring 2008</b>	<b>Fall 2008</b>	<b>Spring 2009</b>
Number of students in cohort	NA	NA	17	21	12	15	20
<b>ACCESS AND PARTICIPATION</b>							
Percent Adult (23+)	NA	NA	23.5	14.3	8.3	26.6	30.0
Percent Female	NA	NA	82.4	85.7	75.0	53.3	85.0
Percent Non-white	NA	NA	82.4	66.7	66.7	80.0	60.0
Percent Entering without HS credential or GED	NA	NA	29.4	14.3	16.7	20.0	20.0
Percent Pell grant recipient	NA	NA	58.8	47.6	58.3	66.7	75.0
Percent Native Language is English	NA	NA	41.2	33.3	25.0	33.3	40.0
<b>ADULT EDUCATION SUCCESS</b>							
Math	Number pre/post tested in TABE Math	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Math	NA	NA	NA	NA	NA	NA
	Average gain in TABE Math scores	NA	NA	NA	NA	NA	NA
Reading	Number pre/post tested in TABE Reading	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Reading	NA	NA	NA	NA	NA	NA
	Average gain in TABE Reading scores	NA	NA	NA	NA	NA	NA
<b>DEVELOPMENTAL EDUCATION PERFORMANCE</b>							
Math	Number required to take Dev Ed Math	NA	NA	NA	NA	NA	NA
	Number and percent completing 1 level only with passing grade	NA	NA	NA	NA	NA	NA
	Number and percent completing more than 1 level with passing grade, but less than all levels to be "college ready" in math	NA	NA	NA	NA	NA	NA
	Number and percent who passed all levels to make them "college ready" in math	NA	NA	NA	NA	NA	NA
Reading	Number required to take Dev Ed Reading	NA	NA	17	21	12	15
	Number and percent completing at least 1 level with passing grade	NA	NA	17 (100%)	20 (95.2%)	11 (91.7%)	12 (80.0%)
	Number and percent of students completing more than 1 level with passing grade, but less than all levels to be "college ready"	NA	NA	1 (5.9%)	7 (33.3%)	0	2 (13.3%)
	Number and percent who passed all levels to	NA	NA	16 (94.1%)	13 (61.9%)	11 (91.7%)	10 (66.7%)

MEASURES				COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5
	make them “college ready”							
<b>COLLEGE PLACEMENT</b>								
Math	Number & Percent who pre/post tested on College Placement Test (CPT) Math	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Math	NA	NA	NA	NA	NA	NA	NA
Reading	Number & Percent who pre/post tested in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Reading	NA	NA	NA	NA	NA	NA	NA
<b>GATEKEEPER COURSES</b>								
Number & Percent passing the gatekeeper course in math		NA	NA	NA	NA	NA	NA	NA
Number & Percent passing the gatekeeper course in English		NA	NA	13 (76.5%)	10 (47.6%)	9 (75.0%)	7 (46.7%)	NA
Number & Percent passing the gatekeeper CTE course		NA	NA	NA	NA	NA	NA	NA
<b>ENROLLMENT AND RETENTION</b>								
Number & Percent passing any college credit course w/ passing grade		NA	NA	NA	NA	NA	NA	NA
Average college credits earned in developmental English		NA	NA	5.82	4.95	6.00	5.50	6.00
Average CTE credits earned		NA	NA	NA	NA	NA	NA	NA
Average college credits earned		NA	NA	23.06	8.29	10.17	4.67	1.05
Average cumulative college GPA		NA	NA	2.37	1.76	2.55	2.59	2.88
<b>COMPLETION</b>								
Number & Percent earning certificate		NA	NA	0	4.8	0	0	0
Number & Percent earning degrees		NA	NA	5.9	0	0	0	0
Number & Percent still enrolled Spring 2009		NA	NA	52.9	47.6	66.7	80.0	NA
<b>EMPLOYMENT</b>								
Number & Percent who moved into BT related job during/following program		NA	NA	NA	NA	NA	NA	NA
Number & Percent employed in BT related occupation		NA	NA	NA	NA	NA	NA	NA

Note: NA means Not Applicable or Not Available.

**Table 9**  
**Community College of Denver**  
**Student Outcomes Report for Combined ENG-4 Cohorts – Spring 2006 through Spring 2009**  
**(as of July 2009)**

MEASURES		COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5	COHORT 6	COHORT 7
Start date		Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009
Number of students in cohort		11	32	11	20	16	19	23
<b>ACCESS AND PARTICIPATION</b>								
Percent Adult (23+)		9.1	21.9	36.4	10.0	31.1	21.0	17.4
Percent Female		81.8	50.0	54.5	60.0	68.8	73.7	47.8
Percent Non-white		63.6	62.5	54.5	70.0	87.5	94.7	82.6
Percent Entering without HS credential or GED		0	12.5	9.1	10.0	6.3	5.3	21.7
Percent Pell grant recipient		54.5	46.9	45.5	55.0	73.8	47.4	43.5
Percent Native Language is English		63.6	68.8	81.8	90.0	100.0	78.7	78.3
<b>ADULT EDUCATION SUCCESS</b>								
Math	Number pre/post tested in TABE Math	NA	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in TABE Math scores	NA	NA	NA	NA	NA	NA	NA
Reading	Number pre/post tested in TABE Reading	NA	NA	NA	NA	NA	NA	NA
	Average most recent score in TABE Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in TABE Reading scores	NA	NA	NA	NA	NA	NA	NA
<b>DEVELOPMENTAL EDUCATION PERFORMANCE</b>								
Math	Number required to take Dev Ed Math	NA	NA	NA	NA	NA	NA	NA
	Number and percent completing 1 level only with passing grade	NA	NA	NA	NA	NA	NA	NA
	Number and percent completing more than 1 level with passing grade, but less than all levels to be "college ready" in math	NA	NA	NA	NA	NA	NA	NA
	Number and percent who passed all levels to make them "college ready" in math	NA	NA	NA	NA	NA	NA	NA
Reading	Number required to take Dev Ed Reading	11	32	11	20	16	19	23
	Number and percent completing 1 level only with passing grade	2 (18.2%)	4 (12.5%)	1 (9.1%)	4 (20.0%)	2 (12.5%)	19 (100%)	23 (100%)
	Number and percent of students completing 1 or more levels with passing grade	9 (81.8%)	30 (93.8%)	10 (90.9%)	18 (90.0%)	15 (93.8%)	16 (84.2%)	19 (82.6%)
	Number and percent who passed all levels to	7 (63.6%)	26 (81.3%)	9 (81.8%)	15 (75.0%)	13 (81.3%)	16 (84.2%)	19 (82.6%)

MEASURES		COHORT 1	COHORT 2	COHORT 3	COHORT 4	COHORT 5	COHORT 6	COHORT 7
	make them “college ready” in reading							
<b>COLLEGE PLACEMENT</b>								
Math	Number & Percent who pre/post tested on College Placement Test (CPT) Math	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Math	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Math	NA	NA	NA	NA	NA	NA	NA
Reading	Number who pre/post tested in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average final score in CPT Reading	NA	NA	NA	NA	NA	NA	NA
	Average gain in CPT Reading	NA	NA	NA	NA	NA	NA	NA
<b>GATEKEEPER COURSES</b>								
Number & Percent passing the gatekeeper course in math		NA	NA	NA	NA	NA	NA	NA
Number & Percent passing the gatekeeper course in English		6 (54.5%)	14 (43.8%)	4 (36.4%)	8 (40.0%)	7 (43.8%)	5 (26.3%)	NA
Number & Percent passing the gatekeeper CTE course		NA	NA	NA	NA	NA	NA	NA
<b>ENROLLMENT AND RETENTION</b>								
Number & Percent passing any college credit course with passing grade		NA	NA	NA	NA	NA	NA	NA
Average college credits earned in developmental English		5.33	5.60	5.70	5.21	5.60	6.00	6.00
Average CTE credits earned		NA	NA	NA	NA	NA	NA	NA
Average college credits earned		11.55	16.56	15.73	7.05	6.0	4.58	0.96
Average college cumulative GPA		2.16	1.80	1.61	1.65	2.13	1.89	2.82
<b>COMPLETION</b>								
Number & Percent earning certificate		0	0	1 (9.1%)	0	0	1 (5.3%)	0
Number & Percent earning degrees		0	2 (6.3%)	0	0	0	0	0
Number & Percent still enrolled by Spring 2009		3 (27.3%)	8 (25.0%)	5 (45.5%)	6 (30.0%)	10 (62.5%)	15 (78.9%)	NA
<b>EMPLOYMENT</b>								
Number & Percent who moved into BT related job during/following program		NA	NA	NA	NA	NA	NA	NA
Number & Percent employed in BT related occupation		NA	NA	NA	NA	NA	NA	NA

Note: NA means Not Applicable or Not Available.

## Success of BT FastStart Cohort (Fall 2007)

This analysis goes deeper into course enrollment and retention associated with student enrollment in FastStart for the Fall 2007 semester. The data associated with this analysis were secured and aggregated by FastStart program personnel, using program and institutional records. The analysis was conducted in fall 2008 and completed in December 2008.

Table 10 provides summary statistics on FastStart students who participated in the three math cohorts and/or any combination of English and reading courses in Fall 2007. The number of students included in this analysis differs slightly from the number of student enrollments shown for Fall 2007 elsewhere in this report because this table eliminates six students who were enrolled in both math and English/reading sequences to create an unduplicated count.

**Table 10**  
**Community College of Denver**  
**Student Outcomes Report for Aggregate Fall 2007 BT FastStart Cohort**  
**(as of Fall 2008)**

MEASURES		COHORT
Start date		Fall 2007
Number of students in FastStart cohorts		94
<b>ACCESS AND PARTICIPATION</b>		
Percent Adult (23+)		33%
Percent Female		66%
Percent Non-white		83%
Percent Entering without HS credential or GED		33%
Percent Pell grant recipient		51%
Percent Native Language is English		59%
<b>ADULT EDUCATION SUCCESS</b>		
Math	Number pre/post tested in TABE Math	NA
	Average most recent score in TABE Math	NA
	Average gain in TABE Math scores	NA
Reading	Number pre/post tested in TABE Reading	NA
	Average most recent score in TABE Reading	NA
	Average gain in TABE Reading scores	NA
<b>DEVELOPMENTAL EDUCATION PERFORMANCE</b>		
Math	Number required to take Dev Ed Math	57
	Number and percent completing 1 level only with passing grade	10 (17.5%)
	Number and percent completing more than 1 level with passing grade, but less than all levels to be "college ready" in math	27 (47%)
	Number and percent who passed all levels to make them "college ready" in math	9 (16%)
Reading	Number required to take Dev Ed Reading	43
	Number and percent completing 1 level only with passing grade	11 (26%)

MEASURES		COHORT
	Number and percent of students completing more than 1 level with passing grade, but less than all levels to be “college ready” in reading	NA
	Number and percent who passed all levels to make them “college ready” in reading	27 (63%)
COLLEGE PLACEMENT		
Math	Number & Percent who pre/post tested on College Placement Test (CPT) Math	NA
	Average final score in CPT Math	NA
	Average gain in CPT Math	NA
Reading	Number & Percent who pre/post tested in CPT Reading	NA
	Average final score in CPT Reading	NA
	Average gain in CPT Reading	NA
GATEKEEPER COURSES		
Number & Percent passing the gatekeeper course in Math		8 of 57 (14%) students who tested into dev math
Number & Percent passing the gatekeeper course in English		21 of 43 (49%) of students who tested into dev English
Number & Percent passing the gatekeeper CTE course		7 of 94 (7%)
COLLEGE SUCCESS		
Number & Percent passing any college credit course with passing grade		71 (76%)
Average college credits earned		6 (calc for total 94 students)
Average CTE credits earned		3 (17 students enrolled in CTE)-
Average college GPA		2.15 (calc for total 94 students)
COMPLETION		
Number & Percent earning certificate		NA
Number & Percent earning degrees		NA
Number & Percent completing BT		62 of total 94 students (66%) – FastStart students completing 2 levels of dev ed in 1 semester  36 of 57 (63%) total math only students completing 2 levels of dev ed in 1 semester  27 of 43 (63%) total reading/Eng only students completing 2 levels of dev ed in 1 semester
EMPLOYMENT		
Number & Percent who moved into BT related job during/following program		NA
Number & Percent employed in BT related occupation		NA

Note: NA means Not Applicable or Not Available.

Tables 11 through 13 provide additional results for the Fall 07 FastStart cohorts, aggregated into one group for the purposes of this analysis. Results show varying levels of completion (between 76% and 88%), depending on the level of courses taken. The numbers of students who completed two developmental courses were also substantial, ranging from 53% to 70%. Retention of completers to the 2<sup>nd</sup> semester was high, ranging from 74% to 88%, with modest attrition upon entry to the 3<sup>rd</sup> semester, ranging from 55% to 65%. Overall, these retention statistics are impressive, across the board.

**Table 11**  
**Student Outcomes Fall 2007 Cohort: Retention from Fall 07-Fall -08**  
**(as of Spring 2008)**

<b>Student Cohort</b>	<b>1<sup>st</sup> Semester Completion of 1 Developmental Course</b>	<b>1<sup>st</sup> Semester Completion of 2 Developmental Courses</b>	<b>Retention 2<sup>nd</sup> Semester</b>	<b>Retention 3<sup>rd</sup> Semester</b>
Entire Cohort (94 students)	88%	67%	76.5%*	59.6%*
030-060 40 students	83%	70%	75.0%*	55.0%*
060-090 17 students	76%	53%	88.2%*	64.7%*
Eng/Rea 43 students	88%	64%	74.4%*	57.5%*

\*Includes students who have transferred to other institutions, which is not a required computation of the BT Outcomes Template.

Results of FastStart students' progression in developmental English/reading and math courses appear in Table 12 and 13. These results show progression from developmental education to college-level course work. Results show positive results for students who participate in English/reading composition, with 50% of students who start the developmental sequence completing Freshman Composition. Completion statistics for developmental math present a different picture, however. In math, a high level of attrition is evident in students completing all levels of MAT 030-060-090, with only 37% completing all three developmental math courses. On a positive note, when students completed the entire developmental math sequence, a high percentage (70%) took the math gatekeeper course and a majority of these (57%) passed the course. A majority of students (65%) who took the MAT 060-090 courses completed the sequence, and 45% of these students enrolled in college-level math and a majority (60%) passed.

**Table 12**  
**Student Outcomes Fall 2007 Cohort: English Composition Progression**  
**(as of Spring 2008)**

<b>Student Group</b>	<b>Completed Dev. Reading &amp; English</b>	<b>Started Freshman Comp</b>	<b>Success in Freshman Comp<sup>1</sup></b>	<b>Percentage of Original Cohort Completing Freshman Composition</b>
43 students	64% (28 of 43 students)	96% (26 of 27 students)	77% <sup>3</sup> (20 of 26 students)	50% (20 of 40 students)

*Note:* Classes that transfer students took at other institutions are unknown and not reflected in the college math/English tables.

<sup>1</sup>Percentage of students enrolled in college level course who completed it successfully.

<sup>2</sup>Percentage of cohort completing college level course.

<sup>3</sup>Three students retaking Freshman Composition in Fall 08, data available Dec. 2008.

**Table 13**  
**CCD Student Outcomes Fall 07 Cohort – Math Progression Over Two Semesters**  
**(Fall 07-Fall 08)**  
**(as of Fall 2008)**

<b>Student Group</b>	<b>Completed FastStart Sequence</b>	<b>Completed Dev Math (030-060-090)</b>	<b>Started College Math</b>	<b>Success in College Math<sup>1</sup></b>	<b>Completed College Math<sup>2</sup></b>
MAT 030-060 40 students	70% (28 of 40 students)	37% (10 of 27 students)	70% (7 of 10 students)	57% <sup>3</sup> (4 of 7 students Spring 08)	10% (4 of 40 students)
MAT 060-090 17 students	53% (9 of 17 students)	65% (11 of 17 students)	45% (5 of 11 students)	60% <sup>4</sup> (3 of 5 students Spring 08)	17.6% (3 of 17 students)

*Note:* Classes that transfer students took at other institutions are unknown and not reflected in the college math/English tables.

<sup>1</sup>Percentage of students enrolled in college level course who completed it successfully.

<sup>2</sup>Percentage of cohort completing college level course.

<sup>3</sup>030-060- 3 students enrolled in college math in Fall 08, data available Dec. 2008.

<sup>4</sup>060-090- 2 students enrolled in college math in Fall 08, data available Dec. 2008.

## Summary

Outcomes results for developmental math for BT FastStart students compared to baseline students revealed the following:

- FastStart students exceeded the baseline comparison group on the following measures:
  - Completion of at least one developmental math course.
  - Completion of all developmental math, making them college ready.
  - The number of credits accumulated in developmental math.
  - Passing college math gatekeeper course.
  - Enrollment 24 months subsequent to taking first developmental math course.
  - Average last term or 24-month GPA.

Promising outcomes results for the all FastStart cohorts include:

- The percentage of FastStart students taking Mat 030-060 who passed all levels of developmental math and a college gatekeeper course ranged from 17.4% to 46.2%. The percentage still enrolled in Spring 2009 ranged from 21.7% to 71.8%, with students enrolling in FastStart in more recent semesters more likely to remain enrolled.
- The percentage of FastStart students taking Mat 060-090 who passed all levels of developmental math and a college gatekeeper course ranged from 52.9% to 83.3%. The percentage still enrolled in Spring 2009 ranged from 21.7% to 64.3%, with students enrolling in FastStart in more recent semesters more likely to remain enrolled.
- The percentage of FastStart students taking Mat 090-106 who passed all levels of developmental math and a college gatekeeper course ranged from 78.6% to 84.6%, with the vast majority of students still enrolled from the three student groups participating in developmental math.
- The percentage of students associated with the two FastStart English programs completing the accelerated English/reading course sequence and passing the college gatekeeper English course ranged from 61.9% to 91.4% for English 3 and from 63.6% to 84.2% for the English 4.
- The percentage of students associated with the two FastStart English programs that were still enrolled in Spring 2009 ranged from 47.6% to 80% for English 3 and from 25% to 78.9% for English 4. Here and with math, retention to the present was associated with when the students began the FastStart program; students entering the program more recently were more likely to be enrolled than those who started in earlier terms.

Selected findings for the Fall 2007 math and English/reading cohort include:

- Promising results emerge on retention of the FastStart cohorts, when the analysis allows for longitudinal tracking. Specifically, results show completion between 76% and 88%, depending on the level of courses taken. The numbers of students who complete two developmental courses range from 53% to 70%, and retention

- of these initial completers to the 2<sup>nd</sup> semester is high, ranging from 74% to 88%, with modest attrition upon entry to the 3<sup>rd</sup> semester, ranging from 55% to 65%.
- Looking at English specifically, results are positive for students who participate in English/reading composition, with 50% of students who start the developmental sequence completing Freshman Composition.
  - Looking at math specifically, when FastStart students completed the entire developmental math sequence (MAT 030 through MAT 090), a high percentage (70%) take the math gatekeeper course and a majority of these (57%) pass the course. A majority of students (65%) who take MAT 060-090 complete the sequence, and 45% of these students enroll in college-level math, and a majority of these (60%) pass.

### **Institutionalization of BT FastStart**

CCD has integrated and institutionalized the FastStart program into its math, English and reading developmental curriculum, and it continues to expand enrollments, including an ever-growing number of students enrolled in baccalaureate degree programs at Metropolitan State College of Denver, a four-year university immediately adjacent to CCD's downtown Auraria campus. Institutionalization of FastStart is a priority for CCD and strong evidence exists to support that the initiative is fully operational and highly integral to the college's developmental curriculum. Given the importance of student success in developmental education to support college level instruction (i.e., student enrollment at the college level is highly dependent on student matriculation from developmental courses into the college curriculum), the FastStart program is recognized as a critical asset to CCD's future. Consequently, it is not surprising that Fall 2009 enrollment in FastStart continues to grow, with enrollment Fall 2009 semester at an all time high. At the beginning of Fall 2009, 11 academic classes using the accelerated FastStart model were offered, with 188 total students enrolled. These enrollments are the product of considerable curriculum development efforts that have been undertaken over the last several years to develop FastStart courses, and these development efforts are continuing into the future as more accelerated course combinations are being tried, including cross-disciplinary combinations that involve math, English, reading and communications.

Moreover, during the calendar 2009 year (and in association with the BT Scaling Up award), the FastStart program has developed new instructional materials, including a textbook that combines mathematics content for MAT 030-060. Personnel engaged in the FastStart program are working with a publisher to reduce textbook costs and develop supplemental material. A number of CCD faculty members are involved in this effort. In addition, a new course combination, ENG 090/Com 115, is being offered in Fall 2009, and this course follows a similar pattern to MAT 090/106, the advanced developmental math/entry level college math course combination that was first offered in Spring 2008. ENG 090/Com 115 is being taught by two instructors, and enrollment is at capacity in Fall 2009. Finally, course development work is occurring on MAT/ENG 060-090, with instructors involved in the teacher planning phase in Fall 2009, with the first course offering scheduled for Spring 2010. This innovation offers mid- to advanced math and

English combination courses in both math and English, accelerating student learning in two core developmental areas.

**Next Steps for the BT Program Evaluation**

Another report will be produced in December 2009 that includes information on Phase II activities. That report will provide further description of the efforts CCD is making to engage in college-wide scaling up activities associated with Breaking Through.