

Initial Review of the Impact of the Developmental Education Redesign at Virginia's Community Colleges

December 11, 2014

In an effort to improve student outcomes and more efficiently prepare students for college level English and math, the Virginia Community College System (VCCS) implemented a major redesign of its developmental course offerings along with a new placement test for incoming students. Beginning in the spring 2012 semester, developmental math instruction was delivered at all colleges through modularized one-credit-hour, four-week courses. The new math placement test, the Virginia Placement Test for Math (VPT-Math), identified which specific skills modules a student needed to complete, if any, to be eligible for a particular college-level math course. The new Developmental English redesign was implemented the following year (spring 2013), and was characterized by the integration of reading and writing instruction along with the ability for students who were considered nearly college-ready to enroll directly into College Composition I (ENG 111) while co-enrolling in a two-credit-hour developmental English course. The new Virginia Placement Test for English (VPT-English), which incorporated an essay component, was designed to assess incoming students' English preparedness and to place them into the appropriate English course.

To assess the initial impact of the developmental math redesign, outcomes of first time in college (FTIC), program-placed students in fall 2012 were compared to the outcomes of earlier FTIC, program-placed cohorts (pre-redesign). Because the developmental English redesign occurred a year later, this review does not track a cohort of FTIC students over time but rather compares enrollments and completions in developmental English and ENG 111 to earlier terms. A further assessment of the developmental English redesign will be conducted in fall 2015, which will track outcomes over time for the 2013 FTIC cohort.

This assessment gauges the impact of the developmental math redesign based on four main system-wide goals:

1. Decrease the number of students enrolling in developmental education,
2. Increase the number of students completing developmental education requirements within one year,
3. Increase the number of students successfully completing college-level math courses, and
4. Increase student success in terms of persistence, graduation, and transfer.

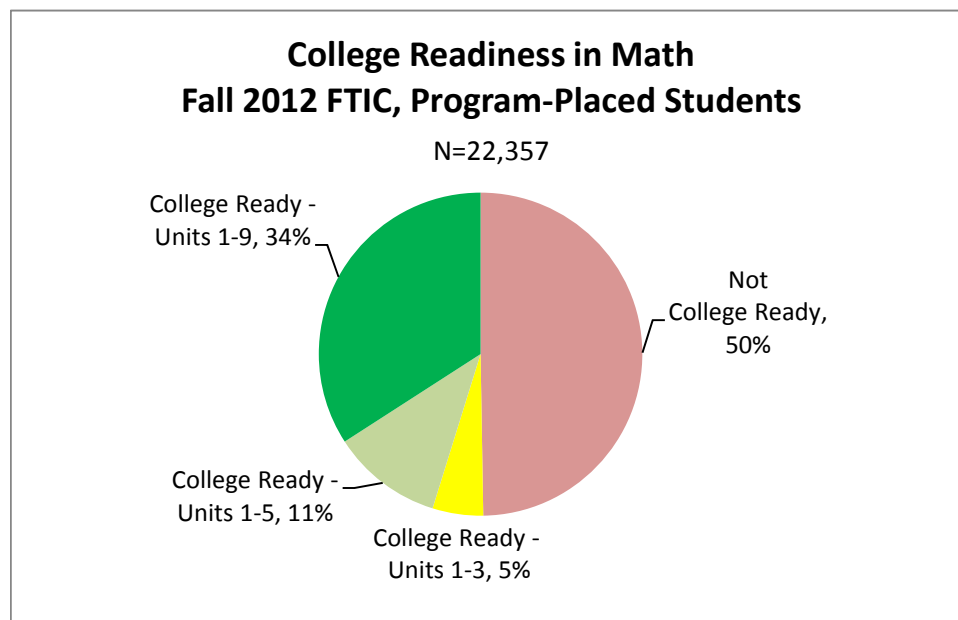
The extent to which each of these goals has been met is described in the remainder of this report.

Based on this initial review, it appears that the developmental math redesign has resulted in fewer students enrolling in developmental math (Goal 1) and more students completing their developmental requirements within one year (Goal 2). While more students are completing gatekeeper math courses (Goal 3), the overall success rate in these courses has decreased slightly. Although persistence rates have remained unchanged, more students are making timely progress toward a degree (Goal 4). The preliminary review of the developmental English redesign shows a significant decrease in developmental English enrollments along with a substantial increase in the number of students attempting and completing ENG 111, while holding success rates in ENG 111 constant.

Developmental Mathematics

Half of students who took the VPT-Math were ready to enroll in math courses at the 100 level or higher.

This review of the redesigned developmental mathematics program is based primarily on the experiences of the fall 2012 FTIC, program-placed cohort, which consisted of 29,583 students. Of these students, 22,357 (76%) took the VPT-Math and were placed according to their test results. Of the students that took the VPT-Math, about half tested as proficient through unit 3 of the developmental math modules, meaning they were college-ready for math at the career/technical education (CTE) level. More than one-third (34%) of the students who took the VPT-Math were fully college-ready by being proficient through unit 9. Students proficient through unit 9 are eligible to enroll in Precalculus I (MTH 163), which is required for most STEM programs. About 11% of students who took the VPT-Math were proficient through unit 5 and eligible to enroll in Math for Liberal Arts I (MTH 151). (See Appendix A for individual college math placement results.)

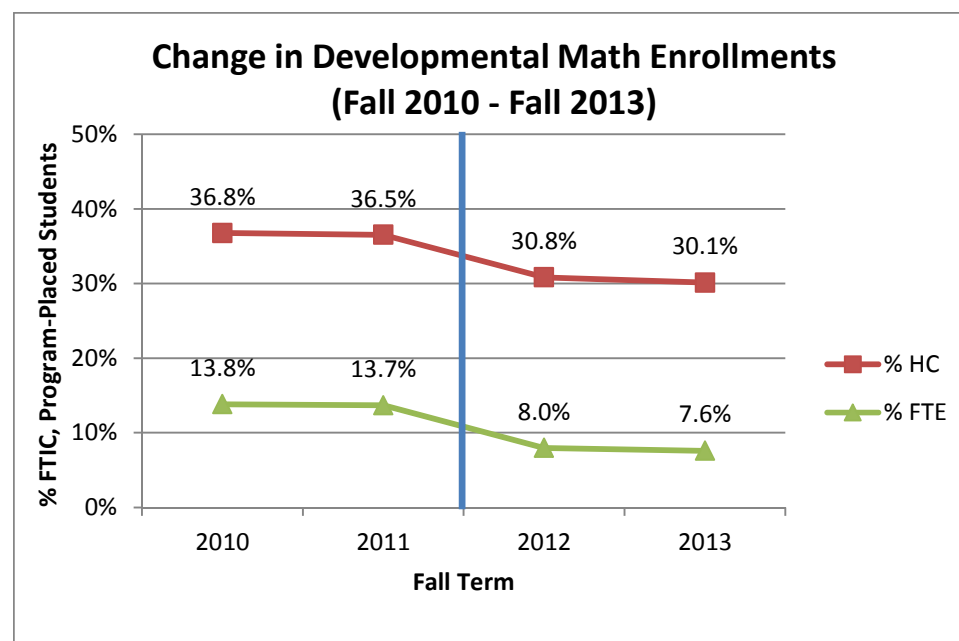


Goal #1: Decrease the number of students enrolling in developmental math

To determine if the number of students enrolling in developmental math decreased after the redesign was implemented, the percentage of first time in college (FTIC), program-placed students enrolling in developmental math was compared over a four-year period encompassing the two fall terms immediately preceding the redesign and the two fall terms following the beginning of the redesign in spring 2012. Developmental math enrollments were expressed as a percentage of FTIC, program-placed students in order to eliminate differences in developmental math enrollments due the changes in overall enrollment. Unclassified and dual enrollment students were not included in the analysis in order to eliminate differences in enrollment patterns due to changes in the composition of these students over time.

After the redesign, developmental math headcount enrollments decreased by 18%, while FTE enrollments decreased by 45%.

Prior to the developmental math redesign, approximately 37% of FTIC, program-placed students enrolled in developmental math in their first semester. After the developmental math redesign, about 30% of FTIC students enrolled in developmental math in their first semester. The FTIC FTEs generated by developmental math also decreased from nearly 14% to just below 8%. This decrease in developmental math enrollments represents an 18% decrease in headcount and a 45% decrease in FTEs over the fall terms immediately prior to the redesign. (See Appendix B for developmental math enrollments by college.)

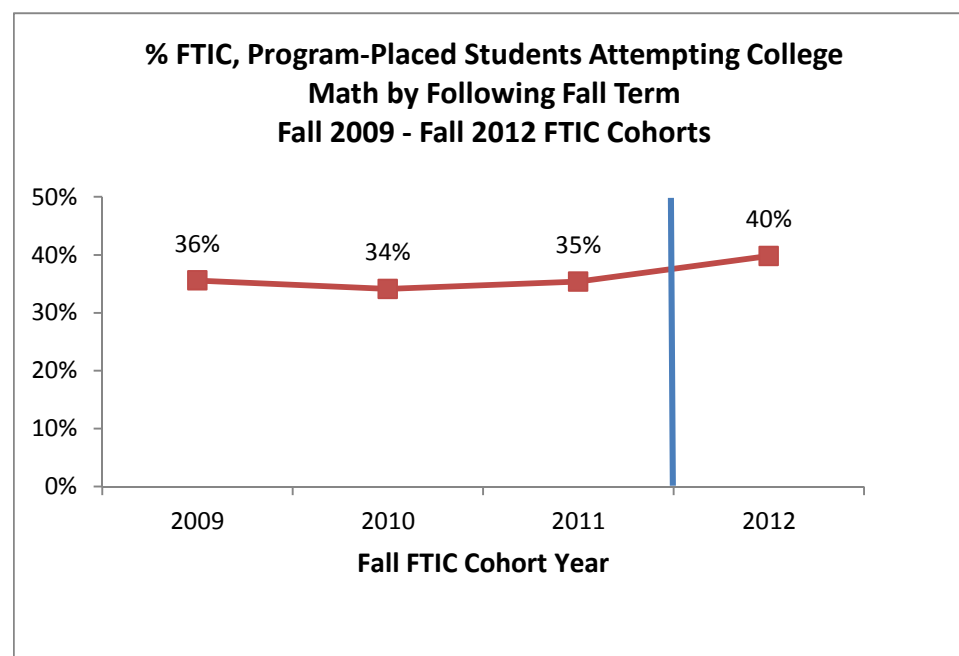


Goal #2: Increase the number of students completing developmental education requirements within one year

Due to the differing prerequisites depending on a student’s program of study and the corresponding required math course for the program, it is difficult to determine which students actually completed all their developmental math requirements within one year. For example, a student may have intended to pursue a program of study in a STEM field that requires MTH 163, for which satisfactory completion of developmental units 1-9 is a prerequisite. However, the student may have enrolled instead in MTH 151 rather than opting to complete developmental units 6 through 9. Given the difficulties in determining which students actually completed all their intended developmental math requirements within one academic year, achievement of this goal is measured here by the percentage of all FTIC, program-placed students that attempted a college-level math course by the first fall term following the FTIC year.

More students attempted college-level math by their second year than before the redesign.

Prior to the developmental math redesign, approximately 35% of students in the Fall FTIC, program-placed cohort attempted college level math by the following fall. After the redesign, 40% of the fall 2012 cohort attempted college level math by fall 2013. Thus, it appears that more students are progressing to college-level math by the next academic year after the developmental math redesign. (See Appendix C for individual college results by program type.)

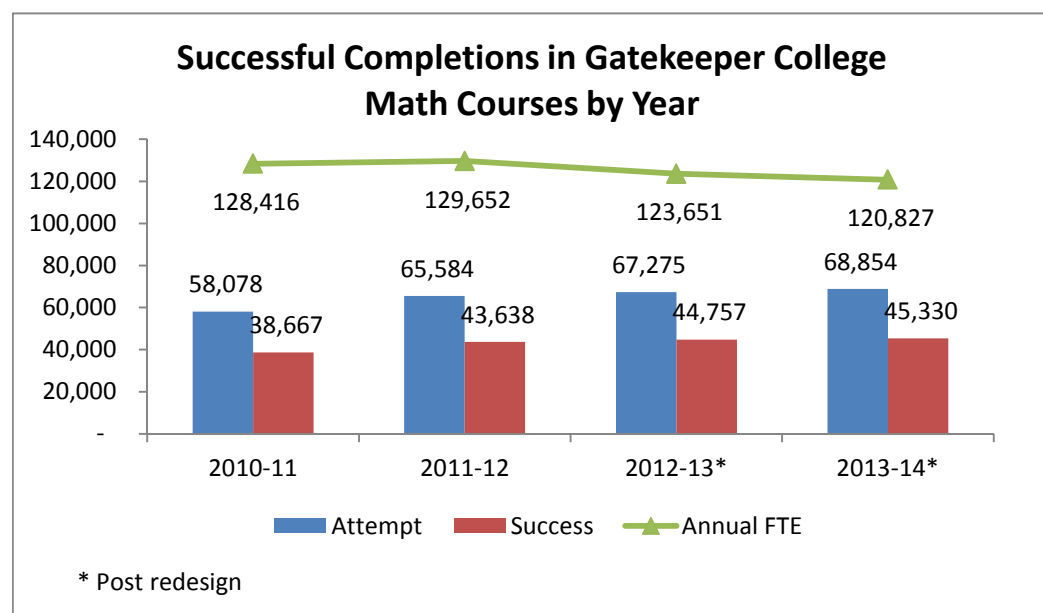


Goal #3: Increase the number of students successfully completing college-level math courses

This review used two different indicators to determine if more students are successfully completing gatekeeper math courses. The first indicator is simply the change in annual college-level math enrollments and completions over time. The second indicator is the success rate in college-level math courses for students who took developmental math prior to college-level math versus the success rate for students who enrolled directly in college-level math. These success rates are based on students from the fall 2012 FTIC cohort who attempted a college-level math course prior to the fall 2014 semester.

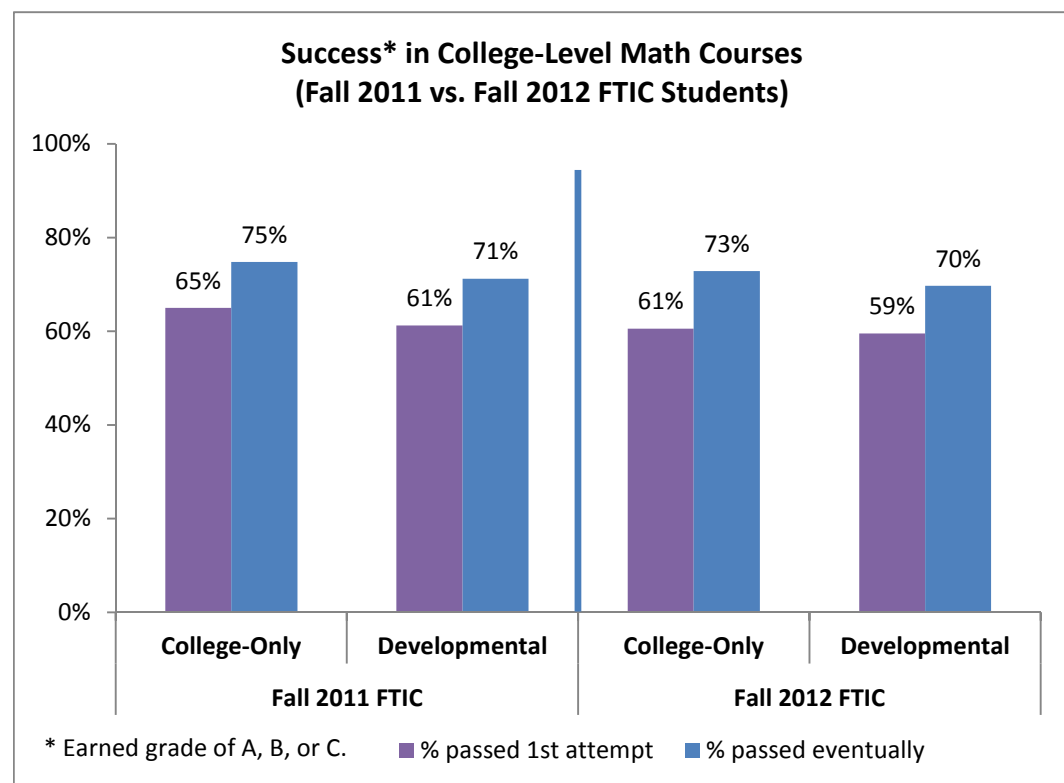
Annual college-level math enrollments and completions have increased since the developmental math redesign, as the number of students enrolling in and successfully completing gatekeeper math courses has increased by 19% and 17%, respectively, from the 2010-11 to 2013-14 academic years. **The number of successful college-level math completions increased by more than 6,600 students annually from 2010-11 to 2013-14, despite an overall drop in system-wide headcount and FTE student enrollments.** When holding system-wide annual FTE enrollment constant at the 2010-11 level, college-level math completions increased by 25% over the four-year time period. While the number of college-level math completers as grown, the percentage of students who successfully completed college-level math courses has remained relatively constant at 66% to 67% of those who attempted college-level math. (See Appendix D for gatekeeper math attempts and completions by college.)

The number of students enrolling in and successfully completing gatekeeper math courses has increased by approximately 18%.



When looking at the experiences of the fall 2012 FTIC cohort, slight differences exist in college-level math pass rates between students that enrolled first in developmental math and those students who never enrolled in developmental math. Of students who only took college-level math, 61% passed their first college-level math course while 73% eventually passed college-level math within two years (i.e., prior to the fall 2014 semester). Students who completed developmental math and subsequently enrolled in college-level math succeeded at slightly lower rates (59% passed on first attempt and 70% eventually passed).

Compared to the fall 2011 cohort, pass rates in college-level math courses were slightly lower following the redesign for both students who completed developmental math and those who never enrolled in developmental math. First-time pass rates fell by 4% for college-only students and by 2% for developmental students, while eventual (two-year) pass rates fell by 2% for college-only students and by 1% for developmental students. (See Appendix E for college-level math course pass rates by college for the fall 2011 and fall 2012 FTIC, program-placed cohorts.)

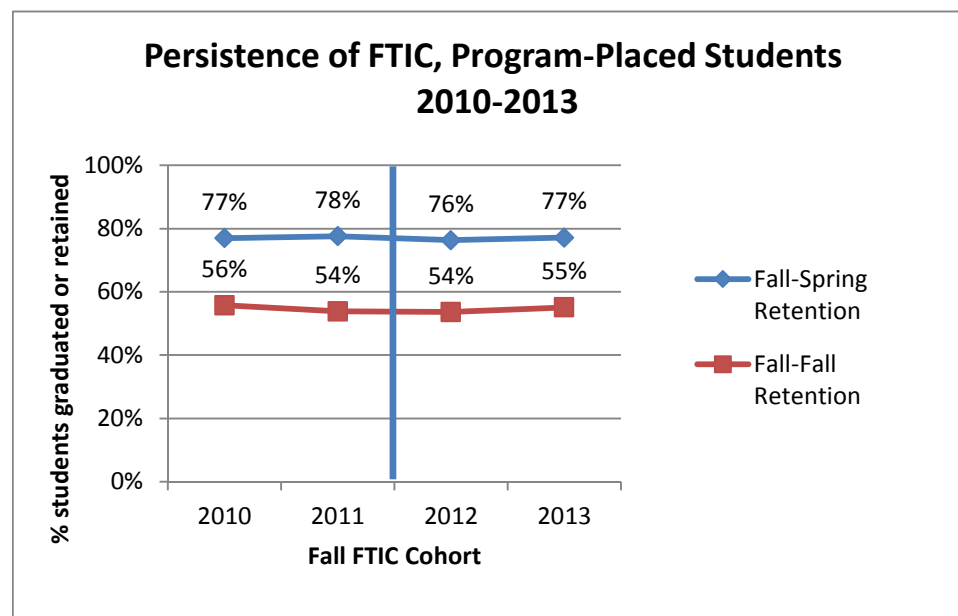


Goal #4: Increase student success in terms of persistence, graduation, and transfer

The final goal of the developmental education redesign is to increase the number of successful student outcomes at Virginia’s community colleges. Student success is generally measured by persistence, graduation, and transfer to a four-year institution. This review examines persistence and progress toward a degree, while three-year and four-year graduation and transfer rates will be examined in the future to help determine if the redesign had a positive effect on those student outcomes. Fall-to-spring and fall-to-fall persistence rates are defined here as the percentage of students that either returned to the college in that term or received a postsecondary award during the year. Progress toward a degree is measured as the percentage of students that earned at least 12 college-level credit hours during their first term and the percentage that earned at least 24 credit hours during their first year.

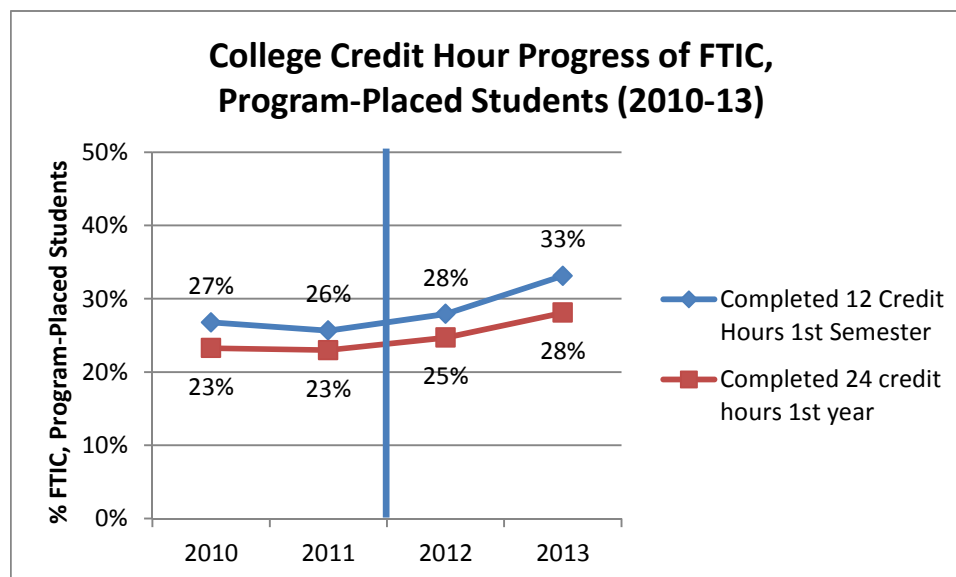
Persistence rates remained relatively unchanged since the redesign of developmental math.

Developmental math populations are not exactly comparable pre- and post-redesign, as the earlier cohorts included many students that likely would have been placed into college-level math under the new placement structure. Therefore, this analysis examines persistence and progress rates for all FTIC, program-placed students over a four-year period spanning implementation of the developmental math redesign. A change in the persistence or progress rates over the period could indicate that the redesign had an impact on the measure.



However, after the redesign, more students are making more progress toward a degree.

When comparing persistence rates for FTIC program-placed students, the rates remained relatively unchanged. Fall-to-spring retention was about 77% across the four-year period, and fall-to-fall retention was about 55% across the same time period. However, while persistence rates were flat over the four-year period, the percentage of students making timely progress toward a degree did increase following the redesign of developmental math. Prior to the redesign, about 27% of students had earned at least 12 college-level credit hours by the end of their first semester, and about 23% had earned at least 24 credit hours prior to the start of their second fall semester. By fall 2013 (the first FTIC cohort under both the redesigned developmental math and English programs), 33% of students earned at least 12 college-level credit hours by the end of their first semester, and 28% earned at least 24 college-level credit hours by the end of their first year. This increase in the percentage of students making timely progress toward a degree is expected given that the redesign enabled more students to enroll in college-level courses their first semester, and students placed in developmental education generally needed fewer credits to complete their developmental requirements. (See Appendix F for persistence rates by college and Appendix G for progress rates by college.)



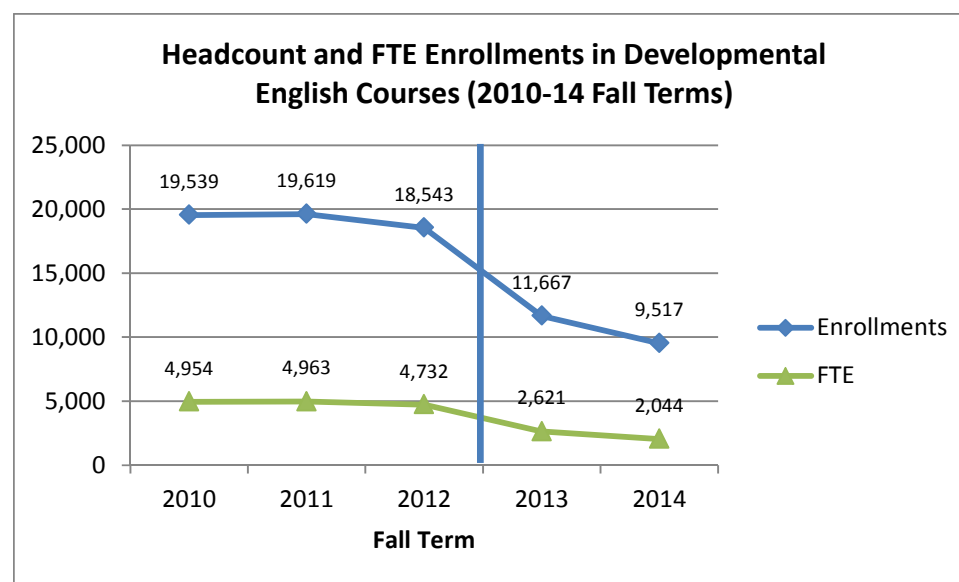
Developmental English

Since the developmental English redesign was implemented just over a year ago, a cohort review based on students entering the VCCS in fall 2013 will be completed in fall 2015. The current review of developmental English is limited to changes in the number of students enrolled in developmental English and ENG 111, and the success rates for students attempting developmental English and ENG 111 courses. A more thorough review based on the fall 2013 FTIC cohort will be conducted in fall 2015.

Goal #1: Decrease the number of students enrolling in developmental English

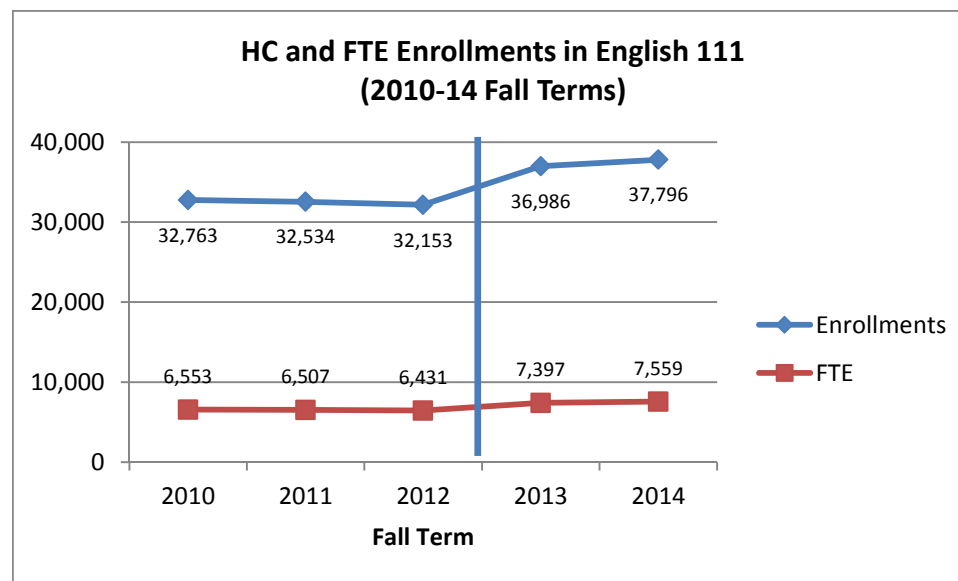
Prior to the redesign, the number of enrollments in developmental English courses ranged from 19,539 students in fall 2010 to 18,543 students in fall 2012. After the redesign, the numbers of students enrolling in developmental English declined to 11,667 students in fall 2013 and 9,517 in fall 2014. Thus, the number of student enrollments in developmental English dropped by over 50% from 2010 to 2014. There was a corresponding decrease in FTE generated from developmental English courses, as FTE enrollments dropped from nearly 5,000 in fall 2010 to just over 2,000 in fall 2014 (a 59% decrease). Some of the decrease may be explained by declining system-wide enrollments since 2011-12. However, even when holding total FTE enrollment constant at the fall 2010 level, headcount enrollments in developmental English still decreased 48% and FTE enrollments decreased 56%. (See Appendix H for individual college enrollments in developmental English courses.)

The number of students enrolling in developmental English dropped by 50% from 2010 to 2014.



The number of students enrolling in ENG 111 increased by 15% from 2010 to 2014, and successful completions increased by 14%.

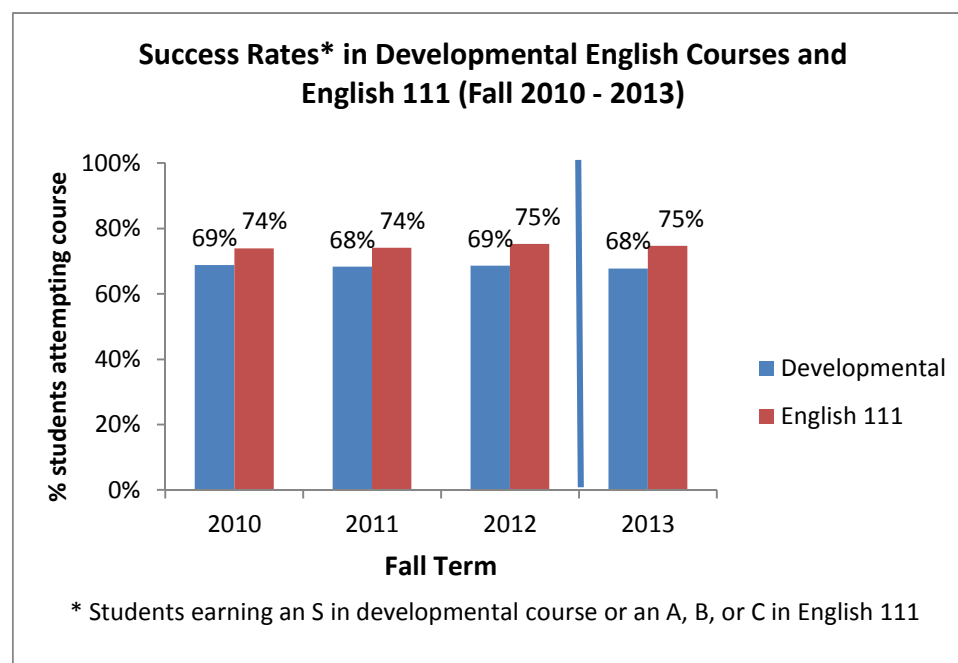
As expected, due to more students becoming immediately eligible to enroll in College Composition I (ENG 111) under the redesign, the decrease in developmental English enrollments was accompanied by an increase in enrollments in ENG 111. Prior to the redesign, approximately 32,000 students enrolled in ENG 111 during fall term. After the redesign, the number of students enrolling has increased to nearly 38,000, with a corresponding increase in FTE. Headcount and FTE enrollments in ENG 111 each increased by 15% from fall 2010 to fall 2014. However, the total FTE generated by developmental English and ENG 111 has decreased since the redesign, with headcount dropping by 10% and FTE dropping by 17%. Holding enrollment constant at the fall 2010 level, the total decrease was a more modest 3% in headcount and 11% in FTE. (See Appendix I for individual college enrollments ENG 111.)



Goal #3: Increase the number of students successfully completing college-level “gatekeeper” English courses

As with the review of developmental math, achievement of this goal is measured by both the increase in the number of successful completions as well as the change in the percentage of students passing the gatekeeper college-level course. Successful completions in ENG 111 increased from about 24,200 prior to the developmental English redesign to 27,629 in fall 2013. This increase of more than 3,400 successful completions represents a 14% increase over the prior year, despite overall declining enrollments from the prior year.

While the total number of students completing ENG 111 increased, the success rate in the course remained constant at about 75% following the developmental English redesign. This constant success rate is significant given the large number of developmental English students that attempted ENG 111 while being co-enrolled in ENF 3. In addition to success rates in ENG 111 being unchanged, success rates in developmental English courses also remained relatively constant at about 68% to 69%. (See Appendix J for English success rates by college.)










Conclusion

In examining the first two years following the implementation of the redesigned developmental math program at the VCCS, it appears that at least three of the four main goals of the redesign are being realized. A smaller proportion of incoming students are enrolling in developmental math while more students are enrolling in college-level math by the start of their second year. Although success rates in college-level math courses are down slightly following the redesign, more students are completing college level math courses despite a decline in the overall number of students. Improvements in these areas indicate a positive impact on Virginia’s community college students, as more students are spending less time and money on developmental math, and are consequently able to enroll in and complete college gatekeeper math courses at a higher rate. The increase in the number of students successfully completing gatekeeper

math courses should have a positive impact on student success rates at the colleges, as math requirements have historically been a barrier to college success for many students. Although the increase in college math completions post-redesign has yet to be accompanied by an increase in student persistence rates, the proportion of students making timely progress toward a degree has increased. Thus, students who are retained are now closer to earning a degree and are more likely to transfer additional credits to a four-year institution. However, future studies will need to be conducted to determine if the redesign will actually have a positive impact on graduation and transfer rates.

This brief review of the developmental English redesign has also shown a positive impact, as enrollments in developmental English were cut in half while more students were able to successfully complete English 111. Despite the increase in the number of students being eligible to enroll in English 111, the system-wide pass rate was unchanged at about 75%. A more comprehensive review of the English redesign will be conducted in fall 2015, which will examine success rates by VPT-English placement and also determine if the English redesign has affected student success measures such as persistence, graduation, and transfer rates.

The chart below summarizes the initial impacts of the developmental math and English redesigns according to the four main goals of the redesign.

Initial Impacts of Developmental Education Redesign		
	Math	English
1. Number of students enrolling in developmental education		
2. Number of students completing developmental education requirements within one year		
3. Number of students successfully completing college-level gatekeeper courses		
4. Number of students persisting, graduating, or transferring		

Appendix A
College Readiness of Fall 2012 FTIC, Program-Placed Students

	Cohort		Took VPT-Math		Not College Ready		College-Ready Units1-3		College-Ready Units1-5		College-Ready Units1-9	
	N	%	N	%	N	%	N	%	N	%	N	%
Blue Ridge	844		665	79%	303	46%	30	5%	85	13%	247	37%
Central Virginia	751		537	72%	296	55%	35	7%	63	12%	143	27%
Dabney S. Lancaster	206		144	70%	83	58%	4	3%	16	11%	41	28%
Danville	599		506	84%	314	62%	23	5%	52	10%	117	23%
Eastern Shore	158		141	89%	89	63%	9	6%	14	10%	29	21%
Germanna	1,229		958	78%	447	47%	68	7%	131	14%	312	33%
J. Sargeant Reynolds	1,807		1,477	82%	867	59%	67	5%	135	9%	408	28%
John Tyler	1,379		1,205	87%	656	54%	59	5%	117	10%	373	31%
Lord Fairfax	1,056		751	71%	363	48%	48	6%	101	13%	239	32%
Mountain Empire	490		277	57%	210	76%	20	7%	22	8%	25	9%
New River	542		261	48%	161	62%	16	6%	27	10%	57	22%
Northern Virginia	8,283		6,163	74%	1,938	31%	234	4%	726	12%	3,265	53%
Patrick Henry	509		371	73%	250	67%	21	6%	30	8%	70	19%
Paul D. Camp	195		157	81%	108	69%	10	6%	10	6%	29	18%
Piedmont Virginia	718		500	70%	250	50%	18	4%	64	13%	168	34%
Rappahannock	430		328	76%	198	60%	22	7%	41	13%	67	20%
Southside Virginia	679		457	67%	322	70%	28	6%	39	9%	68	15%
Southwest Virginia	504		183	36%	127	69%	14	8%	12	7%	30	16%
Thomas Nelson	1,703		1,373	81%	797	58%	85	6%	112	8%	379	28%
Tidewater	5,389		4,165	77%	2,438	59%	216	5%	468	11%	1,043	25%
Virginia Highlands	362		258	71%	132	51%	21	8%	41	16%	64	25%
Virginia Western	1,245		1,132	91%	525	46%	63	6%	138	12%	406	36%
Wytheville	505		348	69%	245	70%	22	6%	34	10%	47	14%
VCCS	29,583		22,357	76%	11,119	50%	1,133	5%	2,478	11%	7,627	34%

Source: Fall 2012 VCCS EOT Student file. Fall 2012 VCCS Placement file.

Appendix B
% FTIC, program-placed students enrolling in developmental math in first semester
(Fall 2010 - Fall 2013)

	Fall 2010						Fall 2011					
	Headcount			FTES			Headcount			FTES		
	Cohort	Enrolled Dev. Math		Cohort	Enrolled Dev. Math		Cohort	Enrolled Dev. Math		Cohort	Enrolled Dev. Math	
		N	N		%	N		N	%		N	N
Blue Ridge	875	262	30%	668	87	13%	853	257	30%	643	86	13%
Central Virginia	935	262	28%	685	58	9%	825	181	22%	595	35	6%
Dabney S. Lancaster	239	88	37%	194	18	9%	222	79	36%	180	16	9%
Danville	627	235	37%	519	66	13%	621	268	43%	486	54	11%
Eastern Shore	191	81	42%	142	22	15%	197	79	40%	146	21	14%
Germanna	1,269	524	41%	933	140	15%	1,280	483	38%	948	129	14%
J. Sargeant Reynolds	1,853	697	38%	1,288	201	16%	2,029	757	37%	1,399	218	16%
John Tyler	1,349	806	60%	1,050	219	21%	1,411	885	63%	1,081	240	22%
Lord Fairfax	1,137	382	34%	823	101	12%	1,147	351	31%	806	94	12%
Mountain Empire	681	178	26%	551	56	10%	623	155	25%	510	48	9%
New River	649	148	23%	509	49	10%	588	131	22%	463	43	9%
Northern Virginia	7,244	1,820	25%	5,535	462	8%	7,727	1,943	25%	5,919	518	9%
Patrick Henry	505	244	48%	410	61	15%	551	267	48%	447	67	15%
Paul D. Camp	226	116	51%	170	31	18%	224	123	55%	166	33	20%
Piedmont Virginia	720	284	39%	477	56	12%	678	276	41%	448	53	12%
Rappahannock	510	252	49%	368	84	23%	440	232	53%	319	77	24%
Southside Virginia	741	203	27%	560	54	10%	755	208	28%	591	55	9%
Southwest Virginia	551	86	16%	454	17	4%	529	95	18%	446	19	4%
Thomas Nelson	1,775	796	45%	1,230	248	20%	1,660	804	48%	1,146	246	21%
Tidewater	5,427	2,742	51%	4,005	848	21%	5,958	2,848	48%	4,409	872	20%
Virginia Highlands	478	187	39%	422	62	15%	427	150	35%	375	50	13%
Virginia Western	1,291	438	34%	996	117	12%	1,159	410	35%	894	109	12%
Wytheville	601	148	25%	504	49	10%	526	132	25%	439	44	10%
VCCS	29,874	10,979	37%	22,492	3,109	14%	30,430	11,114	37%	22,854	3,127	14%

Source: Fall 2010-11 VCCS EOT Student and Class files.

Appendix B (continued)
% FTIC, program-placed students enrolling in developmental math in first semester
(Fall 2010 - Fall 2013)

	2012						2013					
	Headcount			FTES			Headcount			FTES		
	Cohort		Enrolled	Cohort		Enrolled	Cohort		Enrolled	Cohort		Enrolled
	N	N	%	N	N	%	N	N	%	N	N	%
Blue Ridge	844	252	30%	606	38	6%	908	256	28%	683	40	6%
Central Virginia	751	224	30%	548	48	9%	781	194	25%	586	37	6%
Dabney S. Lancaster	206	69	33%	164	10	6%	231	59	26%	190	8	4%
Danville	599	210	35%	500	47	9%	609	192	32%	513	41	8%
Eastern Shore	158	66	42%	114	12	11%	152	66	43%	110	13	12%
Germanna	1,229	313	25%	885	53	6%	1,402	378	27%	998	63	6%
J. Sargeant Reynolds	1,807	690	38%	1,197	110	9%	1,869	726	39%	1,236	115	9%
John Tyler	1,379	581	42%	1,071	125	12%	1,429	569	40%	1,073	106	10%
Lord Fairfax	1,056	272	26%	731	37	5%	1,103	296	27%	782	43	5%
Mountain Empire	490	131	27%	393	23	6%	508	143	28%	429	24	6%
New River	542	169	31%	411	31	8%	688	214	31%	535	37	7%
Northern Virginia	8,283	1,685	20%	6,247	376	6%	9,128	1,833	20%	6,893	407	6%
Patrick Henry	509	199	39%	415	38	9%	707	238	34%	635	45	7%
Paul D. Camp	195	79	41%	137	11	8%	198	123	62%	141	16	12%
Piedmont Virginia	718	198	28%	469	25	5%	765	210	27%	520	28	5%
Rappahannock	430	154	36%	293	34	12%	413	141	34%	287	28	10%
Southside Virginia	679	203	30%	516	40	8%	637	225	35%	490	42	9%
Southwest Virginia	504	90	18%	425	15	3%	525	113	22%	451	18	4%
Thomas Nelson	1,703	720	42%	1,171	170	14%	1,802	743	41%	1,264	169	13%
Tidewater	5,389	2,151	40%	3,806	364	10%	5,418	2,099	39%	3,871	369	10%
Virginia Highlands	362	132	36%	312	22	7%	411	141	34%	350	30	9%
Virginia Western	1,245	340	27%	962	72	7%	1,435	395	28%	1,139	81	7%
Wytheville	505	192	38%	419	35	8%	588	196	33%	484	34	7%
VCCS	29,583	9,120	31%	21,791	1,736	8%	31,707	9,550	30%	23,656	1,795	8%

Source: Fall 2012-13 VCCS EOT Student and Class files.

Appendix C
Students Attempting College Math Course by Fall Term of Second Year

All FTIC, Program-Placed Students

	Fall 2009			Fall 2010			Fall 2011			Fall 2012		
	Cohort	N	%	Cohort	N	%	Cohort	N	&	Cohort	N	%
Blue Ridge	929	380	41%	875	328	37%	853	335	39%	844	371	44%
Central Virginia	865	297	34%	935	287	31%	825	306	37%	751	273	36%
Dabney S. Lancaster	227	57	25%	239	55	23%	222	66	30%	206	61	30%
Danville	601	168	28%	627	137	22%	621	116	19%	599	153	26%
Eastern Shore	178	67	38%	191	63	33%	197	74	38%	158	37	23%
Germanna	1,122	385	34%	1,269	426	34%	1,280	487	38%	1,229	515	42%
J. Sargeant Reynolds	1,845	651	35%	1,853	574	31%	2,029	604	30%	1,807	617	34%
John Tyler	1,310	388	30%	1,349	444	33%	1,411	475	34%	1,379	592	43%
Lord Fairfax	1,093	474	43%	1,137	478	42%	1,147	480	42%	1,056	472	45%
Mountain Empire	590	181	31%	681	202	30%	623	176	28%	490	145	30%
New River	636	310	49%	649	296	46%	588	237	40%	542	191	35%
Northern Virginia	7,332	2,975	41%	7,244	2,934	41%	7,727	3,212	42%	8,283	4,029	49%
Patrick Henry	582	165	28%	505	156	31%	551	211	38%	509	213	42%
Paul D. Camp	239	44	18%	226	36	16%	224	28	13%	195	37	19%
Piedmont Virginia	695	233	34%	720	178	25%	678	190	28%	718	246	34%
Rappahannock	510	168	33%	510	182	36%	440	156	35%	430	170	40%
Southside Virginia	840	192	23%	741	169	23%	755	177	23%	679	162	24%
Southwest Virginia	675	279	41%	551	220	40%	529	196	37%	504	146	29%
Thomas Nelson	1,868	798	43%	1,775	647	36%	1,660	589	35%	1,703	625	37%
Tidewater	5,912	1,916	32%	5,427	1,735	32%	5,958	2,031	34%	5,389	2,012	37%
Virginia Highlands	542	197	36%	478	167	35%	427	130	30%	362	125	35%
Virginia Western	1,340	380	28%	1,291	332	26%	1,159	364	31%	1,245	459	37%
Wytheville	606	157	26%	601	146	24%	526	129	25%	505	126	25%
VCCS	30,537	10,862	36%	29,874	10,192	34%	30,430	10,769	35%	29,583	11,777	40%

Source: Fall 2009-2012 VCCS EOT Student files. All VCCS EOT Class files from fall 2009-fall 2013.

Appendix C (continued)
Students Attempting College Math Course by Fall Term of Second Year

College Transfer Associate Degree Students

	Fall 2009			Fall 2010			Fall 2011			Fall 2012		
	Cohort	N	%	Cohort	N	%	Cohort	N	%	Cohort	N	%
Blue Ridge	539	283	53%	502	238	47%	539	276	51%	579	313	54%
Central Virginia	633	226	36%	670	216	32%	596	253	42%	540	219	41%
Dabney S. Lancaster	108	40	37%	103	37	36%	132	47	36%	123	52	42%
Danville	197	86	44%	186	62	33%	215	52	24%	225	78	35%
Eastern Shore	113	49	43%	111	52	47%	125	54	43%	86	28	33%
Germanna	684	301	44%	805	344	43%	840	384	46%	788	414	53%
J. Sargeant Reynolds	981	332	34%	1,006	325	32%	977	316	32%	931	369	40%
John Tyler	851	223	26%	885	255	29%	906	327	36%	883	424	48%
Lord Fairfax	689	340	49%	726	346	48%	762	366	48%	708	387	55%
Mountain Empire	245	82	33%	221	58	26%	286	83	29%	253	99	39%
New River	378	203	54%	406	204	50%	374	172	46%	338	127	38%
Northern Virginia	5,105	2,263	44%	5,194	2,252	43%	5,886	2,685	46%	6,448	3,426	53%
Patrick Henry	247	87	35%	228	82	36%	235	98	42%	254	116	46%
Paul D. Camp	123	35	28%	97	25	26%	110	23	21%	86	27	31%
Piedmont Virginia	602	207	34%	566	163	29%	449	163	36%	470	213	45%
Rappahannock	296	116	39%	294	135	46%	241	103	43%	260	120	46%
Southside Virginia	245	105	43%	259	104	40%	278	110	40%	258	107	41%
Southwest Virginia	290	155	53%	250	127	51%	227	112	49%	215	83	39%
Thomas Nelson	1,148	545	47%	1,071	448	42%	944	385	41%	1,028	463	45%
Tidewater	3,329	1,279	38%	2,914	1,094	38%	3,102	1,326	43%	2,861	1,376	48%
Virginia Highlands	281	116	41%	228	78	34%	223	66	30%	168	57	34%
Virginia Western	752	313	42%	738	239	32%	651	273	42%	858	359	42%
Wytheville	275	85	31%	259	81	31%	252	85	34%	251	88	35%
VCCS	18,111	7,471	41%	17,719	6,965	39%	18,350	7,759	42%	18,611	8,945	48%

Source: Fall 2009-2012 VCCS EOT Student files. All VCCS EOT Class files from fall 2009-fall 2013.

Appendix C (continued)
Students Attempting College Math Course by Fall Term of Second Year

CTE Associate Degree Students

	Fall 2009			Fall 2010			Fall 2011			Fall 2012		
	Cohort	N	%	Cohort	N	%	Cohort	N	%	Cohort	N	%
Blue Ridge	173	60	35%	156	56	36%	125	38	30%	148	41	28%
Central Virginia	120	53	44%	127	38	30%	100	25	25%	108	34	31%
Dabney S. Lancaster	36	10	28%	35	11	31%	47	15	32%	31	6	19%
Danville	109	11	10%	106	7	7%	101	13	13%	120	18	15%
Eastern Shore	27	15	56%	21	6	29%	19	8	42%	18	4	22%
Germanna	79	20	25%	79	22	28%	76	20	26%	84	31	37%
J. Sargeant Reynolds	374	145	39%	330	106	32%	415	126	30%	372	106	28%
John Tyler	195	68	35%	175	65	37%	232	73	31%	202	44	22%
Lord Fairfax	113	49	43%	105	40	38%	78	30	38%	79	29	37%
Mountain Empire	150	73	49%	199	93	47%	168	53	32%	88	22	25%
New River	184	82	45%	168	68	40%	143	49	34%	138	51	37%
Northern Virginia	1,829	599	33%	1,623	548	34%	1,471	436	30%	1,477	487	33%
Patrick Henry	102	48	47%	95	43	45%	102	48	47%	75	30	40%
Paul D. Camp	33	6	18%	35	8	23%	26	2	8%	29	6	21%
Piedmont Virginia	52	20	38%	72	12	17%	167	20	12%	187	28	15%
Rappahannock	123	37	30%	125	35	28%	113	43	38%	101	45	45%
Southside Virginia	171	56	33%	132	40	30%	148	41	28%	192	39	20%
Southwest Virginia	135	42	31%	79	30	38%	95	35	37%	102	16	16%
Thomas Nelson	416	172	41%	355	139	39%	350	134	38%	342	104	30%
Tidewater	1,932	505	26%	1,797	476	26%	2,109	532	25%	1,958	513	26%
Virginia Highlands	99	39	39%	114	44	39%	85	26	31%	88	27	31%
Virginia Western	280	56	20%	281	78	28%	235	72	31%	274	89	32%
Wytheville	212	48	23%	204	42	21%	132	28	21%	101	22	22%
VCCS	6,944	2,214	32%	6,413	2,007	31%	6,537	1,867	29%	6,314	1,792	28%

Source: Fall 2009-2012 VCCS EOT Student files. All VCCS EOT Class files from fall 2009-fall 2013.

Appendix C (continued)
Students Attempting College Math Course by Fall Term of Second Year

Certificate/Diploma Students

	Fall 2009			Fall 2010			Fall 2011			Fall 2012		
	Cohort	N	%	Cohort	N	%	Cohort	N	&	Cohort	N	%
Blue Ridge	151	14	9%	154	19	12%	146	14	10%	80	13	16%
Central Virginia	31	10	32%	63	29	46%	49	15	31%	58	16	28%
Dabney S. Lancaster	80	7	9%	96	6	6%	41	4	10%	46	3	7%
Danville	233	66	28%	289	61	21%	247	43	17%	218	49	22%
Eastern Shore	29	3	10%	42	5	12%	32	10	31%	41	4	10%
Germanna	56	15	27%	81	22	27%	75	25	33%	67	17	25%
J. Sargeant Reynolds	45	8	18%	75	17	23%	98	11	11%	86	15	17%
John Tyler	35	8	23%	42	9	21%	32	3	9%	49	16	33%
Lord Fairfax	235	69	29%	228	75	33%	230	67	29%	206	46	22%
Mountain Empire	65	9	14%	69	19	28%	51	15	29%	37	7	19%
New River	42	23	55%	42	17	40%	28	12	43%	35	9	26%
Northern Virginia	122	32	26%	147	40	27%	124	25	20%	114	31	27%
Patrick Henry	137	22	16%	120	25	21%	137	54	39%	121	51	42%
Paul D. Camp	5	1	20%	10	1	10%	12	1	8%	18	3	17%
Piedmont Virginia	4	1	25%	27	-	0%	13	-	0%	17	-	0%
Rappahannock	50	12	24%	33	9	27%	42	6	14%	23	4	17%
Southside Virginia	289	29	10%	239	21	9%	213	22	10%	130	14	11%
Southwest Virginia	152	56	37%	118	44	37%	127	37	29%	125	37	30%
Thomas Nelson	41	19	46%	65	14	22%	71	26	37%	47	16	34%
Tidewater	344	78	23%	386	103	27%	370	92	25%	225	54	24%
Virginia Highlands	142	42	30%	126	44	35%	117	38	32%	105	41	39%
Virginia Western	39	3	8%	13	-	0%	15	1	7%	11	2	18%
Wytheville	90	19	21%	70	16	23%	49	9	18%	32	6	19%
VCCS	2,417	546	23%	2,535	596	24%	2,319	530	23%	1,891	454	24%

Source: Fall 2009-2012 VCCS EOT Student files. All VCCS EOT Class files from fall 2009-fall 2013.

Appendix C (continued)
Students Attempting College Math Course by Fall Term of Second Year

Career Studies Certificate (CSC) Students

	Fall 2009			Fall 2010			Fall 2011			Fall 2012		
	Cohort	N	%	Cohort	N	%	Cohort	N	&	Cohort	N	%
Blue Ridge	66	23	35%	63	15	24%	43	7	16%	37	4	11%
Central Virginia	81	8	10%	75	4	5%	80	13	16%	45	4	9%
Dabney S. Lancaster	3	-	0%	5	1	20%	2	-	0%	6	-	0%
Danville	62	5	8%	46	7	15%	58	8	14%	36	8	22%
Eastern Shore	9	-	0%	17	-	0%	21	2	10%	13	1	8%
Germanna	303	49	16%	304	38	13%	289	58	20%	290	53	18%
J. Sargeant Reynolds	445	166	37%	442	126	29%	539	151	28%	418	127	30%
John Tyler	229	89	39%	247	115	47%	241	72	30%	245	108	44%
Lord Fairfax	56	16	29%	78	17	22%	77	17	22%	63	10	16%
Mountain Empire	130	17	13%	192	32	17%	118	25	21%	112	17	15%
New River	32	2	6%	33	7	21%	43	4	9%	31	4	13%
Northern Virginia	276	81	29%	280	94	34%	246	66	27%	244	85	35%
Patrick Henry	96	8	8%	62	6	10%	77	11	14%	59	16	27%
Paul D. Camp	78	2	3%	84	2	2%	76	2	3%	62	1	2%
Piedmont Virginia	37	5	14%	55	3	5%	49	7	14%	44	5	11%
Rappahannock	41	3	7%	58	3	5%	44	4	9%	46	1	2%
Southside Virginia	135	2	1%	111	4	4%	116	4	3%	99	2	2%
Southwest Virginia	98	26	27%	104	19	18%	80	12	15%	62	10	16%
Thomas Nelson	263	62	24%	284	46	16%	295	44	15%	286	42	15%
Tidewater	307	54	18%	330	62	19%	377	81	21%	345	69	20%
Virginia Highlands	20	-	0%	10	1	10%	2	-	0%	1	-	0%
Virginia Western	269	8	3%	259	15	6%	258	18	7%	102	9	9%
Wytheville	29	5	17%	68	7	10%	93	7	8%	121	10	8%
VCCS	3,065	631	21%	3,207	624	19%	3,224	613	19%	2,767	586	21%

Source: Fall 2009-2012 VCCS EOT Student files. All VCCS EOT Class files from fall 2009-fall 2013.

Appendix D
Successful completions in gatekeeper* college math courses (AY 2010-11 to AY 2013-14)

	2010-11		2011-12		2012-13		2013-14	
	Attempts	Successes	Attempts	Successes	Attempts	Successes	Attempts	Successes
Blue Ridge	2,041	1,527	1,903	1,380	1,957	1,489	1,938	1,383
Central Virginia	1,802	1,263	2,215	1,713	2,216	1,697	2,267	1,628
Dabney S. Lancaster	305	213	439	311	482	373	391	252
Danville	1,411	958	1,530	1,080	1,592	1,135	1,663	1,228
Eastern Shore	325	258	312	234	279	227	264	205
Germanna	2,385	1,650	2,686	1,780	2,657	1,789	2,843	1,996
J. Sargeant Reynolds	3,080	1,947	3,235	1,922	3,304	1,937	3,344	1,885
John Tyler	2,533	1,627	3,330	1,935	3,226	1,711	3,345	1,973
Lord Fairfax	2,132	1,592	2,383	1,808	2,290	1,712	2,147	1,513
Mountain Empire	1,181	835	1,220	878	1,211	901	1,150	841
New River	1,671	1,001	1,620	949	1,352	847	1,309	849
Northern Virginia	15,173	9,644	16,588	10,699	18,638	11,690	19,760	12,035
Patrick Henry	858	519	1,209	793	1,013	709	962	712
Paul D. Camp	267	197	304	207	331	267	283	236
Piedmont Virginia	1,399	1,007	1,571	1,118	1,737	1,205	1,936	1,422
Rappahannock	1,101	785	1,237	992	1,392	1,135	1,414	1,106
Southside Virginia	1,268	985	1,415	1,114	1,246	1,002	1,187	945
Southwest Virginia	1,316	954	1,079	830	873	673	1,128	892
Thomas Nelson	4,409	2,651	4,346	2,510	4,161	2,526	4,267	2,545
Tidewater	9,383	6,083	12,782	8,267	12,898	8,466	12,272	7,962
Virginia Highlands	1,203	860	1,193	884	1,248	944	1,182	823
Virginia Western	1,853	1,273	2,042	1,470	2,109	1,410	2,575	1,866
Wytheville	982	838	945	764	1,063	912	1,227	1,033
VCCS	58,078	38,667	65,584	43,638	67,275	44,757	68,854	45,330

* Gatekeeper college math courses include MTH 101, 103, 104, 105, 106, 115, 116, 120, 121, 126, 128, 141, 146, 150, 151, 152, 157, 158, 163, 164, 166, 168, 169, 170, and 173.

Note: Grade of A, B, or C required for for success

Source: VCCS EOT Class files summer 2010 - spring 2014.

Appendix E
First time and eventual pass rates in college math courses
(developmental vs. college-only students)

Fall 2011 FTIC, Program Placed Students

	College-Only				Developmental			
	attempted N	Passed 1st Attempt N %	Passed Eventually N %		attempted N	Passed 1st Attempt N %	Passed Eventually N %	
Blue Ridge	331	224 68%	246 74%		73	47 64%	53 73%	
Central Virginia	312	201 64%	225 72%		57	35 61%	44 77%	
Dabney S. Lancaster	54	37 69%	40 74%		24	11 46%	16 67%	
Danville	144	97 67%	109 76%		56	19 34%	25 45%	
Eastern Shore	52	45 87%	48 92%		27	13 48%	16 59%	
Germanna	403	248 62%	303 75%		190	118 62%	137 72%	
J. Sargeant Reynolds	471	257 55%	307 65%		285	169 59%	192 67%	
John Tyler	277	166 60%	191 69%		321	167 52%	199 62%	
Lord Fairfax	443	316 71%	346 78%		155	110 71%	123 79%	
Mountain Empire	189	118 62%	130 69%		73	40 55%	45 62%	
New River	241	139 58%	160 66%		61	27 44%	32 52%	
Northern Virginia	2,911	1,875 64%	2,250 77%		946	601 64%	738 78%	
Patrick Henry	125	83 66%	90 72%		134	85 63%	97 72%	
Paul D. Camp	12	9 75%	11 92%		23	12 52%	15 65%	
Piedmont Virginia	204	116 57%	139 68%		38	23 61%	27 71%	
Rappahannock	92	67 73%	74 80%		103	81 79%	83 81%	
Southside Virginia	197	152 77%	158 80%		94	67 71%	75 80%	
Southwest Virginia	220	152 69%	171 78%		35	24 69%	28 80%	
Thomas Nelson	400	260 65%	285 71%		287	157 55%	184 64%	
Tidewater	1,315	873 66%	981 75%		1,010	647 64%	723 72%	
Virginia Highlands	130	86 66%	103 79%		53	37 70%	40 75%	
Virginia Western	280	181 65%	207 74%		195	99 51%	126 65%	
Wytheville	117	90 77%	95 81%		55	39 71%	40 73%	
VCCS	8,920	5,792 65%	6,669 75%		4,295	2,628 61%	3,058 71%	

Note: College math courses are all courses with subject='MTH' and course number >= 100.

Source: Fall 2011 VCCS EOT Student file. VCCS EOT Class files from fall 2011-summer 2013.

Appendix E (continued)
First time and eventual pass rates in college math courses
(developmental vs. college-only students)

Fall 2012 FTIC, Program Placed Students

	College-Only				Developmental			
	attempted N	Passed 1st Attempt N %	Passed Eventually N %		attempted N	Passed 1st Attempt N %	Passed Eventually N %	
Blue Ridge	339	214 63%	244 72%		83	47 57%	53 64%	
Central Virginia	270	177 66%	202 75%		81	47 58%	58 72%	
Dabney S. Lancaster	65	35 54%	43 66%		13	11 85%	11 85%	
Danville	171	79 46%	108 63%		38	19 50%	24 63%	
Eastern Shore	39	31 79%	33 85%		7	5 71%	5 71%	
Germanna	495	310 63%	352 71%		136	86 63%	101 74%	
J. Sargeant Reynolds	505	281 56%	360 71%		217	108 50%	143 66%	
John Tyler	556	276 50%	361 65%		184	90 49%	103 56%	
Lord Fairfax	469	317 68%	363 77%		109	71 65%	81 74%	
Mountain Empire	136	87 64%	97 71%		60	34 57%	39 65%	
New River	200	128 64%	145 73%		61	35 57%	37 61%	
Northern Virginia	4,004	2,307 58%	2,922 73%		746	428 57%	529 71%	
Patrick Henry	149	97 65%	110 74%		108	69 64%	75 69%	
Paul D. Camp	28	23 82%	23 82%		15	11 73%	12 80%	
Piedmont Virginia	258	138 53%	158 61%		62	34 55%	44 71%	
Rappahannock	144	95 66%	105 73%		55	43 78%	46 84%	
Southside Virginia	151	120 79%	127 84%		75	52 69%	57 76%	
Southwest Virginia	176	136 77%	144 82%		27	19 70%	22 81%	
Thomas Nelson	552	332 60%	400 72%		211	123 58%	146 69%	
Tidewater	1,541	992 64%	1,154 75%		769	497 65%	563 73%	
Virginia Highlands	131	79 60%	96 73%		57	31 54%	33 58%	
Virginia Western	436	266 61%	309 71%		113	62 55%	75 66%	
Wytheville	106	88 83%	92 87%		69	38 55%	40 58%	
VCCS	10,921	6,608 61%	7,948 73%		3,296	1,960 59%	2,297 70%	

Note: College math courses are all courses with subject='MTH' and course number >= 100.

Source: Fall 2012 VCCS EOT Student file. VCCS EOT Class files from fall 2012-summer 2014.

Appendix F
Persistence of fall FTIC, program-placed students (2010-2013)

	Fall 2010					Fall 2011				
	Cohort	Fall-Spring Retention		Fall-Fall Retention		Cohort	Fall-Spring Retention		Fall-Fall Retention	
		N	N	%	N		%	N	N	%
Blue Ridge	875	662	76%	482	55%	853	667	78%	459	54%
Central Virginia	935	641	69%	454	49%	825	582	71%	398	48%
Dabney S. Lancaster	239	172	72%	123	51%	222	161	73%	119	54%
Danville	627	511	81%	364	58%	621	500	81%	363	58%
Eastern Shore	191	137	72%	97	51%	197	156	79%	101	51%
Germanna	1,269	917	72%	693	55%	1,280	987	77%	690	54%
J. Sargeant Reynolds	1,853	1,383	75%	955	52%	2,029	1,562	77%	937	46%
John Tyler	1,349	1,064	79%	736	55%	1,411	1,081	77%	656	46%
Lord Fairfax	1,137	858	75%	637	56%	1,147	905	79%	642	56%
Mountain Empire	681	501	74%	353	52%	623	457	73%	344	55%
New River	649	500	77%	354	55%	588	454	77%	296	50%
Northern Virginia	7,244	5,810	80%	4,514	62%	7,727	6,257	81%	4,976	64%
Patrick Henry	505	367	73%	267	53%	551	440	80%	306	56%
Paul D. Camp	226	170	75%	110	49%	224	143	64%	84	38%
Piedmont Virginia	720	529	73%	385	53%	678	508	75%	319	47%
Rappahannock	510	374	73%	246	48%	440	338	77%	229	52%
Southside Virginia	741	577	78%	401	54%	755	574	76%	390	52%
Southwest Virginia	551	375	68%	258	47%	529	359	68%	274	52%
Thomas Nelson	1,775	1,329	75%	888	50%	1,660	1,280	77%	820	49%
Tidewater	5,427	4,308	79%	3,035	56%	5,958	4,576	77%	2,802	47%
Virginia Highlands	478	353	74%	262	55%	427	309	72%	222	52%
Virginia Western	1,291	1,017	79%	714	55%	1,159	899	78%	655	57%
Wytheville	601	439	73%	321	53%	526	406	77%	297	56%
VCCS	29,874	22,994	77%	16,649	56%	30,430	23,601	78%	16,379	54%

Note: Retention includes students enrolled in corresponding term or that received award during the academic year.

Source: VCCS EOT Student files fall 2010 - spring 2012. VCCS Grad files 2010-11 and 2011-12.

Appendix F (continued)
Persistence of fall FTIC, program-placed students (2010-2013)

	Fall 2012					Fall 2013				
	Cohort	Fall-Spring Retention		Fall-Fall Retention		Cohort	Fall-Spring Retention		Fall-Fall Retention	
		N	N	%	N		%	N	N	%
Blue Ridge	844	614	73%	440	52%	909	709	78%	515	57%
Central Virginia	751	567	75%	375	50%	781	562	72%	400	51%
Dabney S. Lancaster	206	158	77%	111	54%	233	174	75%	123	53%
Danville	599	483	81%	338	56%	612	479	78%	359	59%
Eastern Shore	158	122	77%	68	43%	152	122	80%	80	53%
Germanna	1,229	957	78%	648	53%	1,404	1,071	76%	781	56%
J. Sargeant Reynolds	1,807	1,343	74%	874	48%	1,869	1,365	73%	871	47%
John Tyler	1,379	1,053	76%	695	50%	1,430	1,076	75%	725	51%
Lord Fairfax	1,056	828	78%	590	56%	1,104	828	75%	625	57%
Mountain Empire	490	323	66%	255	52%	509	376	74%	279	55%
New River	542	393	73%	277	51%	688	526	76%	372	54%
Northern Virginia	8,283	6,541	79%	4,983	60%	9,128	7,316	80%	5,584	61%
Patrick Henry	509	403	79%	271	53%	707	602	85%	411	58%
Paul D. Camp	195	139	71%	83	43%	198	133	67%	77	39%
Piedmont Virginia	718	526	73%	368	51%	765	606	79%	438	57%
Rappahannock	430	322	75%	198	46%	413	289	70%	204	49%
Southside Virginia	679	530	78%	358	53%	637	488	77%	374	59%
Southwest Virginia	504	371	74%	266	53%	525	403	77%	309	59%
Thomas Nelson	1,703	1,241	73%	837	49%	1,803	1,380	77%	908	50%
Tidewater	5,389	4,031	75%	2,670	50%	5,419	4,061	75%	2,665	49%
Virginia Highlands	362	283	78%	218	60%	411	307	75%	255	62%
Virginia Western	1,245	963	77%	661	53%	1,435	1,134	79%	781	54%
Wytheville	505	374	74%	277	55%	589	455	77%	341	58%
VCCS	29,583	22,565	76%	15,861	54%	31,721	24,462	77%	17,477	55%

Note: Retention includes students enrolled in corresponding term or that received award during the academic year.

Source: VCCS EOT Student files fall 2012 - spring 2014. VCCS Grad files 2012-13 and 2013-14.

Appendix G
College credit hour progress of fall FTIC, program-placed students (2010-2013)

	Fall 2010					Fall 2011				
	Cohort	Completed 12 CH		Completed 24 CH		Cohort	Completed 12 CH		Completed 24 CH	
		1st Semester		1st Year			1st Semester		CH 1st Year	
N	N	%	N	%	N	N	%	N	%	
Blue Ridge	875	259	30%	211	24%	853	249	29%	217	25%
Central Virginia	935	325	35%	256	27%	825	306	37%	234	28%
Dabney S. Lancaster	239	113	47%	86	36%	222	87	39%	80	36%
Danville	627	274	44%	230	37%	621	284	46%	231	37%
Eastern Shore	191	48	25%	44	23%	197	51	26%	46	23%
Germanna	1,269	466	37%	393	31%	1,280	461	36%	355	28%
J. Sargeant Reynolds	1,853	393	21%	299	16%	2,029	331	16%	283	14%
John Tyler	1,349	288	21%	252	19%	1,411	274	19%	250	18%
Lord Fairfax	1,137	336	30%	310	27%	1,147	330	29%	314	27%
Mountain Empire	681	293	43%	243	36%	623	315	51%	272	44%
New River	649	259	40%	214	33%	588	234	40%	182	31%
Northern Virginia	7,244	1,321	18%	1,418	20%	7,727	1,385	18%	1,582	20%
Patrick Henry	505	188	37%	178	35%	551	209	38%	194	35%
Paul D. Camp	226	57	25%	57	25%	224	43	19%	38	17%
Piedmont Virginia	720	182	25%	159	22%	678	143	21%	121	18%
Rappahannock	510	166	33%	136	27%	440	151	34%	108	25%
Southside Virginia	741	363	49%	263	35%	755	392	52%	278	37%
Southwest Virginia	551	303	55%	224	41%	529	318	60%	256	48%
Thomas Nelson	1,775	603	34%	429	24%	1,660	523	32%	380	23%
Tidewater	5,427	815	15%	772	14%	5,958	882	15%	873	15%
Virginia Highlands	478	193	40%	164	34%	427	186	44%	161	38%
Virginia Western	1,291	450	35%	348	27%	1,159	402	35%	324	28%
Wytheville	601	302	50%	264	44%	526	252	48%	216	41%
VCCS	29,874	7,997	27%	6,950	23%	30,430	7,808	26%	6,995	23%

Note: Does not include developmental course credits.

Source: VCCS EOT Student files fall 2010 and fall 2011. VCCS GPA files fall 2010 through summer 2012.

Appendix G (continued)
College credit hour progress of fall FTIC, program-placed students (2010-2013)

	Fall 2012					Fall 2013				
	Cohort	Fall-Spring Retention		Fall-Fall Retention		Cohort	Fall-Spring Retention		Fall-Fall Retention	
		N	N	%	N		%	N	N	%
Blue Ridge	844	243	29%	218	26%	909	326	36%	285	31%
Central Virginia	751	268	36%	226	30%	781	338	43%	250	32%
Dabney S. Lancaster	206	97	47%	78	38%	233	117	50%	95	41%
Danville	599	244	41%	187	31%	612	282	46%	233	38%
Eastern Shore	158	38	24%	28	18%	152	53	35%	43	28%
Germanna	1,229	454	37%	358	29%	1,404	549	39%	432	31%
J. Sargeant Reynolds	1,807	353	20%	304	17%	1,869	313	17%	286	15%
John Tyler	1,379	328	24%	301	22%	1,430	452	32%	376	26%
Lord Fairfax	1,056	359	34%	322	30%	1,104	403	37%	350	32%
Mountain Empire	490	245	50%	199	41%	509	278	55%	231	45%
New River	542	205	38%	167	31%	688	336	49%	262	38%
Northern Virginia	8,283	1,761	21%	1,856	22%	9,128	2,655	29%	2,387	26%
Patrick Henry	509	195	38%	182	36%	707	371	52%	363	51%
Paul D. Camp	195	56	29%	44	23%	198	61	31%	51	26%
Piedmont Virginia	718	182	25%	159	22%	765	291	38%	240	31%
Rappahannock	430	166	39%	124	29%	413	175	42%	138	33%
Southside Virginia	679	365	54%	285	42%	637	362	57%	253	40%
Southwest Virginia	504	320	63%	257	51%	525	313	60%	268	51%
Thomas Nelson	1,703	505	30%	372	22%	1,803	547	30%	420	23%
Tidewater	5,389	1,014	19%	907	17%	5,419	1,114	21%	983	18%
Virginia Highlands	362	170	47%	158	44%	411	211	51%	186	45%
Virginia Western	1,245	455	37%	357	29%	1,435	630	44%	511	36%
Wytheville	505	240	48%	218	43%	589	326	55%	266	45%
VCCS	29,583	8,263	28%	7,307	25%	31,721	10,503	33%	8,909	28%

Note: Does not include developmental course credits.

Source: VCCS EOT Student files fall 2012 - spring 2014. VCCS Grad files 2012-13 and 2013-14.

Appendix H
Fall enrollments in developmental English courses (2010-2014)

	2010		2011		2012		2013		2014	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Blue Ridge	486	97	504	101	510	102	216	44	171	34
Central Virginia	442	87	399	78	365	77	182	37	159	35
Dabney S. Lancaster	131	26	138	28	131	26	74	16	59	13
Danville	707	144	679	135	617	122	414	105	282	73
Eastern Shore	133	35	125	33	158	42	55	13	49	10
Germanna	688	183	667	178	709	189	444	94	323	71
J. Sargeant Reynolds	644	179	708	190	653	155	705	170	653	159
John Tyler	1,442	300	1,475	309	1,382	290	599	140	510	113
Lord Fairfax	509	102	484	97	417	83	303	67	306	63
Mountain Empire	265	53	264	53	251	50	254	54	156	29
New River	127	42	111	37	110	37	196	49	192	45
Northern Virginia	5,920	1,609	5,917	1,601	5,871	1,599	3,433	624	2,853	506
Patrick Henry	513	117	510	112	516	114	268	66	193	48
Paul D. Camp	255	68	295	79	254	67	132	39	96	23
Piedmont Virginia	287	76	244	65	259	69	183	41	142	29
Rappahannock	313	63	298	60	271	59	146	36	106	23
Southside Virginia	407	108	380	105	278	78	222	55	155	39
Southwest Virginia	145	29	113	23	80	16	105	22	87	19
Thomas Nelson	1,011	265	1,011	263	1,160	302	909	234	830	201
Tidewater	4,031	1,086	4,322	1,155	3,564	971	2,142	552	1,562	368
Virginia Highlands	264	53	241	48	245	49	119	26	126	31
Virginia Western	531	149	449	136	418	141	397	94	363	77
Wytheville	288	83	285	78	324	94	169	41	144	33
VCCS	19,539	4,954	19,619	4,963	18,543	4,732	11,667	2,621	9,517	2,044

Source: VCCS EOT Class files fall 2010-fall 2014.

Appendix I
Fall enrollments in English 111 (2010-2014)

	2010		2011		2012		2013		2014	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Blue Ridge	996	199	913	183	877	175	999	200	1,023	205
Central Virginia	1,096	219	1,067	213	936	187	1,097	219	1,170	234
Dabney S. Lancaster	266	53	241	48	265	53	268	54	200	40
Danville	668	134	652	130	595	119	655	131	627	125
Eastern Shore	194	39	199	40	200	40	245	49	263	53
Germanna	1,848	370	1,857	371	1,704	341	2,154	431	2,047	409
J. Sargeant Reynolds	2,214	443	2,246	449	1,949	390	1,942	388	1,903	381
John Tyler	2,089	418	2,162	432	2,040	408	2,570	514	2,590	518
Lord Fairfax	1,501	300	1,533	307	1,650	330	1,581	316	1,567	313
Mountain Empire	628	126	547	109	504	101	576	115	524	105
New River	763	153	816	163	828	166	667	133	762	152
Northern Virginia	7,370	1,474	7,450	1,490	8,113	1,623	9,326	1,865	10,893	2,179
Patrick Henry	527	105	531	106	502	100	700	140	660	132
Paul D. Camp	224	45	257	51	260	52	271	54	247	49
Piedmont Virginia	1,067	213	1,047	209	1,090	218	1,184	237	1,180	236
Rappahannock	750	150	681	136	619	124	733	147	641	128
Southside Virginia	802	160	862	172	730	146	877	175	828	166
Southwest Virginia	532	106	585	117	518	104	506	101	520	104
Thomas Nelson	1,772	354	1,712	342	1,582	316	2,104	421	1,974	395
Tidewater	4,830	966	4,771	954	4,654	931	5,634	1,127	5,312	1,062
Virginia Highlands	505	101	459	92	490	98	512	102	553	111
Virginia Western	1,550	310	1,405	281	1,485	297	1,786	357	1,698	340
Wytheville	571	114	541	108	562	112	599	120	614	123
VCCS	32,763	6,553	32,534	6,507	32,153	6,431	36,986	7,397	37,796	7,559

Source: VCCS EOT Class files fall 2010-fall 2014.

Appendix J
Success rates in developmental English and ENG 111 (Fall 2010-Fall 2013)

	2010						2011					
	ENG 111			Developmental			ENG 111			Developmental		
	Enrolled N	Successfully Completed N	%	Enrolled N	Successfully Completed N	%	Enrolled N	Successfully Completed N	%	Enrolled N	Successfully Completed N	%
Blue Ridge	996	735	74%	486	309	64%	913	720	79%	504	330	65%
Central Virginia	1,096	919	84%	442	306	69%	1,067	893	84%	399	286	72%
Dabney S. Lancaster	266	167	63%	131	83	63%	241	157	65%	138	87	63%
Danville	668	504	75%	707	429	61%	652	489	75%	679	410	60%
Eastern Shore	194	147	76%	133	102	77%	199	154	77%	125	95	76%
Germanna	1,848	1,356	73%	688	450	65%	1,857	1,345	72%	667	439	66%
J. Sargeant Reynolds	2,214	1,612	73%	644	421	65%	2,246	1,567	70%	708	494	70%
John Tyler	2,089	1,622	78%	1,442	999	69%	2,162	1,690	78%	1,475	945	64%
Lord Fairfax	1,501	1,206	80%	509	272	53%	1,533	1,244	81%	484	261	54%
Mountain Empire	628	450	72%	265	162	61%	547	368	67%	264	163	62%
New River	763	543	71%	127	80	63%	816	595	73%	111	65	59%
Northern Virginia	7,370	5,316	72%	5,920	4,385	74%	7,450	5,485	74%	5,917	4,524	76%
Patrick Henry	527	397	75%	513	312	61%	531	402	76%	510	373	73%
Paul D. Camp	224	153	68%	255	133	52%	257	193	75%	295	171	58%
Piedmont Virginia	1,067	750	70%	287	214	75%	1,047	809	77%	244	170	70%
Rappahannock	750	646	86%	313	219	70%	681	535	79%	298	194	65%
Southside Virginia	802	609	76%	407	246	60%	862	655	76%	380	229	60%
Southwest Virginia	532	437	82%	145	89	61%	585	498	85%	113	66	58%
Thomas Nelson	1,772	1,248	70%	1,011	736	73%	1,712	1,125	66%	1,011	716	71%
Tidewater	4,830	3,410	71%	4,031	2,771	69%	4,771	3,394	71%	4,322	2,763	64%
Virginia Highlands	505	380	75%	264	176	67%	459	342	75%	241	146	61%
Virginia Western	1,550	1,161	75%	531	357	67%	1,405	1,023	73%	449	303	67%
Wytheville	571	453	79%	288	195	68%	541	436	81%	285	177	62%
VCCS	32,763	24,221	74%	19,539	13,446	69%	32,534	24,119	74%	19,619	13,407	68%

Source: VCCS EOT Class files fall 2010-fall 2011.

Appendix J (continued)
Success rates in developmental English and ENG 111 (Fall 2010-Fall 2013)

	2012						2013					
	ENG 111			Developmental			ENG 111			Developmental		
	Enrolled N	Successfully Completed N	%	Enrolled N	Successfully Completed N	%	Enrolled N	Successfully Completed N	%	Enrolled N	Successfully Completed N	%
Blue Ridge	877	711	81%	510	324	64%	999	751	75%	216	137	63%
Central Virginia	936	768	82%	365	289	79%	1,097	908	83%	182	146	80%
Dabney S. Lancaster	265	190	72%	131	82	63%	268	156	58%	74	46	62%
Danville	595	423	71%	617	341	55%	655	458	70%	414	191	46%
Eastern Shore	200	162	81%	158	113	72%	245	182	74%	55	43	78%
Germanna	1,704	1,249	73%	709	483	68%	2,154	1,639	76%	444	293	66%
J. Sargeant Reynolds	1,949	1,314	67%	653	455	70%	1,942	1,340	69%	705	496	70%
John Tyler	2,040	1,691	83%	1,382	940	68%	2,570	2,088	81%	599	416	69%
Lord Fairfax	1,650	1,384	84%	417	218	52%	1,581	1,259	80%	303	223	74%
Mountain Empire	504	361	72%	251	125	50%	576	380	66%	254	114	45%
New River	828	622	75%	110	67	61%	667	523	78%	196	118	60%
Northern Virginia	8,113	5,889	73%	5,871	4,386	75%	9,326	6,864	74%	3,433	2,529	74%
Patrick Henry	502	389	77%	516	377	73%	700	563	80%	268	206	77%
Paul D. Camp	260	202	78%	254	161	63%	271	180	66%	132	76	58%
Piedmont Virginia	1,090	904	83%	259	171	66%	1,184	998	84%	183	139	76%
Rappahannock	619	521	84%	271	180	66%	733	561	77%	146	113	77%
Southside Virginia	730	588	81%	278	183	66%	877	683	78%	222	171	77%
Southwest Virginia	518	447	86%	80	50	63%	506	432	85%	105	78	74%
Thomas Nelson	1,582	1,102	70%	1,160	832	72%	2,104	1,435	68%	909	604	66%
Tidewater	4,654	3,337	72%	3,564	2,357	66%	5,634	3,972	71%	2,142	1,288	60%
Virginia Highlands	490	379	77%	245	131	53%	512	395	77%	119	78	66%
Virginia Western	1,485	1,104	74%	418	275	66%	1,786	1,373	77%	397	277	70%
Wytheville	562	455	81%	324	186	57%	599	489	82%	169	126	75%
VCCS	32,153	24,192	75%	18,543	12,726	69%	36,986	27,629	75%	11,667	7,908	68%

Source: VCCS EOT Class files fall 2012-fall 2013.