COLLEGE OF MARIN

High Failure Rate Courses - Fall 2011 Through Spring 2015

Successful course completion is key to earning a certificate or degree. Therefore, improving course success rates overall and achieving equitable success for all student groups are objectives in COM's <u>strategic plan</u> and <u>student equity plan</u>. Last Spring, Deans were provided with basic descriptive data on high failure rate courses. This report provides that data, and more recent data, and responds to some of their questions in order to better understand the problem and foster discussion of potential solutions.¹

Methodology

High failure rate courses were defined using criteria established in similar previous studies and COM's institution-set standard for successful course completion, the latter defined as a minimum 70% pass rate in the ACCJC annual report. In this study, courses with >=70 enrollment and <70% pass rate in at least 4 of the 8 Fall/Spring terms from Fall 2011-Spring 2015 were identified as high failure rate. Both pass rates and success rates are presented in this report. The pass rate includes P grades and D- and higher. Success rate (in alignment with the CA Community College Chancellor's Office definition and shown for additional information that may aid understanding) includes P grades and C and higher. Incompletes (IX), Drops (DR), Ungraded (UG), and In Progress (IP) are excluded from both rates. W and FW grades are included.

Findings

Courses Meeting High Failure Rate Criteria

Fourteen courses met the criteria for high failure rate (Table 1). Those courses are BEHS103, BIOL110, CIS101, CIS110, ENGL092, ENGL092L, ENGL098, ENGL120, MATH101, MATH103, MATH103A, PHIL110, POLS101 and MATH095. In the tables, rates that exceed the high failure rate threshold designation for a particular semester are shown in green.

¹ Resources:

John N. Gardner Institute for Excellence in Undergraduate Education, Improving Gateway Course Success http://www.jngi.org/institute-news/4887/

National Survey of Student Success Initiatives at Two-Year Colleges

http://www.jngi.org/wordpress/wp-content/uploads/2014/07/National-2-yr-Survey-Booklet_webversion.pdf

Community College Research Center at Columbia University. Not Just Math and English: Courses that Pose Problems to Community College Completion

http://ccrc.tc.columbia.edu/publications/obstacle-courses-community-college-completion.html

	Fa	II 2011		Sp	ring 2012		F	all 2012		Sp	ring 2013	
Course	% Success	%. Pass	Ν	% Success	%. Pass	Ν	% Success	%. Pass	Ν	% Success	%. Pass	Ν
BEHS103	57.5	63.7	148	64.6	66.7	98	57.6	64.4	119	64.6	69.5	83
BIOL110	65.0	69.0	305	56.1	61.6	310	46.9	56.9	355	68.6	73.9	268
CIS101	44.4	46.0	126	54.1	55.1	98	46.8	50.0	94	62.7	64.2	67
CIS110	56.4	59.0	124	62.0	68.2	135	59.6	60.6	101	62.5	65.0	128
ENGL092	61.5	70.2	104	53.1	62.2	107	60.3	70.7	122	56.0	66.7	86
ENGL092L	66.7	69.7	99	50.0	57.4	117	58.5	63.6	122	52.2	61.1	92
ENGL098	61.5	66.4	146	63.6	71.3	147	54.7	68.9	154	54.1	62.2	110
ENGL120	67.8	74.4	323	60.1	69.0	208	63.9	65.9	310	57.8	60.7	217
MATH101	44.0	55.3	141	41.4	47.8	159	38.9	52.5	170	42.5	58.2	155
MATH103	44.4	49.3	149	57.3	65.1	225	54.3	61.9	369	45.0	53.0	265
MATH103A	48.2	57.3	113	50.8	59.0	66	61.5	69.2	40	34.4	37.5	33
PHIL110	68.3	75.8	123	64.9	69.5	133	68.1	68.9	128	63.0	69.3	130
POLS101	64.1	67.2	131	61.1	63.4	139	56.8	61.0	127	66.7	72.8	85
MATH095	50.0	63.2	68	39.5	61.7	81	44.0	48.3	91	50.7	63.3	71

 Table 1. College of Marin High Failure Rate Courses by Term (Fall 2011-Spring 2015)

(continued on next page)

		Fall 2013		Sp	ring 2014		F	all 2014		Spring 2015		
Course	% Success	%. Pass	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν
BEHS103	50.0	57.3	113	50.6	53.0	83	62.7	65.1	84	81.3	87.5	32
BIOL110	55.7	64.7	351	55.4	64.5	251	46.2	52.0	225	55.0	62.6	243
CIS101*	52.9	56.9	51	70.4	70.4	71	-	-	-	-	-	-
CIS110	57.7	58.5	128	72.5	72.5	69	65.6	71.0	94	67.1	71.8	89
ENGL092	66.1	70.9	132	57.7	61.5	79	63.8	69.1	98	51.9	58.2	83
ENGL092L	65.9	71.4	131	50.6	54.3	82	62.8	64.9	97	54.2	54.2	85
ENGL098	64.2	75.2	142	53.5	59.7	130	65.3	66.9	125	61.7	67.0	96
ENGL120	58.9	65.8	243	58.9	62.7	211	56.6	62.0	211	63.3	66.3	202
MATH101	32.0	40.7	180	32.6	43.8	147	30.6	39.4	189	32.2	39.6	157
MATH103	47.2	58.5	259	50.0	53.0	299	41.8	49.8	306	44.4	49.3	280
MATH103A	55.6	59.3	82	44.1	58.8	36	64.1	66.7	41	33.3	48.7	41
PHIL110	70.7	75.9	124	60.4	68.1	94	65.8	73.9	122	64.8	68.5	111
POLS101	53.4	55.3	105	61.2	67.0	106	72.6	78.6	92	82.0	83.6	65
MATH095	52.8	74.5	106	65.8	75.3	73	59.1	69.4	98	61.5	81.3	91

 Table 1 (continued). College of Marin High Failure Rate Courses by Term (Fall 2011-Spring 2015)

Green= exceeded 70% pass rate

*CIS101 was not offered in AY 2014-15.

Source: COM MIS files, November 2015. One section of MATH095 in Spring 2013 was not included in the MIS submission. The section has similar pass and success rates as other sections for that term and would not change any of the results presented in this study.

Trends

MATH095, CIS110 and POLS101 all show improved course pass rates in recent semesters, surpassing 70%. The CIS110 rate was higher in the last three semesters and POLS101 in the last two (Table 1).

MATH095 met high failure rate criteria from Fall 2011-Spring 2013, though in the most recent 4 semesters it has not. Both pass and success rates increased after Fall 2012. (See Figure 1, next page). Dedicated tutors began in this course in Spring 2013 and have continued in at least one section each term, with the most sections (N=3) in Spring 2015. Pass and success rates have been consistently higher since the second semester in which dedicated tutors were in place (Fall 2013). T-tests comparing MATH095 sections with and without dedicated tutors show that students

in sections with dedicated tutors have slightly higher pass and success rates, but the difference is not statistically significant, meaning that the result could have occurred by chance (Table 2, next page).

Dedicated tutors also were utilized in other Math courses including 101 and 103 in later semesters. However, the overall course pass and success rates did not increase in these courses. T-tests comparing Math 101 sections with and without tutors and Math 103 sections with and without tutors indicate, for both courses, the sections with tutors have higher pass and success rates (Table 2, next page). Given these and the Math 095 findings, additional investigation is warranted before concluding that adding dedicated tutors to courses is effective. Other factors may be contributing, such as different types of students in the tutored and non-tutored sections or particular faculty teaching tutored or non-tutored courses. In addition, if tutoring is the reason for the higher rates, then it is not currently offered in enough sections to substantially raise the overall course pass rate. For example, if all sections of Math 103 included tutors, and tutoring is helping more students pass, then assuming the same effect holds across semesters, adding tutors to all Math 103 sections likely would improve the overall Math 103 pass rate to 57%.

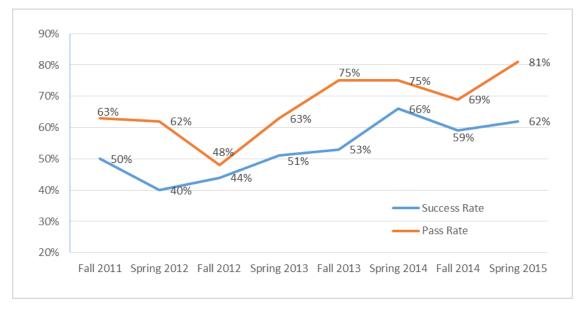


Figure 1. MATH095 Course Success and Pass Rates by Term (Fall 2011-Spring 2015)

Table 2. MATH Course Success and Pass Rates With and Without Dedicated Tutors(Spring 2013-Spring 2015 combined, where courses with tutoring were offered)

Course	Tutor status	Ν	Mean Pass Rate	Mean Success Rate
MATH095	No tutors	111	70.3	54.9
IVIA I 1095	With tutors	328	74.1	58.8
	No tutors	476	35.4*	26.3*
MATH101	With tutors	185	51.4	43.2
MATH103	No tutors	552	45.8*	41.3**
	With tutors	328	57.0	50.6

*T-test significant at p<u><</u>.001.

**T-test significant at p<.01.

Distance Education and Face-to-Face Sections

The Deans requested a comparison of distance and face-to-face sections for the courses meeting high failure rate criteria, as well as SPAN101. We compared the overall pass and success rates for these courses with all terms combined, and then by term—since rates in some of these courses have changed over time.

Looking at course success and pass rates for all terms combined, the distance sections have lower pass and success rates than the face-to-face sections (Table 3, next page). MATH095, however, shows an unusual pattern. While its pass rate in face-to-face sections is nearly 17% higher than the distance sections (consistent with the overall pattern), its success rate was slightly higher for distance than face-to-face sections.

Three courses, PHIL110, POLS101 and SPAN101, had an average pass rate above 70% for the face-to-face sections, but below 70% for the distance sections (Table 3).

		Face-to-Face	2		Distance		% Difference	% Difference
Course	Ν	% Success	% Pass	Ν	% Success	% Pass	in Success	in Pass
CIS110	983	64.0	67.5	205	50.7	52.7	13.3	14.8
ENGL120	2542	62.4	67.3	119	42.9	50.4	19.5	16.9
MATH095	758	52.5	67.2	26	54.7	50.0	-2.2	17.2
MATH101	1124	40.2	50.2	301	21.6	31.9	18.6	18.3
MATH103	2270	49.7	56.9	367	37.1	41.1	12.6	15.8
PHIL110	789	69.8	74.6	460	61.2	66.5	8.6	8.1
POLS101	898	68.9	72.9	127	42.5	43.3	26.4	29.6
SPAN101*	1517	72.6	75.7	231	55.8	58.0	16.8	17.7

Table 3. High Failure Rate Courses and SPAN101: Average Pass and Success Rates by Face-to-Face and Distance Sections(Fall 2011-Spring 2015 Combined)

* SPAN101 is not a high failure rate course but the comparison was requested by the Dean.

Table 4 (next page) includes only the semesters in which both modalities were offered for each course. In one semester of 3 different courses, the DE pass and success rates were higher than the face-to-face sections. Because these are so rare, they are likely just anomalies without a determinable explanation.

The CIS 110 DE rates were higher or similar in two of the 5 semesters that DE sections were offered (Table 4), but the overall pass and success rates for the course (Table 1) have been substantially higher (above the 70% standard) in the three most recent semesters—in which no DE sections were offered.

For POLS101, the higher rates have been only in the two most recent semesters and DE sections have not been offered since Fall 2012. Therefore, there would be no DE effect on the recent change in rates for this course.

			Face-to-	Face		Dista	nce	% Difference	% Difference
Course	Term	Ν	% Pass	% Success	Ν	% Pass	% Success	in Pass	in Success
CIS110	Fall 2011	91	57.1	54.9	33	60.7	57.1	-3.6	-2.2
CIS110	Spring 2012	94	78.7	71.3	41	34.1	31.7	44.6	39.6
CIS110	Fall 2012	68	63.2	61.8	33	51.5	51.5	11.7	10.3
CIS110	Spring 2013	90	63.3	61.1	38	61.8	58.8	1.6	2.3
CIS110	Fall 2013	88	60.2	59.1	44	51.4	51.4	8.9	7.7
ENGL120	Fall 2013	215	65.1	58.6	28	50.0	41.7	15.1	16.9
ENGL120	Spring 2014	185	66.5	62.7	26	33.3	29.2	33.2	33.5
ENGL120	Fall 2014	140	62.1	58.6	71	56.3	47.9	5.8	10.7
MATH095	Fall 2011	42	71.4	50.0	26	50.0	54.7	21.4	-4.7
MATH101	Spring 2012	113	56.6	49.6	46	25.0	20.5	31.6	29.1
MATH101	Fall 2012	129	58.1	42.6	41	25.6	20.5	32.5	22.1
MATH101	Spring 2013	117	59.8	46.2	38	42.9	22.9	17.0	23.3
MATH101	Spring 2014	104	46.2	34.6	43	37.5	27.5	8.7	7.1
MATH101	Fall 2014	152	41.4	32.9	37	22.9	14.3	18.5	18.6
MATH101	Spring 2015	118	42.4	35.6	39	25.7	17.1	16.7	18.5
MATH103	Fall 2011	113	51.3	45.1	36	36.4	36.4	15.0	8.7
MATH103	Spring 2012	183	67.8	59.1	42	46.2	43.4	21.6	15.7
MATH103	Fall 2012	320	64.1	55.9	49	33.3	31.3	30.7	24.6
MATH103	Spring 2013	220	55.0	47.3	45	25.6	18.6	29.4	28.7
MATH103	Fall 2013	222	55.4	44.1	37	62.9	54.3	-7.5	-10.2
MATH103	Spring 2014	259	54.4	51.4	40	43.6	41.0	10.9	10.4
MATH103	Fall 2014	258	51.2	42.6	48	37.0	32.6	14.2	10.0
MATH103	Spring 2015	235	48.1	43.0	45	46.5	44.2	1.6	-1.2

Table 4. High Failure Rate Courses and SPAN101: Average Pass and Success Rates by Face-to-Face and Distance Sections by Term (Fall 2011-Spring 2015)

(continued on next page)

			Face-to-	Face		Distar	nce	% Difference	% Difference
Course	Term	Ν	% Pass	% Success	Ν	% Pass	% Success	in Pass	in Success
PHIL110	Fall 2011	66	75.8	66.7	57	74.5	69.1	1.2	-2.4
PHIL110	Spring 2012	70	75.7	74.3	63	62.3	54.1	13.4	20.2
PHIL110	Fall 2012	69	69.6	68.1	59	59.6	59.6	9.9	8.5
PHIL110	Spring 2013	73	69.9	64.4	57	64.9	57.9	5.0	6.5
PHIL110	Fall 2013	69	76.8	71.0	55	68.6	64.7	8.2	6.3
PHIL110	Spring 2014	66	66.7	59.1	28	72.0	64.0	-5.3	-4.9
PHIL110	Fall 2014	67	79.1	76.1	55	60.4	45.8	18.7	30.3
PHIL110	Spring 2015	55	72.7	69.1	56	61.8	58.2	10.9	10.9
POLS101	Fall 2011	97	71.1	67.1	34	53.1	53.1	18.0	14.0
POLS101	Spring 2012	103	68.9	67.0	36	36.4	33.3	32.5	33.7
POLS101	Fall 2012	79	68.4	62.0	48	41.2	41.9	27.2	20.1
SPAN101	Spring 2012	125	63.2	56.8	59	42.4	39.0	20.8	17.8
SPAN101	Fall 2012	126	72.2	68.3	50	62.0	62.0	10.2	6.3
SPAN101	Spring 2013	105	68.6	67.6	37	64.9	64.9	3.7	2.7
SPAN101	Fall 2013	128	77.3	76.6	43	69.8	67.4	7.6	9.2
SPAN101	Spring 2014	89	70.8	65.2	42	57.1	52.4	13.6	12.8

Table 4 (continued). High Failure Rate Courses and SPAN101: Average Pass and Success Rates by Face-to-Face and Distance Sections by Term (Fall 2011-Spring 2015)

Note: Fall/Spring terms shown in which both modalities were offered.

Day/Evening Courses

The Deans also requested a comparison of course pass rates by time of day the courses were offered. With all high failure rate courses combined, there is no difference in pass or success rates by time of day (Table 5).

Table 5. Average Pass and Success Rates by Time of Day, All High Failure Rate Courses Combined (Fall 2011-Spring 2015)

	Ν	% Success	% Pass
Morning	7,875	56.9	63.8
Afternoon	3,066	55.0	61.9
Evening	3,708	56.5	62.9

When pass rates for each course are run separately by time of day, some differences emerge, but the patterns are inconsistent (Table 6). This suggests that influences other than time of day may be affecting pass and success rates in these courses.

		BEHS103			BIOL110			CIS101			CIS110	
	Ν	% Success*	% Pass*	Ν	% Success*	% Pass	Ν	% Success*	% Pass*	Ν	% Success*	% Pass*
Morning	459	66.4	73.4	1155	55.4	62.4	297	60.0	61.6	516	60.7	63.4
Afternoon	217	38.2	42.4	758	58.8	65.8	191	54.5	55.5	-	-	-
Evening	212	63.7	66.5	691	52.1	60.1	104	40.4	41.3	257	70.0	74.3
	ENGL092			ENGL098			ENGL120		MATH095	5		
	Ν	% Success	% Pass	N	% Success*	% Pass*	N	% Success	% Pass	Ν	% Success*	% Pass*
Morning	475	57.5	64.2	760	61.4	69.6	1419	60.7	66.7	243	44.0	60.5
Afternoon	292	58.2	65.1	108	62.0	68.5	280	58.2	61.4	137	59.9	73.7
Evening	126	61.1	67.5	328	52.1	60.9	419	60.6	63.0	345	57.8	71.3
		MATH101	L		MATH103			MATH103A			POLS101	
	Ν	% Success*	% Pass*	N	% Success*	% Pass*	N	% Success*	% Pass*	Ν	% Success*	% Pass*
Morning	582	42.4	53.6	622	42.1	50.0	222	36.5	45.5	457	62.1	67.2
Afternoon	-	-	-	873	52.2	59.7	302	54.3	62.6	99	56.6	61.6
Evening	402	35.8	44.8	483	55.7	62.0	-	-	-	254	79.6	81.5

 Table 6. High Failure Rate Courses: Average Pass and Success Rates by Time of Day (Fall 2011-Spring 2015 Combined)

Note: Courses not included are PHIL110 (only offered in the morning) and ENGL092L (lab course without a specific time).

Enrollment Status

First-time college students passed and succeeded at rates equivalent to or higher than all others in high failure English courses, MATH103, and MATH103A, but at lower rates in MATH095 and MATH101 (Table 7). In fact, with the exception of special admits, who for all but one course are so few that the group rate can vary substantially with a change in only one student, first-time students in ENGL092 were the only group that met the 70% pass rate standard.

Another finding of interest involves Math103. Far more K-12 students take this course than any of the others in this study, and their pass and success rates are higher than the other enrollment status groups.

		ENGL092			ENGL092L			ENGL098		ENGL120		
	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass
First-Time Student	378	61.1	70.1	378	61.6	66.9	351	61.3	68.9	590	63.6	67.5
First-Time Transfer	118	61.0	63.6	117	57.3	59.0	147	61.2	63.3	287	59.2	64.1
Returning Student	36	58.3	61.1	40	52.5	55.0	68	64.7	66.2	95	62.1	64.2
Continuing Student	462	56.9	64.1	461	57.5	61.4	848	57.3	66.6	1663	60.9	66.6
Special Admit (K-12)	1	100.0	100.0	1	100.0	100.0	7	57.1	71.4	20	65.0	70.0

Table 7. High Failure Rate English and Math Courses: Average Pass and Success Rates by Enrollment Status (Fall 2011-Spring 2015 Combined)

		MATH095	5		MATH101			MATH103		MATH103A		
	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass
First-Time Student	65	37.9	46.8	188	28.2	39.4	449	47.2	54.1	134	49.3	59.0
First-Time Transfer	53	52.8	58.5	132	37.1	44.7	242	46.7	54.5	60	43.3	48.3
Returning Student	34	55.9	61.8	57	35.6	42.1	73	53.4	56.2	12	33.3	33.3
Continuing Student	656	52.3	67.7	1037	37.6	47.5	1818	47.7	54.4	438	48.4	56.6
Special Admit (K-12)	1	0.0	100.0	10	70.0	100.0	54	61.1	68.5	2	100.0	100.0

High Failure Rate Math Courses Compared to All Other Courses

Another question the Deans asked was, "Do students fail math but succeed in their other courses?" Paired t-tests show that students failed high failure math courses at higher rates than their other courses in all terms except Spring 2014 (Table 8). Success rates were lower in high failure math than other courses in every term. However, this does not mean they were high achievers in their other courses. The pass rates for their other courses exceeded 70% in only 5 of the 8 semesters in this study. In 7 of the 8 semesters, success rates for all other courses were also below 70%. These patterns suggest that students who perform poorly in high failure math courses also tend to perform less well in their other courses, though not as poorly as they do in the high failure math courses.

		% Success-	% Success-all	%	% Pass-	% Pass-all	%
Term	N*	HF Math	other courses	Difference	HF Math	other courses	Difference
Fall 2011	92	40.2	62.4	22.2	47.8	72.2	24.4
Spring 2012	56	30.4	52.2	21.8	39.3	57.9	18.6
Fall 2012	196	49.0	68.3	19.3	60.2	73.3	13.1
Spring 2013	57	38.6	57.0	18.4	45.6	63.3	17.7
Fall 2013	190	41.6	68.1	26.5	50.5	74.2	23.7
Spring 2014	56	53.6	66.9	13.3	66.1	68.7	2.6
Fall 2014	186	37.6	72.0	34.4	45.2	75.5	30.3
Spring 2015	82	39.0	67.5	28.5	43.9	70.0	26.1

Table 8. Average Pass and Success Rates in High Failure Rate Math Courses Compared to All Other Courses(Fall 2011-Spring 2015 Combined)

Paired t-tests are statistically significant at $p \le .05$ for every term except pass rates for Spring 2014.

*Population is all students taking at least one high failure math course and one other non-high-failure rate math course in the given semester.

Success and Pass Rates in High Failure English and Math by First Course Taken

For some courses, it appears students who take a lower level course before a higher level course pass the higher level course at rates 2-6 percentage points higher than students who first enroll in the higher level course (Table 9). In one case, the difference is 15 percentage points. These courses include ENGL120, MATH095 and MATH103A except for those who started in MATH095. They pass MATH103A at far lower rates than students who start at all other levels. Also, in MATH103, students who started in MATH95 or MATH101 passed at higher rates than those who started directly in MATH103. However, since these are only descriptive data, other influences could be producing these patterns so further investigation is needed before conclusions can be drawn about the course level in which students should begin.

Table 9. High Failure Rate English and Math Courses: Average Pass and Success Rates by First Course Taken (Fall 2011-Spring 2015 Combined)

		ENGL120				MATH103	5
First English Course Taken	N	% Success	% Pass	First Math Course Taken	N	% Success	% Pass
Below ENG092	111	62.2	66.7	Below MATH095	64	42.2	46.9
ENGL092	255	65.1	71.2	MATH095	135	49.6	56.3
ENGL098	579	64.1	69.8	MATH101	401	53.9	58.4
ENGL116	19	78.9	78.9	MATH103	2037	46.9	54.1
ENGL120	1,697	59.9	64.6			MATH103	4
		ENGL098		First Math Course Taken	N	% Success	% Pass
First English Course Taken	Ν	% Success	% Pass	Below MATH095	29	51.7	58.6
Below ENG092	120	58.3	66.7	MATH095	43	37.2	39.5
ENGL092	376	56.9	66.2	MATH101	123	53.7	61.0
ENGL098	931	59.9	67	MATH103A	451	47.2	56.1
		ENGL092				MATH101	
First English Course Taken	N	% Success	% Pass	First Math Course Taken	N	% Success	% Pass
Below ENG092	156	55.8	63.5	Below MATH095	157	36.9	46.5
ENGL092	844	59.7	66.8	MATH095	282	36.2	45.0
				MATH101	986	36.2	46.7
						MATH095	5
				First Math Course Taken	Ν	% Success	% Pass
				Below MATH095	336	51.4	69.0

Race/Ethnicity

These data show wide variation in course pass and success rates between racial/ethnic groups (Table 10). In general, Asian and White students pass and succeed in high failure rate courses at higher rates than other groups. However, even those groups did not pass at higher than 70% in most courses. Asian students did so in 7 of the 14 courses; White students in 4 courses; and though their numbers are small (resulting in

MATH095

53.1

448

64.7

considerable variation in rates), American Indian/Alaska native students achieved the pass rate standard in 4 courses while Native Hawaiian/Pacific Islander students did so in 3 courses.

Considering only the groups with at least 20 students, the difference in pass rates between some groups is huge, as much as 56 percentage points in CIS110, 42 percentage points in BEHS103, 38 percentage points in Math95 and 30 percentage points in BIOL110. All of the high failure rate courses showed a greater than 10 percentage point difference between its highest and lowest achieving racial/ethnic groups.

BEHS103 is the only course in which most groups pass at greater than 70%. Its African American and Hispanic student rates are far lower.

	BEHS103			BIOL110			CIS101			CIS110		
	Ν	% Success	% Pass	N	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass
Asian	68	75.0	82.4	357	54.3	62.2	79	69.6	70.9	160	76.3	79.4
Black/African American	172	32.0	40.1	210	30.5	43.8	194	38.1	40.2	151	36.4	39.1
Hispanic/Latino	315	56.8	64.8	876	41.8	52.1	205	64.9	66.3	288	61.5	67.7
American Indian/Alaska Native	7	85.7	85.7	24	50.0	54.2	6	50.0	50.0	9	77.8	77.8
Native Hawaiian/Pacific Islander	8	75.0	75.0	29	55.2	58.6	9	77.8	77.8	9	55.6	55.6
Two or more races	41	70.7	75.6	121	48.8	55.4	21	57.1	57.1	21	19.0	23.8
White	685	68.5	73.0	1,845	67.5	74.0	398	65.6	66.8	617	63.4	66.0
	ENGL092			ENGL092L			ENGL098			ENGL120		
	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass	Ν	% Success	% Pass
Asian	112	71.4	79.5	111	73.9	77.5	134	62.7	67.9	255	66.3	68.6
Black/African American	208	50.5	56.3	206	51.9	55.8	213	46.9	54.9	232	50.4	56.9
Hispanic/Latino	435	63.2	69.7	429	63.2	66.4	665	56.7	63.2	898	60.4	66.1
American Indian/Alaska Native	9	55.6	66.7	8	62.5	75.0	10	60.0	60.0	18	72.2	77.8
Native Hawaiian/Pacific Islander	7	42.9	42.9	5	60.0	80.0	12	58.3	58.3	31	45.2	48.4
Two or more races	41	56.1	63.4	43	51.2	58.1	38	42.1	50.0	109	61.5	64.2
White	221	59.3	66.5	217	60.4	62.7	503	60.4	66.4	1,299	62.0	65.8

Table 10. High Failure Rate Courses: Average Pass and Success Rates by Race/Ethnicity (Fall 2011-Spring 2015 Combined)

	MATH095			MATH101			MATH103			MATH103A		
	N	% Success	% Pass	Ν	% Success	% Pass	N	% Success	% Pass	Ν	% Success	% Pass
Asian	70	60.0	75.7	89	49.4	55.1	264	51.5	59.5	59	50.8	57.6
Black/African American	131	27.5	40.5	115	29.6	37.4	107	40.2	44.9	45	35.6	40.0
Hispanic/Latino	355	43.1	57.5	474	33.3	47.3	737	41.0	50.6	212	41.0	50.9
American Indian/Alaska Native	6	66.7	66.7	10	50.0	60.0	20	45.0	55.0	11	9.1	18.2
Native Hawaiian/Pacific Islander	11	45.5	63.6	14	50.0	57.1	21	38.1	42.9	8	50.0	50.0
Two or more races	34	38.2	50.0	38	26.3	39.5	107	45.8	55.1	25	48.0	56.0
White	387	57.6	68.2	757	42.3	52.2	1,270	56.5	61.4	331	54.4	61.9
	PHIL110			POLS101								
	N	% Success	% Pass	Ν	% Success	% Pass						
Asian	152	68.4	71.1	106	65.1	67.0						
Black/African American	55	45.5	50.9	69	59.4	59.4						
Hispanic/Latino	232	55.6	62.9	264	59.1	62.5						
American Indian/Alaska Native	9	55.6	66.7	8	50.0	50.0						
Native Hawaiian/Pacific Islander	11	54.5	54.5	11	36.4	45.5						
Two or more races	48	58.3	62.5	33	60.6	66.7	1					

70.2

72.7

Table 10 (continued). High Failure Rate Courses: Average Pass and Success Rates by Race/Ethnicity(Fall 2011-Spring 2015 Combined)

Note: Students with race/ethnicity listed as "Unknown" not included

784

70.5

76.0

634

White