The Effect of Initial Student Placement in English and Math on Student Success (April 2021)

By Professor Jeffrey Weintraub Office of Institutional Research and Assessment

Introduction

Over the past 18 months both the way the College places first-term students into remedial, co-requisite and College level courses and the way we instruct these students has changed. CUNY's Proficiency Index (PI) now determines our students' initial placements instead of the basic skills testing and COVID 19 has turned in-person instruction into remote learning.

This analysis examines the placement of first-term students, both full-time and part-time, and their performance in their first Math and/or English course for three semesters, Fall 2019, Spring 2020 and Fall 2020 and will address the following issues:

- How does the student's placement level, remedial, co-requisite or College correlate with their course performance? (Not every student enrolls in the course they placed into.)
- Are first-term students disproportionately affected by remote learning? Using Fall 2019 as a control, pass rates of first-term students in their first English and Math course are compared to all other non-first-term students taking the same course in the same term
- How effective are the new Proficiency Index's in placing students at the proper level?
- What effect on one-term retention does passing or failing a student's first English or Math course have?

All of these factors are entwined in the enrollment, retention and academic performance matrix. As you will see, student performance is related to proper placement, mode of instruction is critically important to first-time student performance and retention is function of student performance.

Data Sources

First-term students are derived for the CUNY Census for each term. Specific course enrollment and grades come from the CUNY First Term Enrollment Table.

The report is divided into four major areas with similar charts for both English and Math in each area, except for one-term retention where English and Math are combined.

Report Highlights

1. Enrollment and Academic Outcomes Based On Initial Placement

The process of placing student into remedial or College level English or Math is similar, their placement into Co-Requisite courses differs. English has a distinct placement and PI cut-off score for Co-Requisite placement (ENA/C101). Math is different as students, are placed into three different level; College Level, High Remedial (MAT096) and Low Remedial (MAT095. Students placed at the 096 level can take the Math Co-Requisite course (MAT117, 119, 123) or until recently, enroll in the purely remedial MAT096. For this reason, the analysis presented in chart 1M groups all MAT096 students together. In most cases the failure and withdrawal rate is combined as failing, but in these tables I felt it was important to see both rates and possibly shed light on the effect of remote learning has on these courses.

Table 1E (English)

The vast majority of students placed into College Level English took the proper course. Students placed into Co-Req English enroll in English courses other than Co-Req at close to 20% rate. The pass rate for all levels except ESL has dropped since Fall 2019. The withdrawal rates have risen since Fall 2019 (with the exception of ESL).

Overall, there is an increase in the percentage of first-term students withdrawing from their first English class. ESL students pass rates have risen slightly since Fall 2019. In Fall 2020, for students placed into Co-Req and taking either ENA101 or ENC101 the pass rate was 42%, compared to 74% in Fall 2019.

			F	all 2019				Sp	ring 20	20			F	all 2020		-
	Level of First English Course Taken	Students	%	%W	%	% Passed of Comple		%	%W	%	% Passed of Comple	Studento	% Data	% W	%	% Passed of Comple
Level	in 1st Term	Students	Pass	Grade	Fail	ters	Students		Grade	Fail	ters	Students			Fail	ters
COLLEGE	COLLEGE	1749 2	69.8% 50.0%			76.0% 50.0%	380			23.2% 33.3%	73.7%	1711	58.6%		29.7% 33.3%	
COLLEGE	CO-REQ REMED	0	50.0%		50.0%	50.0%	3 0	66.7%		33.3%	66.7%	3	66.7%		-	
COLLEGE		0					2	F0.0%		50.0%	50.0%	3 0	66.7%		33.3%	66.7%
COLLEGE	ESL	1751	69.8%	8.2%	22.0%	76.0%	_∠ 385	50.0%	11.7%		73.5%	1717	58.6%	11.6%	29.7%	66.4%
COLLECE	No English To		69.8%	8.2%	22.0%	76.0%		64.9%	11.7%	23.4%	13.5%		58.0%	11.0%	29.1%	66.4%
COLLEGE	No English Ta	189					31					156				
	COLLECT	25	64.004	0.00/	20.00/	60.0%	20	EE 004	10.00/	25.00/	61.10/	10	E 4 204	10.0%	26.10/	67.00
CO-REQ	COLLEGE	25	64.0%		28.0%	69.6%	20	55.0%		35.0%	61.1%	46	54.3%		26.1%	
CO-REQ CO-REQ	CO-REQ REMED	287 48	74.2%		18.5% 25.0%	80.1% 67.6%	109 11	55.0% 63.6%		35.8% 27.3%	60.6% 70.0%	292 33	42.1%		39.7% 33.3%	
		48	52.1%	22.9%	25.0%		0	63.6%	9.1%	27.3%	70.0%	2	0.0%	15.2%	33.3%	
CO-REQ	ESL	 361	70.4%	9.4%	20.2%	0.0%	140	55.7%	0.2%	35.0%	61.4%	2 373	44.2%	10.0%	37.8%	
CO 050	No Frankish Ta	57	70.4%	9.4%	20.2%	11.1%	140	55.7%	9.3%	35.0%	61.4%	63	44.2%	18.0%	37.8%	53.9%
CO-REQ	No English Ta	57										03				
REMED	COLLEGE	8	87.5%	0.0%	12.5%	87.5%	96	12 9%	14.6%	41.7%	51.2%	17	82.4%	5.9%	11.8%	87.5%
REMED	COLLEGE	0	67.570	0.076	12.370	07.J/0	42	69.0%		23.8%	74.4%	17	02.470	6.3%	18.8%	
REMED	REMED	58	74.1%	8.6%	17.2%	81.1%	42	58.3%		33.3%	63.6%	58	41.4%			
REMED	ESL	0	74.1%	0.0%	17.270	01.1%	48	56.5%	0.5%	33.3%	05.0%	0	41.4%	22.4%	50.2%	55.5%
REIVIED	ESL	66	75.8%	7.6%	16.7%	82.0%	186	F2 29/	11 20/	35.5%	60.0%	91	54.9%	10 59/	28.6%	65.8%
REMED	No English Ta	21	15.8%	7.0%	16.7%	82.0%	130	53.2%	11.3%	35.5%	60.0%	21	54.9%	10.5%	28.0%	05.8%
REIVILD	NO LIIGIISII IA	21					15					21				
ESL	COLLEGE	10	80.0%	10.0%	10.0%	88.9%	2		0.0%	0.0%		2	100.0%		0.0%	100.0%
ESL	COLLEGE	10	0.0%		100.0%		4		25.0%		33.3%	3	100.076		33.3%	
ESL	REMED	3	66.7%			100.0%	2	50.0%		50.0%	50.0%	2			0.0%	100.0%
ESL	ESL	363	76.3%		16.3%	82.4%	192	71.4%		23.4%	75.3%	169	79.3%	3.6%	17.2%	
LJL	LJL	303 377	76.1%		16.2%		200	70.5%		23. 4%		109 176	79.5%		17.2%	
ESL	No English Ta	23	70.1%	1.170	10.270	02.3/0	3	70.5%	5.5%	24.070	74.07	1/0	13.3/0	3.470	17.0%	02.4/0
-5-		25					5									
Passed CS	COLLEGE	21	71.4%	9.5%	19.0%	78.9%	85	56.5%	3.5%	40.0%	58.5%	15	33.3%	6.7%	60.0%	35.7%
Passed CS		0	. 1	5.570	10.070	. 0.570	0	50.570	5.570	70.070	30.370	0	00.070	0.770	50.070	55.770
Passed CS		0					0					0				
Passed CS		0					0					0				
		21	71.4%	9.5%	19.0%	78.9%	85	56.5%	3.5%	40.0%	58.5%	15	33.3%	6.7%	60.0%	35.7%
Passed US\		12	83.3%		16.7%	83.3%	5	60.0%		40.0%	60.0%	24	58.3%		29.2%	66.7%
Passed US\	CO-REQ	6		33.3%	33.3%	50.0%	5	20.0%	20.0%	60.0%	25.0%	18	33.3%	16.7%		40.0%
Passed US\	REMED	4	50.0%	25.0%	25.0%	66.7%	3	33.3%		66.7%	33.3%	1	0.0%		100.0%	0.0%
Passed US\	ESL	0					0					0				
		22	63.6%	13.6%	22.7%	73.7%	13	38.5%	7.7%	53.8%	41.7%	43	46.5%	14.0%	39.5%	54.1%
	rm English	2598	70.9%	8.3%	20.8%	77.3%	1009	64 B04	0.000	29.1%	67.9%	2415		12.2%	20.491	65.4%

Table 1M (Math)

The vast majority of students placed into College Level Math took the proper course. Students placed into the Math 096 level enroll in Math courses other than the Math 096 level at about 15% rate. The pass rate for all levels remained stable or risen slightly since Fall 2019

Students that previously enrolled and passed Math Start do as well in College Level Math as students placed directly into College Level Math. Students that previously enrolled and passed USIP Math (USM96) do as well in College Level Math as students placed directly into College Level Math.

Overall, there is an increase in the percentage of first-term students withdrawing from their first Math class.

			<u>1st Term</u>	Math En	rollment	and Out	tcom es - F	irst Time S	tudents	Math In	First Ter	<u>m</u>				`
			Fa	II 2019				Spr	ing 2020)			Fa	all 2020		
						%					%					%
	Level of First					Passed					Passed					Passed
	English		% Passed			of		% Passed			of		% Passed			of
Initial College	Course Taken		(Of All	% W	%	Comple		(Of All	% W	%	Comple		(Of All	% W		Comple
Pla cement Level	in 1st Term	Students	Enrolled)	Grade	Fail	ters		Enrolled)	Grade	Fail	ters	Students	Enrolled)	Grade		ters
COLLEGE	CO LLEGE	1458	55.9%	9.4%	34.7%	61.7%	370	56.8%	12.7%	30.5%	65.0%	1378	56.7%	13.8%		65.8%
COLLEGE	MAT096	9	55.6%	0.0%	44.4%	55.6%	5	60.0%		20.0%	75.0%	21	61.9%		14.3%	81.3%
COLLEGE	MAT095	3	0.0%	33.3%	66.7%	0.0%	0					6	50.0%	26.7%	33.3%	60.0%
		1470	55.8%	9.4%	34.8%	61.6%	375	56.8%	12.8%	30.4%	65.1%	1405	56.8%	14.0%	29.3%	66.0%
COLLEGE	No Math Take	375					109					265				
MAT096	COLLEGE	27	55.6%	18.5%	25.9%	68.2%	6	66.7%		33.3%	66.7%	16	75.0%	6.3%	18.8%	80.0%
MAT096	MAT096	152	43.4%	13.8%	42.8%	50.4%	66	63.6%	10.6%	25.8%	71.2%	174	46.6%	14.4%	39.1%	54.4%
MAT096	MAT095	6	50.0%	0.0%	50.0%	50.0%	2	50.0%	0.0%	50.0%	50.0%	11	45.5%	18.2%	36.4%	55.6%
		185	45.4%	14.1%	40.5%	52.8%	74	63.5%	9.5%	27.0%	70.1%	201	48.8%	13.9%	37.3%	56.6%
Mat 096	No Math Take	96					24					36				
MAT095	COLLEGE	29	48.3%	20.7%	31.0%	60.9%	22	31.8%	13.6%	54.5%	36.8%	35	51.4%	8.6%	40.0%	56.3%
MAT095	MAT096	49	32.7%	20.4%	46.9%	41.0%	23	43.5%		43.5%	50.0%	14	35.7%	7.1%	57.1%	38.5%
MAT095	MAT095	384	37.0%	12.8%	50.3%	42.4%	122	53.3%		34.4%	60.7%	282	47.2%	19.5%	33.3%	58.6%
		462	37.2%	14.1%	48.7%	43.3%	167	49.1%		38.3%		331	47.1%	17.8%		57.4%
MAT095	No Math Take	96					44					47				
Passed CS Math	CO LLEGE	18	44.4%	22.2%	33.3%	57.1%	43	44.2%	7.0%	48.8%	47.5%	12	50.0%	16.7%	33.3%	60.0%
Passed CS Math	MAT096	0					0					0				
Passed CS Math	MAT095	0					0					0				
		18	44.4%	22.2%	33.3%	57.1%	43	44.2%	7.0%	48.8%	47.5%	12	50.0%	16.7%	33.3%	60.0%
Passed MS Math	COLLEGE	53	28.3%	22.6%	49.1%	36.6%	38	50.0%	5.3%	44.7%	52.8%	20	60.0%	25.0%	15.0%	80.0%
Passed MS Math	MAT096	0					0					0				
Passed MS Math	MAT095	1					0					0				
		54	29.6%	22.2%	48.1%	38.1%	38	50.0%	5.3%	44.7%	52.8%	20	60.0%	25.0%	15.0%	80.0%
Passed USM96	CO LLEGE	85	51.8%	11.8%	36.5%	58.7%	26	69.2%	7.7%	23.1%	75.0%	57	66.7%	7.0%	26.3%	71.7%
Passed USM96	MAT096	10	20.0%	30.0%	50.0%	28.6%	2	50.0%	0.0%	50.0%	50.0%	4	75.0%	0.0%	25.0%	75.0%
Passed USM96	MAT095	2	100.0%	0.0%	0.0%	100.0%	3	33.3%	0.0%	66.7%	33.3%	1	0.0%	0.0%	100.0%	0.0%
		97	49.5%	13.4%	37.1%	57.1%	31	64.5%	6.5%	29.0%	69.0%	62	66.1%	6.5%	27.4%	70.7%
Passed USM95	CO LLEGE	22	54.5%	9.1%	36.4%	60.0%	2	50.0%	0.0%	50.0%	50.0%	0				
Passed USM95	MAT096	37	48.6%	10.8%	40.5%	54.5%	0					0				
Passed USM95	MAT095	7	57.1%	0.0%	42.9%	57.1%	0					0				
		66	51.5%	9.1%	39.4%	56.7%	2	50.0%	50.0%	50.0%	100.0%	0				
No. Discoment 1-5-	011505						10	22.224	1.0 70/	50.00/	40.0%	20	52.00/	22.4%	22.10/	70.08/
No Placement Info							18	33.3%		50.0%	40.0%	26	53.8%	23.1%		70.0%
No Placement Info							39	38.5%	15.4%	20.5%	45.5%	88	50.0%	13.6%	36.4%	57.9%
No Placement Info	IVIAIU95						32	53.1%	9.4%	37.5%	58.6%	127	44.1%	21.3%	34.6%	56.0%
							89	42.7%	13.5%	32.6%	49.4%	241	47.3%	18.7%	34.0%	58.2%
All First Term Mat	L	2352	50.3%	11.2%	38.5%	56.6%	819	53.6%	11.7%	33.6%	60.7%	2272	53.9%	14.9%	31.2%	63.4%

2. Comparison of first-term students to all others students taking the same course in the same term.

In an attempt to isolate the effect of remote learning on first-term students, their pass, fail and withdrawal rates are compared to non first- term students taking the same course.

Table 2E (English)

For College Level students, the pass rate dropped for both first-term and other between Fall 19 and Fall 20. The difference in the pass rate between the two groups increased from 4.9% in Fall 2019 to 10% in Fall 2020.

For students taking Co-Req English the pass rate dropped dramatically for both groups between Fall 2019 and Fall 2020. In Fall 2019, the pass rate for both groups was in the low 70%. In Fall 2020 the pass rate for non first termers was 60.7% and for first-terms students 43.7%. The withdrawal rate for Co-Req English in Fall 2020 was 18.7% for non first-term students and 17.2% for first-term students, up significantly from Fall 2019. English Co-Req students appeared to have suffered the most in the move to remote learning.

For remedial students (ENG099) the pass rate dropped for first-time students from 63.2% in Fall 2019 to 46.9% in Fall 2020. The pass rate for non-first-time students remained stable.

	Com	pariso	n of First-	Term Stu	udents and	All Ot	hers Takin	g ENG10	1, ENA/C1	101 an	d ENG099		
			F	all 19			Spr	ing 20			Fa	all 20	
			% Passed	% W,	%		% Passed	% W,	%		% Passed	% W,	%
	Course in 1st		(of All	WN, WD	Pass of		(of All	WN, WD	Pass of		(of All	WN, WD	Pass of
Course	semester	Enr.	Enrolled)	Grade	Completer	Enr.	Enrolled)	Grade	Complete	Enr.	Enrolled)	Grade	Complete
ENG101	Yes	1828	69.9%	8.2%	76.1%	585	60.0%	10.9%	67.4%	1825	58.5%	11.7%	66.3%
ENG101	No	1582	74.8%	10.7%	83.7%	1654	66.9 %	12.4%	76.3%	1558	68.5%	12.4%	78.2%
ENA/C101	Yes	297	73.1%	7.8%	79.2%	163	57.1%	9.2%	62.8%	332	43.7%	17.2%	52.7%
ENA/C101	No	164	72.6%	11.6%	82.0%	174	64.9%	12.1%	73.9%	150	60.7%	18.7%	74.6%
ENG099	Yes	114	63.2%	15.8%	75.0%	64	57.8%	7.8%	62.7%	98	46.9%	18.4%	57.5%
ENG099	No	102	71.6%	3.9%	74.5%	92	67.4%	<mark>9.8</mark> %	74.7%	77	72.7%	7.8%	78.9%
For 1st Ter	m Students:												
ENG 101: Th	e Withdrawel rate	and Fail	ure rates inc	reased in be	etween Fall 19	and Spri	ng 20 and the	Pass Rate o	fcompleters	droppe	d. Between S	oring20 and	Fall 20 rate
	e Withdrawel rate						•						
	e Withdrawel rate i				-		-						
	[
For All Oth	er Students]		J		J]]]	<u></u>
ENG101: Wi	thdrawel rate incre	eased be	etween Fall 1	9 and Sprin	g 20 then rem	eained s	able. Pass rat	te for both a	all e nrolled ar	nd comp	leters droppe	d Fall 19 to	Spring 20 th
ENA101: Wi	thdrawel rate rose	both Sp	ring 20 and F	all 20 while	e pass rate of co	mpletes	dropped dro	pped and t	hen stabilized				
FNG099 · Wi	thdrawel rate rose	and has	stabilzed Fal	19 and Fal	l overall nass ra	te simil:	ar and nass rat	es for comr	leted has rise	'n			

ENG099: Withdrawel rate rose and has stabilzed Fall 19 and Fall overall pass rate similar and pass rates for completed has risen

Table 2M (Math)

Math has four College Level courses, three Co-Requisite courses, two courses offered at the MAT095 level or MAT096. Table 2M identifies each course and summarizes each level.

First-term College level Math students' pass rates, while lower than the 'other' group, rose slightly, between Fall 2019 and Fall 2020. Co-Requisite first-term Math students pass rates while behind 'other students' remained stable between Fall 2019 and Fall 2020.

MAT096 and MAT095 are being phased out, but first-term students taking MAT099, which is MAT095 and MAT096 combined, showed an increase in their pass rates as did the other than first-term students taking MAT099.

First-term Math students did not show the same difficulties as first-term English students did with the advent of remote learning.

			<u>Cor</u>	mpariso	n of First-T	erm Stude	ents and	All Othe	ers Taking I	Math cou	<u>rses</u>		1	
				Fa	ll 2019			Spri	ng 2020			Fal	1 2020	
						Pass Rate				Pass				Pass
				%		of		%		Rate of		%		Rate of
		First		Passed	%	Complete		Passed	%	Complet		Passed	%	Complete
		Term	Enrolled	(of all)	Withdrew	rs	Enrolled	(of all)	Withdrew	ers	Enrolled	(of all)	Withdrew	rs
Colleg	ge Level													
All		Yes	1695	54.5%	10.4%	60.8%	525	54.1%	11.4%	61.1%	1548	57.1%	13.8%	66.2%
All		No	3166	61.5%	13.2%	70.9%	3299	65.8%	13.6%	76.2%	2977	69 .3 %	12.4%	79.1%
Co-Re	q													
All		Yes	156	47.4%	13.5%	54.8%	103	52.4%	11.7%	59.3%	301	48.5%	14.3%	56.6%
All		No	224	51.8%	15.2%	61.1%	256	58.2%	14.1%	67.7%	265	58.1%	18.1%	71.0%
Mat 0	96													
MAT	096	Yes	101	32.7%	16.8%	39.3%	32	53.1%	29.4%	63.0%	0			
MAT	096	No	207	39.6%	14.0%	46.1%	136	54.4%	27.0%	63.8%	0			
Reme	dial													
All		Yes	404	37.6%	12.6%	43.1%	157	52.9%	21.7%	59.7%	426	46.2%	20.0%	57.8%
All		No	476	42.9%	17.6%	52.0%	322	55.6%	33.0%	68.1%	329	59.6%	14.0%	69.3%

3. Comparison of Proficiency Index Placements to Other Placements

In 2019 the CUNY instituted the use of a Proficiency Index (PI), a numerical value calculated by CUNY to determine student placement. Not all students are assigned a PI score as some students are considered exempt based prior courses or Regents exams. While PI scores were generated for Spring 2020 admits, the sample was too small to analyze, which is why only Fall 2020 is presented.

Table 3E (English)

Table 3E indicates that there is a direct correlation between their PI score and the passing rate of the course they were placed into. For students taking English 101 for their first course, the overall pass rate for students placed through their PI is 55% and for all other first-term freshman taking English 101 for passing rate is 59.5%. For students in placed into Co-Requisite or Remedial English the non-PI students did somewhat better. Within each band of PI scores, there is a correlation between PI score and pass rate.

	English Course	Enrollment I	For Matching	English PI Pla	<u>icements</u>	
				Fall 20		
			% Pass (Of			Pass Rate
	College Placement		All	%		of
PI Score	Level	Enrolled	Enrolled)	Withdrew	% Fail	Completers
90-99	COLLEGE	46	78.3%	4.3%	17.4%	81.8%
80-89	COLLEGE	118	65.3%	8.5%	26.3%	71.3%
70-79	COLLEGE	180	49.4%	13.3%	37.2%	57.1%
65-69	COLLEGE	129	48.1%	10.9%	41.1%	53.9%
	Total		55.8%	10.6%	33.6%	62.4%
	All Other Freshmen Taking College Level English	1342	59.5%	12.2%	28.2%	67.8%
60-64	CO-REQ	76	47.4%	22.4%	30.3%	61.0%
55-59	CO-REQ	85	43.5%	12.9%	43.5%	50.0%
50-54	CO-REQ	77	36.4%	18.2%	45.5%	44.4%
45-49	CO-REQ	75	40.0%	18.7%	41.3%	49.2%
	Total	313	41.9%	17.9%	40.3%	51.0%
	All Other Freshmen Taking Co-Req English	19	73.7%	21.0%	5.3%	77.8%
30-44	REMED	47	40.4%	23.4%	36.2%	52.8%
1 - 29	REMED	10	50.0%	10.0%	40.0%	55.6%
	Total	57	42.1%	21.1%	36.8%	53.3%
	All Other Freshmen Taking Remedial English	40	53.5%	15.0%	32.5%	58.3%

Table 3M (Math)

	Math Course Enrollment With Matching Math Proficiency Index Placements and Outcomes													
				Fall 20										
LOW 90 80 70 60	99 89 79	PLACEMENT COLLEGE COLLEGE COLLEGE COLLEGE	ENROLLED 7 44 51 77	Pass Rate (of all Enrolled) 85.7% 79.5% 74.5% 64.9%	Fail Rate 14.3% 13.6% 17.6% 20.8%	Withdrawal Rate 0.0% 6.8% 7.8% 14.3%	Pass Rate of Completers 85.7% 85.4% 80.9% 75.8%							
00		Total	179	72.1%	17.9%	10.1%	80.1%							
		eshmen Taking el Math	1369	55.2%	30.5%	14.2%	64.4%							
cone	ge Leve						1							
55	59	*Co-Req	32	56.3%	37.5%	6.3%	60.0%							
55 50	59 54	*Co-Req Co-Req	38	44.7%	44.7%	10.5%	50.0%							
55 50 45	59 54 49	*Co-Req Co-Req Co-Req	38 43	44.7% 55.8%	44.7% 34.9%	10.5% 9.3%	50.0% 61.5%							
55 50	59 54 49 44	*Co-Req Co-Req	38	44.7%	44.7%	10.5%	50.0%							
55 50 45 40 All Ot	59 54 49 44	*Co-Req Co-Req Co-Req Co-Req Co-Req Total eshmen Taking	38 43 61	44.7% 55.8% 39.3%	44.7% 34.9% 37.7%	10.5% 9.3% 23.0%	50.0% 61.5% 51.1%							

*Students Placing in MAT096 level through their Pl Math Scores were only placed into Co-Req Math. No MAT096 courses were offered in Fall 20

**Students Placing in MAT095 level through their Pl Math Scores were only placed into MAT099. No MAT095 courses were offered in Fall 20

The PI score appears to be a good predictor of success in which ever Math the student is placed into. For students placing into College Math the PI students passed at a 72.1% rate, while student placing into College Math through other means only passed at a 55.2% rate. For Co-Requisite and MAT095 placement the pass rate for the PI students was extremely similar to those placed through other means. Within each band of PI scores there is a correlation between score and pass rate.

4. The Relationship Between Passing First-Term English and/or Math and Retention

Table 4 shows a direct relationship between passing first-term English and Math and retention. Students that pass return at significantly higher rates than those that don't. These number are consistent across both curricular area and over the past three terms.

One Seme	ster Retu	urn Rates E	Based on Pa	ssing or Fai	ling First E	nglish and	/or Math C	ourse In Fi	irst Semes	<u>ter</u>
						<u>English</u>				
			FALL 2019			Spring 202	0		Fall 2020	
First English			Returned	One-Term		Returned	One-Term		Returned	One-Term
Course In First			For Next	Return		For Next	Return		For Next	Return
Term	Passed	Students	Term	Rate	Students	Term	Rate	Students	Term	Rate
ENG101	Yes	1278	1167	91.3%	350	297	84.9%	1063	969	91.2%
ENG101	No	550	243	44.2%	233	97	41.6%	752	333	44.3%
CO-REQ	Yes	217	188	86.6%	93	77	82.8%	145	126	86.9%
CO-REQ	No	87	35	40.2%	70	17	24.3%	187	72	38.5%
REMED	Yes	72	61	84.7%	37	34	91.9%	45	35	77.8%
REMED	No	59	26	44.1%	27	9	33.3%	52	23	44.2%
		55	20	44.170	21		33.370	52	25	44.270
ESL	Yes	277	235	84.8%	138	121	87.7%	134	115	85.8%
ESL	No	98	51	52.0%	56	13	23.2%	37	22	59.5%
						Math				
			Fall 2019			Spring 202	:0		Fall 2020	
			Returned	One-Term		Poturnod	One-Term		Returned	One-Term
First Math Course			For Next	Return		For Next	Return		For Next	Return
In First Term	Passed	Students	Term	Rate	Students	Term	Rate	Students	Term	Rate
COLLEGE	Yes	924	852	92.2%	283	251	88.7%	882	800	90.7%
COLLEGE	No	771	481	62.4%	241	104	43.2%	662	350	52.9%
	110	,,,	401	02.470	241	104	43.270	002	550	52.570
MAT096/Co-Req	Yes	107	97	90.7%	71	63	88.7%	146	127	87.0%
MAT096/Co-Req	No	150	92	61.3%	64	24	37.5%	155	79	51.0%
MAT095	Yes	152	139	91.4%	83	71	85.5%	197	166	84.3%
MAT095	No	251	121	48.2%	74	32	43.2%	229	85	37.1%

Conclusion

Proper first-term placement in English and Math is not only important for student academic success in these courses but plays an important role in retaining students. Certain courses, ENA101 in particular, seem to be extremely difficult for students when taught remotely and every effort should be made to conduct these course in person.