

Relationship of the Fall 2012 and Fall 2013Left Lane Cohorts to Student Success

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Introduction

In spring 2012 the Crafton Hills College Student Success and Engagement, Enrollment and Management Committee (SSEEM), a Crafton Council shared governance committee, developed the Left Lane Project (LLP), funded by the SBCCD Chancellor's Student Success Initiative Fund. The project incorporates a comprehensive, research-based approach to create clear pathways for students from application to completion. The purpose of this report is to examine the relationship of the Fall 2012 and Fall 2013 Left Lane cohorts to enrollments, student success, and fall to spring retention. In addition, the Fall 2012 cohort was tracked to Spring 2014 and their progress on the following is also illustrated in this report: completion of transfer English and/or math, retention to Spring 2014, earning a certificate or degree, and transferring to a four-year college.

The purpose of the LLP is to reduce the average amount of time it takes students to earn an AA/AS Degree at Crafton from 5.3 years to four years. To accomplish this the LLP has implemented numerous strategies, such as a Summer Bridge Program to help students transition to college, learning communities and supplemental instruction to provide integrated counseling and tutoring services, SOA³R (Senior Orientation, Application, Assessment, Advising, and Registration), and requiring students to enroll in math and English first to maintain their priority registration.

<u>Summary of Results</u>

Possible Implications

The Fall 2013 Left Lane Cohort continued to show substantial and statistically significant improved progress toward completing a degree, certificate, or transferring as evidenced by Left Lane students being more likely to enroll in English and math, successfully completing their English and math courses, and being retained from fall to spring in English and math. However, similar to the Fall 2012 Left Lane cohort, there are areas where the Left Lane Program can make improvements. First, both the Fall 2012 and Fall 2013 Left Lane cohorts were more likely to struggle at successfully completing transfer level English in the subsequent spring semester. Suggesting that the LLP needs to develop additional support and/or strategies for LLP students enrolled in transfer level English. In addition, in Fall 2012 LL students performed well in MATH-090 in Spring 2013. Conversely, in Spring 2014 the Fall 2013 LL students were much less likely to successfully complete MATH-090.

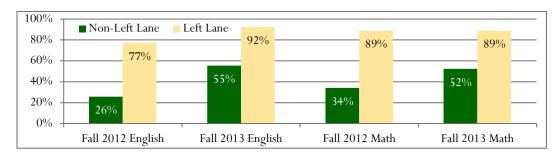
As of Spring 2014, the Fall 2012 LL students were more likely to have completed transfer level math and English, to have persisted to Spring 2014, and to have earned a certificate. However, Fall 2012 LL students were less likely to have earned a degree or transferred. Currently it is too early to get an accurate indication of the overall impact of the LLP on earning a degree or transferring; at the same time, the data suggests that LLP needs to develop a strategy for helping students in the second year.

Sample

- The number of Left Lane students increased from 258 in Fall 2012 to 273 in Fall 2013, a 6% increase
- Fall 2012 Left Lane Students were more likely to be female and Hispanic when compared to the comparison group
- Fall 2013 Left Lane Students were more likely to be female and African American when compared to the comparison group

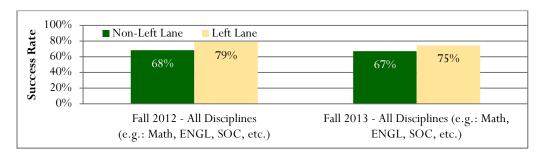
English and Math Enrollments

• Fall 2012 and Fall 2013 Left Lane students were substantially and statistically significantly more likely to earn a grade on record (GOR)¹ in a math and English course their first semester at Crafton than non-Left Lane students



Success Rate

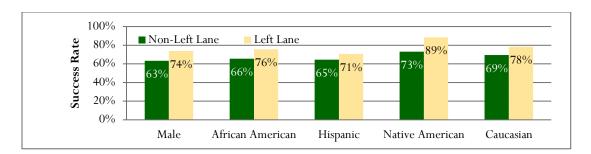
• Left Lane students were substantially and statistically significantly more likely to successfully complete² their Fall 2012 and Fall 2013 courses than non-Left Lane students



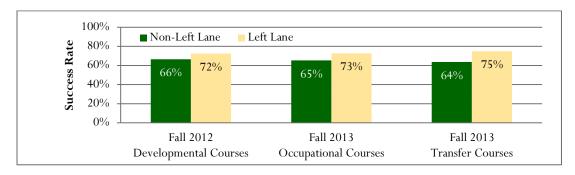
- Fall 2012 Left Lane students who were female, African American, or Hispanic were substantially and statistically significantly more likely to successfully complete their Fall 2012 courses (81%) than non-Left Lane students who were female, African American, or Hispanic
- Fall 2013 Left Lane students who were male, African American, Hispanic, or Native American
 were substantially and statistically significantly more likely to successfully complete their Fall
 2013 courses than non-Left Lane students who were male, African American, Hispanic, or
 Native American

¹ GOR refers to a grade on record of A, B, C, D, F, I, P, NP, or W.

² Success is determined by a student earning a GOR in a course of A, B, or C.

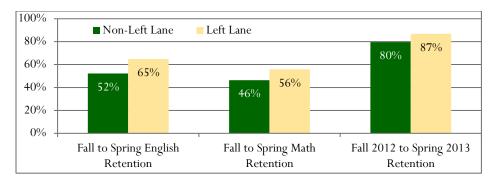


- Fall 2012 Left Lane students were statistically significantly (p = .049) more likely to successfully complete developmental courses (72%) than non-Left Lane students (66%)
- Fall 2013 Left Lane students were statistically significantly (p < .001) more likely to successfully complete occupational courses (73%) than non-Left Lane students (65%)
- Fall 2013 Left Lane students were substantially (ES = .24) more likely to successfully complete transfer level courses (75%) than non-Left Lane students (64%)



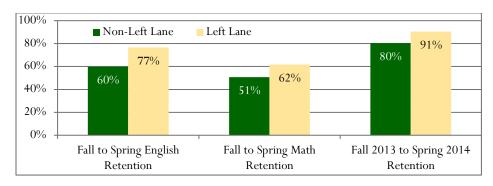
Fall 2012 to Spring 2013 Term Retention (Persistence)

- Fall 2012 Left Lane students who earned a GOR in English in Fall 2012 were statistically significantly (p = .007) and substantially (ES = .25) more likely to earn a GOR in English in the subsequent spring semester (65%) than non-Left Lane students (52%)
- Fall 2012 Left Lane students who earned a GOR in math in Fall 2012 were substantially (ES = .19) and statistically significantly (p = .034) more likely to earn a GOR in math in the subsequent spring semester (56%) than non-Left Lane students (46%)
- Fall 2012 Left Lane students were substantially (ES = .19) and statistically significantly (p = .012) more likely persist from Fall 2012 to Spring 2013 (87%) than non-Left Lane students (80%)



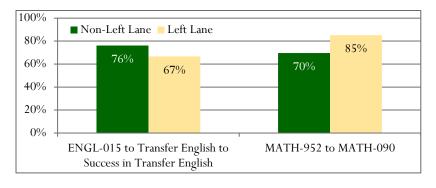
Fall 2013 to Spring 2014 Term Retention (Persistence)

- Fall 2013 Left Lane students who earned a GOR in English in Fall 2013 were statistically significantly (p < .001) and substantially (ES = .37) more likely to earn a GOR in English in the subsequent spring semester (77%) than non-Left Lane students (60%)
- Fall 2013 Left Lane students who earned a GOR in math in Fall 2013 were substantially (ES = .22) and statistically significantly (p = .010) more likely to earn a GOR in math in the subsequent spring semester (62%) than non-Left Lane students (51%)
- Fall 2013 Left Lane students were substantially (ES = .27) and statistically significantly (p < .001) more likely to persist from Fall 2013 to Spring 2014 (91%) than non-Left Lane students (80%)



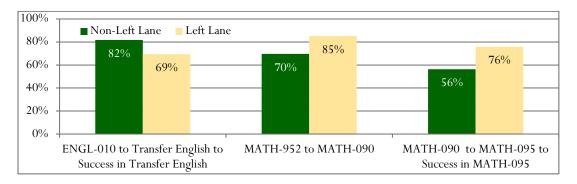
Fall 2012 to Spring 2013 Course Retention

- Fall 2012 Left Lane students who successfully completed ENGL-015 in Fall 2012 and earned a GOR in a transfer English course in Spring 2013 were substantially (ES = -.21) less likely to successfully complete a transfer English course (67%) than non-Left Lane students (76%)
- Fall 2012 Left Lane students who successfully completed MATH-952 in Fall 2012 were substantially (ES = .38) more likely to earn a GOR in MATH-090 (85%) than non-Left Lane students (70%)



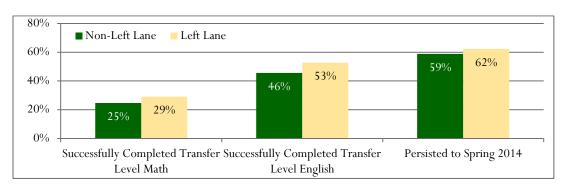
Fall 2013 to Spring 2014 Course Retention

- Fall 2013 Left Lane students who successfully completed ENGL-010 in Fall 2013 and earned a GOR in a transfer English course in Spring 2014 were substantially (ES = -.28) less likely to successfully complete a transfer English course (69%) than non-Left Lane students (82%)
- Fall 2013 Left Lane students who successfully completed MATH-090 in Fall 2013 were substantially (ES = .52) more likely to earn a GOR in MATH-095 (87%) than non-Left Lane students (76%)
- Fall 2013 Left Lane students who successfully completed MATH-090 in Fall 2013 and earned a GOR in MATH-095 in Spring 2014 were substantially (ES = .43) more likely to successfully complete MATH-095 (76%) than non-Left Lane students (56%)



Fall 2012 Left Lane Cohort Tracking Outcomes

- Fall 2012 Left Lane students tracked to Spring 2014 were more likely (ES = .10) to successfully complete transfer level math (29%) than non-Left Lane students (25%)
- Fall 2012 Left Lane students tracked to Spring 2014 were more likely (ES = .14) to successfully complete transfer level English (53%) than non-Left Lane students (46%)
- Fall 2012 Left Lane students tracked to Spring 2014 were more likely to persist to Spring 2014 (62%) than non-Left Lane students (59%)



Methodology

In Fall 2012 the LLP initially started with 276 students, and 258 (93%) earned a Grade on Record (GOR). Of the 258 students who earned a GOR, 212 (82%) completed their last year of high school in 2012. Accordingly, students who completed their last year of high school in 2012 and earned a GOR in Fall 2012 were used as the comparison group (non-Left Lane students). (Note: For a more in-depth of analysis of the comparison group, please refer to the first Fall 2012 Left Lane study.) In total, 583 non-Left Lane Crafton Hills College students who earned a GOR in Fall 2012 also completed their last year of high school in 2012. Referring to Table 1, Fall 2012 Left Lane (LL) students were more likely to be female (63%) than the first comparison group (48%). In addition, Fall 2012 Left Lane students were also more likely to be Hispanic (49% to 44%) and less likely to be Caucasian (43% to 47%). Table 1 also illustrates the Fall 2013 Left Lane students and comparison group. The Fall 2013 LL students were also more likely to be female. Fall 2013 LL students were also more likely to be African American than students in the comparison group (12% to 6%).

Table 1: Gender and Ethnicity of the Fall 2012 and Fall 2013 Left Lane and Comparison Group Students.

Dama annualita	Last Y	ear High	Fall 20	012 Left	Last Ye	ar High	Fall 20)13 Left
Demographic Characteristics	School	was 2012	Lane	Student	School	was 2013	Lane Student	
Characteristics	N	%	N	%	N	%	N	%
Gender								
Female	277	47.5	163	63.2	273	47.4	159	58.2
Male	302	51.8	95	36.8	301	52.3	114	41.8
Missing	4	0.7	0	0.0	2	0.3	0	0.0
Total	583	100.0	258	100.0	576	100.0	273	100.0
Ethnicity								
Asian	26	4.5	5	1.9	26	4.5	9	3.3
African American	26	4.5	15	5.8	36	6.3	33	12.1
Hispanic	257	44.1	126	48.8	277	48.1	134	49.1
Native American	0	0.0	1	0.4	11	1.9	7	2.6
Other	0	0.0	0	0.0	0	0.0	0	0.0
Caucasian	274	47.0	111	43.0	222	38.5	90	33.0
Decline to State	0	0.0	0	0.0	0	0.0	0	0.0
Missing	0	0.0	0	0.0	4	0.7	0	0.0
Total	583	100.0	258	100.0	576	100.0	273	100.0

Note: Age is excluded because it is controlled for by last year in high school.

Research conducted by the Crafton Hills College Office of Institutional Effectiveness, Research and Planning has strongly indicated that students who complete transfer level math and English are substantially and statistically significantly more likely to transfer to a four-year institution. For instance, students who successfully complete transfer level math are almost 4 times more likely to transfer to a four-year institution than students who do not successfully complete transfer level math (Wurtz, Fall 2012). Accordingly, one of the outcomes examined for Left Lane students is the

number and percent of students who earned a GOR in math, English, and reading courses their first semester at Crafton. Tables 2 and 2A illustrate the number and percent of Fall 2012 and Fall 2013 Left-Lane students and non-Left Lane students who earned a GOR in English, math, or reading.

In addition to earning a GOR in English, math, or reading, the overall Fall 2012 and Fall 2013 success rate of Left Lane students was compared to non-Left Lane students (see Tables 3-4A). Specifically, Tables 3 and 3A illustrate the success rates for students by discipline in English, math, and reading for the Fall 2012 and Fall 2013 LL cohorts. Success rate is defined as earning a grade of A, B, C, or P divided by the number of grades earned on record (GOR; A, B, C, D, F, P, NP, I, and W). Tables 3.1 and 3A.1 also examine success rates by gender and ethnicity for the Fall 2012 and Fall 2013 cohorts. Table 4A illustrates the success rate by whether the course was developmental, occupational, or transfer level. A developmental course is an English, math, or reading course that is either an 0XX or 900 level course; an occupational course is categorized as possibly occupational, clearly occupational, or advanced occupational; and a transfer level course is transferable to a four-year college.

Tables 5 and 5A illustrate retention (formally persistence) from Fall 2012 to Spring 2013 for the Fall 2012 LL and non-Left Lane students and retention from Fall 2013 to Fall 2014 for the Fall 2013 LL students (see Tables 5 and 5A). In addition, retention for students in both cohorts was also examined for students who earned a GOR in English, math, or reading. Tables 6 and 6A illustrate fall to spring retention for Fall 2012 and Fall 2013 Left Lane students by English and math course as well as the Spring 2013 and Spring 2014 success rate in the subsequent English and math course.

Table 7 illustrates the results from tracking the Fall 2012 LL students to Spring 2014 and examines the following outcome measures: successfully completing transfer level math or English, retention to Spring 2014, earning a certificate or degree, and transferring to four-year college.

The effect size statistic was used to indicate the size of the difference on each of the student outcome measures between Left Lane and non-Left Lane students. One method of interpreting effect size was developed by Jacob Cohen. Jacob Cohen defined "small," "medium," and "large" effect sizes. He explained that an effect size of .20 can be considered small, an effect size of .50 can be considered medium, and an effect size of .80 can be considered large. An effect size is considered to be meaningful if it is .20 or higher. It is important to mention that the number of students in each group does not influence Effect Size; whereas, when statistical significance is calculated, the number of students in each group does influence the significance level (i.e. "p" value being lower than .05).

Limitation

A limitation is the success rate comparisons because the comparisons do not control for instructor or by section. Another limitation is that the comparison groups do not control for skill level. For instance, students entering Left Lane may have been more likely to place into a developmental math and/or English course. Future research will control for skill level.

Findings

Fall 2012 Left Lane students were substantially (ES = .67) and statistically significantly (p < .001) more likely to earn a GOR in an English course their first semester (77%) at Crafton than non-Left Lane students (45%, see Table 2). Moreover, Left Lane students were substantially (ES = .89) and

statistically significantly (p < .001) more likely to earn a GOR in a math course their first semester (89%) at Crafton than non-Left Lane students in the first comparison group (48%).

Table 2: Percent of Fall 2012 Left Lane and Non-Left Lane Students in the Comparison Group Earning a Grade on Record in English, Math, and Reading.

		Pe Eng						
Discipline		Last High School Year was 2012 Left Lane Student						
	#	Ν	%	#	Ν	%	ES	P Value
English	263	583	45.1	199	258	77.1	.67	< .001
Math	282	583	48.4	.4 229 258 88.8				< .001
Reading	125	583	21.4	75	258	29.1	.18	.021

Fall 2013 Left Lane students were substantially (ES = .79) and statistically significantly (p < .001) more likely to earn a GOR in an English course their first semester (92%) at Crafton than non-Left Lane students (55%, see Table 2A). Moreover, Left Lane students were substantially (ES = .76) and statistically significantly (p < .001) more likely to earn a GOR in a math course their first semester (89%) at Crafton than non-Left Lane students in the first comparison group (52%). In addition, the rate of LL students earning a GOR in English increased from 77% in Fall 2012 to 92% in Fall 2013, a 15% increase.

Table 2A: Percent of Fall 2013 Left Lane and Non-Left Lane Students in the Comparison Group Earning a Grade on Record in English, Math, and Reading.

			rcent Ear lish, Math								
Discipline		Last High School Year was 2013 Left Lane Student									
	#	Ν	%	#	Ν	%	ES	P Value			
English	319	576	55.4	252	273	92.3	.79	< .001			
Math	302	576	52.4	243	273	.76	< .001				
Reading	91	576	15.8	77	273	28.2	.31	< .001			

Fall 2012 Left Lane students were substantially (ES = .16) and statistically significantly (p < .001) more likely to successfully complete their Fall 2012 courses (79%) than non-Left Lane students (72%, see Table 3). Fall 2012 Left Lane students were also more likely to successfully complete their English, math, and reading courses than non-Left Lane students. In addition, when examining gender and ethnicity, Fall 2012 Left Lane students who were female (81% to 73%), African American (81% to 61%), and Hispanic (79% to 70%) were statistically significantly (p < .05) and substantially (ES \geq .20) more likely to successfully complete their courses than non-Left Lane students (see Table 3.1). Moreover, Fall 2012 Left Lane Caucasian students were statistically significantly (p = .032) more likely to successfully complete their courses (79%) than Caucasian students in the comparison group (74%).

Table 3: Fall 2012 Left Lane Success Rates by the Comparison Group in English, Math, and Reading.

			Success	Rate								
Discipline	Last High	School Ye 2012	ear was	Lef	t Lane Stud	dent						
	#	N	%	#	N	ES	P Value					
English	203	03 260 78.1			199	81.9	.10	.308				
Math	164	280	58.6	152	237	64.1	.11	.196				
Reading	94	125 75.2 60 75 80.0					.11	.429				
All Disciplines*	1,481	2,061	71.9	978	1,243	78.7	.16	< .001				

^{*}Note: The All Disciplines row includes every course both Left Lane and Non-Left Lane students were enrolled in.

Table 3.1: Fall 2012 Left Lane Success Rates by the Comparison Group, Gender, and Ethnicity.

	Last Year High School was 2012			Left L	.ane Stu	ıdent		
	#	Ν	%	#	Ν	%	ES	P Value
Gender								
Female	727	1,001	72.6	670	825	81.2	.20	< .001
Male	746	1,046	71.3	308	418	73.7	.05	.358
Missing	8	14	57.1	0	0	0.0		
Ethnicity								
Asian	74	94	78.7	17	22	77.3	04	.886
African American	51	83	61.4	56	69	81.2	.43	.007
Hispanic	631	899	70.2	474	604	78.5	.19	< .001
Native American	0	0	0.0	5	5	100.0		
Caucasian	725	985	73.6	426	543	78.5	.11	.032

Fall 2013 Left Lane students were substantially (ES = .17) and statistically significantly (p < .001) more likely to successfully complete their Fall 2013 courses (75%) than non-Left Lane students (67%, see Table 3A). Fall 2013 Left Lane students were also statistically significantly (p = .010) and substantially (ES = .22) more likely to successfully complete their English courses (78%) than non-Left Lane students (68%). In addition, when examining gender and ethnicity, Fall 2013 Left Lane students who were male (74% to 63%), and Caucasian (78% to 69%) were statistically significantly (p < .05) and substantially (ES >= .20) more likely to successfully complete their courses than non-Left Lane students (see Table 3A.1). Moreover, Fall 2013 Left Lane Hispanic students were statistically significantly (p = .0019) more likely to successfully complete their courses (71%) than non-Left Lane Hispanic students (65%). African American Fall 2013 Left Lane students were also substantially (ES = .22) more likely to successfully complete their courses (76%) than non-Left Lane African American students (66%).

Table 3A: Fall 2013 Left Lane Success Rates by the Comparison Group in English, Math, and Reading.

			Success	Rate								
Discipline	Last High	Last High School Year was 2013 Left Lane										
	#	Ν	%	#	Ν	ES	P Value					
English	218	320	68.1	196	252	77.8	.22	.010				
Math	189	309	61.2	158	247	64.0	.06	.499				
Reading	63	91	69.2	61	77	.23	.144					
All Disciplines*	1,259	1,887	66.7	752	1,009	74.5	.17	< .001				

^{*}The All Disciplines row includes every course both Left Lane and Non-Left Lane students were enrolled in.

Table 3A.1: Fall 2013 Left Lane Success Rates by the Comparison Group, Gender, and Ethnicity.

	Last High School Year was 2013			Left	Lane Stuc	dent		
	#	Z	%	#	Ν	%	ES	P Value
Gender								
Female	625	884	70.7	448	597	75.0	.10	.067
Male	633	1,000	63.3	304	412	73.8	.22	< .001
Missing	1	3	33.3					
Ethnicity								
Asian	56	86	65.1	27	34	79.4	.31	.104
African American	80	122	65.6	93	123	75.6	.22	.085
Hispanic	559	866	64.5	352	498	70.7	.13	.019
Native American	27	37	73.0	23	26	88.5	.38	.118
Caucasian	529	762	69.4	257	328	78.4	.20	.002

Fall 2012 Left Lane students were substantially (ES = .13) and statistically significantly (p = .049) more likely to successfully complete their Fall 2012 developmental courses (72%) than non-Left Lane students (66%, see Table 4).

Table 4: Fall 2012 Left Lane Success Rates by the Comparison Group and Course Type.

Course Type	Last Year High School was 2012			Lef	t Lane S	tudent		
	#	Z	%	#	Z	%	ES	P Value
Developmental	330	497	66.4	309	427	72.4	.13	.049
Occupational	86	120	71.7	37	54	68.5	07	.679
Transfer	849	1,178	72.1	369	493	74.8	.06	.238
Overall	1,481	2,061	71.9	978	1,243	78.7	.16	< .001

Fall 2013 Left Lane students were statistically significantly (p < .01) and substantially (ES >= .16) more likely to successfully complete their Fall 2013 transfer (75% to 64%) and occupational (73% to 65%) courses than non-Left Lane students (see Table 4A).

Table 4A: Fall 2013 Left Lane Success Rates by the Comparison Group and Course Type.

Course Type	Last Year High School was 2013			Lef	t Lane S	tudent		
, .	#	Z	%	#	Ζ	%	ES	P Value
Developmental	149	9 250 59.6			237	63.7	.08	.352
Occupational	740	1,134	65.3	423	582	72.7	.16	.001
Transfer	618	972	63.6	287	383	74.9	.24	< .001
Overall	1,259	1,887	66.7	752	1,009	74.5	.17	< .001

Fall 2012 Left Lane students were substantially (ES = .19) and statistically significantly (p = .012) more likely to persist from Fall 2012 to Spring 2013 (87%) than non-Left Lane students (80%, see Table 5). In addition, students who participated in Left Lane and who earned a GOR in math in Fall 2012 were substantially (ES = .19) and statistically (p = .034) more likely to enroll in math in the subsequent spring semester (56%) than non-Left Lane students (47%). Moreover, Left Lane students who earned a GOR in English in Fall 2012 were also statistically significantly (p = .007) and substantially (ES = .25) more likely to enroll in English in the subsequent spring semester (65%) than non-Left Lane students (52%).

Table 5: Percent of Fall 2012 Left Lane and Non-Left Lane Students in the Comparison Group who earned a GOR in Spring 2013 after earning a GOR in Fall 2012.

		3						
Retention from Fall 2012 to Spring 2013	Last High School Year was 2012			Left Lane Student				
	#	Ν	%	#	Ν	%	ES	P Value
Retention to English	136	260	52.3	129	199	64.8	.25	.007
Retention to Math	130	280	46.4	128	229	55.9	.19	.034
Retention to Reading	19	125	15.2	11	75	14.7	01	.919
Retention (i.e. Persistence)	464	583	79.6	224	258	86.8	.19	.012

Note: Retention from fall to spring for English, math, and reading only include those students who earned a GOR in English, math, or reading in Fall 2012.

Fall 2013 Left Lane students were substantially (ES = .27) and statistically significantly (p < .001) more likely to persist from Fall 2013 to Spring 2014 (91%) than non-Left Lane students (80%, see Table 5A). In addition, Left Lane students who earned a GOR in English in Fall 2013 were also statistically significantly (p < .001) and substantially (ES = .37) more likely to enroll in English in the subsequent spring semester (77%) than non-Left Lane students (60%). Moreover, students who participated in Left Lane and who earned a GOR in math in Fall 2013 were substantially (ES = .22) and statistically (p = .010) more likely to enroll in math in the subsequent spring semester (62%) than non-Left Lane students (51%).

Table 5A: Percent of Fall 2013 Left Lane and Non-Left Lane Students in the Comparison Group who earned a GOR in Spring 2014 after earning a GOR in Fall 2013.

		Percent	14					
Retention from Fall 2013 to Spring 2014	Last Year High School was 2013			Left Lane Student				
	#	Ν	%	#	Ν	%	ES	P Value
Retention to English	188	319	59.8	193	252	76.6	.37	< .001
Retention to Math	153	302	50.7	150	243	61.7	.22	.010
Retention to Reading	8	91	8.8	4	77	5.2	14	.370
Retention (i.e. Persistence)	463	576	80.4	247	273	90.5	.27	< .001

*LLS – Left Lane Strategy

Note: Retention from fall to spring for English, Math, and Reading only include those students who earned a GOR in English, Math, or Reading in Fall 2012.

Tables 6 and 6A illustrate fall to spring retention by English and mathematics courses to examine whether Fall 2012 and Fall 2013 Left Lane students are successfully moving from English and math to the next highest level English and math course in the subsequent spring semester. In addition, success is also examined in the next highest level English and mathematics course in the subsequent spring semester. As an illustration, 42 Left Lane students successfully completed ENGL-914, Basic English Skills, in Fall 2012. Of those, 38 (90.5%) earned a GOR in ENGL-015, Preparation for College Writing, in Spring 2013. Next, 32 of the 38 (84%) students who enrolled in the subsequent ENGL-015 course in Spring 2013 successfully completed ENGL-015 in Spring 2013. Fall to spring retention and Spring 2013 success in the subsequent course for the Fall 2012 LL cohort was examined for ENGL-914 (Basic English Skills), ENGL-015 (Preparation for College Writing), MATH-952 (Pre-Algebra), MATH-090 (Elementary Algebra), and MATH-095 (Intermediate Algebra). Equally important, fall to spring retention and Spring 2014 success in the subsequent course for the Fall 2013 LL cohort was examined for ENGL-976 (Basic English Skills), ENGL-010 (Preparation for College Writing), MATH-943 (Arithmetic Topics), MATH-952 (Pre-Algebra), MATH-090 (Elementary Algebra), and MATH-095 (Intermediate Algebra).

Overall, none of the differences between the Fall 2012 Left Lane Students and the comparison group were statistically significant (see Table 6). However, ENGL-914 Fal 2012 Left Lane Students who earned a GOR in the Spring 2013 ENGL-015 course were substantially (ES = .23) more likely to successfully complete ENGL-015 (84%) than students in the comparison group (75%). Fall 2012 Left Lane students were also substantially (ES >= .20) more likely to enroll in MATH-090 after successfully completing MATH-952 (85% to 70%), and successfully complete MATH-090 (61% to 50%) than non-Left Lane students. On the other hand, Left Lane Students were substantially less likely (ES >= -.20) to successfully complete transfer English after successfully completing ENGL-015 and enrolling in transfer English (67% to 76%), and to successfully complete transfer math after successfully completing MATH-095 and enrolling in transfer math (66% to 81%).

Table 6: Percent of Fall 2012 Left Lane and Non-Left Lane Students in the First Comparison Group who earned a GOR in Spring 2013 after earning a GOR in Fall 2012 by English, Math, and Reading Course.

Retention from Fall 2012 to Spring 2013 and Spring 2013 Success by		High S ar was		Left I	_ane St	udent		
English and Math Course	#	N	%	#	Ν	%	ES	P Value
English Courses			-					
ENGL-914 to ENGL-015	36	40	90.0	38	42	90.5	.02	.943
Success in ENGL-015	27	36	75.0	32	38	84.2	.23	.331
ENGL-015 to Transfer English	63	78	80.8	57	66	86.4	.15	.373
Success in Transfer English	48	63	76.2	38	57	66.7	21	.251
Overall Retention in English	99	118	83.9	95	108	88.0	.12	.381
Overall Success in Subsequent English Courses	75	99	75.8	70	95	73.7	05	.741
Math Courses								
MATH-952 to MATH-090	16	23	69.6	23	27	85.2	.38	.191
Success in MATH-090	8	16	50.0	14	23	60.9	.21	.514
MATH-090 to MATH-095	31	34	91.2	25	29	86.2	16	.539
Success in MATH-095	17	31	54.8	13	25	52.0	06	.836
MATH-095 to Transfer Math	37	65	56.9	53	83	63.9	.14	.395
Success in Transfer Math	30	37	81.1	35	53	66.0	34	.120
Overall Retention in Math	84	122	68.9	101	139	72.7	.08	.502
Overall Success in Subsequent Math Course	55	84	65.5	62	101	61.4	08	.567
Overall Retention								
Overall Retention English and Math	183	240	76.3	196	247	79.4	.07	.411
Overall Success in Subsequent English and Math Courses	130	183	71.0	132	196	67.3	08	.438

Note: When looking at retention from course to course (e.g.: ENGL-914 to ENGL-015, ENGL-015 to transfer English, MATH-952 to MATH-090, MATH-090 to MATH-095, and MATH-095 to transfer math) "N" refers to the number of students who successfully completed the course listed in Fall 2012, "#" refers to the number of students who earned a GOR in Spring 2013 in the subsequent subject specific course, and "%" refers to the fall to spring retention rate. When looking at success "N" refers to the number of students who earned a GOR in the specified course in Spring 2013, "#" refers to the number of students who successfully completed the course, and "%" refers to the success rate.

Overall, none of the differences between the Fall 2013 Left Lane Students and the comparison group were statistically significant by course (see Table 6A). However, Fall 2013 Left Lane students were statistically significantly (p = .042) and substantially (ES = .24) more likely to be retained in math (79%) than non-Left Lane students (68%). In addition, Fall 2013 Left Lane students were also substantially (ES >= .20) more likely to enroll in MATH-095 after successfully completing MATH-090 (87% to 67%), and successfully complete MATH-095 (76% to 56%) than non-Left Lane students. Moreover, Fall 2013 Left Lane students were also substantially (ES >= .13) more likely to enroll in transfer level math after successfully completing MATH-095 (60% to 51%), and successfully complete transfer level math (78% to 72%) than non-Left Lane students. On the other hand, Left Lane Students were substantially less likely (ES = -.28) to successfully complete transfer English after successfully completing ENGL-010.

Table 6A: Percent of Fall 2013 Left Lane and Non-Left Lane Students in the Comparison Group who earned a GOR in Spring 2014 after earning a GOR in Fall 2013 by English, Math, and Reading Course.

Retention from Fall 2013 to Spring 2014 and Spring 2014 Success by	Last Year High School was 2013			Left Lane Student				
English and Math Course	#	N	%	#	N	%	ES	P Value
English Courses								
ENGL-976 to ENGL-010	48	52	92.3	41	44	93.2	.03	.871
Success in ENGL-010	39	48	81.3	35	41	85.4	.11	.607
		7.4	00.0	0.5	0.5	00.5	0.1	0.50
ENGL-010 to Transfer English	66	74	89.2	85	95	89.5	.01	.953
Success in Transfer English	54	66	81.8	59	85	69.4	28	.076
Overall Retention in English	114	126	90.5	126	139	90.6	.01	.962
Overall Success in Subsequent English Courses	93	114	81.6	94	126	74.6	17	.192
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Math Courses								
MATH-943 to MATH-952	8	9	88.9	22	26	84.6	12	.749
Success in MATH-952	5	8	62.5	18	22	81.8	.45	.346
MATH-952 to MATH-090	41	46	89.1	16	18	88.9	01	.978
Success in MATH-090	27	41	65.9	7	16	43.8	45	.142
MATH-090 to MATH-095	16	24	66.7	54	62	87.1	.52	.060
Success in MATH-095	9	16	56.3	41	54	75.9	.43	.167
SUCCESS III MAII I-073	7	10	36.3	41	34	73.7	.43	.107
MATH-095 to Transfer Math	32	63	50.8	27	45	60.0	.18	.347
Success in Transfer Math	23	32	71.9	21	27	77.8	.13	.609
Overall Retention in Math	97	142	68.3	119	151	78.8	.24	.042
Overall Success in Subsequent Math Course	64	97	66.0	87	119	73.1	.16	.261
Overall Beleation								
Overall Retention								
Overall Retention English and Math	211	268	78.7	245	290	84.5	.15	.081
Overall Success in Subsequent English and Math Courses	157	211	74.4	181	245	73.9	01	.898

Note: When looking at retention from course to course (e.g.: ENGL-976 to ENGL-010, ENGL-010 to transfer English, MATH-943 to MATH-952, MATH-952 to MATH-090, MATH-090 to MATH-095, and MATH-095 to transfer math) "N" refers to the number of students who successfully completed the course listed in Fall 2013, "#" refers to the number of students who earned a GOR in Spring 2013 in the subsequent subject specific course, and "%" refers to the fall to spring retention rate. When looking at success "N" refers to the number of students who earned a GOR in the specified course in Spring 2014, "#" refers to the number of students who successfully completed the course, and "%" refers to the success rate.

Table 7 illustrates the percent of the Fall 2012 Left Lane students who completed transfer level math and English, LL students who earned a GOR in Spring 2014, students who earned a certificate or degree, and students who transferred to a four-year college. In comparison to the students whose last high school year was 2012, Fall 2012 Left Lane students were more likely to have successfully completed transfer level (29% to 25%), transfer English (53% to 46%), be enrolled in Spring 2014 (62% to 59%), and to have earned a certificate (5% to 3%). To date Fall 2012 Left Lane students have been less likely to earn a degree or transfer; however, the stated Left Lane target is to reduce the average time to degree completion from 5.3 years to 4 years and the Fall 2012 Left Lane cohort has only had two years and may have been more likely to require developmental skill remediation. In addition, Fall 2012 Left Lane students were more likely to successfully complete transfer level math and English than non-Left Lane, which are the best predictors of transferring and earning a degree or certificate.

Table 7: Percent of Fall 2012 Left Lane and Non-Left Lane Students in the Comparison Group who Completed Transfer Level Math or English, Percent Retained to Spring 2014, Percent who Earned a Degree and/or Certificate, and Percent who Transferred.

Student Success Outcome		gh Scho was 201		Left	Lane Stu			
	#	Ν	%	#	Ν	%	ES	P Value
Completed Transfer Math	144	583	24.7	75	258	29.1	.10	.193
Completed Transfer English	266	583	45.6	136	258	52.7	.14	.071
Retained to Spring 2014*	316	537	58.8	149	239	62.3	.07	.357
Earned a Certificate	20	583	3.4	13	258	5.0	.08	.303
Earned a Degree	13	583	2.2	2	258	8.0	11	.077
Transferred**	16	583	2.7	5	258	1.9	05	.461

^{*}The cohort (i.e. N) for each group is smaller in number because students who earned a certificate, degree, or transferred were removed from the denominator.

^{**}Student transfer data was only available for December 2013 and prior.