

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.

## Summary of Results

## 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)' 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 complete ${ }^{2}$ 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

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- 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 ( $\mathrm{ES}=.25$ ) 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 ( $\mathrm{p}=.012$ ) 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 ( $\mathrm{p}<.001$ ) and substantially ( $\mathrm{ES}=.37$ ) 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.

| Demographic <br> Characteristics | Last Year High <br> School was 2012 |  | Fall 2012 Left <br> Lane Student |  | Last Year High <br> School was 2013 |  | Fall 2013 Left <br> Lane Student |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{N}$ | $\mathbf{\%}$ | $\mathbf{N}$ | $\mathbf{\%}$ | $\mathbf{N}$ | $\mathbf{\%}$ | $\mathbf{N}$ | $\mathbf{\%}$ |
| 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 | $\mathbf{5 8 3}$ | $\mathbf{0 . 7}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{2 5 8}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{5 7 6}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{2 7 3}$ |
| Total |  |  |  |  |  |  |  | $\mathbf{1 0 0 . 0}$ |
|  |  |  |  |  |  |  |  |  |
| Ethnicity | 26 | 4.5 | 5 | 1.9 | 26 | 4.5 | 9 | 3.3 |
| Asian | 26 | 4.5 | 15 | 5.8 | 36 | 6.3 | 33 | 12.1 |
| African American | 257 | 44.1 | 126 | 48.8 | 277 | 48.1 | 134 | 49.1 |
| Hispanic | 0 | 0.0 | 1 | 0.4 | 11 | 1.9 | 7 | 2.6 |
| Native American | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other | 274 | 47.0 | 111 | 43.0 | 222 | 38.5 | 90 | 33.0 |
| Caucasian | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Decline to State | 0 | 0.0 | 0 | 0.0 | 4 | 0.7 | 0 | 0.0 |
| Missing | $\mathbf{5 8 3}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{2 5 8}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{5 7 6}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{2 7 3}$ | $\mathbf{1 0 0 . 0}$ |
| Total |  |  |  |  |  |  |  |  |

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-Leff Lane Students in the Comparison Group Earning a Grade on Record in English, Math, and Reading.

| Discipline | Percent Earned GOR in English, Math, or Reading |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last High School Year was 2012 |  |  | Left Lane Student |  |  |  |  |
|  | \# | N | \% | \# | N | \% | ES | P Value |
| English | 263 | 583 | 45.1 | 199 | 258 | 77.1 | . 67 | < 0001 |
| Math | 282 | 583 | 48.4 | 229 | 258 | 88.8 | . 89 | < . 001 |
| Reading | 125 | 583 | 21.4 | 75 | 258 | 29.1 | . 18 | . 021 |

Fall 2013 Left Lane students were substantially (ES = .79) and statistically significantly ( $\mathrm{p}<.001$ ) 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 ( $\mathrm{p}<.001$ ) 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.

| Discipline | Percent Earned GOR in English, Math, or Reading |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last High School Year was 2013 |  |  | Left Lane Student |  |  |  |  |
|  | \# | N | \% | \# | N | \% | ES | P Value |
| English | 319 | 576 | 55.4 | 252 | 273 | 92.3 | . 79 | < . 001 |
| Math | 302 | 576 | 52.4 | 243 | 273 | 89.0 | . 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 ( $\mathrm{p}<.001$ ) 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 >= .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.

| Discipline | Success Rate |  |  |  |  |  | ES | P Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last High School Year was2012 |  |  | Left Lane Student |  |  |  |  |
|  | \# | N | \% | \# | N | \% |  |  |
| English | 203 | 260 | 78.1 | 163 | 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 <br> was 2012 |  |  |  |  | Left Lane Student |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
|  | $\#$ | N | $\%$ | $\#$ | N | $\%$ | 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 <br> 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 ( $\mathrm{p}<.001$ ) 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 ( $\mathrm{p}<.05$ ) and substantially (ES >= .20) more likely to successfully complete their courses than nonLeft 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.

| Discipline | Success Rate |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last High School Year was 2013 |  |  | Left Lane Student |  |  |  |  |
|  | \# | N | \% | \# | N | \% | 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 | 79.2 | . 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 Student |  |  | ES | P Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | N | \% | \# | N | \% |  |  |
| 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 ( $\mathrm{p}=.049$ ) 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 |  |  |  | Left Lane Student |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| $\#$ | Nas 2012 | N | $\#$ | N | $\%$ | 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 ( $\mathrm{p}<.01$ ) 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 |  |  | Left Lane Student |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | N | \% | \# | N | \% | ES | P Value |
| Developmental | 149 | 250 | 59.6 | 151 | 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 ( $E S=.19$ ) 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.

| Retention from Fall 2012 to Spring 2013 | Percent Earned GOR in Spring 2013 |  |  |  |  |  | ES $\quad$ P Value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last High School Year was 2012 |  |  | Left Lane Student |  |  |  |  |
|  | \# | N | \% | \# | N | \% |  |  |
| 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 ( $\mathrm{p}<.001$ ) 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 ( $E S=.37$ ) 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.

| Retention from Fall 2013 to Spring 2014 | Percent Earned GOR in Spring 2014 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Last Year High School was 2013 |  |  | Left Lane Student |  |  |  |  |
|  | \# | N | \% | \# | N | \% | 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 ENGL914, 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), MATH952 (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 nonLeft 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 English and Math Course | Last High School Year was 2012 |  |  | Left Lane Student |  |  | ES | P Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | + | N | \% | \# | N | \% |  |  |
|  | 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 |
| $\overline{\breve{\circ}}$ | MATH-095 to Transfer Math | 37 | 65 | 56.9 | 53 | 83 | 63.9 | . 14 | . 395 |
| $\stackrel{0}{0}$ | Success in Transfer Math | 30 | 37 | 81.1 | 35 | 53 | 66.0 | -. 34 | . 120 |
| $\begin{aligned} & \stackrel{7}{0} 0 \\ & \hline 0 \end{aligned}$ | Overall Retention in Math | 84 | 122 | 68.9 | 101 | 139 | 72.7 | . 08 | . 502 |
| $\begin{aligned} & \stackrel{0}{0} \\ & \stackrel{y}{0} \\ & 0 \end{aligned}$ | Overall Success in Subsequent Math Course | 55 | 84 | 65.5 | 62 | 101 | 61.4 | -. 08 | . 567 |
| $\stackrel{0}{\circ}$ | Overall Retention |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ | Overall Retention English and Math | 183 | 240 | 76.3 | 196 | 247 | 79.4 | . 07 | . 411 |
| $\stackrel{\stackrel{\rightharpoonup}{ \pm}}{\stackrel{\rightharpoonup}{ \pm}}$ | 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 ( $\mathrm{p}=.042$ ) and substantially ( $\mathrm{ES}=.24$ ) 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 Leff 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 English and Math Course | Last Year High School was 2013 |  |  | Left Lane Student |  |  | ES | P Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | N | \% | \# | N | \% |  |  |
| 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 |
| 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 |
| 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 |
| 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 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 | Last High School Year was 2012 |  |  | Left Lane Student |  |  | ES | P Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | N | \% | \# | N | \% |  |  |
| 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 | 0.8 | -. 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.

Any questions regarding this report can be directed to the Office of Institutional Effectiveness, Research, and Planning at (909) 389-3206 or you may send an email to kwurtz@craftonhills.edu: 2012FAand 2013FA_LeftLane_Success 1.docx; FA12_CHC_Grades_GOR_20130107.sav; Grades_CHC_GOROnly_FA13_20140116.sav.


[^0]:    ${ }^{1}$ 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 $\mathrm{A}, \mathrm{B}$, or C .

