

SUMMER ADVANTAGE 2013

Final Report on Outcomes

OFFICE OF INSTITUTIONAL EFFECTIVENESS

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I. INTRODUCTION

The Summer Advantage Program was created as an intervention for graduating seniors in the Corona-Norco Unified School District who may not have placed at a level of English or math equivalent to their high school preparation. It was based on the assumption that students would get “best placement” if they were allowed to show what they know through intensive workshops involving brush-up sessions and testing on material they should already have covered in their high school course work. After thorough evaluation by faculty of their knowledge of critical concepts in English and math, students either received their best placement or were allowed to advance to a higher level workshop. Through this process, students had the potential of advancing up to three levels in English or math; potentially reducing time in basic skills courses by as much as 3 semesters. In addition to the English or math workshops, students were also required to complete the Norco Orientation Week (NOW). During NOW, students were given an overview of Norco College requirements for certificates, degrees, and transfer; special programs and services for student success; and finally, each student received a 2-semester educational plan from a counselor to guide their first year in college. Upon completion of NOW, students were then given access to early registration and highly encouraged to enroll in English and/or math courses during their first year.

Before beginning the Summer Advantage Program, students were required to complete a few short steps. First they needed to fill out the college application and receive a student ID. The next step was to complete a short Summer Advantage Program application including contact information. The last step before being invited to the program was completing the placement exam. Once these steps were completed, students were assigned to workshops based on eight criteria including high school courses, EAP status, and college placement level. The specific criteria are listed below:

- Passed Algebra II with “C” or better
- Expository Reading & Writing Course (ERWC in senior year)-“A” or “B” 1st semester
- Enrolled in a qualifying senior math course
- EAP math status
- EAP English status
- English placement
- Reading placement

- Math placement

In general, students were directed to English or math workshops depending on where they placed the lowest. When students happened to place at college-level in English and math, or received their best placement in both based on the 8 criteria above, they were directed to NOW only.

The 2013 Summer Advantage Program included 3 components. The Academic Discourse workshops were the English component, and the Fast Track/True Skills workshops were the math component. The Academic Discourse workshops were 8 days in length. Two workshops of Academic Discourse were combined with an additional reading workshop and the total length of this was 12 days. The purpose of this extended Academic Discourse workshop was to provide reading refresher for students whose placement indicated a need. For math, Fast-Track workshops were 7 days, and True Skills workshops were 5 days. Fast Track was designed for students who had placed below Intermediate Algebra, and True Skills was designed for students who had placed into Intermediate Algebra. Fast-Track was further subdivided into lower level (provided opportunity to place into Elementary Algebra) and higher level (provided opportunity to place into Intermediate Algebra). Students were allowed to move from one level to the next if they showed evidence of requisite skills and knowledge to do so upon completion of the workshop. True Skills workshops provided students the opportunity to place into transfer-level math. The third component was the one day orientation to Norco College called NOW and has been mentioned previously.

II. OUTCOMES OF SUMMER ADVANTAGE SESSION

In all, 594 students applied to Summer Advantage and 485 completed all steps and were invited to attend a math or English workshop and/or NOW. Two-hundred and sixty-eight students completed the entire program (Workshop and NOW). Table 1 below indicates number of completers for each component.

One of the objectives for math and English workshops was to find the students' best placement which many times involved students advancing up in the math or English series of courses. Number of levels advanced is the equivalent of number of terms saved so the time and money savings to these students can be considerable. Table 2 below indicates the number of English levels students advanced as a result of their participation in the Academic Discourse workshops; and approximate savings to the students. The majority of students advanced two or three levels in English composition.

The average number of English levels advanced per student was 1.5, and the total number of levels advanced was 160. Table 3 below indicates the number of levels advanced in Fast Track/True Skills workshops. The majority of students advanced one level in the math series.

The average number of math levels advanced per student was 1.1, and the total number of levels advanced (i.e. terms saved) was 161 for the 141 SA math participants.

Table 1-Summer Advantage Completers

Component	# Students
English Workshops	104
Math Workshops	141
NOW	280*

*12 of these students did not complete their assigned workshop and did not receive early registration.

Table 2-Number of Levels Advanced - English

English Levels Advanced	# Students	Percent	Approx \$ Saved
0	8	7.7%	\$0
1	42	40.4%	\$7,728
2	44	42.3%	\$16,192
3	10	9.6%	\$5,520

Table 3-Number of Levels Advanced - Math

Math Levels Advanced	# Students	Percent	Approx \$ Saved
0	35	24.8%	\$0
1	65	46.1%	\$11,960
2	27	19.1%	\$9,936
3	14	9.9%	\$7,728

III. OUTCOMES OF SUMMER ADVANTAGE STUDENTS IN ALL CLASSES FALL SEMESTER

Analysis of Fall 2013 enrollment was completed on 248 Summer Advantage students who enrolled past census in at least one course during Fall 2013 (20 of the 268 students enrolled but did not persist beyond census in any courses). Summer Advantage students enrolled in 12.4 units on average, while all other first-time Norco students enrolled in 8.3 units on average. To identify “intensity” of unit load, a comparison was made between Summer Advantage and first-time students on enrollment in English and math courses in Fall 2013. Tables 4 and 5 below compare the average unit load and course intensity between Summer Advantage and first-time college students

Table 4-Comparison of Average Units Attempted

	Average Unit Course Load
Summer Advantage	12.3
First-Time Students	8.7

Table 5-Comparison of Course Intensity between Summer Advantage & 1st Time Students

	Enrolled in Math and English	Enrolled in Math or English	Not enrolled in Math or English	Did not Enroll beyond census
Summer Advantage	221/248 (89.1%)	24/248 (9.7%)	3/248 (1.2%)	20
First-Time Students	303/1313 (23.1%)	549/1313 (41.8%)	461/1313 (35.1%)	n/a

Success rate in all courses attempted in Fall 2013 was another outcome measure for the Summer Advantage program. Summer Advantage (SA) participants were compared to all first-time college students in course success and retention rates for all Fall 2013 enrollments. Success is defined as the percentage of enrollments receiving grades of A, B, C or P (Pass). Retention is defined as the percentage of students who do not receive a W (withdrawal). No significant difference in course success or retention existed between Summer Advantage and first-time college students during Fall 2013. To identify if disproportionate impact occurred in any student subgroups, the overall success of SA students and all other first time students at Norco College was disaggregated by gender and ethnicity. Overall success between the two groups is presented in Table 6, and success disaggregated by gender and ethnicity is presented in Tables 7 and 8 below.

Table 6-Success Rate Comparison-Summer Advantage vs All Other First-Time Students

	Success	Retention
Summer Advantage	65.3%	87.5%
First-Time Students	65.1%	88.6%

Table 7-Success Rate Disaggregated by Gender

	SA Student Success Rate		First time student success rate	
Total	248	65.3%	1313	65.1%
Female	129	67.9%	620	66.8%
Male	117	61.8%	680	63.3%
Unknown	2	100%	13	82.9%

Table 8-Success Rate Disaggregated by Ethnicity

	SA Student Success Rate		First time student success rate	
Total	248	65.3%	1313	65.1%
Asian/PI	18	78.1%	104	73.9%
African American	9	63.3%	86	58.6%
Hispanic	166	63.2%	773	62.9%
Native American/Alaskan	0	n/a	3	37.5%
White	46	69.7%	299	70.1%
Two or more races	8	51.7%	44	66.1%
Unknown	1	100%	4	55.6%

As indicated in Tables 4 and 5, in addition to taking more units, Summer Advantage students were also taking a more intense course load than most first-time college students. This could indicate systematic differences between groups and cast some doubt on the similarity between all first-time students and Summer Advantage students. Therefore, further analysis of success rates with a more similar group was performed. The comparison group of first-time college students was narrowed down to those who had enrolled in at least one or more English or math courses and had attempted 12 or more units in Fall 2013. This outcome as displayed in Table 9 represented a significant difference between Summer Advantage and first-time students enrolled in course load that was similar in units and intensity. This may indicate that Summer Advantage students are not as well prepared to handle a full load of high intensity units defined as including English or math enrollment.

Table 9-Success Rate of Summer Advantage vs. 1st Time Student with Similar Units/Intensity

Comparison of Overall Success		Enrollments	Success Rate
	Summer Advantage Students (n=199)	717	67.4%*
	All First-Time Students (n=375)	1421	71.9%

**significant (t = -2.116, p < .05)*

IV. MATH OUTCOMES IN FALL 2013

Success rates were compared for SA Fast Track/True Skills participants who took math classes in Fall, and all other students enrolled in the same math classes as the SA participants. Of the 141 SA participants who completed the math workshops, 122 enrolled in a math course in Fall 2013 (87% math enrollment rate). As indicated in Table 10, Sixty-two of these students succeeded in their math class (**50.8%**). The comparison group showed a success rate of **61.6%** (1271/2062). A t-test to compare means was completed to see if the difference in success rates was significant. A t-value of 2.317 and a p-value of 0.022 were obtained. The success rates of these two groups are significantly different from each other with the first-time student comparison group being more successful.

Success rates for SA Math participants were disaggregated by number of levels advanced and by math course in Tables 11 and 12. Reviewing the success rates by math course in Table 11, it is evident that math SA students who enrolled into Math 35 (Intermediate Algebra) performed at a significantly lower level of success as all other students in their Math 35 classes ($t = -2.838$, $p = .006$). In further analysis of the Intermediate Algebra taken by Summer Advantage students, all students who advanced 1 or more levels did equally poor (mean success=31.6%). Only those who did not progress any levels (i.e. stayed at Math 35 after completing True Skills) had comparable success (mean success=56.7%) to others in the course. However, when proceeding up to SA students who took transfer-level math (Math 36, 11, 12 & 5) the lower success trend did not continue. Math SA students had a 74% success rate and nonparticipants were at 71% success rate. The difference between groups is not significant which indicates that SA math workshop completers were prepared to perform as well in transfer-level math classes as nonparticipants. Although there is a large difference in size between the transfer-level math in SA and nonparticipants, the significance testing took this difference into account.

Table 10- Math Success Rates: Summer Advantage vs Comparison Group

	Success	Percent
SA Math Participant	62/122	50.8%*
Non-Participants	1271/2062	61.6%

**significant (t = -2.317, p = .022)*

Table 11-Success Rates Disaggregated by Math Levels Advanced

Math Levels Advanced	Count	Percent Successful
0	17/30	56.7%
1	27/54	50.0%
2	13/25	52.0%
3	5/13	38.5%
Total	62/122	50.8%

Table 12-Success Rates Disaggregated by Math Course

Course	SA Math Participant		Nonparticipants	
	Count	Percent Successful	Count	Percent Successful
Math-63	6/10	60%	66/89	74.2%
Math-64	3/6	50%	40/43	93.0%
Math-65	3/6	50%	100/162	61.7%
Math-52	15/26	57.7%	241/425	56.7%
Math-53	1/1	100%	28/46	60.9%
Math-35	20/54	37.0%	480/850	56.5%
Math-36	2/5	40%	65/105	61.9%
Math-11	5/5	100%	97/143	67.8%
Math-12	6/8	75%	108/148	72.9%
Math-5	1/1	100%	46/51	90.2%
Total	62/122	50.8%	1271/2062	61.6%

V. ENGLISH COURSE OUTCOMES IN FALL 2013

Success rates were compared for Academic Discourse workshop participants who took English classes and all other students enrolled in the same English classes. Of the 104 SA participants who completed English workshops, 90 enrolled in an English course in Fall 2013 (87% English enrollment rate). Fifty-nine of these students succeed in their English class (65.6%). The comparison group showed a success rate of 70.4% (664/943). A t-test to compare means was

completed to see if the difference in success rates was significant. A t -value of 0.960 and a p -value of 0.337 were obtained. These success rates are not significantly different from each other which indicates that Academic Discourse workshop participants were equally successful as other students in the same classes. English course success rates for SA participants, as well as disaggregated by number of levels advanced and by English course are summarized in tables 13, 14, and 15 below.

English success of Academic Discourse students tended to decrease as they advanced more levels in the English composition sequence. Students advancing 3 levels in English went from the lowest (ENG-60A) to the highest (ENG-1A) course as a result of their participation in the Academic Discourse workshop. The three-level advancers received a 40% success rate in ENG-1A. To establish a context for comparing success rates the most comparable situation is looking at success rates in ENG-1A for students who first enrolled in ENG-80, accelerated English. This accelerated English course gives students who have scored low on the placement test the opportunity to enter ENG-1A if they pass ENG-80. ENG-80 is a semester-long intensive acceleration course and a recent study showed that students who passed the course had a 73.1% success rate in ENG-1A. These pass rates are considerably higher than the Academic Discourse workshop students which may indicate that this 2-week intensive does not adequately prepare lowest-level English students for this much of a jump in levels. However, the remaining Academic Discourse participants who were placed in ENG-1A (not from the lowest level English) had a 71% success rate whereas nonparticipants had a 77% success rate. A t -test analysis showed that this difference was not statistically significant. So, although Academic Discourse participants who jumped from lowest to highest level in English were not prepared for ENG-1A, other Academic Discourse participants who took ENG-1A did appear to be prepared.

Table 13-Success Rates in English for Summer Advantage and Comparison Group

Groups	Success	Percent
SA English Participant	59/90	65.6%
Non-Participants	664/943	70.4%

Not a significant difference ($t = 0.960, p = .337$)

Table 14-Success Rates Disaggregated by English Levels Advanced

English Levels Advanced	Count	Percent Successful
0	2/5	40%
1	26/36	72.2%
2	27/39	69.2%
3	4/10	40%
Total	59/90	65.6%

Table 15-Success Rates Disaggregated by English Course

Course	SA English Participant		Nonparticipants	
	Count	Percent Successful	Count	Percent Successful
English-60A	1/2	50%	36/59	61.0%
English-60B	6/8	75%	132/182	72.5%
English-50	29/41	70.7%	168/252	66.7%
English-80	7/12	58.3%	69/112	61.6%
English-1A	16/27	59.3%	259/338	76.8%
Total	59/90	65.6%	664/943	70.4%

VI. ANNUAL OUTCOMES (2013-14) FOR SUMMER ADVANTAGE COHORT

As a final measure of the effectiveness of the Summer Advantage Program, outcomes spanning the entire academic year were compared between Summer Advantage students and those starting in college during fall 2013. Annual outcomes assessed were term-to-term retention (fall 13-spring 14 & fall 13-fall 14) and pipeline completion in English and math. Retention is defined as students who remain enrolled beyond census in the initial term and the final term. Pipeline persistence is defined as successful completion (receiving “C” grade or better) of transferable English (ENG 1A-English Composition) or math (any course with an Intermediate Algebra prerequisite).

Retention outcomes resulted in Summer Advantage students significantly outperforming other first time college students. Table 16 shows the outcomes for the two groups in fall-to-spring and fall-to-fall retention.

Table 16-Term-to-term retention for Summer Advantage and Comparison Group

Term-to-Term Retention	Summer Advantage	All Other First-Time College Students
Fall 13-Spring 14	218/248	964/1313
	87.9%*	73.4%
Fall 13-Fall 14	189/248	788/1313
	76.2%**	60.0%

*Indicates significant difference between groups ($t=6.018, p<0.001$)

** Indicates significant difference between groups ($t=5.348, p<0.001$)

Fall-to-spring and fall-to-fall retention showed group differences of 14.5% and 16.2%, respectively. These outcomes were highly statistically significant, and indicated that with utmost confidence one could assume that this difference was very unlikely to occur by chance. As shown previously, there were several systematic differences (most likely attributable to the influence of the Summer Advantage program) in unit load, and course selection in first semester (English and math enrollment). These may have contributed to increased persistence during the year. In addition, an effort was made by counseling to reach out to Summer Advantage students for second semester planning. This is likely to have had a positive impact on the Summer Advantage students.

Pipeline completion also resulted in relatively large differences between the Summer Advantage students and fall 2013 first-time college students. Table 17 below displays the percentage of students who had successfully completed courses that were transferable to a university in English and math within the first year of attending college.

Table 17-Pipeline Completion in English and Math

Pipeline Completion	Summer Advantage	All Other First-Time College Students
English	101/248	151/1313
	40.7%*	11.5%
Math	42/248	117/1313
	16.9%**	8.9%

*Indicates significant difference between groups ($t=9.998, p<0.001$)

**Indicates significant difference between groups ($t=3.194, p<0.005$)

This outcome represents a goal that is paramount in its impact on students—reducing time to complete basic skills coursework and increasing success. The difference between Summer Advantage and the First-Time College Student comparison group was phenomenal at 29.2%. Summer Advantage students were more than three times as likely to complete transferable

English as other first time college students within the first year of attendance. Math outcomes were notable with an 8% difference between groups. This was almost double the pipeline completion rate of other first-time college students. It should be noted that the math pipeline is generally longer to complete than English which may account for the relatively lower rate than English.

VII. SUMMARY AND PLANS FOR THE FUTURE

It is important to let data guide the evolving model for the Summer Advantage program as well as inform perceptions about its impact on student success. Summer Advantage clearly had an impact by saving students a total of 321 terms of remedial course work through their participation in the Academic Discourse and Fast Track/True Skills workshops. In addition, Summer Advantage students were more likely to enroll in English or math courses, and were more likely to be full-time students than nonparticipant first-time college students. During NOW, Summer Advantage students received a comprehensive introduction to many of the essential student services and received a two-semester educational plan to guide their course selection during the following academic year. These benefits undoubtedly gave students greater preparation and exposure to higher education than those who did not participate. This advantage certainly lived up to the namesake of the program.

The data indicated that overall, Summer Advantage students did not perform as well in all classes enrolled in Fall 2013, than other full-time first-time students who were also enrolled in English or math. When the comparison group was not limited to full-time or enrolled in English or math courses, SA and nonparticipants appeared to perform equally. English Summer Advantage students were well-prepared for their recommended English courses in Fall 2013. The only SA English students indicating a lack of preparation were those who jumped from the lowest level to the highest level of English. Math SA students did not perform as well in math courses as other students in the same math classes. However, SA students who were placed into transfer-level math did equally well as those who were in the same classes. When expanding analysis to year-long outcomes, the difference between groups became much more noticeable with SA students far outperforming the comparison group in term-to-term retention and pipeline completion in English and math.

Based on these data and the experiences of the faculty and staff involved in the Summer Advantage Program, the following changes were made for the 2014 program model. English faculty decided that due to the poor performance of students who made a jump of three levels (ENG-60A to 1A), much more caution would be exercised in assigning this type of jump in the future. Math faculty decided that due to the poor performance of students who were advanced in math, the cut scores on workshop exit exams would be increased for students to qualify for advancement to the next level. For pedagogical reasons, the math lead instructor

also decided that students should be given the workbooks in the 2014 program so that they would be able to write out the solutions to problems and hand them into the workshop instructor. Finally, outreach and recruitment efforts for Summer Advantage 2014 were based on data from the 2013 program. Overall target numbers for applicants and participants were set at double that of final numbers in 2013 and specific high schools that were underrepresented were given increased attention by recruiters.

Overall, the 2013 Summer Advantage program was guided by data and informed by the experience of faculty and staff. The increase in scale of the Summer Advantage program is promising for possible impact it may have on institutional outcomes, as well as the positive impact it had on program participants. This innovative model that integrates instruction, student services, and the local school district has garnered the attention of fellow educators and has resulted in being invited to present at the 2014 Strengthening Student Success Conference. In addition, several colleges have requested materials and/or faculty consultation to implement a version of Summer Advantage at their institution. Hopefully, this innovative model will provide many other institutions positive results similar to those of Norco College.