FOOTHILL COLLEGE
INSTITUTIONAL RESEARCH & PLANNING

DATE:	10/2/18
TO:	Adrienne Hypolite
FROM:	Doreen Finkelstein, Research Analyst
RE:	2017-18 Owl Scholars Program Academic Alerts

Introduction:

The Owl Scholars program seeks to identify students who are struggling academically in a course and connect them to support and services that will increase their chances of success. Beginning in Fall 2017, a new software system for the Owl Scholars program, Starfish, was introduced, which allowed both instructors and students to more directly raise and address alerts about academic struggles.

This report answers the following questions about the Owl Scholars program:

- How many students received an academic alert in 2017-18, and has there been a change in the number of alerts compared to the previous year?

- What were the demographic characteristics of students who received an academic alert in 2017-18?

- What were the course success rates for students who received an academic alert in 2017-18, and have they changed over time?

Results Overview:

- 577 unique students received an academic alert in 2017-18. These students received 660 academic alerts over the course of the year.

- A larger percentage of students enrolled in Owl Scholars-eligible courses received an academic alert in 2017-18 (16%) compared to the previous year (13%).

- The average number of academic alerts per student (1.1) remained constant in 2017-18 compared to the previous year.

- African American, Latinx, and low income students were disproportionately more likely to receive an academic alert in 2017-18.

- Course success rates for students who received an academic alert and did not withdraw from the class have shown gains over the past three years: 14% for math, 9% for English, and 8% for ESL.

Results Detail:

Which courses were eligible for the Owl Scholars program?

Students are eligible to participate in the Owl Scholars program when they are enrolled in specific English, Math, or ESL courses. Table 1 below shows which courses participated in the Owl Scholars program in 2017-18 compared to the previous year.

In total, there were 18 courses participating in the Owl Scholars program in 2017-18, compared to 11 courses in 2016-17. Eight courses were added in 2017-18 (English 1A, English 1S, Math 108, Math 217, Math 230(J), Math 235, ESL 26, and ESL 226), and one course (Math 1A) was no longer eligible in 2017-18.

Table 1 Courses Eligible for Owl Scholars		
Subject	**Eligible in 2016-17**	**Eligible in 2017-18**
English 1A	no	yes
English 1S	no	yes
English 1T	yes	yes
English 110	yes	yes
English 209	yes	yes
Math 1A	yes	no
Math 105	yes	yes
Math 108	no	yes
Math 217	no	yes
Math 220	yes	yes
Math 230 / 230J	no	yes
Math 235	no	yes
ESL 26	no	yes
ESL 25 / 125	yes	yes
ESL 226	no	yes
ESL 227	yes	yes
ESL 236	yes	yes
ESL 237	yes	yes
ESL 249	yes	yes

How many students received an academic alert?

In 2017-18, 577 unique students received an academic alert through the Starfish system. Some students received an academic alert more than once: e.g., for different courses

in the same term, or for different terms over the year. Overall, the 577 students received 660 academic alerts.

As shown in Table 2 below, compared to the previous year, 531 additional students were enrolled in Owl Scholars-eligible courses, and 178 additional students received an academic alert in 2017-18. The percent of eligible students who received an academic alert was 13% in 2016-17 and 16% in 2017-18, for a gain of 3%. The average number of academic alerts received per student (1.1) remained the same between the two years.

Table 2 Academic Alerts for Owl Scholars 2016-17 vs. 2017-18			
	2016-17	**2017-18**	**Gain**
Number of unique students enrolled in program-eligible courses	3116	3647	531
Number of unique students who received an academic alert	399	577	178
Percent of eligible students who received an academic alert	13%	16%	3%
Number of academic alerts	430	660	230
Average number of academic alerts per student	1.1	1.1	0

What were the demographic characteristics of students who received an academic alert?

Table 3 shows the demographics (ethnicity, gender, income level, and age) of students who received an academic alert compared to the full population of students who were enrolled (as of census) in one or more of the 18 program-eligible courses. All counts and percents reflect unique headcount: each student is only counted once in the data set even if they had multiple enrollments or received multiple academic alerts.

The first column in the table gives the total unique headcount for each student group among all program-eligible courses. The second column gives the count and percent of students who received an academic alert for each student group. Overall, 16% of eligible students received an academic alert (577 students out of 3647). The third column gives the number of academic alerts the student group would have received if 16% (the overall average) received an academic alert. Finally, the last column in the table indicates if the student group was disproportionately more likely to receive an academic alert.

Three student groups were found to be disproportionately more likely to receive an academic alert than their classmates: African American students (22% received an alert), Latinx students (20% received an alert), and students who reported a low income (19% received an alert). If these three student groups had received the same percentage of academic alerts as the total group — 16% — then 28 African American students would have received an academic alert, 209 Latinx students would have received an alert, and 173 low income students would have received an alert. The actual number of students in these groups who received academic alerts were 40 African American students (12 more than expected), 262 Latinx students (53 more than expected), and 208 low income students (35 more than expected).

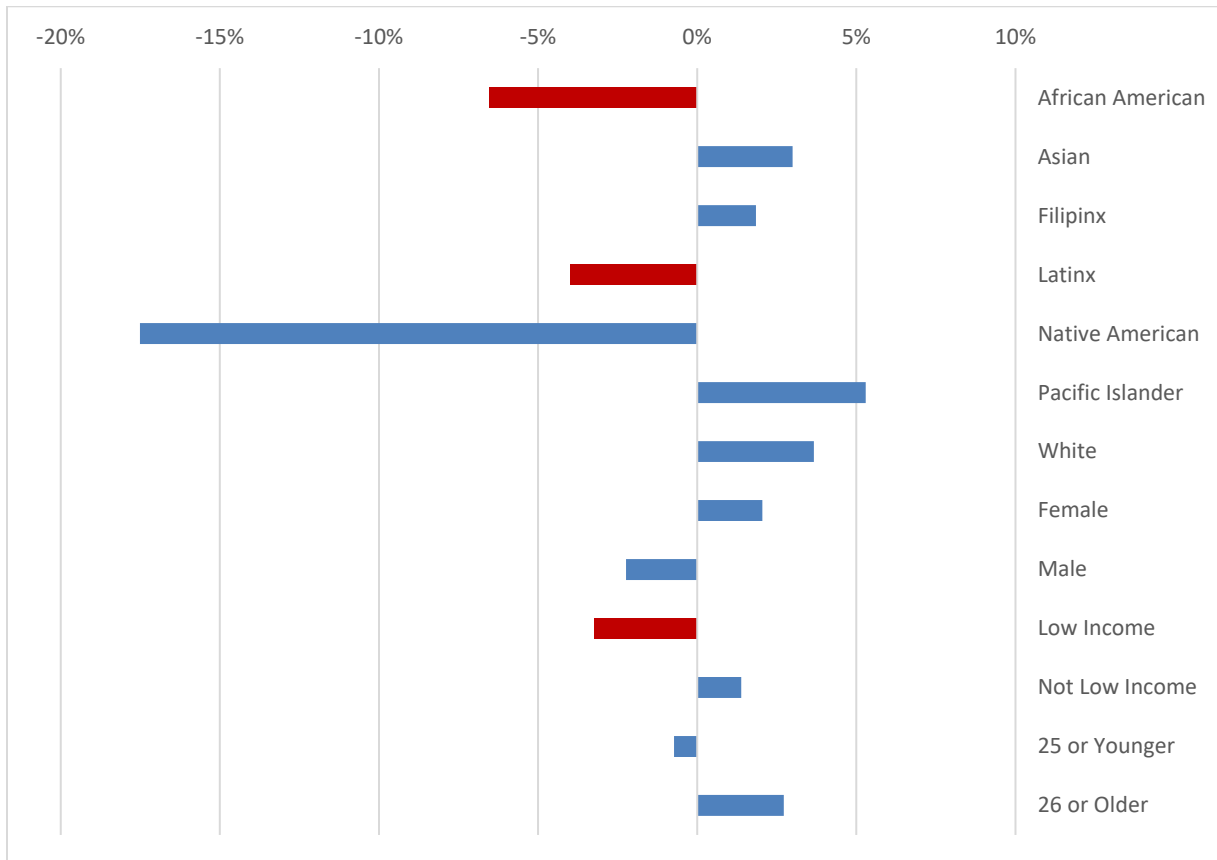| Table 3 Academic Alert Students vs. All Students Enrolled in Program-Eligible Courses			
Academic Year (Fall 2017-Spring 2018)			
Student Group	Count of Students in Program-Eligible Courses*	Count (%) of Academic Alert Students	Expected Academic Alert Count** (16%)	Disproportionately More Likely to Receive an Academic Alert?***
By Ethnicity				
African American	179	40 (22%)	28 (16%)	YES
Asian	998	128 (13%)	158 (16%)	
Filipinx	186	26 (14%)	29 (16%)	
Latinx	1323	262 (20%)	209 (16%)	YES
Native American	15	5 (33%)	2 (16%)	
Pacific Islander	57	6 (11%)	9 (16%)	
White	839	102 (12%)	133 (16%)	
By Gender				
Female	1931	266 (14%)	306 (16%)	
Male	1689	305 (18%)	267 (16%)	
By Income				
Low Income ($25,000 or less)	1091	208 (19%)	173 (16%)	YES
Not Low Income	2556	369 (14%)	404 (16%)	
By Age				
25 or Younger	2876	476 (17%)	455 (16%)	
26 or Older	771	101 (13%)	122 (16%)	
Total	*3647*	*577 (16%)*		

*Defined as students who, as of census, were enrolled in at least one of the 18 courses participating in the Owl Scholars program.

**Expected counts were calculated using the exact value of 577 divided by 3647, which is slightly less than 16%.

** Using the Percentage Point Gap method for calculating disproportionate impact.

Chart 1 illustrates which groups were more or less likely to receive an academic alert by graphing the gap between the percent of each group who received an academic alert and the overall group average of 16%.   Student groups with a negative gap were more likely to receive an academic alert, while student groups with a positive gap were less likely to receive one.   The three groups that were disproportionately more likely to receive an academic alert — African American students, Latinx students, and low income students — are highlighted in red. Native American, male, and younger students were also more likely to receive an academic alert than their classmates, although their gaps were not large enough to reach the threshold for disproportionate impact. (While Native American students had a large negative gap, the percentage difference was equivalent to only 3 students, so they were not disproportionately impacted.)

Chart 1
Relative Likelihood of Student Groups to Receive an Academic Alert

Note: Red bars indicate groups that were disproportionately more likely to receive an academic alert.

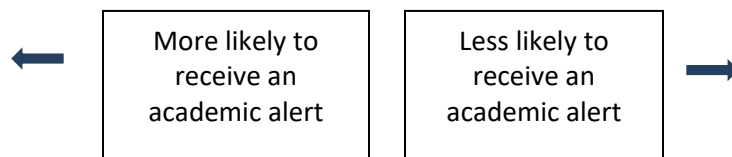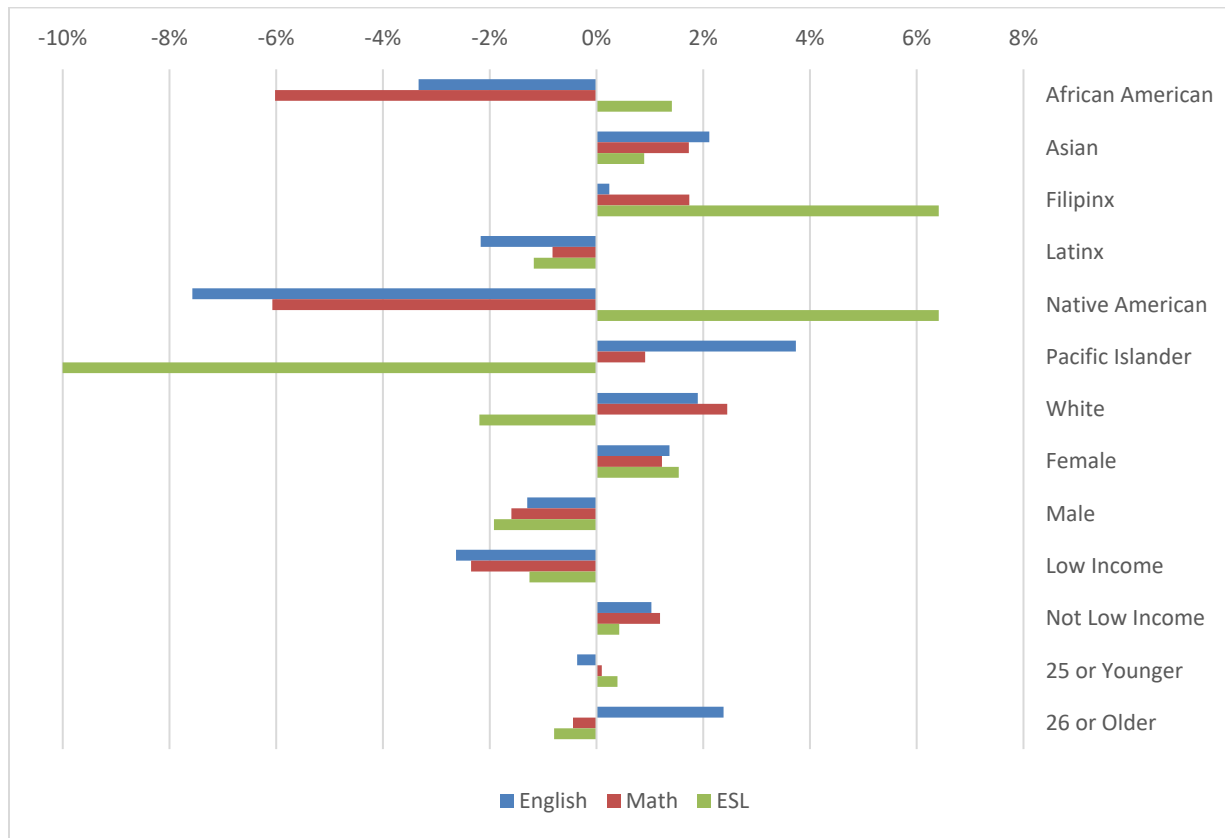| More likely to receive an academic alert | Less likely to receive an academic alert |

Chart 2 illustrates which groups were more or less likely to receive an academic alert in each subject area by graphing the difference between the total percent of academic alerts in a subject area and the percent of academic alerts for the student group in that subject area. Student groups with a negative gap were more likely to receive an academic alert in that subject area, while student groups with a positive gap were less likely to receive one.
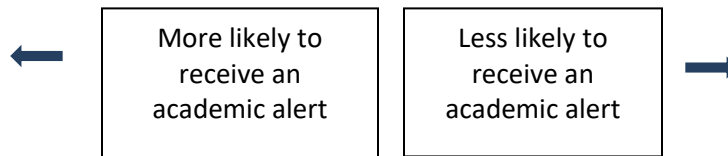
African-American and Native American students were more likely to receive an academic alert in English and Math, but less likely in ESL, while Latinx students were more likely to receive an academic alert in all three subject areas.   Pacific Islanders had a large negative gap for ESL (larger than the graph area), but the percentage difference was equivalent to only 2 students.

The negative gaps by subject area were not large enough to reach the threshhold for disproportionate impact for any student group.

Chart 2

Relative Likelihood of Student Groups to Receive an Academic Alert by Subject Area

Note: Students who received academic alerts in different subject areas are duplicated in the chart.

| More likely to receive an academic alert | Less likely to receive an academic alert |

What were the course success rates of students who received an academic alert, and have they changed over time?

Table 4 shows the course success rates of students who received an academic alert in different subject areas in 2015-16, 2016-17, and 2017-18, and the gain in course success rates over the three years (the difference between the success rate in 2017-18 and the success rate in 2015-16).

Note that only students who received a course grade of A-F are included in these analyses; students who withdrew from the course were not included. Counts are by course rather than by student, so students who received more than one academic alert are duplicated in the table.

The course success rate of academic alert students increased over time in all three subject areas, with gains between 8%-14%. The biggest improvement was in math, with a 14%

gain in course success rate in 2017-18 over 2015-16; this difference was statistically significant (less than 5% probability that the gain was due to chance).

Table 4 Course Success Rates of Academic Alert Students				
Subject Area	**2015-16**	**2016-17**	**2017-18**	**3-year Gain**
Math	32%	35%	46%	14%*
English	44%	47%	53%	9%
ESL	54%	57%	62%	8%

Note: Students who withdrew from the course are not included in these analyses.

* Statistically significant difference: based on the 95% confidence intervals of the course success rates, there is a less than 5% probability that this difference is due to chance.

Methodology:

The list of students who received academic alerts through Owl Scholars was received from the program. Demographic information for these students was obtained by linking them via their CWID to the Banner ODS table SS_Student_Term_Attributes.

The lists of program-eligible courses were received from the program.   The list of students enrolled in these courses was retrieved from the Banner ODS table Registration_Analysis. Demographic information for them was then obtained by joining these results to the Banner ODS table SS_Student_Term_Attributes.