Spring 2018 Evaluation of the English Student Assistant Program

Office of Institutional Effectiveness

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Background

Student assistants (SAs) are offered in all basic skills courses (ENGWR 42 and 58) at Cosumnes River College (CRC) to help with assignments inside and outside of class. In spring 2018, SAs were also offered in seven college-level writing courses (one section of ENGWR 109 and six sections of ENGWR 101) and five college-level reading courses (one section of ENGRD 113 and four sections of ENGRD 110). The purpose of this evaluation is to replicate/extend findings from previous evaluations of the English Student Assistant Program (from fall 2015 to fall 2017) and identify any changes in program effectiveness. Specifically, previous evaluations found that students that visited their SA *outside of class* were more likely to succeed in basic skills and college-level courses.

Summary of Findings

Basic Skills English

1) In spring 2018, the percentage of students that visited an SA outside of class dropped compared to fall 2017 (48.6% vs. 52.8%).
    a. Older students and students in ENGWR 58 were more likely to seek help from an SA outside of class (*Table 1,* page 4).
    b. In general, SA visits for basic skills peaked in February and again in mid-April (*Figure 1*, page 5).
2) Students who visited their SA outside of class were significantly more likely to succeed compared to students in the same class who did not (83.6% vs. 60.6%; *Table 3*, page 9). The probability of succeeding increased with the number of times a student visited their SA. Note: Success is defined as receiving an A, B, or C in an English course.
3) Students who visited their SA outside of class were significantly more likely to be retained (94.0% vs 77.5%; *Table 4*, page 10). The probability of succeeding increased with the number of times a student visited their SA. Note: Retention is defined as receiving any other grade besides a "W" (a course withdrawal).

College-Level English

1) In spring 2018, the percentage of students that visited an SA outside of class increased compared to fall 2017 – from 27.7% to 42.5%. This increase was mostly driven by college-level ENGRD courses.
    a. Older students were again more likely to seek help from an SA outside of class (*Table 2*, page 6).
    b. First generation students were less likely to seek help from their SA outside of class (33.3% vs. 47.4%; *Table 2*, page 6).
    c. ENGWR 101 had the lowest SA visitation rate when compared to ENGWR 109, ENGRD 110, and ENGRD 113 (*Table 2*, page 6).
    d. In general, SA visits in college-level peaked in February and again in early May (*Figure 2*, page 7).

2) Students who visited their SA outside of class were significantly more likely to succeed compared to students in the same class who did not (77.3% vs. 42.8%; *Table 5*, page 12). The probability of succeeding increased with the number of times a student visited their SA.
3) Students who visited their SA outside of class were significantly more likely to be retained (93.8% vs 69.9%; *Table 6*, page 13). The probability of succeeding increased with the number of times a student visited their SA.

Conclusions and Limitations

This investigation replicated findings from previous evaluations. Specifically, students in English classes (college-level and basic skills) who visit their SA outside of class are more likely to succeed and be retained. Participation rates declined slightly in basic skills courses, whereas rates increased in college-level courses.

Despite the somewhat positive results, there are a number of limitations to the present investigation. First, sample sizes were low for the basic skills analysis. This may have reduced the statistical power of analyses to find differences in usage for student groups. Second, students who choose to seek help from their SA might be different from other students in motivation and/or other psychological factors. The difference between students who seek and do not seek assistance might therefore be explained by motivation – and not necessarily help from their SA.

Recommendations

On the basis of the findings in the present investigation, the Office of Institutional Effectiveness makes the following recommendations:

1) Continue expanding the SA program, and consider expanding the SA program to other levels of English – particularly the new accelerated English course (ENGWR 109).
2) Increase participation for all student groups. Previous evaluations found that increasing the average participation can reduce equity gaps across groups.
3) Conduct an investigation with previous SA cohorts to look at how students do *after* completing a course where an SA was available.

Method

Shortly before the spring 2018 census date, the Office of Institutional Effectiveness generated SA attendance tracking files for all basic skills courses and the 12 college-level English reading and writing courses. These tracking sheets were then used by SAs to record the number of times each student sought help from their SA *outside of class* on a weekly basis. At the end of the spring 2018 semester, 18 out of the 21 attendance files were returned to the OIE. The OIE then merged the returned sheets with demographic and official grade data in July 2018. The resulting dataset was used to test the association between SA usage and success/retention. Note that success was defined as receiving an A, B, C, or P in an English course, and retention was defined as receiving any grade other than a "W".

Student Population Description and Usage Rates

Of the 504 students in courses with SA, a total of 426 had attendance data (84.5%). Unfortunately, due to very small sample sizes, students who are Native American could not be included in statistical analysis. Therefore, data from a total of 424 students were included in analyses.

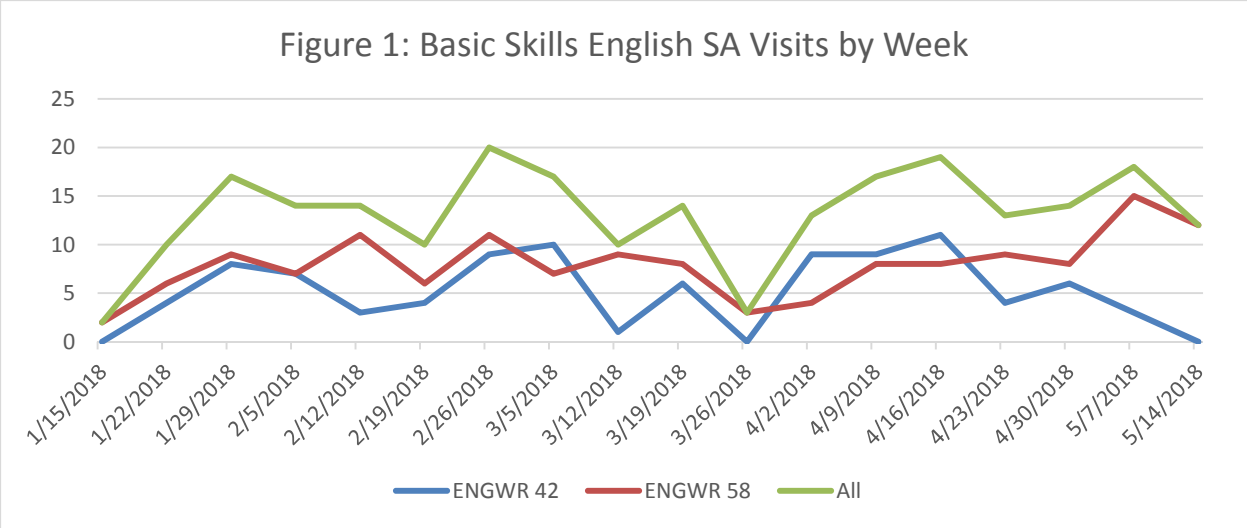
Basic Skills English Courses

The demographic breakdown of basic skills English courses and the usage rate for each group can be found in *Table 1*. The usage rate dropped when compared to fall 2017 from 52.8% to 48.6%. In general, SA visits for basic skills peaked in February and again in mid-April (*Figure 1* below). A generalized linear model (assuming quasibinomial error) was used to test for differences in the usage rate by demographic group. This type of statistical model is used to test for differences in a binomial categorical outcome (e.g., visited SA: yes/no). Older students were more likely to visit the SA outside of class, $\Delta\chi^2(1) = 4.70$, $p < .05$, and students in ENGWR 58 visited at higher rates than ENGWR 42 students, $\Delta\chi^2(1) = 10.71$, $p < .01$ (57.6% vs. 34.0%, respectively). There were no other statistically significant differences on the basis of ethnicity, gender, low-income status, or first generation status. Veteran and foster youth status were not used in analyses due to very small sample sizes.

Table 1. Usage Rates by Demographic and Course (Basic Skills).

Demographic	N (All)	% (All)	N (Visited)	% (Visited)	Avg. Visits
Ethnicity					
African American	37	26.81%	23	62.2%	4.6
Asian	28	20.29%	14	50.0%	4.6
Filipino	<10		<10		
Hispanic/Latino	45	32.61%	17	37.8%	1.8
Multi-Race	<10		<10		
Native American	<10		<10		
Other Non-White	<10		<10		
Pacific Islander	<10		<10		
Unknown	<10		<10		
White	16	11.59%	6	37.5%	1.8
Gender					
Female	85	61.59%	42	49.4%	3.8
Male	52	37.68%	25	48.1%	3.1
Unknown	<10		<10		
Age					
24 or Younger	98	71.01%	42	42.9%	2.1
25 or Older	40	28.99%	25	62.5%	6.0
Foster Youth					
Foster Youth	<10		<10		
Not Foster Youth	130	94.20%	62	47.7%	3.7
Veteran Status					
Veteran	<10		<10		
Not Veteran	136	98.55%	66	48.5%	3.6
Low-Income					
Low-Income	103	74.64%	53	51.5%	3.4
Not Low-Income	35	25.36%	14	40.0%	3.9
First Generation					
First Generation	53	38.41%	28	52.8%	4.3
Not First Generation	85	61.59%	39	45.9%	3.0
Course					
ENGWR 42	53	38.41%	18	34.0%	5.2
ENGWR 58	85	61.59%	49	57.6%	2.9
Total	**138**	**100.00%**	**67**	**48.6%**	**3.5**

Note. Avg. Visits indicates the average number of visits for students that visited the SA outside of class. Total sample size less than 10 is suppressed.



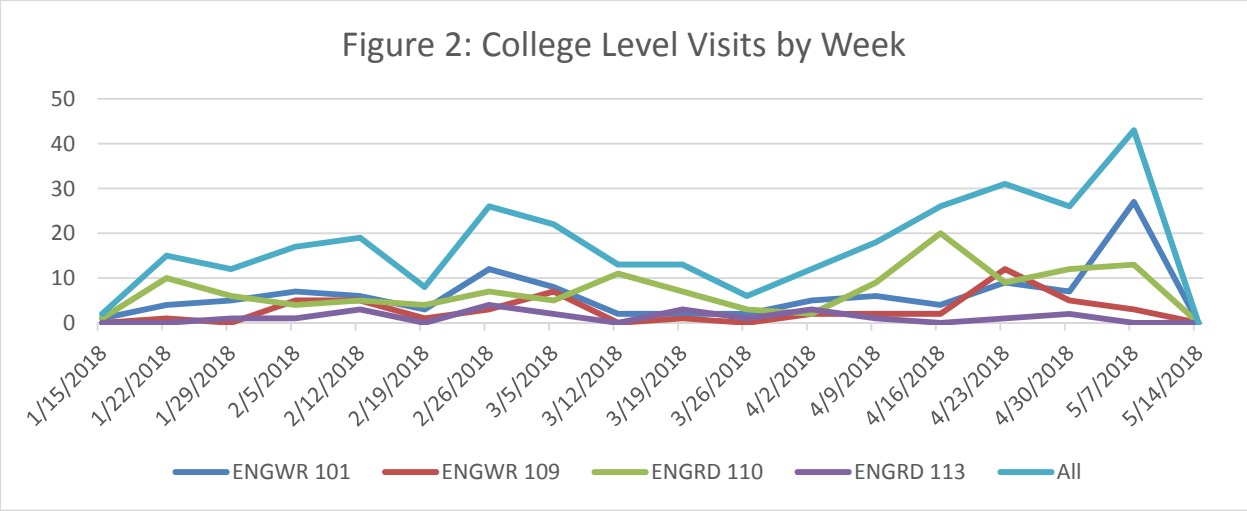
College-Level English Courses

The demographic breakdown for college-level English courses and the usage rate by group can be found in *Table 2*. The usage rate increased when compared to fall 2017, from 27.7% to 42.5%. However, this increase can be attributed largely to higher usage rates in the ENGRD courses. In general, SA visits in college-level peaked in February and again in early May (*Figure 2* below). A generalized linear model was again used to test for differences in the usage rate among demographic groups. Older students were more likely to visit the SA outside of class, $\Delta\chi^2(1) = 9.42$, $p < .01$, and first generation students were less likely to visit the SA when compared to non-first generation students, $\Delta\chi^2(1) = 6.46$, $p < .05$ (33.3% vs. 47.4%, respectively). Finally, English course was significantly associated with usage rate, $\Delta\chi^2(3) = 44.15$, $p < .001$, such that ENGWR 101 had significantly lower rates than the other three courses. There were no other statistically significant differences. Veteran and foster youth status were not included in analyses due to small sample sizes.

Table 2. Usage Rates by Demographic and Course (College Level).

Demographic	N (All)	% (All)	N (Visited)	% (Visited)	Avg Visits
Ethnicity					
African American	43	14.29%	20	46.5%	2.4
Asian	64	21.26%	30	46.9%	2.7
Filipino	17	5.65%	7	41.2%	1.7
Hispanic/Latino	101	33.55%	35	34.7%	2.5
Multi-Race	25	8.31%	11	44.0%	3.1
Native American	<10		<10		
Other Non-White	<10		<10		
Pacific Islander	<10		<10		
Unknown	<10		<10		
White	40	13.29%	20	50.0%	1.9
Gender					
Female	148	49.17%	68	45.9%	2.2
Male	147	48.84%	57	38.8%	2.7
Unknown	<10		<10		
Age					
24 or Younger	249	82.72%	98	39.4%	2.4
25 or Older	52	17.28%	30	57.7%	2.6
Foster Youth					
Foster Youth	<10		<10		
Not Foster Youth	292	97.01%	126	43.2%	2.3
Veteran Status					
Veteran	<10		<10		
Not Veteran	294	97.67%	125	42.5%	2.4
Low-Income					
Low-Income	194	64.45%	80	41.2%	2.6
Not Low-Income	107	35.55%	48	44.9%	2.2
First Generation					
First Generation	105	34.88%	35	33.3%	2.9
Not First Generation	196	65.12%	93	47.4%	2.2
Course					
ENGWR 101	147	48.84%	37	25.2%	3.0
ENGWR 109	23	7.64%	21	91.3%	2.3
ENGRD 110	118	39.20%	63	53.4%	2.0
ENGRD 113	13	4.32%	7	53.8%	3.1
Total	**301**	**100.00%**	**128**	**42.5%**	**2.4**

Note. Avg. Visits indicates the average number of visits for students that visited the SA outside of class. Total sample size less than 10 is suppressed.



Course Success/Retention Results and Analysis

Basic Skills English Courses

Success and retention rates in basic skills English courses disaggregated by whether or not students visited/did not visit the SA can be found in *Table 3* and *Table 4,* respectively. A generalized linear regression model (assuming quasi-binomial error) – commonly used to test for significant differences in a binomial/categorical outcome variable – was used to test for differences in course success/retention. Prior to analyzing data, students with an unusually high number of visits were excluded. Any student with visits totaling to more than three standard deviations above average was excluded from the analysis set. Prior analyses indicated that one or two students with an extremely high number of visits could exert undue influence on the findings (Sencil, 2018). Finally, veteran and foster youth status were not used in analyses due to low sample sizes.

In the first step of the analysis for both outcomes (retention/success), gender, age, race, course, first generation status, and low-income status were entered into the equation as predictors. Demographic variables that significantly predicted the outcome were retained as control variables. In the second step, whether or not a student visited the SA outside of class was entered as a predictor to test for an association between visiting the SA and course success/retention.

With regards to course success, only course was a significant predictor of success, $\Delta\chi^2(1) = 6.89$, $p < .01$. Course was therefore entered as a control variable. In the next step, whether or not a student visited the SA for help outside of class significantly predicted course success, $\Delta\chi^2(1) = 15.47$, $p < .001$, such that students who visited the SA outside of class had a 83.6% success rate compared to a 60.6% success rate for those who did not. Additionally, the probability of success increased for students who visited the SA more frequently, $\Delta\chi^2(1) = 22.46$, $p < .001$. Taken together, these findings suggest that students who visit the SA outside of class have a higher probability of success than students in the same class who do not.

No demographic variables were significantly associated with retention. In the next step, whether or not a student visited the SA for help outside of class significantly predicted retention, $\Delta\chi^2(1) = 7.37$, $p < .01$, such that students who visited the SA outside of class had a 94.0% retention rate compared to a 77.5% retention rate for those who did not. Additionally, the probability of retention increased for students who visited the SA more frequently, $\Delta\chi^2(1) = 10.44$, $p < .001$. Taken together, these findings suggest that students who visit the SA outside of class have a higher probability of retention.

Table 3. Success Rate by Demographic and Visit/Did Not Visit Groups (Basic Skills).

	Did not Visit		Visited		Overall	
Demographic	**Headcount**	**% Successful**	**Headcount**	**% Successful**	**Headcount**	**% Successful**
Ethnicity						
African American	14	71.4%	23	78.3%	37	75.7%
Asian	14	50.0%	14	100.0%	28	75.0%
Filipino	<10		<10		<10	
Hispanic/Latino	28	64.3%	17	76.5%	45	68.9%
Multi-Race	<10		<10		<10	
Native American	<10		<10		<10	
Other Non-White	<10		<10		<10	
Pacific Islander	<10		<10		<10	
Unknown	<10		<10		<10	
White	10	60.0%	6	83.3%	16	68.8%
Gender						
Female	43	67.4%	42	85.7%	85	76.5%
Male	27	51.9%	25	80.0%	52	65.4%
Unknown						
Age						
24 or Younger	56	62.5%	42	83.3%	98	71.4%
25 or Older	15	53.3%	25	84.0%	40	72.5%
Foster Youth						
Foster Youth	<10		<10		<10	
Not Foster Youth	68	61.8%	62	83.9%	130	72.3%
Veteran Status						
Veteran	<10		<10		<10	
Not Veteran	70	61.4%	66	83.3%	136	72.1%
Low-Income						
Low-Income	50	56.0%	53	84.9%	103	70.9%
Not Low-Income	21	71.4%	14	78.6%	35	74.3%
First Generation						
First Generation	25	52.0%	28	82.1%	53	67.9%
Not First Generation	46	65.2%	39	84.6%	85	74.1%
Course						
ENGWR 42	35	82.9%	18	88.9%	53	84.9%
ENGWR 58	36	38.9%	49	81.6%	85	63.5%
Total	**71**	**60.6%**	**67**	**83.6%**	**138**	**71.7%**

Note. Total sample size less than 10 is suppressed.

Table 4. Retention Rate by Demographic and Visit/Did Not Visit Groups (Basic SKills).

	Did not Visit		Visited		Overall	
Demographic	**Headcount**	**% Successful**	**Headcount**	**% Successful**	**Headcount**	**% Successful**
Ethnicity						
African American	14	71.4%	23	91.3%	37	83.8%
Asian	14	71.4%	14	100.0%	28	85.7%
Filipino	<10		<10		<10	
Hispanic/Latino	28	82.1%	17	94.1%	45	86.7%
Multi-Race	<10		<10		<10	
Native American	<10		<10		<10	
Other Non-White	<10		<10		<10	
Pacific Islander	<10		<10		<10	
Unknown	<10		<10		<10	
White	10	80.0%	6	83.3%	16	81.3%
Gender						
Female	43	76.7%	42	92.9%	85	84.7%
Male	27	77.8%	25	96.0%	52	86.5%
Unknown	<10		<10		<10	
Age						
24 or Younger	56	82.1%	42	92.9%	98	86.7%
25 or Older	15	60.0%	25	96.0%	40	82.5%
Foster Youth						
Foster Youth	<10		<10		<10	
Not Foster Youth	68	77.9%	62	95.2%	130	86.2%
Veteran Status						
Veteran	<10		<10		<10	
Not Veteran	70	78.6%	66	93.9%	136	86.0%
Low-Income						
Low-Income	50	72.0%	53	92.5%	103	82.5%
Not Low-Income	21	90.5%	14	100.0%	35	94.3%
First Generation						
First Generation	25	68.0%	28	92.9%	53	81.1%
Not First Generation	46	82.6%	39	94.9%	85	88.2%
Course						
ENGWR 42	35	85.7%	18	94.4%	53	88.7%
ENGWR 58	36	69.4%	49	93.9%	85	83.5%
Total	**71**	**77.5%**	**67**	**94.0%**	**138**	**85.5%**

Note. Total sample size less than 10 is suppressed.

College-Level English Courses

Success and retention rates in college-level English courses disaggregated by whether or not students visited/did not visit the SA can be found in *Table 5* and *Table 6,* respectively. A generalized linear regression model (assuming quasi-binomial error) – commonly used to test for significant differences in a binomial/categorical outcome variable – was used to test for differences in course success/retention. Prior to analyzing data, students with an unusually high number of visits were excluded. Any student with visits totaling to more than three standard deviations above average was excluded from the analysis set. Prior analyses indicated that one or two students with an extremely high number of visits could exert undue influence on the findings (Sencil, 2018). Finally, veteran and foster youth status were not used in analyses due to low sample sizes.

In the first step of the analysis for both outcomes (retention/success), gender, age, race, course, first generation status, and low-income status were entered into the equation as predictors. Demographic variables that significantly predicted the outcome were retained as control variables. In the second step, whether or not a student visited the SA outside of class was entered as a predictor to test for an association between visiting the SA and course success/retention.

With regards to course success, both ethnicity and low-income status were significant predictors, $\Delta\chi^2(4) = 11.31$, $p < .05$, $\Delta\chi^2(1) = 7.24$, $p < .01$, respectively. These demographic variables were therefore retained as control variables for the next step. In the next step, whether or not a student visited the SA for help outside of class significantly predicted course success, $\Delta\chi^2(1) = 31.44$, $p < .001$, such that students who visited the SA outside of class had a 77.3% success rate compared to a 42.8% success rate for those who did not. Additionally, the probability of success increased for students who visited the SA more frequently, $\Delta\chi^2(1) = 27.45$, $p < .01$. Taken together, these findings suggest that students who visit the SA outside of class have a higher probability of success than students with the same ethnicity/income status who do not.

No demographic variables were significantly associated with retention. In the next step, whether or not a student visited the SA for help outside of class significantly predicted retention, $\Delta\chi^2(1) = 27.25$, $p < .001$, such that students who visited the SA outside of class had a 93.8% retention rate compared to a 69.9% retention rate for those who did not. Additionally, the probability of retention increased for students who visited the SA more frequently, $\Delta\chi^2(1) = 23.95$, $p < .001$. Taken together, these findings suggest that students who visit the SA outside of class have a higher probability of retention.

Table 5. Success Rate by Demographic and Visit/Did Not Visit Groups (College Level).

	Did not Visit		Visited		Overall	
Demographic	**Headcount**	**% Successful**	**Headcount**	**% Successful**	**Headcount**	**% Successful**
Ethnicity						
African American	23	30.4%	20	75.0%	43	51.2%
Asian	34	55.9%	30	86.7%	64	70.3%
Filipino	10	60.0%	7	85.7%	17	70.6%
Hispanic/Latino	66	33.3%	35	71.4%	101	46.5%
Multi-Race	14	50.0%	11	72.7%	25	60.0%
Native American	<10		<10		<10	
Other Non-White	<10		<10		<10	
Pacific Islander	<10		<10		<10	
Unknown	<10		<10		<10	
White	20	65.0%	20	70.0%	40	67.5%
Gender						
Female	80	43.8%	68	83.8%	148	62.2%
Male	90	43.3%	57	68.4%	147	53.1%
Unknown	<10		<10		<10	
Age						
24 or Younger	151	43.0%	98	74.5%	249	55.4%
25 or Older	22	40.9%	30	86.7%	52	67.3%
Foster Youth						
Foster Youth	<10		<10		<10	
Not Foster Youth	166	43.4%	126	77.0%	292	57.9%
Veteran Status						
Veteran	<10		<10		<10	
Not Veteran	169	42.6%	125	76.8%	294	57.1%
Low-Income						
Low-Income	114	36.8%	80	73.8%	194	52.1%
Not Low-Income	59	54.2%	48	83.3%	107	67.3%
First Generation						
First Generation	70	40.0%	35	88.6%	105	56.2%
Not First Generation	103	44.7%	93	73.1%	196	58.2%
Course						
ENGWR 101	110	47.3%	37	75.7%	147	54.4%
ENGWR 109	2	100.0%	21	52.4%	23	56.5%
ENGRD 110	55	34.5%	63	88.9%	118	63.6%
ENGRD 113	6	16.7%	7	57.1%	13	38.5%
Total	**173**	**42.8%**	**128**	**77.3%**	**301**	**57.5%**

Note. Total sample size less than 10 is suppressed.

Table 6. Retention Rate by Demographic and Visit/Did Not Visit Groups (College Level).

	Did not Visit		Visited		Overall	
Demographic	**Headcount**	**% Successful**	**Headcount**	**% Successful**	**Headcount**	**% Successful**
Ethnicity						
African American	23	56.5%	20	95.0%	43	74.4%
Asian	34	82.4%	30	90.0%	64	85.9%
Filipino	10	70.0%	7	100.0%	17	82.4%
Hispanic/Latino	66	65.2%	35	97.1%	101	76.2%
Multi-Race	14	78.6%	11	100.0%	25	88.0%
Native American	<10		<10		<10	
Other Non-White	<10		<10		<10	
Pacific Islander	<10		<10		<10	
Unknown	<10		<10		<10	
White	20	90.0%	20	85.0%	40	87.5%
Gender						
Female	80	67.5%	68	94.1%	148	79.7%
Male	90	72.2%	57	93.0%	147	80.3%
Unknown	<10		<10		<10	
Age						
24 or Younger	151	70.9%	98	91.8%	249	79.1%
25 or Older	22	63.6%	30	100.0%	52	84.6%
Foster Youth						
Foster Youth	<10		<10		<10	
Not Foster Youth	166	69.3%	126	93.7%	292	79.8%
Veteran Status						
Veteran	<10		<10		<10	
Not Veteran	169	69.8%	125	93.6%	294	79.9%
Low-Income						
Low-Income	114	66.7%	80	93.8%	194	77.8%
Not Low-Income	59	76.3%	48	93.8%	107	84.1%
First Generation						
First Generation	70	62.9%	35	94.3%	105	73.3%
Not First Generation	103	74.8%	93	93.5%	196	83.7%
Course						
ENGWR 101	110	71.8%	37	91.9%	147	76.9%
ENGWR 109	2	100.0%	21	90.5%	23	91.3%
ENGRD 110	55	67.3%	63	98.4%	118	83.9%
ENGRD 113	6	50.0%	7	71.4%	13	61.5%
Total	**173**	**69.9%**	**128**	**93.8%**	**301**	**80.1%**

Note. Total sample size less than 10 is suppressed.