



Access Center Assessment Report

The purpose of this report is to provide a description of the demographics as well as higher education access and success of Access Center students at CSU. College access is measured by looking at the college going rates for Access Center high schools as well as with CSU's yield and admit rates for applicants from these high schools. The metrics used to assess student success are outcomes that TRIO programs require for grant reporting or measures that CSU typically uses. The following metrics measure student success in this report:

- ✚ Persistence to 2nd fall
- ✚ Persistence to 3rd fall
- ✚ 6-year graduation
- ✚ Proportion of students that complete 30 credits in their first year
- ✚ Proportion of students that maintain a 2.5 GPA in their first year
- ✚ First year probation rate

Executive Summary

The Access Center intentionally serves a very diverse group of students. The students served by the Access Center have greater representation of multiple identities that have historically been associated with lower levels of student success. Nearly all of Access Center students are either first generation, minority or a Pell recipient (compared to about 44% of non-Access Center freshmen and about 55% of non-Access Center transfer students). Additionally, 76% of Access Center students have two or more of these attributes compared to only about 37% of non-Access Center students. Therefore, in order to make comparisons about access or success, reference levels need to consider Access Center students' academic and demographic profile.

In terms of access to higher education, all comparisons in this report show a positive association among Access Center high schools and measures of access; however, there is some variation in the magnitude of the association based on the type of relationship between the Access Center and high schools. Access Center high schools have higher admit and yield rates at CSU compared to non-TRIO high schools that have high rates of free and reduced lunch. Additionally, Access Center high schools have higher proportions of their graduates going to college compared to the non-TRIO group. However, high schools that are part of the Talent Search or Upward Bound programs have a stronger positive association with the access outcomes compared to Alliance High Schools.

Associations varied between Access Center participation and student success metrics. Among freshmen, Access Center participation is negatively, and statistically significantly, associated with both six-year graduation as well as first-year probation rates. However, for transfer students, Access Center participation has a statistically significant positive association with second and third fall persistence. Please note that, for these analyses, the Access Center students are compared to a statistically matched non-Access Center group to ensure that the matched group has similar academic preparation levels and demographics.

Overall, there is correlational evidence that the Access Center contributes to the enrollment of historically underserved students at CSU by intentionally serving a very diverse group of students and supporting college access (at CSU and other institutions). Additionally, Access Center transfer students have higher persistence rates than similar transfer students who do not participate with the Access Center. On the other hand, findings indicate Access Center participation not being significantly associated with higher levels of success for freshmen.



Population

The population included in this analysis is all Access Center first-time freshman and transfer students that started at CSU between the 2007-08 and 2015-16 academic years. Table 1, below, displays the Access Center students included in this analysis by cohort year and Access Center grouping.

Table 1.

Access Center Population (2007-08 through 2015-16)										
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Access Center New Freshmen	63	80	91	106	136	115	102	93	104	890
Access Center Collegiate Programs	12	8	5	12	12	11	4	8	14	86
Access Center Educational Transition Programs	0	4	11	12	11	13	6	4	20	81
Access Center Pre-Collegiate Programs	51	68	75	82	113	91	92	81	70	723
Access Center Transfer Students	4	8	19	26	20	27	33	43	30	210
Access Center Educational Transition Programs	0	3	13	12	15	26	31	34	24	158
Access Center Pre-Collegiate Programs	4	5	6	14	5	1	2	9	6	52

There are a total of 890 Access Center new freshmen and 210 Access Center transfer students included in this report's analysis. Access Center results are compared to a group of non-Access Center students and internally across the type of programming. Collegiate programs include the summer Bridge students and Pre-Collegiate prep programs include upward bound, talent search and Alliance. The Education transition programs include EOC and EOC partnership.

Please note that this analysis is not limited to fall starts since only 80% of Access Center first-time students (or freshmen) start in a fall semester compared to 98% of non-Access Center freshmen. Among transfer students, the rate of fall starts is more comparable between Access Center and non-Access Center transfer students (72% compared to 74%).

Outcomes are adjusted based on the students' first semester; thus, the second fall for students who start in spring 2011 is fall 2012, the second fall for students that start in fall 2011 or summer 2011 is also fall 2012.



Demographics

This section of the report explores the demographic differences of Access Center students compared to non-Access Center resident students. It is important to consider the demographics within the assessment because prior research at CSU has shown strong associations between academic preparation and demographic characteristics with student success measures.

Tables 2 and 3 display the average index and ACT composite score as well as the representation of first generation, minority and Pell recipients by Access Center participation and program. For reference, this information is also included for all non-Access Center resident students from these cohorts.

Table 2.

First-Time Students' Demographic Representation by Access Center Status (2007-08 through 2015-16)

Access Center Status (Headcount)	Mean	Mean	Either FG, Pell, or			
	Index	ACT	FG (%)	Pell (%)	Minority (%)	Minority (%)
Overall Access Center Freshmen (890)	110.9	22.0	73.3%	60.0%	63.4%	90.6%
Access Center Collegiate Programs (86)	99.6	20.2	90.7%	50.0%	77.9%	97.7%
Access Center Educational Transition Programs (81)	110.4	22.5	65.4%	54.3%	56.8%	84.0%
Access Center Pre-Collegiate Programs (723)	112.0	22.2	72.1%	61.8%	62.4%	90.5%
Non-Access Center Resident Freshmen (29,752)	113.8	24.4	26.1%	21.4%	17.8%	44.3%

Table 3.

Transfer Students' Demographic Representation by Access Center Status (2007-08 through 2015-16)

Access Center Status (Headcount)	Mean	Mean	Either FG, Pell, or			
	Index	ACT	FG (%)	Pell (%)	Minority (%)	Minority (%)
Overall Access Center Transfer (210)	102.1	20.9	65.2%	70.5%	40.5%	91.0%
Access Center Educational Transition Programs (158)	99.7	20.1	67.1%	77.8%	38.6%	94.3%
Access Center Pre-Collegiate Programs (52)	104.1	21.8	59.6%	48.1%	46.2%	80.8%
Non-Access Center Resident Transfer (11,527)	105.4	23.3	34.3%	30.5%	15.2%	55.0%

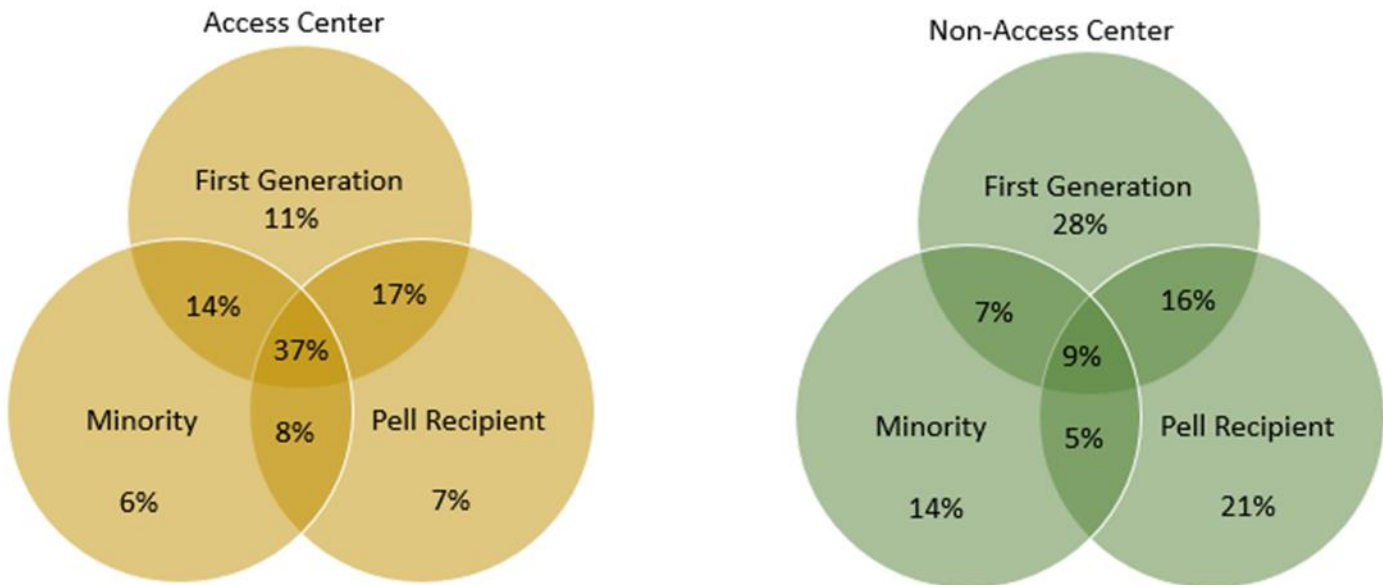
The representation of first generation, minority or Pell recipients is much higher among Access Center students compared to the non-Access Center students for both freshmen and transfer students. Additionally, the average index and ACT scores are much lower in the Access Center group. Another key difference between the groups is that over 90% of the Access Center freshmen and transfer are either first generation, minority, or Pell recipients compared to 44% and 55% of non-Access Center freshmen and transfer students.



Figure 1 displays the overlap of these attributes across Access Center status. Please note that the overlap in these Venn diagrams are not to scale but percentages are accurately stated.

Figure 1.

Demographic Attribute Overlap



These proportions are among students who are either first-generation, minority, or a Pell recipient from the 2007-08 through 2015-16 freshman and transfer cohorts

Across students that have any of the three attributes, a much larger proportion of Access Center students have all three attributes or two of the three attributes. For instance, 37% of the Access Center population has three of the attributes (compared to 9% of non-Access Center) and 76% of the Access Center population has at least two of the attributes (compared to 37% of non-Access Center). The Access Center intentionally serves populations of students that historically have been underrepresented at CSU and the demographic profile of both freshman and transfer Access Center students reflects this purpose. However, when assessing the success of Access Center students the comparison level should reflect students with similar intersectionality and admission’s test scores.

Methodology

As shown in the demographic section, Access Center students are demographically distinct from the overall population at CSU so comparisons for student success need to account for these demographic differences. In order to create a comparison group for both freshmen and transfer non-Access Center students a logistic regression model is run to predict the likelihood of being in the Access Center. The non-Access Center comparison groups for freshmen and transfer students are limited to just those who have a statistically similar probability of being in the Access Center. This model is based on the intersection of first generation, minority, and Pell recipient status as well as gender, semester of start (Fall vs Spring vs Summer), and then for the freshman model ACT scores and high school GPA are also included.



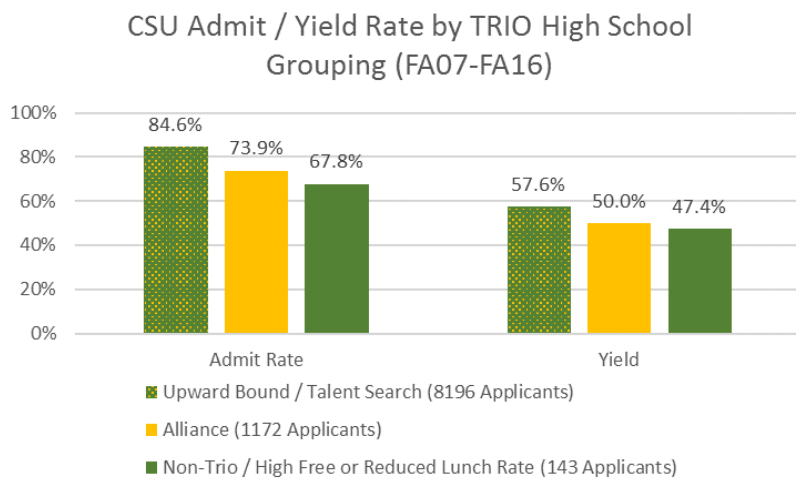
Access Center Success

The remainder of the report focuses on assessing the success of the Access Center by looking at access to college at Access Center high schools as well as the success of Access Center students once they enroll at CSU.

College Access

Figure 3 displays the admit rate (proportion of completed applicants that are admitted) and yield rate (proportion of admits that enroll) of Access Center high schools (Upward Bound/ Talent Search as well as Alliance) compared to applicants from the 10 non-TRIO Colorado high schools with the highest rates of free and reduced lunch.

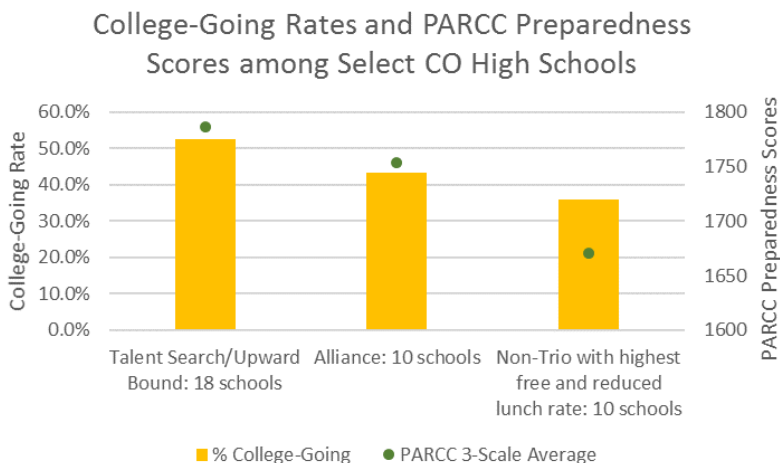
Figure 3.



The admit and yield rates are highest for students from the Upward Bound and Talent Search high schools, but students from Alliance high schools still have higher rates than students from the non-TRIO comparison schools (10 CO high schools with the highest rates of free and reduced lunch). These results suggest that CSU TRIO and Alliance program participation is associated with high schools that have higher admit and enroll rates.

A high school’s college going rate is also a measure of effectiveness for the Access Center, but it is external to CSU. Figure 4, below, displays the college going rate as well as a standardized preparedness score across these same groups of high schools.

Figure 5.



Similar to the admit and yield rates, the college going rate (proportion of a high school’s graduating seniors that matriculate to higher education) is highest for CSU Talent Search / Upward Bound high schools followed by the Alliance high schools and lowest for the non-TRIO Colorado high schools with high free and reduced lunch rates. The PARCC preparedness score is positively correlated (.83 correlation) with the college going rate; therefore, the difference in college going for CSU Access Center high schools and non-TRIO high schools is partially explained by student preparedness regardless of Access Center activities.



Student Success

The final section of this report explores the student success of Access Center students compared to a statistically matched non-Access Center comparison group. After the matching process, the non-Access Center students are descriptively very similar to the Access Center group (as shown in table 2). For instance, among the 879 non-Access Center matched freshmen, nearly 70% are first generation, nearly 60% are Pell recipients and about 90% have at least one of the three demographic attributes (33% have all three attributes). Table 4 displays the student success measures for Access Center freshmen compared to comparison group. This table shows the success rates by Access Center Program as well.

Table 4.

First-Time Student Success by Access Center Participation (2007-08 through 2015-16)

	Mean Index	2nd Fall Persistence	3rd Fall Persistence	6 Year Graduation	Completed 30 in First Year	First Year GPA 2.5 or Higher	First-Spring Probation
Overall Access Center Freshmen (890)	110.9	84.0%	70.5%	54.7%	35.3%	63.3%	17.6%
Access Center Collegiate Programs (86)	99.6	81.2%	66.7%	56.8%	63.8%	51.3%	22.5%
Access Center Educational Transition Programs (81)	110.4	81.3%	67.2%	51.9%	33.8%	67.6%	14.9%
Access Center Pre-Collegiate Programs (723)	112.0	84.7%	71.2%	54.7%	32.0%	64.2%	17.3%
Non-Access Center Resident Freshmen Comparison (879)	110.3	83.5%	71.6%	64.4%*	34.5%	67.8%	13.1%*

An asterisk indicates that the difference between Access Center students and the comparison groups is statistically significant at the .05 level

The third-fall retention outcome only includes students from the 2007-08 through 2013-14 academic years

The six year graduation outcome only includes students from the 2007-08 through 2009-10 academic years

Statistically there are no differences between 2nd fall or 3rd fall persistence rates between Access Center freshmen and the matched freshmen group. The Access Center graduation rate is statistically lower than the comparison group ($\chi^2=6.9$; $p=.009$). About 55% of Access Center students from the 2007-08 through 2009-10 cohorts graduated in 6 years compared to 64% of the matched group. There is also a statistically significant difference in the proportion of Access Center students that are on probation during the first year compared to the matched group ($\chi^2=6.2$; $p=.013$). For instance, nearly 18% of Access Center students are on probation at the end of their first year compared to only 13% of the matched group. There are not differences in the proportions of students that complete 30 credits in the first year or in the proportion that maintain a 2.5 GPA or higher in the first year by Access Center status.

Across the Access Center's programs, the GPA and probation rates are best for the Educational Transition Programs, but the persistence and graduation rates for this group is lower. The persistence and graduation rates are highest for the Pre-Collegiate programs. The success outcomes for Access Center students is provided by specific program (rather than the broader grouping presented) in Table A.1 of the Appendix. Additionally, these success measures are also provided by several select Access Center high schools in table A.3 of the Appendix.



Table 5 displays the student success measures for Access Center transfer students compared to the matched transfer group. After the matching process, the comparison group has 202 non-Access Center transfer students with a demographic profile (73% Pell recipients; 66% first generation; 41% minority) that is very similar to the rates that are displayed in Table 3.

Table 5.

Transfer Student Success by Access Center Participation (2007-08 through 2015-16)

	Mean Index	2nd Fall Persistence	3rd Fall Persistence	6 Year Graduation	Completed 30 in First Year	First Year GPA 2.5 or Higher	First-Spring Probation
Overall Access Center Transfer (210)	102.1	86.6%	80.0%	77.2%	10.1%	69.3%	11.6%
Access Center Educational Transition Programs (158)	99.7	85.5%	76.8%	67.9%	9.5%	70.7%	11.6%
Access Center Pre-Collegiate Programs (52)	104.1	90.0%	88.9%	86.2%	11.5%	65.4%	11.5%
Non-Access Center Resident Transfer Comparison (202)	101.5	79.2%*	69.8%*	69.0%	16.2%	71.9%	14.1%

An asterisk indicates that the difference between Access Center students and the comparison groups is statistically significant at the .05 level

The third-fall retention outcome only includes students from the 2007-08 through 2013-14 academic years

The six year graduation outcome only includes students from the 2007-08 through 2009-10 academic years

The 2nd and 3rd fall persistence rates for Access Center Transfer students are statistically higher than the rates among the matched transfer group ($\chi^2=3.9$ & 4.9; $p=.047$ & .027). For instance, nearly 87% of Access Center transfer students persisted to their second fall semester compared to only 79% of the matched group. The observed 6 year graduation rate for the Access Center is also higher than the matched group; although, this difference or the differences by first year academic behavior metrics are not statistically significant.

Across the Access Center programs, the persistence and graduation rates are highest among the Pre-Collegiate programs (similar to the freshmen), but the proportion of students maintaining a 2.5 GPA is higher among the Educational Transition Programs. The transfer student outcomes can be viewed by specific program in table A.2 in the Appendix.

Conclusions

The students served by the Access Center are very diverse and have lower than average levels of high school preparation. There are positive correlational associations between Access Center partnerships at high schools and access outcomes. For instance, there are higher rates of students going to college at the high schools that have relationships with the Access Center compared to non-TRIO high schools with high rates of free and reduced lunch. Additionally, the admit and yield rates at CSU are higher for resident applicants from lower income high schools if they are coming from a CSU TRIO or Alliance high school. The results are not as clear in terms of the student success measures. For freshmen, there does not appear to be higher levels of student success for Access Center students compared to a statistically similar group of freshmen but there does appear to be some higher levels of success for Access Center transfer students.



Appendix

Table A.1

Access Center First-Time Student Success (2007-08 through 2015-16)

Program (Headcount)	Mean Index	2nd Fall Persistence	3rd Fall Persistence	6 Year Graduation	Completed 30 in First Year	First Year GPA 2.5 or Higher	First-Spring Probation
Alliance (524)	113.0	84.1%	61.8%	50.7%	28.5%	63.7%	18.7%
Bridge (169)	102.6	86.4%	61.5%	55.7%	67.3%	61.0%	15.1%
EOC (101)	101.0	84.2%	57.4%	51.7%	38.3%	72.3%	13.8%
Talent Search (167)	111.6	86.8%	75.4%	79.5%	40.3%	70.8%	13.0%
Upward Bound (91)	106.6	85.7%	64.8%	46.7%	48.2%	63.5%	15.3%
Access Center Overall	110.9	84.0%	70.5%	54.7%	35.3%	63.3%	17.6%

Please note that the headcount by program is duplicated because students can participate in multiple Access Center programs

Table A.2.

Access Center Transfer Student Success (2007-08 through 2015-16)

Program (Headcount)	Mean Index	2nd Fall Persistence	3rd Fall Persistence	6 Year Graduation	Completed 30 in First Year	First Year GPA 2.5 or Higher	First-Spring Probation
Alliance (25)	108.0	80.0%	84.0%	87.5%	12.0%	60.0%	16.0%
EOC (159)	159.0	83.0%	61.0%	67.9%	9.5%	70.9%	11.5%
EOC Partnership (38)	103.2	86.8%	73.7%	80.0%	2.9%	73.5%	5.9%
Talent Search (22)	102.2	95.5%	77.3%	80.0%	13.6%	72.7%	4.5%
Access Center Overall	102.1	86.6%	80.0%	77.2%	10.1%	69.3%	11.6%

Please note that the headcount by program is duplicated because students can participate in multiple Access Center programs

Table A.3

Access Center's Select High School First-Time Student Success (2007-08 through 2015-16)

High School (Headcount)	Mean Index	2nd Fall Persistence	3rd Fall Persistence	6 Year Graduation	Completed 30 in First Year	First Year GPA 2.5 or Higher	First-Spring Probation
Adams City High School (84)	109.6	86.9%	46.4%	32.4%	22.7%	54.7%	29.3%
Hinkley High School (125)	113.5	86.4%	68.0%	57.4%	25.4%	67.5%	15.8%
Pueblo Central High School (58)	111.6	81.0%	58.6%	48.0%	22.8%	57.9%	31.6%
Access Center Overall (890)	110.9	84.0%	70.5%	54.7%	35.3%	63.3%	82.4%