

November 2012

Campus Corps and CSU Student Retention

Highlights:

- ❖ **Participating in the Campus Corps course is associated with 63% lower odds of dropping out in any given year**
- ❖ **Participating in the Campus Corps program lowers a new freshman's probability of dropout in the first year by 11 percentage points**
- ❖ **Participating in the Campus Corps program lowers a transfer student's probability of dropout in the first year by 6 percentage points**
- ❖ **Campus Corps participants are more likely to be female, resident students with higher levels of academic preparation (index)**
- ❖ **Pell grant recipient status, first generation status, and minority status are well represented among Campus Corps students**

The Campus Corps (CC) class is a service-learning course where college students mentor local at-risk youth. The purpose of this research brief is to explore the association between participation in the CC course and student retention.

The data consists of CSU undergraduates (both new freshmen and transfer) who started in a fall semester between Fall 2006 and Fall 2011. From these cohorts there are 438 students (55 transfers) who participated in the CC course at any point during their undergraduate education. CC students are proportionally similar to non-CC students in terms of minority status, first generation status, and Pell grant recipient status. CC students are more likely to be female and also a resident student. CC students have a higher average index compared to non-CC students. Tables displaying demographic and academic comparisons between CC and non-CC can be found in Appendix A.

Most of the CC students completed the course during their junior year (by their 8th semester, including summers, at CSU); however, students can take the course anytime between their second semester and graduation. An event history model is used for this analysis because it can account for the time varying nature of CC participation. The outcome variable is the dropout hazard, which is defined as the probability a student will dropout in a given year given that they have not dropped out in the prior years. Dropping out is defined as having one fall or spring semester without enrollment or graduation. The model controls for covariates that are associated with dropout including: Pell recipient status, first-generation status, minority status, residency, gender, student type (new or transfer their first term at CSU), and CCHE index.

Results from the analysis show that CC participation has a strong negative association with the dropout hazard (CC odds ratio of .37) after controlling for a variety of demographic and academic student characteristics. Conversely stated, participation in the CC course is positively associated with retention. A student who takes the CC course has 63% (1-.37) lower odds of dropping out in that specified year compared to a student who does not take the course after controlling for student demographics and academic preparation. The coefficients and odds ratios for all of the model's covariates are provided in Appendix B. Odds ratios can be difficult to interpret in a practical sense; therefore, figure 1 graphs the model's fitted dropout hazard of a CC new freshman compared to a non-CC new freshman assuming all other things are equal over six years of enrollment.

Figure 1.

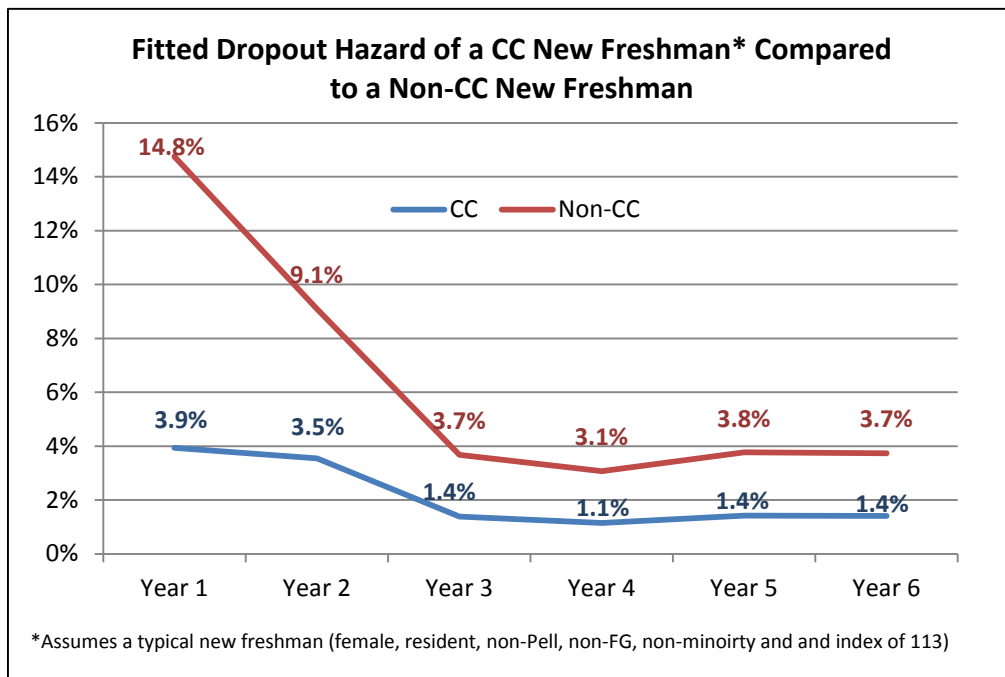
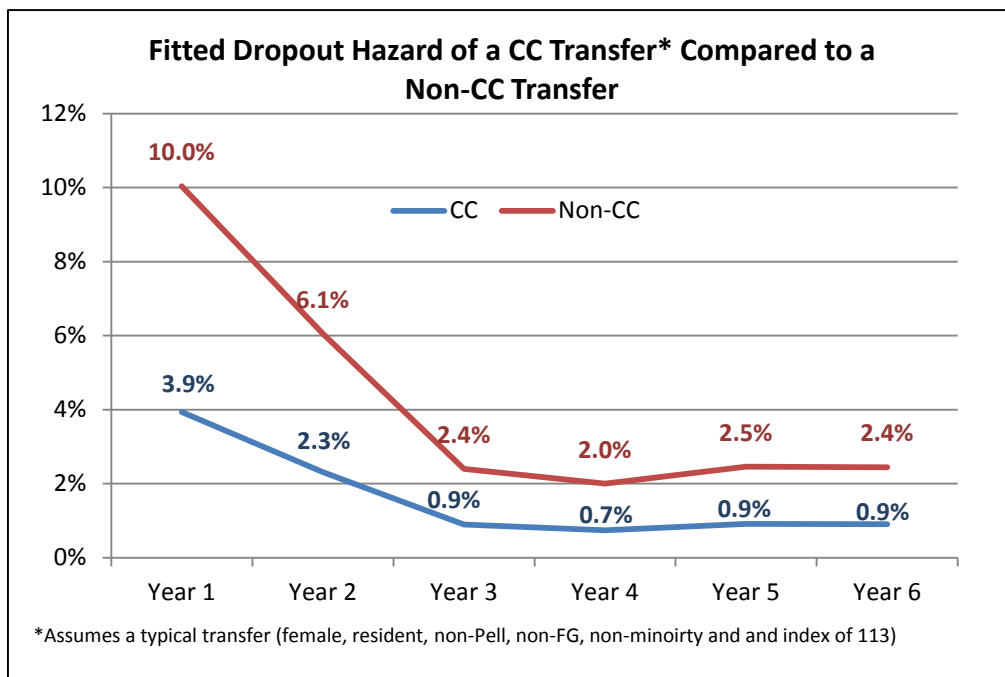


Figure 2 graphs the fitted dropout hazard for a transfer CC student compared to a transfer non-CC student with all the covariates held equal over six years of enrollment.

Figure 2.



Appendix A

Cohort Counts* by Student Type, Term, and Campus Corps Status

		FA 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011
New	Campus Corps	22	83	116	70	64	28
	Non-Campus Corps	4069	4308	4288	4214	4408	4476
Transfer	Campus Corps	1	3	15	16	14	6
	Non-Campus Corps	1279	1322	1167	1246	1314	1471

*Includes both part time and full time students

Demographics by Campus Corps Status

	First Generation	Pell	Minority	Resident	Female	Ave Index
Campus Corp	28%	20%	15%	83%	87%	116.5
Non-Campus Corp	27%	20%	15%	79%	53%	113.2

*Bold indicates that the difference in proportions or means is statistically significant at the .05 level. Effect sizes for all statistically significant differences are small.

Initial College of Major by Campus Corps Status

	Campus Corps	Non-Campus Corps
Agricultural Sciences	2%	6%
Applied Human Sciences	20%	14%
Business	2%	7%
Engineering	2%	8%
Intra-University	26%	27%
Liberal Arts	13%	16%
Natural Sciences	32%	15%
Veterinary Medicine & Biomedical Sci	3%	3%
Warner College of Natural Resources	0%	4%
Total	100%	100%

Appendix B

Event History Model Results

	Coefficient	Std. Error	P Value	Odds Ratio
Year 1	1.866	0.121		
Year 2	1.317	0.122		
Year 3	0.356	0.126		
Year 4	0.168	0.130		
Year 5	0.380	0.142		
Year 6	0.372	0.263		
Gender	-0.039	0.024	0.101	0.962
First Generation Status (First Generation)	0.324	0.027	0.000	1.383
Pell Recipient Status (Pell Recipient)	-0.030	0.032	0.344	0.971
Minority Status (Minority)	0.071	0.032	0.027	1.073
Index (continuous)	-0.032	0.001	0.000	0.969
Residency (Non-Resident)	0.341	0.029	0.000	1.406
Student Type (Transfer)	-0.439	0.048	0.000	0.644
CC participation (non-CC)	-1.002	0.340	0.003	0.367

Odds ratios or P-values are not included for the year variables since those are similar to an intercept and do not warrant a hypothesis test or effect size.

The variable level, shown in parentheses, is the reference category. For example, in the case of first generation status the odds ratio can be interpreted as the following: First generation students have 38% higher odds of dropping out in any given year (given that they haven't dropped out in a prior year) compared to non-first generation students after controlling for the other variables in the model.

Event History Model Fit Statistics

Log Likelihood	-3810112
BIC	76494.4
AIC	76258.2
McFadden's R ²	0.240