Campus Corps and CSU Student Success

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 graduation. This study is an update from a previous report that explored the association between participation in the CC course and persistence. Results from this prior analysis conclude that participation in the CC course is positively associated with retention. Similarly, results from the current analysis also conclude that CC participation is associated with student success. This study builds on our understanding of the association between CC participation and student success because the addition of three years allows for graduation as the student success outcome measure.

Data

The current report's data consists of CSU undergraduates (both new freshmen and transfer) who started in a fall semester between FA06 and FA13. From these cohorts there are 1,048 students (131 of which are transfer students) 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 first generation status and Pell grant recipient status. CC students are slightly more likely to be a minority student and are considerably more likely to be a female or resident student. CC students have a higher average index compared to non-CC students. Tables displaying the cohort sizes as well as the demographic and academic characteristics of CC and non-CC students can be found in Appendix A.

Methodology

On average, CC students completed the course during their junior year; 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 graduation hazard, which is defined as the probability a student will graduate in a specified year given that they have not already graduated. The model controls for covariates that prior works shows to be associated with graduation: Pell recipient status, first-generation status, minority status, residency, gender, student type (new or transfer their first term at CSU), and CCHE index.

Findings

Results from the analysis show that CC participation has a strong positive association with the graduation hazard (CC odds ratio of 2.27) after controlling for a variety of demographic and academic student characteristics. A student who takes the CC course has 127% higher odds of graduating 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, figures 1 and 2 graph the model's predicted probability of graduating for a CC new freshman and transfer student compared to a non-CC peer assuming all other things are equal over six years of enrollment.

Figure 1 graphs the fitted graduation hazard for a new freshman CC student compared to a non-CC freshman with all the covariates held equal over six years of enrollment.

Figure 1.

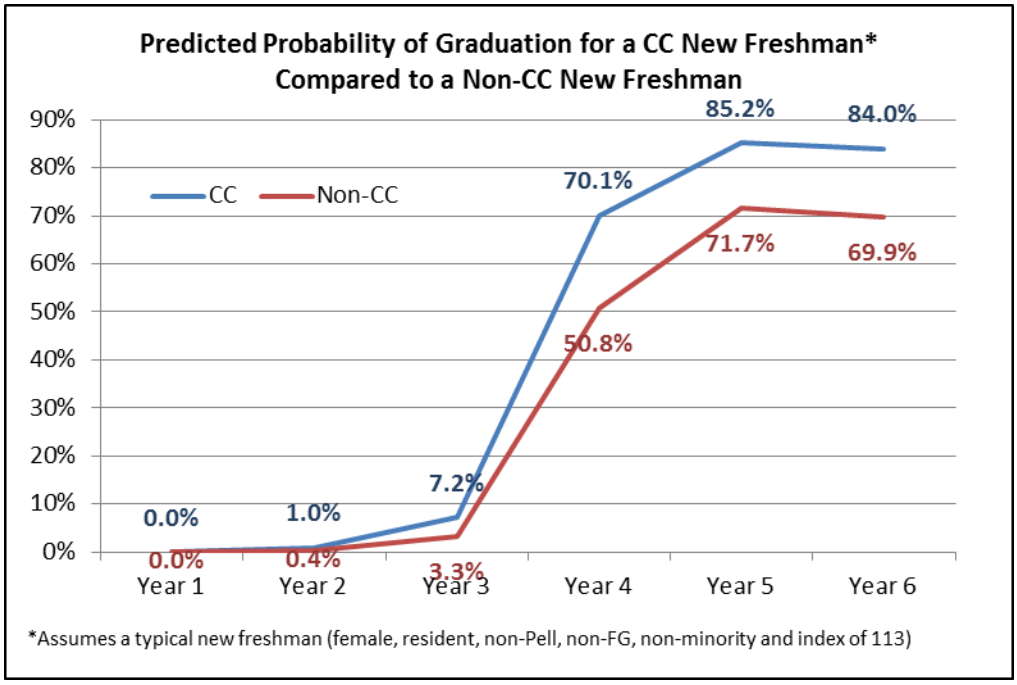
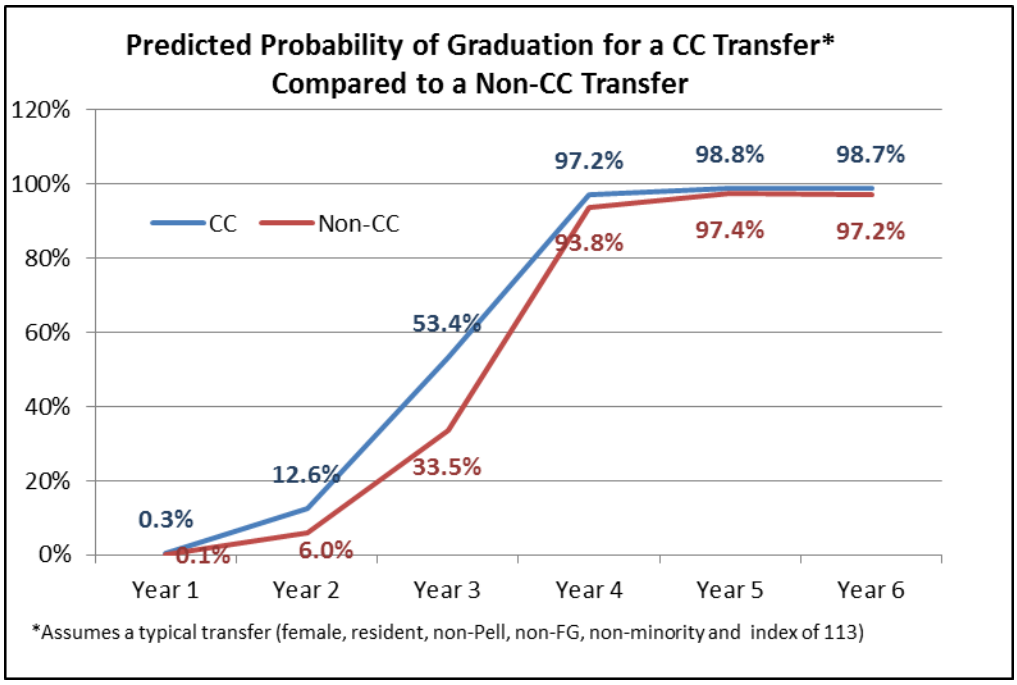


Figure 2 graphs the fitted graduation hazard for a transfer CC student compared to a transfer non-CC student with all the covariates held equal over six years of enrollment.

Figure 2.



Appendix A

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

		Fall 2006	Fall 2007	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
New	Campus Corps	30	100	138	134	179	166	129	41
	Non-Campus Corps	3941	4188	4170	4069	4190	4253	4320	4332
Transfer	Campus Corps	3	3	18	19	21	31	28	8
	Non-Campus Corps	1114	1166	1039	1116	1195	1324	1196	1265

Demographics by Campus Corps Status

	First Generation	Pell	Minority	Resident	Female	Ave Index
Campus Corps	27%	23%	**19%**	**82%**	**86%**	**116.1**
Non-Campus Corps	27%	21%	**16%**	**77%**	**53%**	**113.6**

*Bold indicates that the difference in proportions or means is statistically significant at the .05 level.

Initial College of Major by Campus Corps Status

	Campus Corps	Non-Campus Corps
Agricultural Sciences	2%	6%
Business	2%	7%
Engineering	1%	9%
Health and Human Sciences	22%	14%
Intra-University	26%	27%
Liberal Arts	15%	15%
Natural Sciences	28%	15%
Veterinary Medicine & Biomedical Sci	3%	3%
Warner College of Natural Resources	1%	4%
Total	100%	100%

Appendix B

Event History Model Results

	Coefficient	Std. Error	P Value	Odds Ratio
Year 1	-11.694	0.426		
Year 2	-7.834	0.138		
Year 3	-5.762	0.121		
Year 4	-2.352	0.114		
Year 5	-1.458	0.113		
Year 6	-1.545	0.129		
Gender	0.559	0.025	0.000	1.748
First Generation Status (First Generation)	0.020	0.030	0.506	1.020
Pell Recipient Status (Pell Recipient)	-0.137	0.033	0.000	0.872
Minority Status (Minority)	-0.282	0.036	0.000	0.754
Index (continuous)	0.016	0.001	0.000	1.016
Residency (Non-Resident)	-0.056	0.032	0.083	0.946
Student Type (Transfer)	2.691	0.055	0.000	14.749
CC participation (non-CC)	0.821	0.112	0.000	2.273

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 minority status the odds ratio can be interpreted as the following: minority students have 25% lower odds (1-.754) of graduating in any given year (given that they haven't graduated in a prior year) compared to non-minority students after controlling for the other variables in the model.

Event History Model Fit Statistics

Log Likelihood	-43847
BIC	42653
AIC	2508
McFadden's R^2	0.516