



First Year Seminar Associations with Student Success

The purpose of this report is to explore the associations between participating in a first-year (FY) seminar and various measures of student success in the context of proposing a university wide seminar requirement. This report also explores these associations *excluding* Key and Honor’s students. These two groups of students are about 50% of seminar students and are very different from the overall population in terms of their academic preparation levels (Honors) as well as co-curricular support structures (Key).

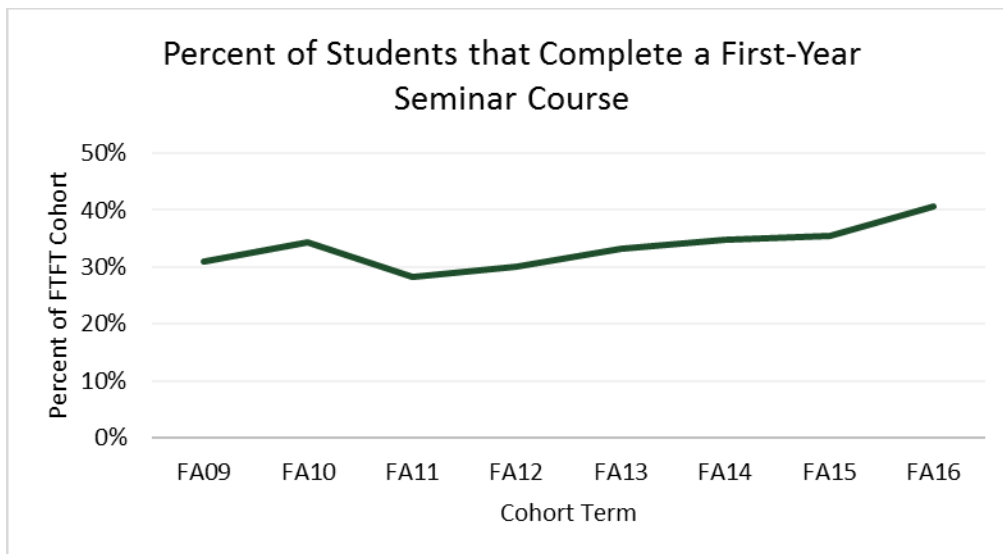
Executive Summary

Overall seminar participation is associated with higher levels of student success, but the magnitude of the association is much smaller if programs with extensive co-curricular components as well as a seminar requirement (i.e. Key and Honors) are excluded from the analysis. First-year seminar participation (excluding Key and Honors) is associated with about a 1 percentage point (PP) increase in 2nd fall retention and about 1 PP increases in five and six year graduation rates. However, the magnitude of these increases are smaller for students with gap attributes (first generation, racially minoritized or Pell recipient). These results suggest that a seminar requirement would not necessarily decrease gaps in success for first generation, racially minoritized or Pell grant recipient students, but might positively influence persistence and graduation rates overall.

Population

This analysis includes first-time, full-time (FTFT) students from the FA09 through FA16 cohorts. FY seminars are defined based on a list of seminar courses based on course title (or institutional knowledge) and must have been successfully completed (excludes W drops, incompletes and F grades) during a student’s first academic year. The full list of courses included as seminars is in Appendix A. Figure 1 displays the percent of students in the FA09-FA16 FTFT cohorts that successfully complete a FY seminar course within their first academic year.

Figure 1.





Over the last 8 years, about a third of students complete a seminar course. This proportion has been increasing slightly. In FA16 about 41% of FTFT students successfully completed a seminar course in their first academic year compared to about 30% in FA09. Additionally, Key and Honors students are about 50% (25% for each group) of all seminar students and this proportion has remained relatively consistent over this time period.

Methodology

Student success is measured across the following four metrics:

- ✚ Persistence to the 2nd fall, 3rd fall, and 4th fall semester
- ✚ Graduation at 4, 5, and 6 years
- ✚ CSU cumulative GPA at 2nd fall, 3rd fall, and 4th fall semester
- ✚ CSU credit accrual at 2nd fall, 3rd fall, and 4th fall semester

Please note that CSU GPA and credit accrual only include coursework at CSU; therefore, these measures exclude transfer courses as well as AP/IB credit.

The headcounts by cohort, seminar status, and demographic attribute are in in Appendix B.

Another important methodological note is that the main independent variable of interest (FY seminar participation) can occur during a student's first fall or spring semester. To account for this all comparisons in the report are limited to students that persist to their first spring semester. Limiting the analysis to spring persisters ensures that all students have equal opportunities to participate in the FY seminar so that differences in success rates are not artificially inflated for spring seminar students.

Demographics

Table 1 displays the demographics of students by seminar status. About 25% of seminar students are in Key and another 25% are in Honors. Since the demographics of these students vary significantly from the overall population, the seminar group is split into three sub-groups to show the differences.

Table 1.

	First-Time, Full-Time (FA09-FA16) Student Demographics and Academic Charecteristics by Seminar Status					
	No Seminar ¹	Overall	First-Year Seminar ¹			Overall
			Honors	Key	Neither	
Headcount ²	23,648	11,951	2,966	2,969	6,016	35,599
First Generation (%)	23.3%	26.5%	12.3%	43.3%	25.1%	24.4%
Racially Minoritized (%)	17.0%	25.2%	13.4%	48.7%	19.3%	19.7%
Pell Recipient (%)	19.7%	24.2%	12.4%	40.2%	22.1%	21.2%
Male (%)	49.3%	35.9%	30.6%	37.3%	37.8%	44.8%
Nonresident (%)	24.8%	27.8%	36.1%	19.1%	27.9%	25.8%
Index (average)	113.2	118.5	133.0	111.4	114.7	115.0

¹First-year seminar status is defined by a FTFT student completing one of the selected seminar courses (shown in Appendix A) in either the fall or spring semester of their first-year

²Includes FA09-FA16 FTFT cohorts

Compared to non-seminar students, first generation, racially minoritized, Pell recipients and nonresidents are overrepresented; male students are underrepresented among seminar students. Additionally, average index is

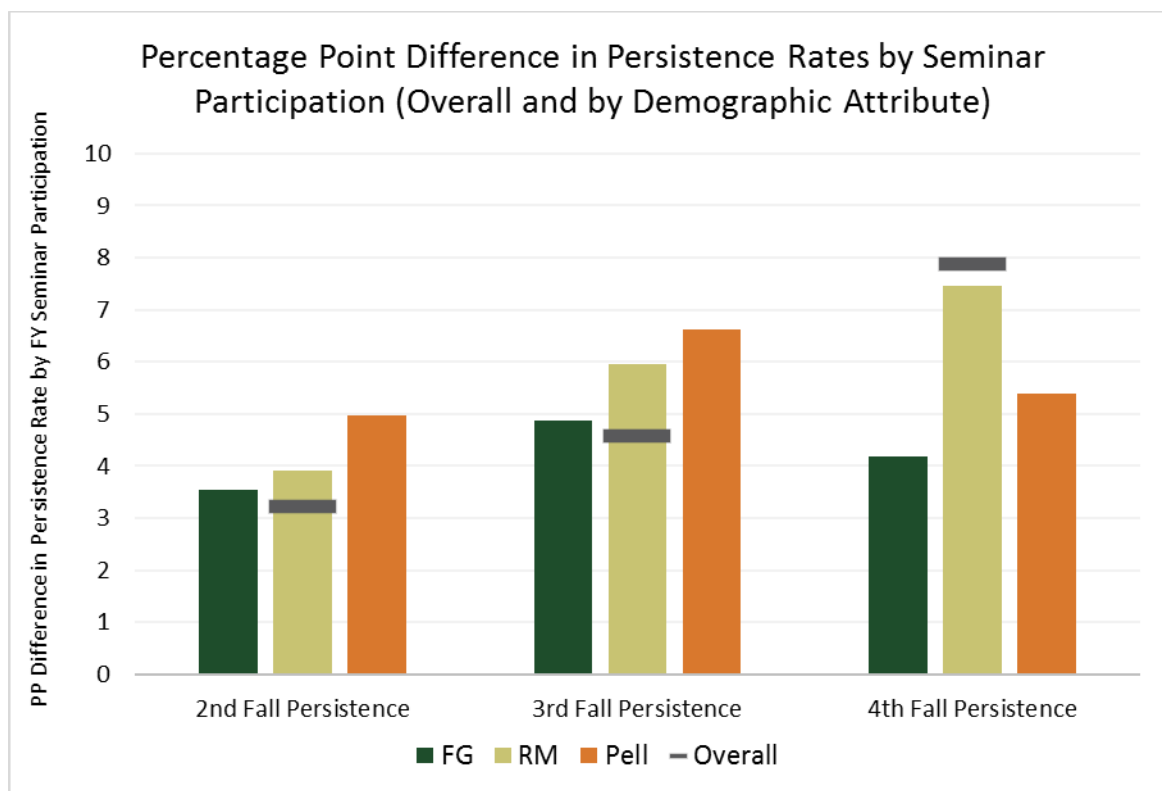


higher for seminar participants. When seminar students exclude Key and Honors first generation, racially minoritized, Pell recipients and nonresidents are only slightly overrepresented in the seminar group compared to the non-seminar group. Males are still underrepresented and average index is only slightly higher compared to the non-seminar group. Even without Key communities included in the seminar group, students with gap attributes are still well represented among the seminar students.

FY Seminar Associations with Persistence

Figures 2 and 3 display the difference in persistence rates (seminar rate minus non-seminar rate) by seminar participation overall and by demographic attribute. Figure 3 excludes Key and Honors students to approximate the association without the additional support that are included within the Honors and Key programs. The actual rates that these differences are calculated from can be found in Appendix C.

Figure 2.



Overall, seminar students have higher persistence rates compared to non-seminar students. For instance, seminar students have a second fall persistence rate of 91.5%, which is about 3 PP higher than the non-seminar persistence rate of 88.3%. The direction of this difference is consistent at the third and fourth fall persistence time points. Please note these rates are calculated among students who persist to their first spring semester so they are higher than the typically used CSU persistence rates. This adjustment is important so we do not artificially inflate the positive difference for seminar students. For example, the 3 PP overall difference at 2nd fall increases to 5 PP without this limitation because the seminar student group includes students who participated

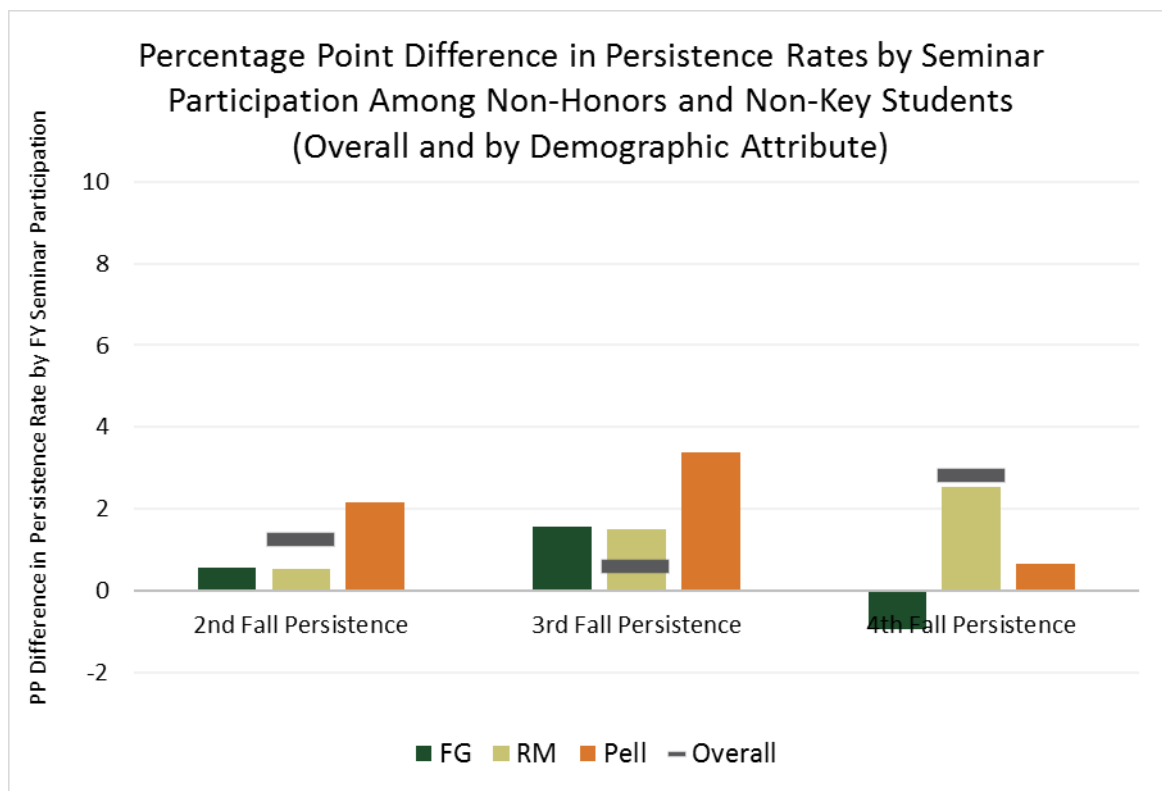


in a seminar during their first spring semester and some non-seminar students don't have that opportunity because they didn't enroll for their first spring.

This positive association also holds across gap attributes. For instance, Pell seminar students have a 2nd fall persistence rate of 89.9% which is about 5 PP higher than non-seminar Pell recipients.

Considering the demographics of Key students and the associations that have been shown between Key participation and success it is important to review this data excluding Key. Additionally, Honors students persist at higher rates than non-Honors students. The positive association by seminar participation is influenced upwards by Key and Honors students. Figure 3 provides the same comparison as Figure 2 except that it is only among students that are not in either Key or Honors.

Figure 3.



There is still a positive association between seminar participation and persistence but the magnitude of this association is much smaller if Honors and Key students are excluded. It appears that this positive association remains for students with gaps attributes but also to a smaller degree. These results suggest that seminars might not be an effective intervention for closing gaps in second fall persistence (although they might be effective for increasing all persistence rates slightly).

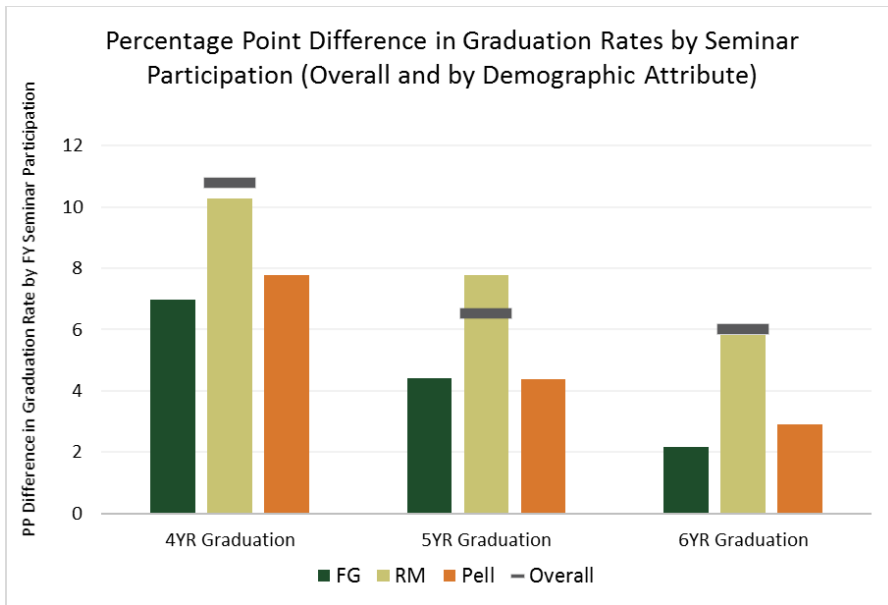
FY Seminar Associations with Graduation

Figures 4 and 5 display the difference in graduation rates (seminar rate minus non-seminar rate) by seminar participation overall and by demographic attribute. Figure 5 excludes Key and Honors students to approximate



the association without the additional support that are included within Honors and Key programs. The actual rates that these differences are calculated from can be found in Appendix D.

Figure 4.



Seminar participation is associated with much higher graduation rates; although, the association does not appear to be as strong for first generation students or Pell recipients (it does appear to nearly equivalent for racially minoritized students). Figure 5 shows this association excluding Key and Honors students.

Figure 5.

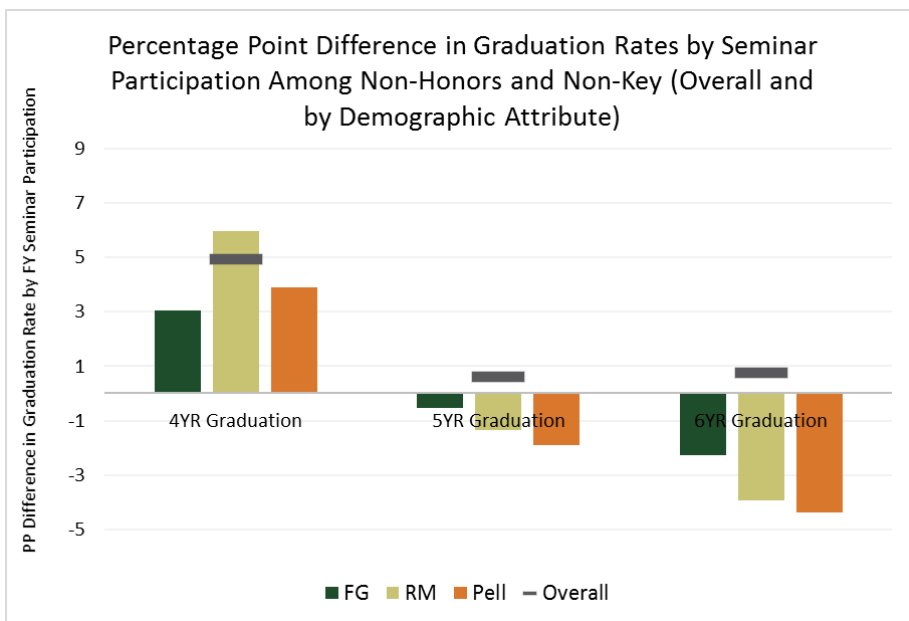


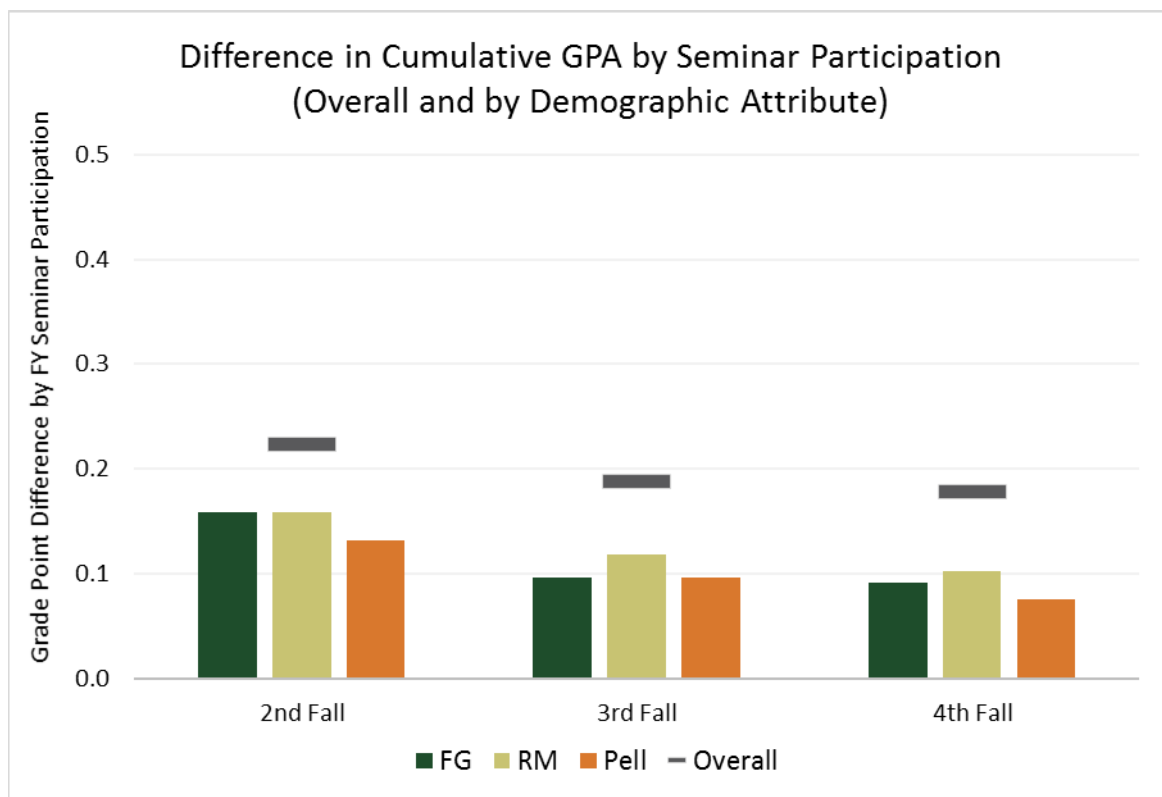


Figure 5 shows that there is still a positive association between seminar participation and graduation but the magnitude of this association is much smaller if Honors and Key students are excluded. For instance, the nearly 11 PP difference presented in figure 4 is reduced to 5 PP in figure 5. This association is positive for students with gap attributes at the four-year graduation measure but negative at the 5 and 6-year measures. This could be interpreted as seminar participation being associated with faster time to degree for students with gap attributes but not necessarily with a higher 6-year graduation measure. These results do not indicate that seminars would be an effective intervention for increasing the 6-year graduation rates for students with gap attributes or for closing the 6-year graduation gaps. However, seminar participation is associated with nearly a 1 PP increase in 5 and 6 year graduation rates for the overall population.

FY Seminar Associations with Cumulative GPA

Figures 6 and 7 display the difference in GPA (seminar participants average cumulative GPA minus non-seminar participants average cumulative GPA) by seminar status overall and by demographic attribute. Figure 7 excludes Key and Honors to approximate the association without the additional support systems that are included within Honors and Key. The actual average GPA that these differences are calculated from can be found in Appendix E.

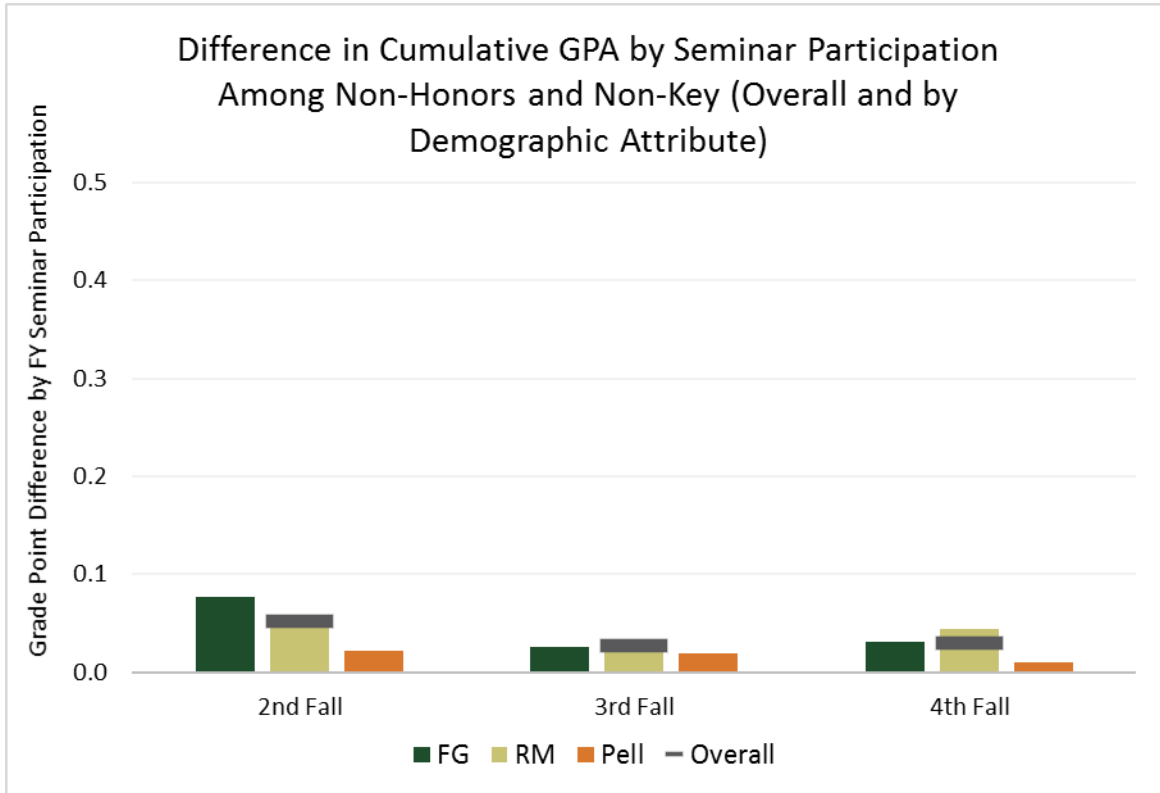
Figure 6.



Seminar status is associated with a higher student success outcome. Cumulative GPA at 2nd, 3rd, and 4th fall are higher for seminar students compared to non-seminar students. This pattern is also true for students with gap attributes but to a smaller degree than overall. Figure 7 shows this association excluding Key and Honors students.



Figure 7.



Seminar participation is associated with a slightly higher cumulative GPA even when Honors and Key students are excluded. This association has a similar magnitude for students with gap attributes.

FY Seminar Associations with Credit Accrual

Figures 8 and 9 display the difference in average credit accrual (average credits among seminar participants minus average credits among non-seminar students) by seminar participation overall and by demographic attribute. Figure 9 excludes Key and Honors to approximate the association without the additional support systems that are included within Honors and Key. The actual average credits that these differences are calculated from can be found in Appendix F.

Similar to the prior three student success outcomes, seminar participation is associated with higher credit accrual but this association is much smaller when Key and Honors students are excluded.



Figure 8.

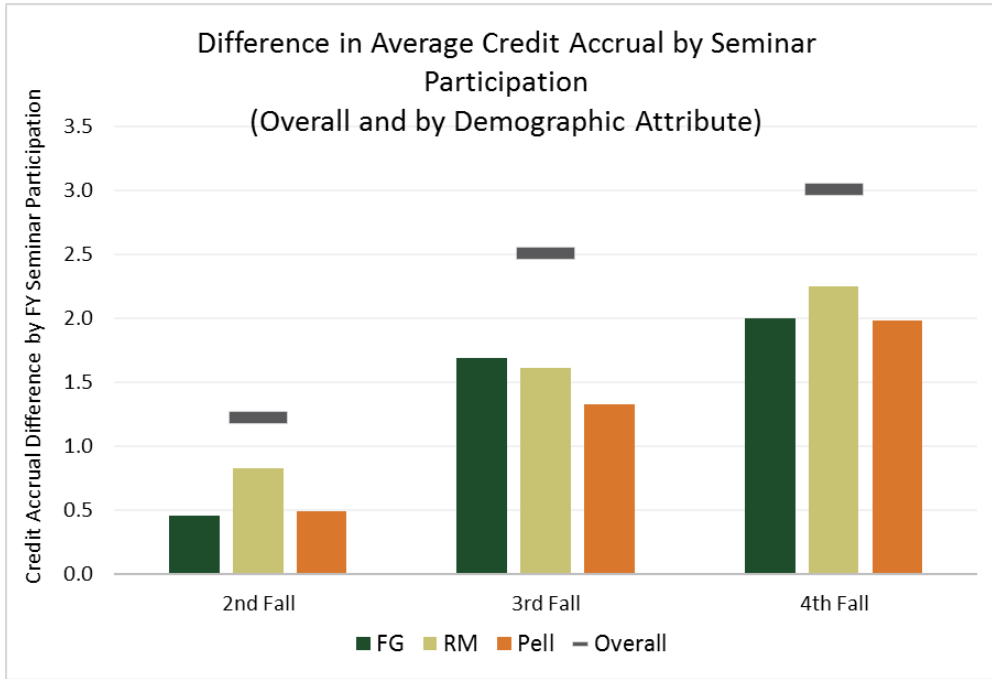
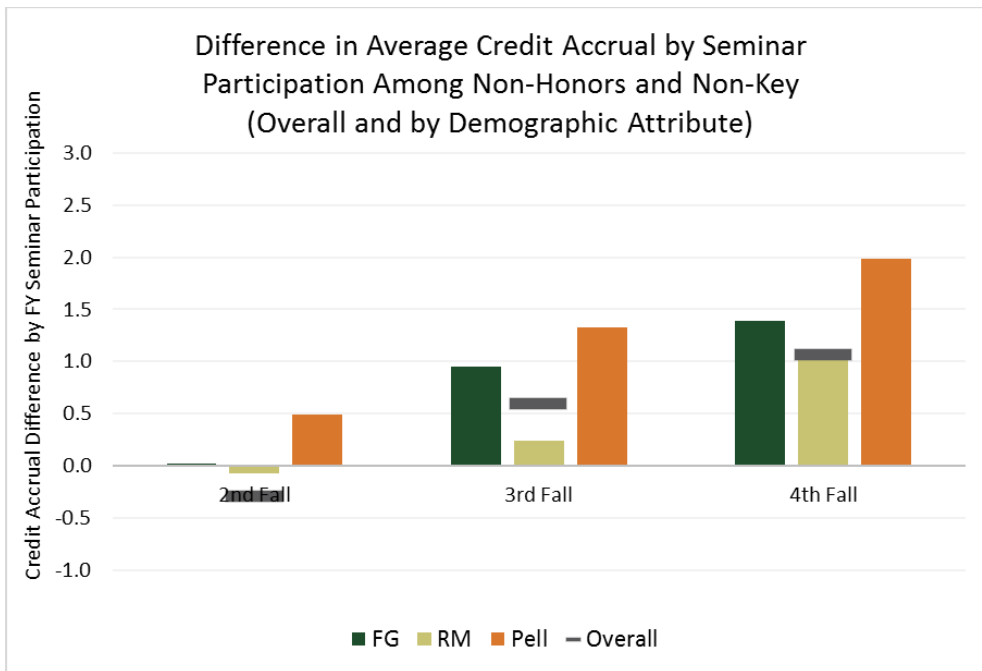


Figure 9.





Conclusions

About 30% of FTFT cohorts take a first-year seminar. About half of these seminar participants belong to comprehensive programs such as Key or Honors. Students with gap attributes (first generation, racially minoritized or Pell recipient) are well represented among seminar students even when Key is excluded. Overall seminar participation is associated with higher levels of success, but the magnitude of these associations decreases substantially if Honors and Key students are excluded from the analysis. In summary, an institutional requirement of a seminar course might be associated with slightly higher levels of student success for all students. However, this analysis does not necessarily suggest that it would decrease the gaps by first generation, racially minoritized or Pell grant recipient status.



Appendix A

Courses included as first-year seminar courses are displayed in Table A.1.

Table A.1

FY Seminar Courses at CSU			
COURSE	Course Title	COURSE	Course Title
AGRI192	Orientatn-Agricultural Systems	IU 193	Freshman Seminar
AGRI292	Transfer Seminar	KEY 192	Key Academic Community Seminar
ANEQ293	Career Exploration Seminar	KEY 192A	Key Community Seminar
BC 192	Biochemistry Freshman Seminar	KEY 192B	Key Community Seminar
BMS 192	First Year Seminar-Biomed Sci	KEY 192C	Key Community Seminar
BZ 180A1	First-Year Seminar-BZ	KEY 263	Acad. & Career Decision Making
BZ 192	Biol./Zool. First Year Seminar	LIFE162	Bridging Biol/Chem Gulf
CHEM192	Introductory Seminar/Chemistry	MATH192	First Year Sem/Math Sciences
CS 192	First-Yr Seminar-Computr Sci	MIP 192	Microbiology First-YearSeminar
DM 192	Design & Merch First Year Sem	NB 192	Intro. Neuroscience Seminar
ENGR181A1	Engr First Year Seminar	NR 180A1	FRS First Semester Seminar
FSHN180A1	Freshman Seminar	NR 192	First Year Seminar Env Studies
FSHN192	First Year Seminar	NR 193	FRS First Year Seminar
FW 179	New-to-the-Major Seminar	NRRT180A1	New to the Major Seminar
GES 192	GES Seminar	NSCI180A1	CNSLC Seminar
HONR192	Honors First Year Seminar	NSCI181A1	CNS Career Seminar
HONR193	Honors Seminar	PSY 192	First-Year Seminar
IU 170	ACL I: Theories and Skills	PSY 192	Psychology Freshman Seminar
IU 171	ACL II: Social Change Model	SOWK120	Academic and Career Success
IU 172	New Student Seminar	STAT192	First-Year Seminar in Math Sci
IU 175	Public Problem Srvc Learning	STAT192	First-Year Seminar--Statistics
IU 180A5	New Student Seminar	TH 192	Theatre Freshman Seminar
IU 181A2	Career Devplt for Athletes		



Appendix B

Student headcounts across cohorts, seminar status and demographic/academic attributes are shown in Table A.2.

Table A.2

First-Time, Full-Time (FA09-FA16) Headcounts by Cohort/Seminar Status/Attribute								
Term / Seminar Status	Overall	FG	Racially Minoritized	Pell	Male	NonResident	Key	Honors
FA09	4,203	1,032	651	767	1,873	904	317	383
No FY Seminar	2,904	693	392	486	1,378	570	3	4
FY Seminar	1,299	339	259	281	495	334	314	379
FA10	4,369	1,013	721	961	1,925	892	348	349
No FY Seminar	2,867	659	405	597	1,355	529	6	1
FY Seminar	1,502	354	316	364	570	363	342	348
FA11	4,419	1,138	839	1,070	1,963	1,012	349	360
No FY Seminar	3,170	774	480	742	1,528	687	6	1
FY Seminar	1,249	364	359	328	435	325	343	359
FA12	4,449	1,162	860	1,008	1,970	1,119	338	377
No FY Seminar	3,109	787	539	655	1,533	758	6	1
FY Seminar	1,340	375	321	353	437	361	332	376
FA13	4,373	1,048	891	926	1,978	1,135	377	379
No FY Seminar	2,916	679	526	575	1,490	739	1	4
FY Seminar	1,457	369	365	351	488	396	376	375
FA14	4,284	1,018	877	891	1,930	1,178	397	375
No FY Seminar	2,794	617	502	538	1,383	733	4	2
FY Seminar	1,490	401	375	353	547	445	393	373
FA15	4,663	1,194	990	946	2,184	1,411	411	386
No FY Seminar	3,012	750	552	555	1,549	922	3	5
FY Seminar	1,651	444	438	391	635	489	408	381
FA16	4,839	1,077	1,193	983	2,122	1,538	469	394
No FY Seminar	2,876	559	619	513	1,439	932	8	3
FY Seminar	1,963	518	574	470	683	606	461	391
Overall	35,599	8,682	7,022	7,552	15,945	9,189	3,006	3,003



Appendix C

Table C.1 displays the persistence rates that are used to calculate the PP differences in Figure 2.

Table C.1

Fall Persistence Rates by First-Year Seminar Status and Demographic Group Among FTFT Cohorts ¹			
	2 nd Fall Persistence	3 rd Fall Persistence	4 th Fall Persistence
No FY Seminar (Overall)	88.3%	79.2%	54.4%
First Generation	84.7%	73.6%	48.4%
Racially Minoritized	86.3%	75.2%	48.5%
Pell Recipient	84.9%	74.0%	47.5%
FY Seminar (Overall)	91.5%	83.7%	62.3%
First Generation	88.3%	78.4%	52.6%
Racially Minoritized	90.2%	81.2%	56.0%
Pell Recipient	89.9%	80.6%	52.9%

¹ Note: 2nd Fall persistence includes the FA09 through FA16 FTFT cohorts; 3rd Fall persistence includes the FA09 through FA15 FTFT cohorts; 4th fall persistence includes FA09 through FA14 FTFT cohorts. Additionally, all cohorts are limited to students that persist to the start of the spring semester so these rates are higher than the rates typically used for campus discussions.

Table C.1 displays the persistence rates that are used to calculate the PP differences in Figure 3.

Table C.2

Fall Persistence Rates by First-Year Seminar Status and Demographic Group Among Non-Honors and Non-Key FTFT Cohorts ¹			
	2 nd Fall Persistence	3 rd Fall Persistence	4 th Fall Persistence
No FY Seminar (Overall)	88.4%	79.2%	54.5%
First Generation	84.7%	73.7%	48.6%
Racially Minoritized	86.4%	75.3%	48.7%
Pell Recipient	85.0%	74.1%	47.5%
FY Seminar (Overall)	89.6%	79.8%	57.3%
First Generation	85.3%	75.2%	47.6%
Racially Minoritized	86.9%	76.8%	51.2%
Pell Recipient	87.1%	77.5%	48.2%

¹ Note: 2nd Fall persistence includes the FA09 through FA16 FTFT cohorts; 3rd Fall persistence includes the FA09 through FA15 FTFT cohorts; 4th fall persistence includes FA09 through FA14 FTFT cohorts. Additionally, all cohorts are limited to students that persist to the start of the spring semester so these rates are higher than the rates typically used for campus discussions.



Appendix D

Table D.1 displays the graduation rates that are used to calculate the PP differences in Figure 4.

Table D.1

Graduation Rates by First-Year Seminar Status and Demographic Group Among FTFT Cohorts ¹			
	4 YR Graduation	5 YR Graduation	6 YR Graduation
No FY Seminar (Overall)	42.3%	65.8%	68.8%
First Generation	37.0%	57.8%	61.6%
Racially Minoritized	34.7%	57.0%	61.2%
Pell Recipient	36.0%	58.8%	62.9%
FY Seminar (Overall)	53.1%	72.3%	74.8%
First Generation	43.9%	62.2%	63.8%
Racially Minoritized	45.0%	64.8%	67.0%
Pell Recipient	43.8%	63.2%	65.8%

¹ Note: 4 year graduation includes the FA09 through FA11 FTFT cohorts; 5 year graduation includes the FA09 through FA12 FTFT cohorts; 6 year graduation includes FA09 through FA13 FTFT cohorts. Additionally, all cohorts are limited to students that persist to the start of the spring semester so these rates are higher than the rates typically used for campus discussions.

Table D.1 displays the graduation rates that are used to calculate the PP differences in Figure 5.

Table D.2

Graduation Rates by First-Year Seminar Status and Demographic Group Among Non-Honors and Non-Key FTFT Cohorts ¹			
	4 YR Graduation	5 YR Graduation	6 YR Graduation
No FY Seminar (Overall)	42.3%	65.8%	68.8%
First Generation	37.1%	57.9%	61.7%
Racially Minoritized	34.8%	57.1%	61.4%
Pell Recipient	36.0%	58.8%	63.0%
FY Seminar (Overall)	47.2%	66.4%	69.6%
First Generation	40.1%	57.3%	59.5%
Racially Minoritized	40.7%	55.8%	57.5%
Pell Recipient	39.9%	56.9%	58.6%

¹ Note: 4 year graduation includes the FA09 through FA11 FTFT cohorts; 5 year graduation includes the FA09 through FA12 FTFT cohorts; 6 year graduation includes FA09 through FA13 FTFT cohorts. Additionally, all cohorts are limited to students that persist to the start of the spring semester so these rates are higher than the rates typically used for campus discussions.



Appendix E

Table E.1 displays the GPA averages that are used to calculate the grade point differences in Figure 6.

Table E.1

Average Cumulative GPA by First-Year Seminar Status and Demographic Group Among FTFT Cohorts ¹			
	2nd Fall Average Cumulative GPA	3rd Fall Average Cumulative GPA	4th Fall Average Cumulative GPA
No FY Seminar (Overall)	2.90	2.99	3.03
First Generation	2.78	2.90	2.95
Racially Minoritized	2.79	2.89	2.94
Pell Recipient	2.82	2.92	2.99
FY Seminar (Overall)	3.13	3.18	3.21
First Generation	2.94	3.00	3.04
Racially Minoritized	2.95	3.01	3.04
Pell Recipient	2.95	3.02	3.06

¹Note: 2nd Fall measure includes the FA09 through FA16 FTFT cohorts; 3rd Fall measure includes the FA09 through FA15 FTFT cohorts; 4th fall measure includes FA09 through FA14 FTFT cohorts. The data is limited to students that persist to their first spring semester.

Table E.2 displays the GPA averages that are used to calculate the grade point differences in Figure 7.

Table E.2

Average Cumulative GPA by First-Year Seminar Status and Demographic Group Among Non-Honors and Non-Key FTFT Cohorts ¹			
	2nd Fall Average Cumulative GPA	3rd Fall Average Cumulative GPA	4th Fall Average Cumulative GPA
No FY Seminar (Overall)	2.90	2.99	3.03
First Generation	2.78	2.90	2.95
Racially Minoritized	2.79	2.89	2.94
Pell Recipient	2.82	2.92	2.99
FY Seminar (Overall)	2.96	3.02	3.06
First Generation	2.86	2.93	2.98
Racially Minoritized	2.84	2.92	2.98
Pell Recipient	2.84	2.94	3.00

¹Note: 2nd Fall measure includes the FA09 through FA16 FTFT cohorts; 3rd Fall measure includes the FA09 through FA15 FTFT cohorts; 4th fall measure includes FA09 through FA14 FTFT cohorts. Data is limited to students that persist to their first spring semester.



Appendix F

Table F.1 displays the average credits that are used to calculate the credit differences in Figure 8.

Table F.1

Average Credit Accrual by First-Year Seminar Status and Demographic Group Among FTFT Cohorts ¹			
	2nd Fall Average Cumulative Credits	3rd Fall Average Cumulative Credits	4th Fall Average Cumulative Credits
No FY Seminar (Overall)	40.08	68.38	96.31
First Generation	39.44	66.94	94.99
Racially Minoritized	38.88	66.86	94.48
Pell Recipient	39.40	67.21	94.85
FY Seminar (Overall)	41.31	70.88	99.31
First Generation	39.89	68.63	96.99
Racially Minoritized	39.71	68.47	96.73
Pell Recipient	39.89	68.54	96.83

¹Note: 2nd Fall measure includes the FA09 through FA16 FTFT cohorts; 3rd Fall measure includes the FA09 through FA15 FTFT cohorts; 4th fall measure includes FA09 through FA14 FTFT cohorts. Data is limited to students that persist to the start of their first spring semester.

Table F.2 displays the average credits that are used to calculate the credit differences in Figure 9.

Table F.2

Average Credit Accrual by First-Year Seminar Status and Demographic Group Among Non-Honors and Non-Key FTFT Cohorts ¹			
	2nd Fall Average Cumulative Credits	3rd Fall Average Cumulative Credits	4th Fall Average Cumulative Credits
No FY Seminar (Overall)	40.09	68.38	96.30
First Generation	39.45	66.94	94.99
Racially Minoritized	38.89	66.88	94.46
Pell Recipient	39.40	67.21	94.85
FY Seminar (Overall)	39.79	68.97	97.36
First Generation	39.46	67.89	96.38
Racially Minoritized	38.82	67.12	95.54
Pell Recipient	39.89	68.54	96.83

¹Note: 2nd Fall measure includes the FA09 through FA16 FTFT cohorts; 3rd Fall measure includes the FA09 through FA15 FTFT cohorts; 4th fall measure includes FA09 through FA14 FTFT cohorts. Data is limited to students that persist to the start of their first spring semester.