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Report on Data Analysis of Students Fitting Non-Traditional Description

By David Robinson and Kirsten Marucco

March 21, 2018

Part 1 – Analysis of All Enrolled Students

We began with a data set of 5302 students enrolled from Spring 2012 to Spring 2018 who were identified in the data warehouse as having one or more dependents. We further noted in this data whether students met neither, one or both of the following criteria:

1. Age 25 or older at some point during their enrollment through these semesters;
2. Veterans

In this part of the report, students were counted more than once if they had more than one admission status. For example, a student might have enrolled originally as a new undergraduate student, and then after graduating they could have continued on as a graduate student. For the purpose of this part of the report, five different admission codes were used:

1. NEF – new-entering first-year student
2. NET – new-entering transfer student
3. GR – graduate student
4. PD – previous-degree student, taking more undergrad courses
5. SP – special student, non-degree seeking, including PSEO and S2S

Categories of Students with Dependents:

	Count	%
NEF	932	18%
NET	2268	43%
GR	1718	32%
PD	285	5%
SP	99	2%

Students were categorized according to whether or not they were members of the Student Parent Support Center (SPSC).

	Count	%
Member	316	6%
Not Member	4986	94%

In all parts of this report, we compare characteristics SPSC Members and Non-Members. We intentionally do not report p-values to describe the significance of differences between Members and Non-Members, as the number of Members is so small and the number of comparisons so numerous, it is difficult to find any meaningful p-values for subgroup comparisons.

Member		
	Count	%
NEF	76	24%
NET	145	46%
GR	72	23%
PD	17	5%
SP	6	2%

Not Member		
	Count	%
NEF	856	17%
NET	2123	43%
GR	1646	33%
PD	268	5%
SP	93	2%

Over this six-year period, SPSC members were more likely to have been admitted as NEF or NET and less likely to be GR.

Member		
	Count	%
Under 25	62	20%
25 or Above	254	80%

Not Member		
	Count	%
Under 25	665	13%
25 or Above	4321	87%

SPSC Members were less likely to be age 25 or older.

Member		
	Count	%
Veteran	21	7%
Not Veteran	295	93%

Not Member		
	Count	%
Veteran	444	9%
Not Veteran	4542	91%

SPSC Members are slightly less likely to be veterans.

Member		
	Count	%
Veteran; 25 or Above	18	6%
Veteran; Under 25	3	1%
Not Veteran; 25 or Above	236	75%
Not Veteran; Under 25	59	19%

Not Member		
	Count	%
Veteran; 25 or Above	411	8%
Veteran; Under 25	33	1%
Not Veteran; 25 or Above	3910	78%
Not Veteran; Under 25	632	13%

Looking at both age and veteran status, members were more likely to be non-veterans under the age of 25.

This part of the report doesn't include student success analysis. That will be shown in Part 2 of the report.

Part 2 - Further Demographic Analysis Using Only NEF and NET

For the remainder of this report on students with a dependent, we consider only NEF and NET and their student success outcomes. These are the two groups for which student success can be measured. Because the previous data set was not good for measuring retention rates and graduations rates, we changed to a new data set, one that followed all NEF and NET who began between Fall 2007 and Fall 2017 through to graduation. We did not include students who began as an undergraduate and then changed to a graduate student, as we couldn't be sure when the student acquired the Dependent status. We were left with 1651 NEF and NET students in this analysis. Because the data set contains different students from the previous analysis, the numbers of NEF and NET are different from what was shown in Part 1. We start with similar comparisons that were shown in Part 1, but also include additional demographic and student success comparisons.

In the following tables, we find consistent evidence that Members of the SPSC have higher levels of academic success than do the Non-Members.

OVERALL NEF & NET BREAKDOWN		
	Count	%
MEMBER	123	7%
NOT MEMBER	1528	93%

MEMBER		
	Count	%
NEF	40	33%
NET	83	67%

NOT MEMBER		
	Count	%
NEF	411	27%
NET	1117	73%

Members were more likely to be NEF, while Non-Members were more likely to be NET.

GENDER					
MEMBER			NOT MEMBER		
	Count	%		Count	%
Male	32	26%	Male	411	27%
Female	91	74%	Female	1117	73%

Most of the students with dependents were female. There was virtually no gender difference between Members and Non-Members.

	Average QPP Score
MEMBER	69.38
NOT MEMBER	66.50

Members of the SPSC entered SCSU with better high school academic preparation, as measured by QPP, than Non-Members.

ADMIT CATEGORIES					
MEMBER			NOT MEMBER		
	Count	%		Count	%
Honors	4	3%	Honors	8	1%
Regular Admits	91	74%	Regular Admits	1150	75%
Non-Ace at Risk	20	16%	Non-Ace at Risk	302	20%
ACE	8	7%	ACE	68	4%

Non-ACE at Risk students are those with high school GPA below 3.00 but not admitted to the ACE program. These students get less academic support than ACE students. There are proportionally more of them in the Non-Member group, while the Member group has a higher percentage of ACE students.

ACADEMIC QUALITY AFTER ONE SEMESTER					
MEMBER			NOT MEMBER		
	Count	%		Count	%
Normal	107	87%	Normal	1141	75%
Some Risk	3	2%	Some Risk	133	9%
High Risk	13	11%	High Risk	254	17%

After completing one semester, students are classified as being High Risk if they are very likely to go on suspension for a low GPA or not completing enough credits. They are classified as Some Risk if they are somewhat likely to go on suspension. Members of the SPSC have fewer academic problems than Non-Members.

GPA				
MEMBER			NOT MEMBER	
Term	Average		Term	Average
2	3.00		2	2.84
3	3.04		3	2.98
4	3.05		4	2.97
5	3.03		5	2.98
6	3.02		6	2.97
7	2.98		7	2.95
8	3.09		8	2.92
9	3.06		9	2.86
10	3.04		10	2.85
11	2.91		11	2.83
12	2.98		12	2.83

Members have higher average GPAs than Non-Members after all terms in the six-year period under investigation. Members are consistently better academically than Non-Members.

RETENTION RATE				
MEMBER			NOT MEMBER	
Term	Rate		Term	Rate
2	94%		2	84%
3	82%		3	70%
4	83%		4	66%
5	80%		5	56%
6	73%		6	49%
7	73%		7	42%
8	61%		8	34%
9	57%		9	27%
10	42%		10	20%
11	38%		11	17%
12	31%		12	12%

The retention rate of Members is consistently higher than that of Non-Members. These rates are especially meaningful in the first four semesters, before students begin graduating. It is also a signal that Members are taking longer before reaching graduation than are Non-Members. We will see this signal again in the graduation rates.

CREDITS ATTEMPTED				
MEMBER			NOT MEMBER	
Term	Average		Term	Average
2	24.7		2	26.9
3	38.9		3	41.4
4	49.1		4	52.0
5	61.2		5	64.4
6	71.6		6	75.3
7	79.7		7	85.7
8	92.0		8	94.2
9	102.3		9	101.9
10	112.8		10	109.5
11	117.5		11	113.7
12	121.6		12	117.4

Members are attempting fewer credits along the way to graduation, in comparison to Non-Members. This is another sign that they will take longer to graduate.

GRADUATED						
MEMBER				NOT MEMBER		
	Count	%			Count	%
Yes	39	32%		411	27%	
No	84	68%		1117	73%	

Members graduated at a higher rate than Non-Members, in spite of having a larger percentage of NEF who tend to graduate at lower levels than NET. Members are proceeding at a slower pace toward graduation, but they are able to graduate more often.

4-year Degree			6-year Degree		
	Count	Graduation Rate		Count	Graduation Rate
Member	16	23%	Member	19	49%
Not Member	323	28%	Not Member	399	46%

When computing 4-year and 6-year graduation rates, we excluded students who had not yet had opportunity to be enrolled for either 8 semesters (for the 4-year graduation rate) or 12 semesters (for the 6-year graduation rate. For example, a student entering in Fall 2013 would be included in the 4-year graduation rate, but would not be included in the 6-year graduation rate calculation. Again, we see evidence that Members are taking longer to graduate than are Non-Members, because the 4-year rate for Members is lower than that for Non-Members, but the 6-year rate for Members is higher.

GRADUATION RATE				
MEMBER			NOT MEMBER	
Term	Rate		Term	Rate
2	0%		2	0%
3	0%		3	1%
4	0%		4	4%
5	9%		5	10%
6	11%		6	14%
7	15%		7	22%
8	23%		8	28%
9	36%		9	34%
10	40%		10	38%
11	44%		11	44%
12	49%		12	46%

The graduation rate for Members catches up to the graduation rate of Non-Members by Term 9. From Terms 9 to 12, Members are graduating at a higher rate. Overall, Members are achieving more success as measured by these academic outcomes, in comparison to Non-Members.