

# Memo

To: Academic Advising Council  
From: Ryan Allison  
Edited by: Matt Carlton, Statistics Department  
Date: 6/4/2013  
Re: Freshman Success Program

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## Contents

- I. Introduction
- II. Summary
- III. GPA and Academic Probation Results
- IV. Tables of Self-Efficacy Results

## I. Introduction

This memorandum documents the statistical analysis for the Freshman Success Program (FSP) for Winter 2013. The information contained in this memo is meant to assist in measuring the effectiveness of the program in retaining Cal Poly freshmen and increasing GPAs of students on academic probation (AP).

Freshmen who were on AP for their first quarter at Cal Poly (Fall 2012) were required to attend an FSP workshop. Our analysis investigates the effects of the workshop on students' GPAs, retention in spring quarter, AP status, and self-efficacy.

We note that, in total, 263 first-time freshmen were on AP after Fall 2012 (excluding those students who withdrew from the university after the Fall 2012 term; as these students were not retained, they have been removed from analysis). Twenty-seven out of the 263 freshmen did not attend a workshop. Since these students did not receive the workshop "treatment," these students have also been removed from any analysis. This gives a total of 232 students in the analysis.

## II. Summary

Students participating in the FSP workshop experienced a significant increase in mean Winter GPA for all colleges, similar to previous years. Details appear in Section III. Much of the analysis including average GPAs, percent retention to spring quarter, and percent of students getting off academic probation follow similar patterns to FSP participants from previous years.

Additionally, after attending the FSP workshop, participating students showed an overall increase in self-efficacy by several metrics, as described in Section IV. Students overall reported feeling more motivated, attending classes more regularly, and studying more hours per week. Students also indicated an overall increase in their willingness to ask for help, and that they feel better able to balance their lives. Finally, students reported an increased ability to study in the presence of distractions and to stay self-motivated when studying subjects they dislike.

### III. GPA and Academic Probation Results

The following tables describe the change in GPA and in academic probation status that students experienced following the FSP workshop.

<i>Summary Statistics</i>	2013	2012	2011	2010*
Mean Change in GPA	0.500	0.578	0.640	0.563
% Retained into Spring	93.5%	95.2%	93.6%	94.0%
% Off AP	51.7%	47.3%	49.8%	49.0%
Mean Winter Cum GPA	1.882	1.914	1.900	1.990

**Table 1** – Summary statistics for the Winter 2013 FSP participants, and comparative statistics for the Winter 2012 and 2011 FSP participants and the 2010 treatment group.

\*Note: This excludes the 2010 Control Group, as they did not receive a “treatment,” by design.

		Enrolled Spring 2013	Not Enrolled Spring 2013	Total	% Retained
College	CAED	28	2	30	93.33%
	CAFES	65	6	71	91.55%
	CENG	55	2	57	96.49%
	CLA	17	1	18	94.44%
	COSAM	28	2	30	93.33%
	OCOB	24	2	26	92.31%
	Total	217	15	232	93.53%

**Table 2** – Retention data (Spring 2013) for students that participated in the FSP workshop.

Table 3 summarizes the AP status of workshop participants. Note that 120 out of 232 (51.72%) students were able to get off AP at the end of Winter 2013.

<i>AP Breakdown for 2132 Term</i>		Off AP	Still On AP	Total	% Off AP
College	CAED	16	14	30	53.33%
	CAFES	40	31	71	56.34%
	CENG	21	36	57	36.84%
	CLA	10	8	18	55.56%
	COSAM	17	13	30	56.67%
	OCOB	16	10	26	61.54%
	Total	120	112	232	51.72%

**Table 3** – AP status summary (at beginning of Spring 2013) for students that participated in the FSP workshop.

Table 4 shows the mean Fall 2012 term, Winter 2013 term, and Winter 2013 cumulative GPAs of students that participated in the FSP workshop. All colleges showed statistically significant improvements in the mean change in GPA from fall to winter after the FSP Workshop. Note that, as in previous years, the mean winter term GPA (2.040) is significantly higher than for fall (1.540), yet the mean cumulative GPA (1.882) is still low enough to be classified under AP.

		Fall 2012 GPA	Winter 2013 GPA	Cum GPA	Change in term GPA
College	CAED	1.555	2.090	1.951	0.535
	CAFES	1.570	2.157	1.929	0.587
	CENG	1.447	1.691	1.717	0.244
	CLA	1.604	2.188	1.971	0.584
	COSAM	1.506	2.105	1.871	0.599
	OCOB	1.642	2.248	1.988	0.606
	Aggregate	1.540	2.040	1.882	0.500

**Table 4** – GPA summary of FSP participants.

#### IV. Tables of Self-Efficacy Results

The students involved with the FSP workshop were given an online survey in order to assess various dimensions of the students' self-efficacy, life and study habits, and the FSP workshop following attendance at the workshop. The following tables describe students' responses to the questions in the survey. Tables that include "Before Workshop" and "After Workshop" were questions that were asked again following the workshop in order to observe students' increase in self-efficacy. As not all students answered each question, not all frequencies of responses to questions will add to the same amount of students between different tables.

**Table 1:** "Which part of the Freshman Success Program was most effective?"

Response	Frequency	Percent
The presentation at the beginning	27	11.20%
The breakout sessions	137	56.85%
Both were equally effective	77	31.95%

**Table 2:** “What did you find most beneficial from the big session?”

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
<b>More motivated and on track to achieve my academic goals</b>	53	21.99%
<b>Identified resources to improve my study skills</b>	46	19.09%
<b>Reduced anxiety and stress about my academic performance</b>	30	12.45%
<b>Learned how to improve my academic performance</b>	28	11.62%
<b>I didn't get much out of this workshop</b>	26	10.79%
<b>Identified why my grades do not reflect my effort</b>	25	10.37%
<b>Identified ways to achieve my goal GPA</b>	20	8.30%
<b>Learned about relevant policies</b>	10	4.15%

**Table 3:** “What did you find most beneficial from the small breakout session?”

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
<b>Discussion with other students</b>	86	35.98%
<b>The self-evaluation</b>	59	24.69%
<b>Learning about resources</b>	44	18.41%
<b>SMART goals/goal setting</b>	39	16.32%
<b>Nothing</b>	11	4.60%

**Table 4:** “In what area do you think your behavior has changed the most this quarter?”

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
<b>Increased the number of hours spent studying per day</b>	119	49.38%
<b>Managing my time better</b>	71	29.46%
<b>Increased the number of hours of sleep per night</b>	19	7.88%
<b>Increased the number of visits to office hours</b>	16	6.64%
<b>Utilizing campus resources</b>	16	6.64%

**Table 5:** “I feel motivated to focus on school.”

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	89	31.23%	Always	120	49.79%
Sometimes	176	61.75%	Sometimes	116	48.13%
Rarely	20	7.02%	Rarely	5	2.07%

**Table 6:** “I attend my classes regularly.”

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	187	65.61%	Always	195	80.91%
Sometimes	90	31.58%	Sometimes	44	18.26%
Rarely	7	2.46%	Rarely	2	0.83%
Never	1	0.35%	Never	0	0.00%

**Table 7:** “I am able to balance many aspects of my life (such as friends, family, school, work, extracurriculars, etc.).”

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	61	21.40%	Always	86	35.68%
Sometimes	174	61.05%	Sometimes	143	59.34%
Rarely	46	16.14%	Rarely	12	4.98%
Never	4	1.40%	Never	0	0.00%

**Table 8:** “I study even when less important things distract me.”

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	54	18.95%	Always	84	34.85%
Sometimes	180	63.16%	Sometimes	139	57.68%
Rarely	49	17.19%	Rarely	18	7.47%
Never	2	0.70%	Never	0	0.00%

**Table 9:** “When I have to take a test in a subject I dislike I can find a way to motivate myself to earn a good grade.”

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	51	17.89%	Always	104	43.15%
Sometimes	143	50.18%	Sometimes	120	49.79%
Rarely	78	27.37%	Rarely	16	6.64%
Never	13	4.56%	Never	1	0.41%

**Table 10:** “I do not hesitate to ask for help from family members, friends, or other appropriate individuals when needed.”

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	103	36.14%	Always	137	56.85%
Sometimes	124	43.51%	Sometimes	89	36.93%
Rarely	53	18.60%	Rarely	14	5.81%
Never	5	1.75%	Never	1	0.41%

**Table 11:** “I know about the student services offered by Cal Poly and know how to use them.” (Fall 2012 / Winter 2013)

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
Always	56	19.65%	Yes	233	96.68%
Sometimes	131	45.96%	No	8	3.32%
Rarely	78	27.37%			
Never	20	7.02%			

**Table 12:** “On average, how many hours per week do you study?” (Fall 2012) / “So far this quarter, how many hours per week do you study?” (Winter 2013)

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
0-5	20	7.02%	0-5	2	0.83%
5-10	64	22.46%	5-10	17	7.05%
10-15	76	26.67%	10-15	45	18.67%
15-20	72	25.26%	15-20	81	33.61%
20-25	33	11.58%	20-25	56	23.24%
25-30	13	4.56%	25-30	33	13.69%
> 30	7	2.46%	> 30	7	2.90%
Estimated median: 13.84 hours/week			Estimated median: 16.51 hours/week		



**Table 13:** “On average, how many hours do you sleep each night?” (Fall 2012) / “So far this quarter, on average, how many hours do you sleep each night?” (Winter 2013)

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
2-4	14	4.91%	2-4	4	1.66%
4-6	89	31.23%	4-6	56	23.24%
6-8	147	51.58%	6-8	131	54.36%
8-10	33	11.58%	8-10	50	20.75%
> 10	2	0.70%	> 10	0	0.00%
Estimated median: 6.54 hours/night			Estimated median: 7 hours/night		

**Table 14:** “How many times did you attend faculty office hours last quarter?” (Fall 2012) / “So far this quarter, how many times have you been to faculty office hours?” (Winter 2013)

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
0	63	22.11%	0	39	16.18%
1-3	130	45.61%	1-3	110	45.64%
3-6	63	22.11%	3-6	71	29.46%
6-9	20	7.02%	6-9	14	5.81%
9+	9	3.16%	9+	7	2.90%
Estimated median: 1.20 times/quarter			Estimated median: 2.25 times/quarter		

**Table 15:** “How many hours each day do you spend socializing or doing extracurricular activities?” (Fall 2012) / “So far this quarter, how many hours each week do you spend socializing or doing extracurricular activities?” (Winter 2013)

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
< 2	49	17.19%	< 2	15	6.22%
2-4	121	42.46%	2-4	46	19.09%
4-6	83	29.12%	4-6	85	35.27%
6-8	26	9.12%	6-8	46	19.09%
8+	6	2.11%	8+	49	20.33%
Estimated median: 3.54 hours/week			Estimated median: 5.4 hours/week		

**Table 16:** “How many hours each day do you spend watching TV, going on facebook, gaming, etc.?” (Fall 2012) / “So far this quarter, how many hours each week do you spend watching TV, going on Facebook, gaming, etc.?” (Winter 2013)

Before Workshop			After Workshop		
Response	Frequency	Percent	Response	Frequency	Percent
< 2	135	47.37%	< 2	61	25.31%
2-4	108	37.89%	2-4	84	34.85%
4-6	32	11.23%	4-6	57	23.65%
6-8	8	2.81%	6-8	18	7.47%
8+	2	0.70%	8+	21	8.71%
Estimated median: 2.14 hours/day			Estimated median: 3.42 hours/day		