



Office of
Research & Planning

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Research Briefs from the Office of Research and Planning Counseling Service Area Outcomes (SAO) Assessment

Overview: The Crafton Hills College (CHC) Counseling and Student Services Department developed the following Service Area Outcomes (SAO) to help assess the services provided by the department:

- SAO 1 – Non-exempt students who complete the matriculation process (i.e. application, assessment, orientation, and counseling) will be retained in their courses.
- SAO 2 – Non-exempt students who complete the matriculation process (i.e. application, assessment, orientation, and counseling) will persist in college.

This brief illustrates the relationship between participating in matriculation and being retained, successful course completion, and persistence.

In order to help with the process of learning how SAOs work, the following brief provides examples of the Use of Results (see Figures 3 and 4 "5.Use of Results"). **It is important to mention that the examples provided under the "Use of Results" were provided to help understand how the process of assessment works.**

Summary of Findings:

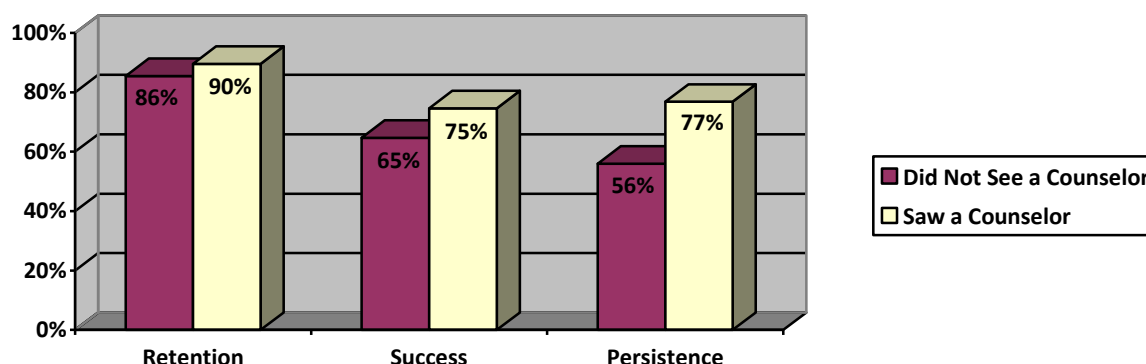
Sample

- Approximately 4,200 students who have earned a GOR have contact with a counselor annually

Counseling (see Figure 1)

- Students who have contact with a counselor are substantially ($ES = .22$) and statistically significantly ($p < .001$) more likely to successfully complete their courses (74.6%) than students who did not have contact with a counselor (64.7%) during the 2009 – 2010 academic year
- Students who have contact with a counselor an average of three times a year are substantially ($ES = .22$) and statistically significantly ($p < .001$) more likely to successfully complete their courses than students who have less than two contacts a year
- Students who had contact with a counselor in Fall 2009 were substantially ($ES = .44$) and statistically significantly ($p < .001$) more likely to persist to Spring 2010 (76.8%) than students who did not see a counselor in Fall 2009 (56.0%)

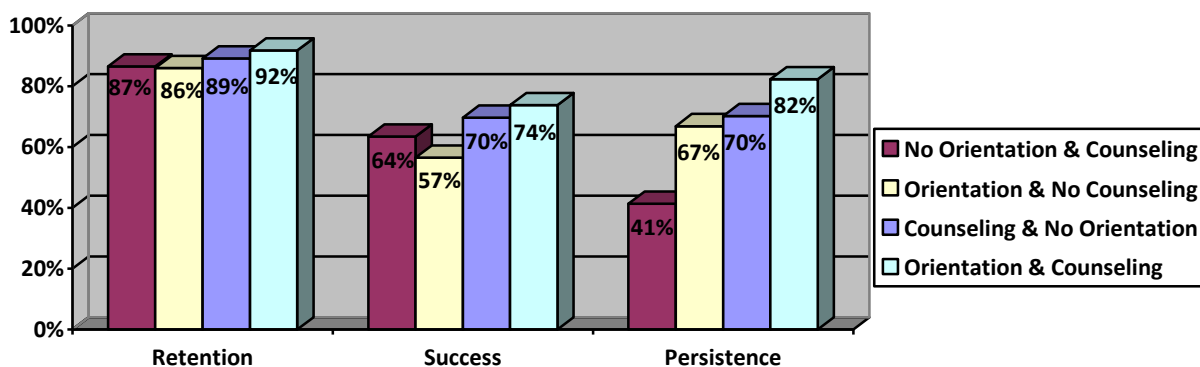
Figure 1: 2009-2010 Retention, Success, and Persistence by Counseling Contact.



Orientation (see Figure 2)

- Students who attend an orientation only are *less* likely to be retained than students who do not attend orientation and do not have a counseling contact
- Students who attend an orientation are statistically significantly *less* likely to successfully complete their courses (56.5%) than students who did not attend an orientation or have a counseling contact (68.7%)
- Unlike retention and success, students who attended an orientation in summer or fall 2009 and earned a GOR in Fall 2009 were substantially ($ES = .53$) and statistically significantly ($p < .001$) more likely to persist to Spring 2010 (66.9%) than students who did not attend an orientation (41.4%)

Figure 2: 2009-2010 Retention, Success, and Persistence by Orientation Attendance.



Methodology: Data from Datatel and SARS Grid was combined to examine the relationship between counseling and orientation to retention, success, and persistence by academic year from 2007 – 2008 to 2009 – 2010. Students who both received counseling within an academic year and earned a grade on record (GOR) within the same year were compared to students who earned a GOR, but did not have a counseling contact.

Counseling contacts within an academic year included student contact with counseling from the end of the spring term to the end of the following spring term in the next year. For instance, students who had contact with a counselor from May 24th, 2007 to May 22nd, 2008 were considered to have contact with a counselor in the 2007 – 2008 academic year. Moreover, students with a location code of "C_COUNSEL" or "C_EOPS" were counted as having contact with a counselor if they attended the session. All of the reason codes for these location codes were included in the analysis except for "ASMNTORIENT," "EMAIL CONTACT," and "STULEFT."

Students were identified as attending orientation if they had a location code of "C_ASMTCNTR" in SARS Grid from May 24th, 2007 to May 19th, 2010. Students were excluded if they were identified as being exempt in Datatel. Exempt status was identified by using the "STMC.OVR.ORIENT.STATUS" field in the "STUDENT.MATRIC" file. The comparison group consisted of students who earned their first GOR at Crafton in the appropriate academic year. Equally important, four categories were created to help illustrate the relationship between orientation and the specified outcomes: those who did not attend an orientation or have contact with a counselor, those who attended an orientation and did not have contact with a counselor, those who had contact with a counselor and did not attend orientation, and those who attended orientation and had contact with a counselor.

Grade on record (GOR) refers to one of the following grades: A, B, C, D, F, CR/P, NC/NP, I, or W. Retention rate is defined as the number of A, B, C, D, F, CR/P, NC/NP, or I grades divided by the number of GOR. Success rate is defined as the number of A, B, C, or CR/P grades divided by the number of grades on record. Persistence rate is defined as the number of students who earned a GOR in the spring semester and the prior fall semester.

The effect size statistic was used to indicate the size of the difference on retention, success, persistence, and number of counseling contacts between those who did and did not have counseling contacts or attend orientation. One method of interpreting effect size was developed by Jacob Cohen. Jacob Cohen defined "small," "medium," and "large" effect sizes. He explained that an effect size of .20 can be considered small, an effect size of .50 can be considered medium, and an effect size of .80 can be considered large. An effect size is considered to be meaningful if it is .20 or higher. Equally important, if the lower end of the effect size confidence interval (CI) is above .20 it indicates that there is a 95% probability that the program or characteristic has a meaningful impact on the outcome. It is important to mention that the number of students in each group does not influence Effect Size; whereas, when statistical significance is calculated, the number of students in each group does influence the significance level (i.e. "p" value being lower than .05).

Sample: Each year approximately 4,200 students who have earned a GOR have contact with a counselor (see Table 1). In addition, in 2009 – 2010 48% of students who earned a GOR had contact with a counselor at least once.

Table 1: Number of Unduplicated Students who had Contact with a Counselor by Academic Year from 2007 - 2008 to 2009 - 2010.

Academic Year	Saw a Counselor	All Students*	Percent who Saw a Counselor
2007-2008	4,138	9,285	44.6%
2008-2009	4,420	9,519	46.4%
2009-2010	4,183	8,711	48.0%

*Number of students who earned a grade on record.

Findings: Retention. Students who had contact with a counselor were statistically significantly ($p < .001$) more likely to be retained in the 2008 – 2009 and 2009 – 2010 academic years than students who did not have contact with a counselor (see Table 2). In addition, students who had contact with a counselor were more likely to be retained than students from the two prior academic years. Specifically, students who had contact with a counselor in 2009 – 2010 had an 89.6% retention rate; whereas, students in 2007 – 2008 had an 86.8% retention rate and students in 2008 – 2009 had an 88.6% retention rate.

Success. Students who had contact with a counselor were statistically significantly ($p < .001$) more likely to successfully complete their course in the 2008 – 2009 and 2009 – 2010 academic years than students who did not have contact with a counselor (see Table 2). In addition, students who had contact with a counselor were both statistically significantly ($p < .001$) and substantially ($ES = .20$) more likely to be successful (74.6%) than students who did not have contact with a counselor (64.7%).

Table 2: Success and Retention Rate for Students who did and did not see a Counselor from 2007-2008 to 2009-2010.

Academic Year and Outcome	Did Not See a Counselor			Saw a Counselor			Effect Size & 95% CI Lower & Upper ES			P-Value
	#	N	%	#	N	%	ES	Lower	Upper	
2007-2008										
Retention	11,660	13,389	87.1	17,332	19,971	86.8	0.00	-0.02	0.02	.425
Success	9,374	13,389	70.0	14,120	19,971	70.7	0.02	0.00	0.04	.177
2008-2009										
Retention	13,416	15,467	86.7	19,699	22,239	88.6	0.06	0.04	0.08	< .001
Success	10,653	15,467	68.9	16,254	22,239	73.1	0.09	0.07	0.11	< .001
2009-2010										
Retention	12,678	14,824	85.5	19,457	21,708	89.6	0.12	0.10	0.14	< .001
Success	9,593	14,824	64.7	16,204	21,708	74.6	0.22	0.20	0.24	< .001

Average Counseling Contacts and Success. In order to help with planning the average number of counseling contacts was calculated for students with non-successful and successful grades (see Table 3). Students with successful grades were substantially ($ES = .24$) and statistically significantly ($p < .001$) more likely to have more counseling contacts ($M = 2.62$) than students who had non-successful grades ($M = 1.92$). The results indicated that students who have three or more counseling contacts are more likely to earn successful grades.

Table 3: Average Number of Counselor Contacts by Success and Academic Year.

Average # of Counseling Contacts	Non-Successful Grades		Successful Grades		Effect Size & 95% CI Lower & Upper ES			p-Value
	N	Mean	N	Mean	ES	Lower	Upper	
2007-2008	9,866	2.18	23,494	2.54	0.09	0.06	0.11	< .001
2008-2009	10,799	1.97	26,907	2.48	0.15	0.13	0.18	< .001
2009-2010	10,735	1.92	25,797	2.62	0.22	0.20	0.24	< .001

Orientation and Retention. Table 4 compares the retention rate of non-exempt students who earned their first GOR at Crafton in the specified academic year by whether they attended orientation and had no counseling contacts, had counseling contacts and no orientation, and had both an orientation and counseling contact to non-exempt students who did not attend orientation and who did not have a counseling contact. In 2009 – 2010 students who attended an orientation and had a counseling contact were substantially ($ES = .19$) and statistically significantly ($p < .05$) more likely to be retained (91.8%) than students who did not attend orientation or have a counseling contact (86.5%). On the other hand, just attending an orientation did not increase the likelihood of students being retained. For instance, in 2008 – 2009 students who had attended an orientation had a statistically significantly ($p < .01$) lower retention rate (84.7%) than students who did not attend orientation or have a counseling contact (87.8%).

Table 4: Retention by Orientation & Counseling Contact & Academic Year from 2007-08 to 2009-10.

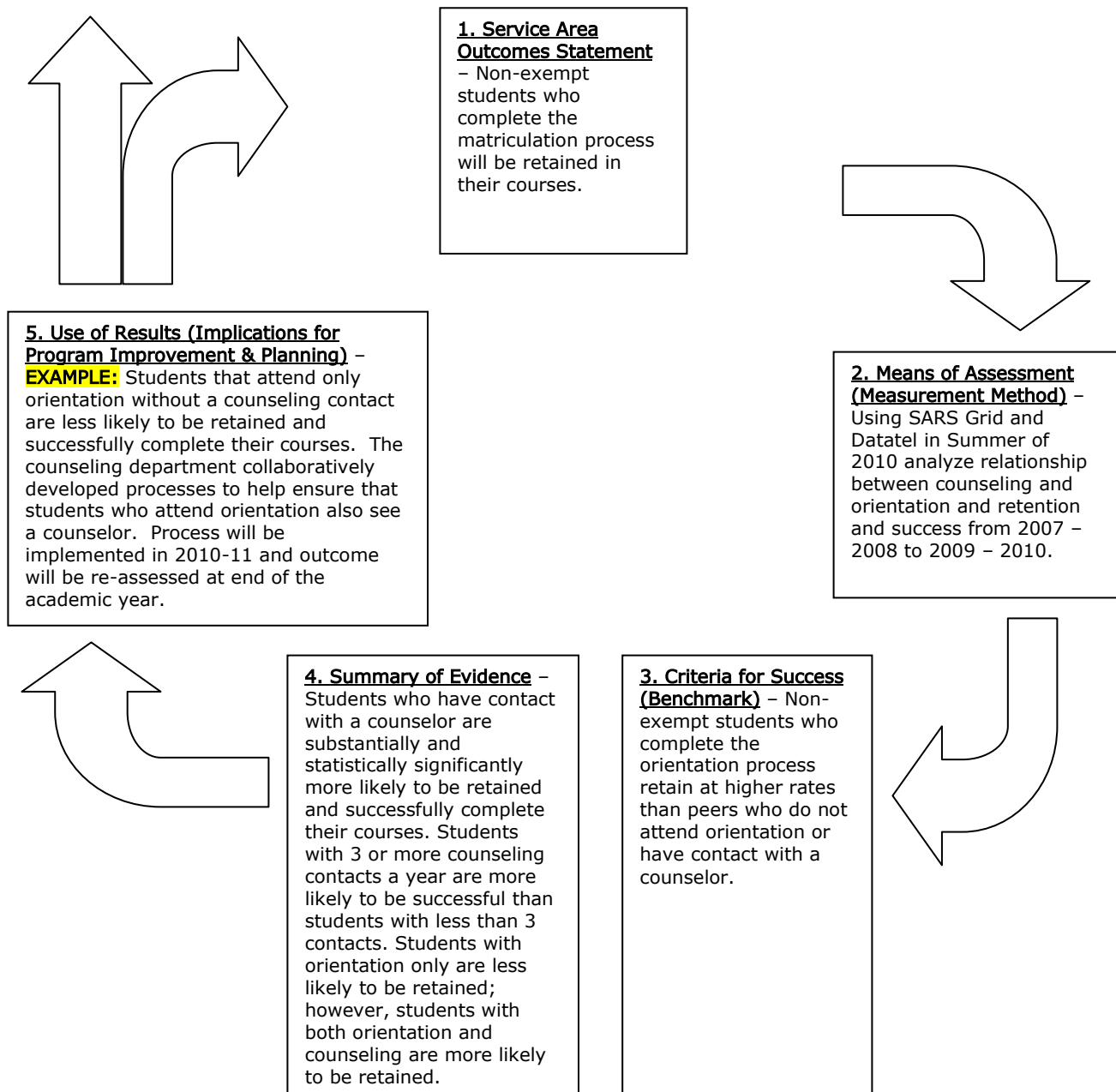
Orientation Categories	Retention			Effect Size & 95% CI Lower & Upper ES			P-Value
	#	N	%	ES	Lower	Upper	
2007-2008							
No Orientation & No Counseling	3,668	4,206	87.2				
Orientation & No Counseling	1,110	1,302	85.3	-0.06	-0.12	0.00	.069
Counseling & No Orientation	4,015	4,666	86.0	-0.03	-0.07	0.01	.108
Orientation & Counseling	1,488	1,682	88.5	0.03	-0.01	0.07	.199
Total	10,281	11,856	86.7				
2008-2009							
No Orientation & No Counseling	3,932	4,478	87.8				
Orientation & No Counseling	1,192	1,408	84.7	-0.09	-0.15	-0.03	.002
Counseling & No Orientation	4,990	5,699	87.6	0.00	-0.04	0.04	.710
Orientation & Counseling	1,528	1,757	87.0	-0.03	-0.09	0.02	.370
Total	11,642	13,342	87.3				
2009-2010							
No Orientation & No Counseling	2,978	3,443	86.5				
Orientation & No Counseling	1,239	1,441	86.0	0.00	-0.06	0.06	.607
Counseling & No Orientation	4,399	4,933	89.2	0.09	0.05	0.14	< .001
Orientation & Counseling	2,230	2,430	91.8	0.19	0.14	0.24	< .001
Total	10,846	12,247	88.6				

Orientation and Success. Table 5 compares the success rate of non-exempt students who earned their first GOR at Crafton in the specified academic year by whether they attended orientation and had no counseling contacts, had counseling contacts and no orientation, and had both an orientation and counseling contact to non-exempt students who did not attend orientation and who did not have a counseling contact. Students who only attended the orientation were consistently less likely to successfully complete their courses in the academic year when they attended the orientation from 2007 – 2008 to 2009 - 2010 than students who did not attend an orientation or have a counseling contact. Conversely, in 2009 – 2010 students who attended an orientation and had a counseling contact were substantially (ES = .22) and statistically significantly ($p < .001$) more likely to successfully complete their courses (73.8%) than students who did not attend an orientation or have a counseling contact (63.5%).

Table 5: Success by Orientation and Counseling Contact and Academic Year from 2007 – 2008 to 2009 – 2010.

Orientation Categories	Success			Effect Size & 95% CI Lower & Upper ES			p- Value
	#	N	%	ES	Lower	Upper	
2007-2008							
No Orientation & No Counseling	2,839	4,206	67.5				
Orientation & No Counseling	731	1,302	56.1	-0.23	-0.29	-0.17	< .001
Counseling & No Orientation	3,082	4,666	66.1	-0.02	-0.06	0.02	.152
Orientation & Counseling	1,090	1,682	64.8	-0.04	-0.10	0.01	.049
Total	7,742	11,856	65.3				
2008-2009							
No Orientation & No Counseling	3,076	4,478	68.7				
Orientation & No Counseling	838	1,408	59.5	-0.19	-0.25	-0.13	< .001
Counseling & No Orientation	3,860	5,699	67.7	-0.02	-0.06	0.02	.307
Orientation & Counseling	1,121	1,757	63.8	-0.11	-0.16	-0.05	< .001
Total	8,895	13,342	66.7				
2009-2010							
No Orientation & No Counseling	2,188	3,443	63.5				
Orientation & No Counseling	814	1,441	56.5	-0.16	-0.23	-0.10	< .001
Counseling & No Orientation	3,438	4,933	69.7	0.13	0.08	0.17	< .001
Orientation & Counseling	1,794	2,430	73.8	0.22	0.16	0.27	< .001
Total	8,234	12,247	67.2				

Figure 3: SAO Assessment Cycle Diagram for SLO 1: Non-exempt students who complete the matriculation process will be retained in their courses.



Persistence and Counseling. Students who had a counseling contact in Fall 2007, Fall 2008, and Fall 2009 were substantially ($ES > .20$) and statistically significantly ($p < .001$) more likely to persist to the subsequent spring semester than students in the same fall term who did not have contact with a counselor (see Table 6). Specifically, students who had contact with a counselor in Fall 2009 were more likely to persist to Spring 2010 (76.8%) than students who did not see a counselor in Fall 2009 (56.0%).

Table 6: Fall to Spring Persistence Rate for Students who did and did not see a Counselor from 2007 – 2008 to 2009 - 2010.

Persistence	Did Not See a Counselor			Saw a Counselor			Effect Size & 95% CI Lower & Upper ES			P-Value
	#	N	%	#	N	%	ES	Lower	Upper	
FA07 to SP08	1,961	3,651	53.7	1,412	1,919	73.6	0.42	0.36	0.47	< .001
FA08 to SP09	2,462	4,253	57.9	1,490	1,877	79.4	0.45	0.39	0.50	< .001
FA09 to SP10	2,385	4,259	56.0	1,678	2,186	76.8	0.44	0.39	0.50	< .001

Persistence and Orientation. Unlike retention and success, non-exempt first-time GOR earners at Crafton who attended an orientation during the summer or fall term in 2007, 2008, or 2009 were substantially ($ES > .20$) and statistically significantly ($p < .001$) more likely to persist to the subsequent spring semester than non-exempt first-time GOR earners in the same fall term who did not attend an orientation (see Table 7). As an illustration, students who attended an orientation in summer or fall 2009 and earned a GOR in Fall 2009 were more likely to persist to Spring 2010 (66.9%) than non-exempt first-time GOR earners in the same fall term who did not attend an orientation (41.4%).

Table 7: Fall to Spring Persistence Rate for Students who did and did not attend an Orientation from 2007 – 2008 to 2009 - 2010.

Persistence	Did Not Attend Orientation			Attended Orientation			Effect Size & 95% CI Lower & Upper ES			P-Value
	#	N	%	#	N	%	ES	Lower	Upper	
FA07 to SP08	263	732	35.9	153	240	63.7	0.58	0.43	0.73	< .001
FA08 to SP09	332	805	41.2	159	252	63.1	0.45	0.31	0.59	< .001
FA09 to SP10	286	691	41.4	168	251	66.9	0.53	0.39	0.68	< .001

Figure 4: SLO Assessment Cycle Diagram for SLO 2: Non-exempt students who complete the matriculation process will persist.

