

## **Cut-Score Update for Math 952, 090,095, 102**

**September, 2011**

The purpose of this report is to provide an update to the ongoing evaluation of Accuplacer test cut-scores for SBVC math courses. Accuplacer was employed as the exclusive test for placing SBVC students during the 2009-10 academic year. The initial cut-scores were adopted From Crafton Hills College (CHC). These cut-scores were used for student placement during the trial period and in the first stage of use. Math cut-scores were revised in May of 2010. They are no longer the same as CHC— although SBVC continues to accept CHC placements and a small number of the students with the lower placement scores were tested at CHC . This report focuses on the effectiveness of the cut-scores that were revised in May, 2010.

Because three semesters of survey data are required to validate the cut-scores, this report has not recommendations. Only one semester of surveys have been conducted with the current cut-scores. The percentage of students who are in the sections as a result of placement with the current cut-scores has increased every semester following the revisions. The next wave of survey respondents should have a much larger percentage than the previous administration.

### **Methodology:**

Placement and prerequisite surveys were administered to nearly all sections of Math during the Fall 2011 term. The courses included in this report are: Math 952, Math 090, Math 095, and Math 102. Only a small percentage of students in courses for fall 2010 and spring 2011 were placed directly from the Accuplacer test. Most students were in the courses as a result of previous tests, previous accuplacer cut scores, or after taking the prerequisites.

Grades and Accuplacer scores were downloaded from the datatel warehouse for all students who enrolled in Math courses between Fall 2010 and Spring 2011. Assessment test scores were groups into categories that included the current cut scores as one of the interval end points. The categories that contain endpoints are underlined and contain bold type in the tables below.

### **Findings**

An examination of pass rates and survey results available at this stage suggests that the cut-scores for math 952, Math 090, and Math 095 are sufficiently high to match students to the appropriate skill level. Additional data will be analyzed as it comes available. Surveys are scheduled for Fall 2011 and Spring 2011. With the results of these surveys and grades from each semesters since the new cut-scores were adopted in May 2010, there will be sufficient data to make final recommendations.

In most of the courses examined, the pass rate for students placed by the Accuplacer exam is significantly higher than the overall pass rate for all enrolled students. Previous research has shown that students who enroll in placement courses within one semester of taking the assessment are more likely to complete the course with a passing grade than those who wait two or more semesters to enroll in the course.

At this stage, there is clear evidence that the multiple measures survey is an effective tool for placing students who fall below the minimum cut-scores. For example students who fall below the minimum cut score Math 942 actually do better than students who score above the cut-score.

**Math 952 Grades (2011 GSP = 63%)**

Accuarith score intervals			Frequency	Percent	Valid Percent	Cumulative Percent
0 to 51	Valid	1	26	40.0	40.0	40.0
		2	18	27.7	27.7	67.7
		3	9	13.8	13.8	81.5
		4	1	1.5	1.5	83.1
		5	5	7.7	7.7	90.8
		6	6	9.2	9.2	100.0
	Total	65	100.0	100.0		
<u>52 to 62</u>	Valid	1	55	35.3	35.3	35.3
		2	49	31.4	31.4	66.7
		3	18	11.5	11.5	78.2
		4	4	2.6	2.6	80.8
		5	12	7.7	7.7	88.5
		6	18	11.5	11.5	100.0
	Total	156	100.0	100.0		
63 to 75	Valid	1	37	35.9	35.9	35.9
		2	24	23.3	23.3	59.2
		3	9	8.7	8.7	68.0
		4	6	5.8	5.8	73.8
		5	12	11.7	11.7	85.4
		6	15	14.6	14.6	100.0

		Total	103	100.0	100.0	
76 to 100	Valid	1	57	66.3	66.3	66.3
		2	15	17.4	17.4	83.7
		3	3	3.5	3.5	87.2
		4	1	1.2	1.2	88.4
		5	5	5.8	5.8	94.2
		6	5	5.8	5.8	100.0
		Total	86	100.0	100.0	
101 to 125	Valid	1	15	83.3	83.3	83.3
		5	1	5.6	5.6	88.9
		6	2	11.1	11.1	100.0
		Total	18	100.0	100.0	

Students with low test scores who received A grades								
StuID	Test	Test date	Placement course	score	Term	Enrolled course	GRADE	SECTION
0955588	VACCUARITH	06/24/10	MATH-952	47	2010SM	MATH-952	A	03
0833457	VACCUARITH	08/30/10	MATH-952	47	2010FA	MATH-952B	A	02
0945371	VACCUARITH	07/13/10	MATH-952	48	2010FA	MATH-952	A	03
0911731	VACCUARITH	05/14/10	MATH-952	48	2010FA	MATH-952	A	13
0883391	VACCUARITH	01/25/10	MATH-952	48	2010FA	MATH-952	A	17
0683340	VACCUARITH	07/20/10	MATH-952	48	2010FA	MATH-952	A	09
0574813	VACCUARITH	01/12/10	MATH-952	48	2011SM	MATH-952	A	01
0962303	VACCUARITH	07/12/10	MATH-952	49	2010FA	MATH-952	A	03
0948906	VACCUARITH	06/16/10	MATH-952	49	2010SM	MATH-952	A	03
0939645	VACCUARITH	12/13/10	MATH-952	49	2011SP	MATH-952	A	21
0874856	VACCUARITH	01/15/10	MATH-952	49	2010SP	MATH-952	A	16
0825069	VACCUARITH	02/22/10	MATH-952	49	2010SM	MATH-952	A	01
0693768	VACCUARITH	06/23/10	MATH-952	49	2010FA	MATH-952	A	11
0538910	VACCUARITH	12/15/09	MATH-952	49	2010SP	MATH-952	A	07
0597711	VACCUARITH	07/01/10	MATH-952	49	2010FA	MATH-952	A	01
1035520	VACCUARITH	01/08/11	MATH-952	50	2011SP	MATH-952	A	16
0977558	VACCUARITH	12/14/10	MATH-952	50	2011SP	MATH-952	A	16

0841571	VACCUARITH	11/18/09	MATH-952	50	2010SP	MATH-952	A	08
0768816	VACCUARITH	01/06/10	MATH-952	50	2010SP	MATH-952	A	12
0682298	VACCUARITH	12/07/09	MATH-952	50	2010SP	MATH-952	A	08
0630622	VACCUARITH	12/22/09	MATH-952	50	2011SP	MATH-952	A	21
0953733	VACCUARITH	08/12/10	MATH-952	51	2010FA	MATH-952	A	02
0951423	VACCUARITH	07/15/10	MATH-952	51	2010FA	MATH-952	A	03
0938606	VACCUARITH	07/01/10	MATH-952	51	2010FA	MATH-952	A	02
0844394	VACCUARITH	11/20/09	MATH-952	51	2010SP	MATH-952	A	50
0621042	VACCUARITH	01/20/10	MATH-952	51	2010FA	MATH-952	A	01

**Math 090 (GSP =64%)**

MATH-090	recode of comment	Frequency	Percent	Cumulative Percent	
MATH-090	35 or less	A	9	25.7	25.7
		B	4	11.4	37.1
		C	9	25.7	62.9
		D	2	5.7	68.6
		F	4	11.4	80.0
		W	7	20.0	100.0
		Total	35	100.0	
36 to 48		A	23	20.5	20.5
		B	25	22.3	42.9
		C	17	15.2	58.0
		D	6	5.4	63.4
		F	19	17.0	80.4
		W	22	19.6	100.0
		Total	112	100.0	
49 to 60		1	70	19.8	19.8
		2	74	21.0	40.8
		3	70	19.8	60.6
		4	27	7.6	68.3
		5	57	16.1	84.4
		6	54	15.3	99.7
		9	1	.3	100.0
		Total	353	100.0	

61 or higher	1	20	24.1	24.1
	2	18	21.7	45.8
	3	19	22.9	68.7
	4	8	9.6	78.3
	5	13	15.7	94.0
	6	5	6.0	100.0
	Total	83	100.0	