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AUTHOR Bashford, Joanne

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ABSTRACT

This information capsule explores the effectiveness of score ranges on the Computerized Placement Test (CPT), used to assess the skills of entry-level students at Miami-Dade Community College and place first-time-in-college students in classes. Data are provided for students entering in Fall terms 1996 and 1997 showing the number of students placed into each college preparatory or entry-level course by COT score range, along with the percentage of students who passed the courses. The score ranges were adjusted beginning in July 1, 1997 to reflect new state standards for exemption from preparatory coursework. For most of the courses reported, the percentage of students passing increased, indicating that the adjusted score ranges may have been more effective in matching students' skill levels with courses, although other factors may have also contributed. Tables report results for four different classes: reading, English composition, college preparatory mathematics, and college level mathematics. Contains 9 tables. (NB)

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Placement Decisions for First-Time-in-College Students Using the Computerized Placement Test

Joanne Bashford

Miami-Dade Community College

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INFORMATION CAPSULE

I.C. No. 98-12C August 1998 Placement Decisions for First-Time-in-College Students **Using the Computerized Placement Test** Summary This capsule explores the effectiveness of the Computerized Placement Test score ranges used at Miami-Dade Community College to place first-time-incollege students in courses. Data are provided for students entering in Fall Terms 1996 and 1997 showing the number of students placed into each college preparatory or selected entry-level college course by CPT score range and the percent of students passing the courses. The score ranges were adjusted for students testing on or after July 1, 1997 to reflect the new statewide cut scores for exemption from college preparatory coursework. For most of the courses reported, the percent of students passing the courses into which they were placed increased. While this change suggests that the score ranges used for placement in 1997 may have been more effective in matching students' skill levels with courses, other factors may also have contributed. Miami-Dade Community College uses the Computerized Placement Test developed Background by the College Board to assess the entry-level skills of degree-seeking students. The test provides an estimate of students' basic skills prior to enrollment in courses. Students are required to take the reading, writing and algebra subtests, with an arithmetic subtest also administered to students scoring into college preparatory level mathematics. Passing scores which exempt students from college preparatory coursework are prescribed in Florida Statute 240.117 Rule 6A-10.0315, FAC. The score ranges used for placement into specific college preparatory courses as well as specific college level mathematics courses are determined institutionally and distributed annually to the college community in the form of the Placement Criteria Document. To be effective, the score ranges used for placement should adequately reflect the skill level required for the specific course curriculum. This capsule explores how well the placement score ranges serve the purpose of placing students into courses of appropriate difficulty. Information on first-time-in-college students was gathered from Institutional Method Research student data files using SAS programming. CPT scores, initial course placements, and end of course outcomes were recorded for each student. For the English and reading subject areas only Fall Term course records were included. Since many students postpone taking mathematics courses, course records for Winter Terms were also searched for this subject area to find as many students as possible enrolled in their first mathematics course.



those with placement test scores for tests other than the CPT.

Courses with at least 25 students enrolled from a given score range are included in the tables. Students auditing courses were excluded from the analysis, as were

Results

Data presented in Tables 1 - 4 illustrate the success rate of students in each course by score range increments. Table 5 shows the CPT score ranges used for placement in 1996-1 and 1997-1. The placement ranges for reading, English, and college level mathematics were broken down further to explore any differences in passing rates for students scoring in the lower end of the range as opposed to the upper end.

Tables 1a and 1b show reading course results. For courses except REA 1105 the percent of students passing was higher in Fall Term 97-1 compared with Fall Term 96-1. The change in CPT score range used to place students into REA 0002 from 44-71 to 51-70 appears to have had a positive impact on the percent of students passing the course with 52% of total students passing in Fall Term 96-1 compared with 71% in Fall Term 97-1. For REA 0001, students scoring in the low end of the range (26-34) were much less likely to pass the course (47% passed in 96-1 and 53% in 97-1) than students scoring in the high end of the range (71% in 96-1 and 77% in 97-1).

Tables 2a and 2b show English course results. The percent of students passing all courses except ENC 1101 was higher in Fall Term 97-1 than in Fall Term 96-1. For ENC 0002 the score range was expanded from 26-47 for Fall Term 96-1 to 26-50 for Fall Term 97-1 with an accompanying increase in students passing from 48% to 68%. The score range for ENC 0020 was reduced from 48-77 for Fall Term 96-1 to 51-70 for Fall Term 97-1. Interestingly, even with this narrower range, the percent of students passing the course increased from 57% in 96-1 to 73% in 97-1. The statewide cut score used to exempt students from college preparatory courses was increased from 78 to 83; however, M-DCC had previously used a score of 89 to place students directly into college level English courses. Therefore, the cut score was effectively lowered for M-DCC students. This change resulted in a lower passing rate for students placed into ENC 1101 by their CPT scores (67% in Fall Term 96-1 and 65% in Fall Term 97-1).

Tables 3a and 3b show college preparatory mathematics placement results for Fall and Winter Terms 1996 and 1997. The score ranges used to place students into these courses were the same for both years but the percent of students passing each of the courses increased in 1997. The largest increase was observed in MAT 0024 (49% in 1996 to 58% in 1997).

Placement results for college level mathematics courses are shown in Tables 4a and 4b. The only change in the placement score ranges for these courses is in the 72-80 range where MGF 1113 was added as an alternative to placement in MAT 1033 for students testing on or after July 1, 1997. Very few first-time-in-college students were placed directly into MGF 1113 however. Modest increases in the percent of students passing MAT 1033 and MAC 1102 were observed from 1996 to 1997. Within the score ranges the percent passing each course increased as the score level increased. Less than half of the students who scored in the low end of the score range (61-71) and took MAT 1033 passed the course.

The new score ranges went into effect for students testing on or after July 1, 1997 and therefore a number of students were placed into courses using the 1996 score ranges. While the percent of students passing most courses increased in 1997, it is not clear whether the success rate was influenced primarily by the new score ranges or other factors (SLS enrollment, possible curriculum changes, etc.). The results presented here will be updated periodically for a continuing analysis of the use of the CPT in course placement decisions.

Joanne Bashford: ab

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College Preparatory Reading Placement 96-1* Percent Passing With 'S' or 'C' and Above **Using the Computerized Placement Test** Table 1a

REA 1105		; ;		65% 26	68% 381	67%
Course REA 0002			46%	57% 963		52% 1,641
REA 0001	47% 250	71% 259				60%
CPT	26 - 34 % Passed No. Placed	35 - 43 % Passed No. Placed	44 - 57 % Passed No. Placed	58 - 71 % Passed No. Placed	72 - 77 % Passed No. Placed	Total % Passed No. Placed**

*Excludes students auditing courses and courses with less that 25 students enrolled from score range.

**Total includes all students from all score ranges even if less

than 25 enrolled from the score range.

Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

College Preparatory Reading Placement 97-1* Percent Passing With 'S' or 'C' and Above Using the Computerized Placement Test Table 1b

CPT		Co	Course	
Score	REA 0001	REA 0002	REA 0010	REA1105
26 - 34 % Passed	53%			
No. Placed	180			
				:
35 - 50 % Passed	77%	%99		
No. Placed	403	91		
51 - 601% Passed		65%		
No. Placed		469		
Lange 10 10 10 10 10 10 10 10 10 10 10 10 10		7924	7001	1
nassed % Lassed		%//	%8/	
No. Placed		669	4.2	
71 - 82 % Passed		63%	%69	%69
No. Placed		49	536	127
% Passed	402	71%	%89	%29
Total No. Placed**	618	1,234	009	145

Excludes students auditing courses and courses with less that 25 students enrolled from score range.

**Total includes all students from all score ranges even if less than 25 enrolled from the score range. Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

College Preparatory English Placement 96-1* Percent Passing With 'S' or 'C' and Above **Using the Computerized Placement Test** Table 2a

1		COI	Course		CPT		
_	ENC 0002	ENC 0020	ENC 1130	ENC 1101	Score	ENC 0002	ENC 0020
Ī	34% 209				26 - 36 % Passed No. Placed	56% 139	
ł	59% 233	39% 41			37 - 50 % Passed No. Placed	74% 254	72%
1		52% 526		Transcription of the Control of the	51 - 60 % Passed No. Placed		72%
I		62% 845	85% 34		61 - 70 % Passed No. Placed		73%
I			72% 753	68%	71 - 82 % Passed No. Placed		76%
l				67% 1,181	83+ % Passed No. Placed		
% Passed No. Placed**	48% 479	57% 1,456	73% 818	67% 1,261	Total % Passed No. Placed**	68%	73%
≒	ing courses	and courses v	*Excludes students auditing courses and courses with less than 25 students	25 students	*Excludes students auditing courses and courses with	diting courses a	nd courses wif

enrolled from score range.

Note: Students who were placed in appropriate courses based on the guidelines

shown in Table 5 are highlighted in bold.

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College Preparatory English Placement 97-1* **Using the Computerized Placement Test** Percent Passing With 'S' or 'C' and Above Table 2b

		Percent Pas	Percent Passing With 'S' or 'C' and Above	or 'C' and Ak	ove	
CPT				Course		
Score		ENC 0002	ENC 0020	ENC 0021	ENC 1130	ENC 1101
26 - 36	26 - 36 % Passed No. Placed	56% 139				
37 - 50	37 - 50 % Passed	74%	72%			
	No. Placed	254	43			
51 - 60	51 - 60 % Passed		72%			
	No. Placed		254			
61 - 70	61 - 70 % Passed		73%	:		
	No. Placed		392			
71 - 82	71 - 82 % Passed		76%	64%	81%	71%
	No. Placed		129	430	110	28
83+	83+ % Passed				%22	65%
	No. Placed				93	1,286
Total	% Passed	%89	73%	63%	80%	65%
	No. Placed**	419	835	478	205	1,325
* 1	10					

h less than 25 students enrolled from score range. Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

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^{**}Total includes all students from all score ranges even if less than 25 enrolled from the score range.

^{**}Total includes all students from all score ranges even if less than 25 enrolled from the score range.

College Preparatory Mathematics Placement 1996* Using the Computerized Placement Test and Percent Passing with 'S' Table 3a

MAT 0024	1996	:		42%
Course MAT 0012	1996	25% 80	32%	43%
MAT 0003	1996	38%	59%	69% 32
,	•	% Passed No. Placed	% Passed	% Passed No. Placed
Algebra Arithmetic	Score	19 - 29	30 - 47	48 - 120
Algebra	Score		70.	

		62% 350	49% 1,049
	62%	68%	40%
78%	62% 50		50% 882
% Passed No. Placed	% Passed No. Placed	% Passed No. Placed	% Passed No. Placed**
19 - 29	30 - 47	48 - 120	Total
	46 - 60		•

*Data are for first Math course taken by first-time-in-college students Fall or Winter Terms of given year. Excludes students auditing courses, and courses with less than 25 students enrolled from score range.

**Total includes all students from all score ranges even if less than 25 enrolled from the score range.

Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

6: AB98019.XLSSheet2

Table 3b College Preparatory Mathematics Placement 1997*	and Percent Passing with 'S'	Using the Computerized Placement Test
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Course

19-29 % Passed 46% 38% 1397 1397 1397 1397 1397 1397 1397 1397	Algebra	Algebra Arithmetic	•	MAT 0003	MAT 0012	MAT 0024
19 - 29 % Passed 46% 38% 30 - 47 % Passed 57% 37% 48 - 120 % Passed 56 19 - 29 % Passed 67% 56 30 - 47 % Passed 76% 48 - 120 % Passed 88 48 - 120 % Passed 88 Total % Passed 52% No. Placed 52% 46% Total % Passed 52% No. Placed** 499 597	2000	2000		1881	1881	1881
30 - 47 % Passed 57% 37% 357		19 - 29	% Passed No. Placed	46% 315	38%	
48 - 120 % Passed 56 19 - 29 % Passed 67% 30 - 47 % Passed 76% 48 - 120 % Passed 88 Total % Passed 88 No. Placed 86 No. Placed 52% 46% No. Placed** 499 597	20 - 45	30 - 47	% Passed No. Placed	57%	37% 357	
19 - 29 % Passed 67% 30 - 47 % Passed 27 30 - 47 % Passed 88 48 - 120 % Passed 88 Total % Passed 52% 46% No. Placed** 499 597		48 - 120	% Passed No. Placed		59% 56	51% 404
30 - 47 % Passed 76% No. Placed 88 48 - 120 % Passed No. Placed 52% 46% Total % Passed 52% 46%		19 - 29	% Passed No. Placed	67%		
% Passed No. Placed	46 - 60	30 - 47	% Passed No. Placed	!	76% 88	i
% Passed 52% 46% No. Placed** 499 597		48 - 120	% Passed No. Placed			71%
	•		% Passed No. Placed**	52% 499	46%	58% 674

*Data are for first Math course taken by first-time-in-college students Fall or Winter Terms of given year. Excludes students auditing courses, and courses with less than 25 students enrolled from score range.

**Total includes all students from all score ranges even if less than 25 enrolled from the score range. Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

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Table 4a
College-Level Mathematics Placement 1996*
and Percent Passing With 'C' or Above
Using the Computerized Placement Test

Using the Computenzed riacement rest	MAT 1033 MAC 1102 MGF 1113**	1996	20 - 45 (Tested on Arithmetic and placed into College Preparatory)	29%	34	6 41%	366 44	33%	3 58	78% 48%	58 152	77% 58%	127	%19	81	88%	32	50% 53%	
Using the Compu	Algebra		20 - 45 (Tested on Arithmetic		No. Placed	61 - 71 % Passed 41%	No. Placed 3	72 - 80 % Passed 56%	No. Placed 203	81 - 90 % Passed 7	No. Placed	91 - 100 % Passed 7	No. Placed 26	101 - 110 % Passed	No. Placed	111 - 120 % Passed	No Placed	Total % Passed 5	No. Placed***

^{*}Excludes students auditing courses and courses with less than 25 students enrolled from score range.

Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

Table 4b
College-Level Mathematics Placement 1997*
and Percent Passing With 'C' or Above
Using the Computerized Placement Test

^{*}Excludes students auditing courses and courses with less that 25 students enrolled from score range.

Note: Students who were placed in appropriate courses based on the guidelines shown in Table 5 are highlighted in bold.

^{**1996} data excluded due to less than 25 students placed from any score

^{***}Total includes all students from all score ranges even if less than 25 enrolled from the score range.

^{**}Total includes all students from all score ranges even if less than 25 enrolled from the score range.

Table 5 1998-99 COURSE PLACEMENT GUIDE (1)

Students placing into college preparatory course work in one skill area are required to enroll concurrently in SLS 1505; two or more skill areas are required to enroll concurrently in SLS 1535.

CPT		CPT	
Scores	Placement Required	Scores	Placement Required
	Read		- idealistic (todanou
(Tested B	lefore July 1, 1997)		997 - June 30, 1999)
26 - 43	(2)REA 0001	26 - 50	⁽²⁾ REA 0001
44 - 71	REA 0002	51 - 70	REA 0002
72 - 77	REA 1105	71 - 82	REA 0010 *
78 - 120	None Required	83 - 120	None Required
100 - 120	⁽³⁾ Honors Option	100 - 120	(3)Honors Option
	<i>Writi</i> i	ng	
(Tested B	efore July 1, 1997)	(Tested July	1, 1997 - June 30, 1999)
26 - 47	ENC 0002	26 - 50	ENC 0002
48 - 77 78 - 99	ENC 0020	51 - 70	ENC 0020
78 - 88	ENC 1130	71 - 82	ENC 0021 *
89 - 120	ENC 1101	83 - 120	ENC 1101
100 - 120	(3)Honors Option	100 - 120	(3)Honors Option
Placement may h	Mathem e based on a combination of tests.	atics	
scoring below the	e noted score on the Algebra test and	d determine placem	e required for students ent for those students
	(Tested July 1, 1996	- June 30, 199	7)
Algebra Scores	Arithmetic Scores		Required Placement
20 - 60 _	19 - 29		MAT 0003
	30 - 47		MAT 0003 or MAT 0012
	48 - 120		MAT 0012 or MAT 0024
61 - 80 _	NO SECOND TEST		MAT 1033 **
81 - 120 _	NO SECOND TEST	Rec	ommended Placement
			1102, MGF 1113 or higher
	(Tested July 1, 1997	- June 30, 199	8)
Algebra Scores	Arithmetic Scores		Required Placement
20 - 60 _	19 - 29 30 - 47		MAT 0003
	48 - 120		MAT 0003 or MAT 0012
	40 - 120		MAT 0012 or MAT 0024
61 - 71 _	Not Required		MAT 1033 **
		Rec	ommended Placement
72 - 80 —	Not Required		MAT 1033 or MGF 1113 **
81 - 120 <u> </u>	Not Required	⁽⁴⁾ MAC	1102. MGF 1113 or higher
	(Tested on or Afte	erJuly 1, 1998)	
Algebra Scores 20 - 71	Arithmetic Scores		Required Placement
20-71 _	19 - 29 30 - 47		MAT 0003
	30 - 47 48 - 120		MAT 0003 or MAT 0012 MAT 0012 or MAT 0024
	40 - 120		WAT 00 12 OF WAT 0024
		Rec	ommended Placement
72 - 80 —	Not Required	<u> </u>	MAT 1033 **
04 400			
81 - 120	Not Required	⁽⁴⁾ MAC	1102. MGF 1113 or higher
	nt may be conducted in courses		

⁽¹⁾ Further assessment may be conducted in courses.

^{*}New courses replacing REA 1105 and ENC 1130 for students testing in this score range on 7/1/97 and thereafter.
**MAT 1033 satisfies Math requirement only for students admitted prior to 96-1.



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⁽²⁾ Students scoring at this level must see an advisor prior to registering.

⁽³⁾ If both scores meet these levels, student is eligible for Honors programs. Refer to appropriate office

⁽⁴⁾ See Math advisor. Advanced mathematics test available on individual basis.



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Miami, FL 33132

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Joanne Bashford

Associate Director Telephone: ch

(305) 237-7488

jbash@mdcc.edu

(305) 237-7496



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