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ABSTRACT

A study was conducted at College of the Canyons (COC) in Santa Clarita, California, to provide preliminary data in monitoring for disproportional impact of placement into basic skills courses for various demographic groups. The study was designed to ascertain whether different levels of basic skills courses differ significantly for students in particular age, gender, ethnic or disability groups based on an assessment instrument, method, or procedure. The tested population was composed of 4,760 first-time students taking one of the four Mathematics Diagnostic Testing Project (MDTP) tests in each of the six semesters (fall 1991, spring 1992, fall 1992, spring 1993, fall 1993, and spring 1994). To compare recommended placements by race/ethnicity, the majority group of white students was compared to a minority group. The 80% rule was used to form a ratio between the percentage of students in each group who would be placed according to the cut score. A figure of fewer than 80% of minority students placed indicates that the placement scheme should be reviewed for discriminatory practices or that a biased test is being employed. The study revealed that: (1) MDTP Algebra Readiness Test scores resulted in disproportionate placements of Latino, African American, Native American, and female students; (2) MDTP Elementary Algebra Test scores resulted in disproportionate placements of Latino, African American, and students age 30 to 49; (3) MDTP Intermediate Algebra Test scores resulted in disproportionate placements of Latino, African American, and Filipino students; (4) MDTP Precalculus Test scores resulted in disproportionate placements of Latino students; and (5) increases in cut scores being considered by the COC mathematics faculty would change but not eliminate the disproportionate placements. (KP)

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INSTITUTIONAL RESEARCH

Monitoring the Disproportionate Impact of MDTP Tests on Special Populations

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COLLEGE OF THE CANYONS

**College of the Canyons
SANTA CLARITA COMMUNITY COLLEGE DISTRICT**

**Monitoring the Disproportionate
Impact of MDTP Tests on
Special Populations**

Office of Institutional Development

October 1994

Monitoring the Disproportionate Impact of MDTP Tests on Special Populations

This research is designed to provide preliminary data in monitoring for disproportionate impact of placement into basic skills courses for various demographic groups.

The study is designed to answer the following research question: Does placement into different levels of basic skills courses differ significantly for students in particular age, gender, ethnic or disability groups based on an assessment instrument, method or procedure?

Method

Design

The college has used the four tests of the Mathematics Diagnostic Testing Project since Spring 1989. The data for these computations represent information from first-time students from six semesters (Fall 1991, Spring 1992, Fall 1992, Spring 1993, Fall 1993 and Spring 1994).

Tested Population: The tested population is composed of all first-time students taking one of the MDTP tests in each of the six semesters. The number of students in the tested population for each of the MDTP tests follows:

MDTP1 - 2,429
MDTP2 - 1,213
MDTP3 - 882
MDTP4 - 236

The placement test scores are linked to the age, ethnicity and gender of the student as supplied on the CAPP form. No disability data was available.

Eligible Population: Using the cut scores currently in use for each of the placement tests and their target courses, only those students who would have been recommended to enroll in the course are selected. This group is the eligible population to be examined.

Two groups are compared at one time. For example, when comparing recommended placements by race/ethnicity the majority group of white students is compared to a minority group, such as Latinos. It is preferred that the percent eligible in the minority group is roughly equivalent to the percent eligible from the majority group. The 80% rule is calculated as the index to be used to determine if an investigation of the procedures should be undertaken. The 80% rule is calculated by forming a ratio between the percent of students in each group who would be placed according to the cut score. If fewer than 80% of the minority students would

be placed, it indicates that the placement scheme should be reviewed to determine if discriminatory practices or a biased test are being employed.

Results

The analysis is conducted by comparing the percent of students in the special groups for the tested population to the percent of the students in special groups who would have been recommended to enroll into the course of interest based on the placement rule or cut score. Two tables are presented, the first showing comparisons using the current cut score and the second table showing the comparisons using the recommended cut scores (see Validating Placement Rules for the MDTP Tests, June 1994). The new cut scores have been sent to the Mathematics faculty for consideration and adoption.

MDTP1 - Mathematics Diagnostic Testing Project - Algebra Readiness Test

Table 1 reflects the number and percent of students by race/ethnicity in both the tested and eligible populations, using the current cut score of 26 for entry into Mathematics 060. Table 2 provides the information if the cut score were changed to the recommended cut score of 30.

Table 3 provides the number and percent of students by gender in both the tested and eligible populations, using the current cut score of 26. Table 4 provides the information if the cut score were changed to the recommended cut score of 30.

Table 5 reflects the number and percent of students by age groups in both the tested and eligible populations, using the current cut score of 26. Table 6 provides the information if the cut score were changed to the recommended cut score of 30.

Table 1.
Students Assessed by MDTP1 and Recommended To Enroll
by Ethnicity into Math 060

Ethnicity	Tested		Eligible >= 26		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	1,637	77%	721	82%	.440	+5%
Latino/Hispanic	500	23%	157	18%	.314	-5%
Total	2,137	100%	878	100%		
80% Rule Index: 71.3%						
White	1,637	97%	721	98%	.440	+1%
African American	59	3%	18	2%	.305	-1%
Total	1,696	100%	739	100%		
80% Rule Index: 69.3%						
White	1,637	97%	721	96%	.440	-1%
Asian	59	3%	33	4%	.559	+1%
Total	1,696	100%	754	100%		
80% Rule Index: 127.0%						
White	1,637	98%	721	98%	.440	0%
Filipino	28	2%	14	2%	.500	0%
Total	1,665	100%	735	100%		
80% Rule Index: 113.6%						
White	1,637	99%	721	99%	.440	0%
Pacific Islander	8	1%	4	1%	.500	0%
Total	1,645	100%	725	100%		
80% Rule Index: 113.6%						
White	1,637	97%	721	99%	.440	+2%
Native American	44	3%	10	1%	.227	-2%
Total	1,681	100%	731	100%		
80% Rule Index: 51.6%						
White	1,637	96%	721	95%	.440	-1%
Other, Non-White	74	4%	36	5%	.486	+1%
Total	1,711	100%	757	100%		
80% Rule Index: 110.5%						

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Table 2.
Students Assessed by MDTP1 and Recommended to Enroll
by Ethnicity into Math 060

Ethnicity	Tested		Eligible ≥ 30		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	1,637	77%	511	84%	.312	+7%
Latino/Hispanic	500	23%	96	16%	.192	-7%
Total	2,137	100%	607	100%		
80 % Rule Index: 61.5%						
White	1,637	97%	511	98%	.312	+1%
African American	59	3%	9	2%	.153	-1%
Total	1,696	100%	520	100%		
80 % Rule Index: 49.0%						
White	1,637	97%	511	95%	.312	-2%
Asian	59	3%	29	5%	.492	+2%
Total	1,696	100%	540	100%		
80 % Rule Index: 157.7%						
White	1,637	98%	511	98%	.312	0%
Filipino	28	2%	9	2%	.321	0%
Total	1665	100%	520	100%		
80 % Rule Index: 102.9%						
White	1,637	99%	511	99%	.312	0%
Pacific Islander	8	1%	3	1%	.375	0%
Total	1,645	100%	514	100%		
80 % Rule Index: 120.2%						
White	1,637	97%	511	99%	.312	+2%
Native American	44	3%	7	1%	.159	-2%
Total	1,681	100%	518	100%		
80 % Rule Index: 51.0%						
White	1,637	96%	511	96%	.312	0%
Other, Non-White	74	4%	22	4%	.297	0%
Total	1,711	100%	533	100%		
80 % Rule Index: 95.2%						

CURRENT

Table 3.
Students Assessed by MDTP1 and Recommended To Enroll
by Gender into Math 060

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 26</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	1,092	45%	523	52%	.479	+7%
Female	1,331	55%	477	48%	.358	-7%
Total	2,423	100%	1,000	100%		

80 % Rule Index: 74.8%

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Table 4.
Students Assessed by MDTP1 and Recommended To Enroll
by Gender into Math 060

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 30</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	1,092	45%	376	54%	.344	+9%
Female	1,331	55%	314	46%	.236	-9%
Total	2,423	100%	690	100%		

80 % Rule Index: 68.5%

CURRENT

Table 5.
Students Assessed by MDTP1 and Recommended To Enroll
by Age Group into Math 060

<u>Age</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 26</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
20 - 24	459	26%	158	19%	.344	-7%
Under 20	1,314	74%	658	81%	.501	+7%
Total	1,773	100%	816	100%		
80 % Rule Index: 145.6%						
20 - 24	459	67%	158	72%	.344	+5%
25 - 29	225	33%	62	28%	.276	-5%
Total	684	100%	220	100%		
80 % Rule Index: 80.1%						
20 - 24	459	54%	158	58%	.344	+3%
30 - 49	384	46%	115	42%	.299	-3%
Total	843	100%	273	100%		
80 % Rule Index: 87.0%						
20 - 24	459	97%	158	98%	.344	+1%
50 Plus	16	3%	3	2%	.188	-1%
Total	475	100%	161	100%		
80 % Rule Index: 54.5%						

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Table 6.
Students Assessed by MDTP1 and Recommended To Enroll
by Age Group into Math 060

Age	Tested		Eligible ≥ 30		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	459	26%	104	18%	.227	-8%
Under 20	1,314	74%	471	82%	.358	+8%
Total	1,773	100%	575	100%		
80% Rule Index: 157.7%						
20 - 24	459	67%	104	71%	.227	+4%
25 - 29	225	33%	42	29%	.187	-4%
Total	684	100%	146	100%		
80% Rule Index: 82.4%						
20 - 24	459	54%	104	60%	.227	+6%
30 - 49	384	46%	69	40%	.180	-6%
Total	843	100%	173	100%		
80% Rule Index: 79.3%						
20 - 24	459	97%	104	98%	.227	+1%
50 Plus	16	3%	2	2%	.125	-1%
Total	475	100%	106	100%		
80% Rule Index: 55.2%						

MDTP2 - Mathematics Diagnostic Testing Project - Elementary Algebra Test

Table 7 reflects the number and percent of students by race/ethnicity in both the tested and eligible populations, using the current cut score of 14 for entry into Math 060. Table 8 provides the information if the cut score were changed to the recommended cut score of 18.

Table 9 provides race/ethnicity comparisons for the current cut score of 26 for entry into Math 070. Table 10 provides the comparisons for the recommended cut score of 34 for entry into Math 070.

Tables 11 through 14 provide the gender comparisons while Tables 15 through 18 reflect the age group comparisons.

CURRENT

Table 7.
Students Assessed by MDTP2 and Recommended To Enroll by
Ethnicity into Math 060

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 14</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	821	79%	643	81%	.783	+2%
Latino	222	21%	154	19%	.694	-2%
Total	1,043	100%	797	100%		
80% Rule Index: 88.6%						
White	821	96%	643	97%	.783	+1%
African American	34	4%	19	3%	.559	-1%
Total	855	100%	662	100%		
80% Rule Index: 71.4%						
White	821	97%	643	97%	.783	0%
Asian	27	3%	23	3%	.852	0%
Total	848	100%	666	100%		
80% Rule Index: 108.8%						
White	821	96%	643	96%	.783	0%
Filipino	31	4%	26	4%	.839	0%
Total	852	100%	669	100%		
80% Rule Index: 107.2%						
White	821	99%	643	99%	.783	0%
Pacific Islander	10	1%	8	1%	.800	0%
Total	831	100%	651	100%		
80% Rule Index: 102.2%						
White	821	98%	643	98%	.783	0%
Native American	19	2%	13	2%	.684	0%
Total	840	100%	656	100%		
80% Rule Index: 87.4%						
White	821	95%	643	95%	.783	0%
Other, Non-White	42	5%	30	5%	.714	0%
Total	863	100%	673	100%		
80% Rule Index: 91.2%						

RECOMMENDED

Table 8.
Students Assessed by MDTP2 and Recommended to Enroll
by Ethnicity into Math 060

Ethnicity	Tested		Eligible ≥ 18		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	821	79%	497	82%	.605	+3%
Latino	222	21%	110	18%	.495	-3%
Total	1,043	100%	607	100%		
80% Rule Index: 81.9%						
White	821	96%	497	98%	.605	+2%
African American	34	4%	12	2%	.353	-2%
Total	855	100%	509	100%		
80% Rule Index: 58.3%						
White	821	97%	497	97%	.605	0%
Asian	27	3%	17	3%	.630	0%
Total	848	100%	514	100%		
80% Rule Index: 104.1%						
White	821	96%	497	96%	.605	0%
Filipino	31	4%	21	4%	.677	0%
Total	852	100%	518	100%		
80% Rule Index: 111.9%						
White	821	99%	497	99%	.605	0%
Pacific Islander	10	1%	7	1%	.700	0%
Total	831	100%	504	100%		
80% Rule Index: 115.7%						
White	821	98%	497	98%	.605	0%
Native American	19	2%	12	2%	.632	0%
Total	840	100%	509	100%		
80% Rule Index: 104.5%						
White	821	95%	497	95%	.605	0%
Other, Non-White	42	5%	25	5%	.595	0%
Total	863	100%	522	100%		
80% Rule Index: 98.3%						

Table 9.
Students Assessed by MDTP2 and Recommended to Enroll
by Ethnicity into Math 070

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 26</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	821	79%	241	85%	.294	+6%
Latino	222	21%	44	15%	.198	-6%
Total	1,043	100%	285	100%		
80 % Rule Index: 67.5%						
White	821	96%	241	97%	.294	+1%
African American	34	4%	7	3%	.206	-1%
Total	855	100%	248	100%		
80 % Rule Index: 70.1%						
White	821	97%	241	96%	.294	-1%
Asian	27	3%	11	4%	.407	+1%
Total	848	100%	252	100%		
80 % Rule Index: 138.4%						
White	821	96%	241	95%	.294	-1%
Filipino	31	4%	14	5%	.452	+1%
Total	852	100%	255	100%		
80 % Rule Index: 153.7%						
White	821	99%	241	99%	.294	0%
Pacific Islander	10	1%	2	1%	.200	0%
Total	831	100%	243	100%		
80 % Rule Index: 68.1%						
White	821	98%	241	97%	.294	-1%
Native American	19	2%	8	3%	.421	+1%
Total	840	100%	249	100%		
80 % Rule Index: 143.2%						
White	821	95%	241	95%	.294	0%
Other, Non-White	42	5%	13	5%	.310	0%
Total	863	100%	254	100%		
80 % Rule Index: 105.4%						

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Table 10.
Students Assessed by MDTP2 and Recommended to Enroll by
Ethnicity into Math 070

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 34</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	821	79%	84	88%	.102	+9%
Latino	222	21%	12	12%	.054	-9%
Total	1,043	100%	96	100%		
80% Rule Index: 52.8%						
White	821	96%	84	99%	.102	+3%
African American	34	4%	1	1%	.029	-3%
Total	855	100%	85	100%		
80% Rule Index: 28.7%						
White	821	97%	84	93%	.102	-4%
Asian	27	3%	6	7%	.222	+4%
Total	848	100%	90	100%		
80% Rule Index: 217.6%						
White	821	96%	84	96%	.102	0%
Filipino	31	4%	4	4%	.129	0%
Total	852	100%	88	100%		
80% Rule Index: 126.5%						
White	821	99%	84	99%	.102	0%
Pacific Islander	10	1%	1	1%	.100	0%
Total	831	100%	85	100%		
80% Rule Index: 97.7%						
White	821	98%	84	98%	.102	0%
Native American	19	2%	2	2%	.105	0%
Total	840	100%	86	100%		
80% Rule Index: 102.9%						
White	821	95%	84	97%	.102	+2%
Other, Non-White	42	5%	3	3%	.071	-2%
Total	863	100%	87	100%		
80% Rule Index: 69.8%						

CURRENT

Table 11.
Students Assessed by MDTP2 and Recommended to Enroll
by Gender into Math 060

<u>Gender</u>	<u>Tested</u>		<u>Eligible >= 14</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	626	52%	480	52%	.767	0%
Female	587	48%	440	48%	.750	0%
Total	1,213	100%	920	100%		

80% Rule Index: 97.8%

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Table 12.
Students Assessed by MDTP2 and Recommended to Enroll
by Gender into Math 060

<u>Gender</u>	<u>Tested</u>		<u>Eligible >= 18</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	626	52%	379	54%	.605	+2%
Female	587	48%	326	46%	.555	-2%
Total	1,213	100%	705	100%		

80% Rule Index: 91.7%

CURRENT

Table 13.
Students Assessed by MDTP2 and Recommended to Enroll
by Gender into Math 070

<u>Gender</u>	<u>Tested</u>		<u>Eligible >= 26</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	626	52%	177	52%	.283	0%
Female	587	48%	162	48%	.276	0%
Total	1,213	100%	339	100%		

80% Rule Index: 97.6%

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Table 14.
Students Assessed by MDTP2 and Recommended to Enroll
by Gender into Math 070

<u>Gender</u>	<u>Tested</u>		<u>Eligible >= 34</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	626	52%	58	51%	.093	-1%
Female	587	48%	55	49%	.094	+1%
Total	1,213	100%	113	100%		

80% Rule Index: 101.1%

CURRENT

Table 15.
Students Assessed by MDTP2 and Recommended to Enroll
by Age Group into Math 060

<u>Age</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 14</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
20 - 24	137	12%	95	11%	.693	-1%
Under 20	1,002	88%	782	89%	.780	+1%
Total	1,139	100%	877	100%		
80% Rule Index: 112.6%						
20 - 24	137	79%	95	81%	.693	+2%
25 - 29	37	21%	23	19%	.622	-2%
Total	174	100%	118	100%		
80% Rule Index: 89.6%						
20 - 24	137	84%	95	86%	.693	+2%
30 - 49	27	16%	15	14%	.556	-2%
Total	164	100%	110	100%		
80% Rule Index: 80.2%						
20 - 24	137	99%	95	100%	.693	+1%
50 Plus	1	1%	0	0%	.000	-1%
Total	138	100%	95	100%		
80% Rule Index: 0.0%						

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Table 16.
Students Assessed by MDTP2 and Recommended to Enroll
by Age Group into Math 060

Age	Tested		Eligible ≥ 18		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	137	12%	65	10%	.474	-2%
Under 20	1,002	88%	612	90%	.611	+2%
Total	1,139	100%	677	100%		
80% Rule Index: 128.9%						
20 - 24	137	79%	65	77%	.474	-2%
25 - 29	37	21%	19	23%	.514	+2%
Total	174	100%	84	100%		
80% Rule Index: 108.4%						
20 - 24	137	84%	65	92%	.474	+8%
30 - 49	27	16%	6	8%	.222	-8%
Total	164	100%	71	100%		
80% Rule Index: 46.8%						
20 - 24	137	99%	65	100%	.474	+1%
50 Plus	1	1%	0	0%	.000	-1%
Total	138	100%	65	100%		
80% Rule Index: 0.0%						

CURRENT

Table 17.
Students Assessed by MDTP2 and Recommended to Enroll
by Age Group into Math 070

Age	Tested		Eligible ≥ 26		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	137	12%	27	8%	.197	-4%
Under 20	1,002	88%	300	92%	.299	+4%
Total	1,139	100%	327	100%		
80% Rule Index: 151.8%						
20 - 24	137	79%	27	77%	.197	-2%
25 - 29	37	21%	8	23%	.216	+2%
Total	174	100%	35	100%		
80% Rule Index: 109.6%						
20 - 24	137	84%	27	90%	.197	+6%
30 - 49	27	16%	3	10%	.111	-6%
Total	164	100%	30	100%		
80% Rule Index: 56.4%						
20 - 24	137	99%	27	100%	.197	+1%
50 Plus	1	1%	0	0%	.000	-1%
Total	138	100%	27	100%		
80% Rule Index: 0.0%						

RECOMMENDED

Table 18.
Students Assessed by MDTP2 and Recommended to Enroll
by Age Group into Math 070

Age	Tested		Eligible ≥ 34		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	137	12%	10	9%	.073	-3%
Under 20	1,002	88%	99	91%	.099	+3%
Total	1,139	100%	109	100%		
80% Rule Index: 135.6%						
20 - 24	137	79%	10	83%	.073	+4%
25 - 29	37	21%	2	17%	.054	-4%
Total	174	100%	12	100%		
80% Rule Index: 74.1%						
20 - 24	137	83%	10	83%	.073	0%
30 - 49	27	17%	2	17%	.074	0%
Total	164	100%	12	100%		
80% Rule Index: 101.4%						
20 - 24	137	99%	10	100%	.073	+1%
50 Plus	1	1%	0	0%	.000	-1%
Total	138	100%	10	100%		
80% Rule Index: 0.0%						

MDTP3 - Mathematics Diagnostic Testing Project - Intermediate Algebra Test

Table 19 reflects the number and percent of students by race/ethnicity in both the tested and eligible populations, using the current cut score of 17 for entry into Math 070. Table 20 provides the information if the cut score were changed to the recommended cut score of 21.

Table 21 shows race/ethnicity comparisons for the current cut score of 24 for entry into Math 102. Table 22 provides the comparisons for the recommended cut score of 29 for entry into Math 102.

Tables 23 through 26 provide the gender comparisons while Tables 27 through 30 reflect the age group comparisons.

Table 19.
Students Assessed by MDTP3 and Recommended to Enroll by
Ethnicity into Math 070

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 17</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	591	82%	365	86%	.618	+4%
Latino	134	18%	60	14%	.448	-4%
Total	725	100%	425	100%		
80% Rule Index: 72.5%						
White	591	96%	365	99%	.618	+3%
African American	24	4%	4	1%	.167	-3%
Total	615	100%	369	100%		
80% Rule Index: 27.0%						
White	591	92%	365	91%	.618	-1%
Asian	50	8%	38	9%	.760	+1%
Total	641	100%	403	100%		
80% Rule Index: 123.0%						
White	591	96%	365	97%	.618	+1%
Filipino	25	4%	10	3%	.400	-1%
Total	616	100%	375	100%		
80% Rule Index: 64.8%						
White	591	99%	365	99%	.618	0%
Pacific Islander	7	1%	5	1%	.714	0%
Total	598	100%	370	100%		
80% Rule Index: 115.5%						
White	591	98%	365	98%	.618	0%
Native American	10	2%	7	2%	.700	0%
Total	601	100%	372	100%		
80% Rule Index: 113.3%						
White	591	94%	365	93%	.618	-1%
Other, Non-White	40	6%	27	7%	.675	+1%
Total	631	100%	392	100%		
80% Rule Index: 109.2%						

RECOMMENDED

Table 20.
Students Assessed by MDTP3 and Recommended to Enroll by
Ethnicity into Math 070

Ethnicity	Tested		Eligible ≥ 21		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	591	82%	254	86%	.430	+4%
Latino	134	18%	42	14%	.313	-4%
Total	725	100%	296	100%		
80 % Rule Index: 72.9%						
White	591	96%	254	99%	.430	+3%
African American	24	4%	2	1%	.083	-3%
Total	615	100%	256	100%		
80 % Rule Index: 19.4%						
White	591	92%	254	91%	.430	-1%
Asian	50	8%	24	9%	.480	+1%
Total	641	100%	278	100%		
80 % Rule Index: 111.6%						
White	591	96%	254	96%	.430	0%
Filipino	25	4%	10	4%	.400	0%
Total	616	100%	264	100%		
80 % Rule Index: 93.1%						
White	591	99%	254	98%	.430	-1%
Pacific Islander	7	1%	4	2%	.571	+1%
Total	598	100%	258	100%		
80 % Rule Index: 132.8%						
White	591	98%	254	98%	.430	0%
Native American	10	2%	5	2%	.500	0%
Total	601	100%	259	100%		
80 % Rule Index: 116.3%						
White	591	94%	254	94%	.430	0%
Other, Non-White	40	6%	17	6%	.425	0%
Total	631	100%	271	100%		
80 % Rule Index: 98.9%						

Table 21.
Students Assessed by MDTP3 and Recommended to Enroll by
Ethnicity into Math 102

Ethnicity	Tested		Eligible ≥ 24		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	591	82%	186	90%	.315	+8%
Latino	134	18%	21	10%	.157	-8%
Total	725	100%	207	100%		
80% Rule Index: 49.8%						
White	591	96%	186	99%	.315	+3%
African American	24	4%	1	1%	.042	-3%
Total	615	100%	187	100%		
80% Rule Index: 13.2%						
White	591	92%	186	92%	.315	0%
Asian	50	8%	17	8%	.340	0%
Total	641	100%	203	100%		
80% Rule Index: 107.9%						
White	591	96%	186	98%	.315	+2%
Filipino	25	4%	4	2%	.160	-2%
Total	616	100%	190	100%		
80% Rule Index: 50.8%						
White	591	99%	186	98%	.315	-1%
Pacific Islander	7	1%	3	2%	.429	+1%
Total	598	100%	189	100%		
80% Rule Index: 136.2%						
White	591	98%	186	98%	.315	0%
Native American	10	2%	4	2%	.400	0%
Total	601	100%	190	100%		
80% Rule Index: 127.0%						
White	591	94%	186	94%	.315	0%
Other, Non-White	40	6%	12	6%	.300	0%
Total	631	100%	198	100%		
80% Rule Index: 95.3%						

RECOMMENDED

Table 22.
Students Assessed by MDTP3 and Recommended to Enroll by
Ethnicity into Math 102

Ethnicity	Tested		Eligible >= 29		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	591	82%	83	94%	.140	+12%
Latino	134	18%	5	6%	.037	-12%
Total	725	100%	88	100%		
80% Rule Index: 26.6%						
White	591	96%	83	100%	.140	+4%
African American	24	4%	0	0%	.000	-4%
Total	615	100%	83	100%		
80% Rule Index: 0.0%						
White	591	92%	83	90%	.140	-2%
Asian	50	8%	9	10%	.180	+2%
Total	641	100%	92	100%		
80% Rule Index: 128.6%						
White	591	96%	83	98%	.140	+2%
Filipino	25	4%	2	2%	.080	-2%
Total	616	100%	85	100%		
80% Rule Index: 57.0%						
White	591	99%	83	99%	.140	0%
Pacific Islander	7	1%	1	1%	.143	0%
Total	598	100%	84	100%		
80% Rule Index: 102.1%						
White	591	98%	83	97%	.140	-1%
Native American	10	2%	3	3%	.300	+1%
Total	601	100%	86	100%		
80% Rule Index: 214.3%						
White	591	94%	83	95%	.140	+1%
Other, Non-White	40	6%	4	5%	.100	-1%
Total	631	100%	87	100%		
80% Rule Index: 71.2%						

CURRENT

Table 23.
Students Assessed by MDTP3 and Recommended to Enroll
by Gender into Math 070

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 17</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	474	54%	293	57%	.618	+3%
Female	408	46%	224	43%	.549	-3%
Total	882	100%	517	100%		

80 % Rule Index: 88.8%

RECOMMENDED

Table 24.
Students Assessed by MDTP3 and Recommended to Enroll
by Gender into Math 070

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 21</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	474	54%	200	56%	.422	+2%
Female	408	46%	159	44%	.390	-2%
Total	882	100%	359	100%		

80 % Rule Index: 92.4%

CURRENT

Table 25.
Students Assessed by MDTP3 and Recommended to Enroll
by Gender into Math 102

<u>Gender</u>	<u>Tested</u>		<u>Eligible >= 24</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	474	54%	133	54%	.281	0%
Female	408	46%	115	46%	.282	0%
Total	882	100%	248	100%		

80 % Rule Index: 100.4%

RECOMMENDED

Table 26.
Students Assessed by MDTP3 and Recommended to Enroll
by Gender into Math 102

<u>Gender</u>	<u>Tested</u>		<u>Eligible >= 29</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	474	54%	52	49%	.110	-5%
Female	408	46%	55	51%	.135	+5%
Total	882	100%	107	100%		

80 % Rule Index: 122.7%

CURRENT

Table 27.
Students Assessed by MDTP3 and Recommended to Enroll
by Age Group into Math 070

<u>Age</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 17</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
20 - 24	55	7%	17	3%	.309	-4%
Under 20	794	93%	485	97%	.611	+4%
Total	849	100%	502	100%		
80 % Rule Index: 197.7%						
20 - 24	55	83%	17	85%	.309	+2%
25 - 29	11	17%	3	15%	.273	-2%
Total	66	100%	20	100%		
80 % Rule Index: 88.2%						
20 - 24	55	85%	17	68%	.309	-17%
30 - 49	10	15%	8	32%	.800	+17%
Total	65	100%	25	100%		
80 % Rule Index: 258.9%						
20 - 24	55	100%	17	100%	.309	0%
50 Plus	0	0%	0	0%	.000	0%
Total	55	100%	17	100%		
80 % Rule Index: 0.0%						

RECOMMENDED

Table 28.
Students Assessed by MDTP3 and Recommended to Enroll
by Age Group into Math 070

Age	Tested		Eligible ≥ 21		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	55	7%	11	3%	.200	-4%
Under 20	794	93%	334	97%	.421	+4%
Total	849	100%	345	100%		
80% Rule Index: 210.5%						
20 - 24	55	83%	11	85%	.200	+2%
25 - 29	11	17%	2	15%	.182	-2%
Total	66	100%	13	100%		
80% Rule Index: 90.9%						
20 - 24	55	85%	11	58%	.200	-27%
30 - 49	10	15%	8	42%	.800	+27%
Total	65	100%	19	100%		
80% Rule Index: 400.0%						
20 - 24	55	100%	11	100%	.200	0%
50 Plus	0	0%	0	0%	.000	0%
Total	55	100%	11	100%		
80% Rule Index: 0.0%						

CURRENT

Table 29.
Students Assessed by MDTP3 and Recommended to Enroll
by Age Group into Math 102

Age	Tested		Eligible ≥ 24		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	55	7%	4	2%	.073	-5%
Under 20	794	93%	237	98%	.298	+5%
Total	849	100%	241	100%		
80% Rule Index: 408.2%						
20 - 24	55	83%	4	100%	.073	+17%
25 - 29	11	17%	0	0%	.000	-17%
Total	66	100%	4	100%		
80% Rule Index: 0.0%						
20 - 24	55	85%	4	44%	.073	-41%
30 - 49	10	15%	5	56%	.500	+41%
Total	65	100%	9	100%		
80% Rule Index: 684.9%						
20 - 24	55	100%	4	100%	.073	0%
50 Plus	0	0%	0	0%	.000	0%
Total	55	100%	4	100%		
80% Rule Index: 0.0%						

RECOMMENDED

Table 30.
Students Assessed by MDTP3 and Recommended to Enroll
by Age Group into Math 102

Age	Tested		Eligible ≥ 29		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	55	7%	2	2%	.036	-5%
Under 20	794	93%	104	98%	.131	+5%
Total	849	100%	106	100%		
80% Rule Index: 363.9%						
20 - 24	55	83%	2	100%	.036	+17%
25 - 29	11	17%	0	0%	.000	-17%
Total	66	100%	2	100%		
80% Rule Index: 0.0%						
20 - 24	55	85%	2	100%	.036	+15%
30 - 49	10	15%	0	0%	.000	-15%
Total	65	100%	2	100%		
80% Rule Index: 0.0%						
20 - 24	55	100%	2	100%	.036	0%
50 Plus	0	0%	0	0%	.000	0%
Total	55	100%	2	100%		
80% Rule Index: 0.0%						

MDTP4 - Mathematics Diagnostic Testing Project - Precalculus Test

Table 31 reflects the number and percent of students by race/ethnicity in both the tested and eligible populations, using the current cut score of 13 for entry into Math 070. Table 32 provides information if the cut score were changed to the recommended cut score of 10.

Table 33 shows race/ethnicity comparisons for the current cut score of 18 for entry into Math 102. Table 34 provides the comparisons for the recommended cut score of 19 for entry into Math 102.

Table 35 reflects race/ethnicity comparisons for the current cut score of 24 for entry into Math 211. Table 36 provides the comparisons for the recommended cut score of 25 for entry into Math 211.

Tables 37 through 42 provide the gender comparisons while Tables 43 through 48 reflect age group comparisons.

Table 31.
Students Assessed by MDTP4 and Recommended to Enroll by
Ethnicity into Math 070

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 13</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	143	83%	127	87%	.888	+4%
Latino	29	17%	19	13%	.655	-4%
Total	172	100%	146	100%		
80% Rule Index: 73.8%						
White	143	99%	127	99%	.888	0%
African American	2	1%	1	1%	.500	0%
Total	145	100%	128	100%		
80% Rule Index: 56.3%						
White	143	79%	127	78%	.888	-1%
Asian	39	21%	36	22%	.923	+1%
Total	182	100%	163	100%		
80% Rule Index: 103.9%						
White	143	94%	127	93%	.888	-1%
Filipino	9	6%	9	7%	1.000	+1%
Total	152	100%	136	100%		
80% Rule Index: 112.6%						
White	143	99%	127	99%	.888	0%
Pacific Islander	1	1%	1	1%	1.000	0%
Total	144	100%	128	100%		
80% Rule Index: 112.6%						
White	143	98%	127	98%	.888	0%
Native American	3	2%	2	2%	.667	0%
Total	146	100%	129	100%		
80% Rule Index: 75.1%						
White	143	94%	127	93%	.888	-1%
Other, Non-White	10	6%	9	7%	.900	+1%
Total	153	100%	136	100%		
80% Rule Index: 101.4%						

RECOMMENDED

Table 32.
Students Assessed by MDTP4 and Recommended to Enroll by
Ethnicity into Math 070

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 10</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	143	83%	137	85%	.958	+2%
Latino	29	17%	24	15%	.828	-2%
Total	172	100%	161	100%		
80 % Rule Index: 86.4%						
White	143	99%	137	99%	.958	0%
African American	2	1%	1	1%	.500	0%
Total	145	100%	138	100%		
80 % Rule Index: 52.2%						
White	143	79%	137	78%	.958	-1%
Asian	39	21%	38	22%	.974	+1%
Total	182	100%	175	100%		
80 % Rule Index: 101.7%						
White	143	94%	137	94%	.958	0%
Filipino	9	6%	9	6%	1.000	0%
Total	152	100%	146	100%		
80 % Rule Index: 104.4%						
White	143	99%	137	99%	.958	0%
Pacific Islander	1	1%	1	1%	1.000	0%
Total	144	100%	138	100%		
80 % Rule Index: 104.4%						
White	143	98%	137	99%	.958	+1%
Native American	3	2%	2	1%	.667	-1%
Total	146	100%	139	100%		
80 % Rule Index: 69.6%						
White	143	94%	137	93%	.958	-1%
Other, Non-White	10	6%	10	7%	1.000	+1%
Total	153	100%	147	100%		
80 % Rule Index: 104.4%						

Table 33.
Students Assessed by MDTP4 and Recommended to Enroll by
Ethnicity into Math 102

<u>Ethnicity</u>	<u>Tested</u>		<u>Eligible >= 18</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
White	143	83%	106	87%	.741	+4%
Latino	29	17%	16	13%	.552	-4%
Total	172	100%	122	100%		
80% Rule Index: 74.4%						
White	143	99%	106	100%	.741	+1%
African American	2	1%	0	0%	.000	-1%
Total	145	100%	106	100%		
80% Rule Index: 0.0%						
White	143	79%	106	79%	.741	0%
Asian	39	21%	29	21%	.744	0%
Total	182	100%	135	100%		
80% Rule Index: 100.4%						
White	143	94%	106	94%	.741	0%
Filipino	9	6%	7	6%	.778	0%
Total	152	100%	113	100%		
80% Rule Index: 105.0%						
White	143	99%	106	99%	.741	0%
Pacific Islander	1	1%	1	1%	1.000	0%
Total	144	100%	107	100%		
80% Rule Index: 135.0%						
White	143	98%	106	98%	.741	0%
Native American	3	2%	2	2%	.667	0%
Total	146	100%	108	100%		
80% Rule Index: 89.9%						
White	143	94%	106	94%	.741	0%
Other, Non-White	10	6%	7	6%	.700	0%
Total	153	100%	113	100%		
80% Rule Index: 94.4%						

RECOMMENDED

Table 34.
Students Assessed by MDTP4 and Recommended to Enroll by
Ethnicity into Math 102

Ethnicity	Tested		Eligible ≥ 19		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	143	83%	99	87%	.692	+4%
Latino	29	17%	15	13%	.517	-4%
Total	172	100%	114	100%		
80% Rule Index: 74.7%						
White	143	99%	99	100%	.692	+1%
African American	2	1%	0	0%	.000	-1%
Total	145	100%	99	100%		
80% Rule Index: 0.0%						
White	143	79%	99	78%	.692	-1%
Asian	39	21%	28	22%	.718	+1%
Total	182	100%	127	100%		
80% Rule Index: 103.8%						
White	143	94%	99	94%	.692	0%
Filipino	9	6%	6	6%	.667	0%
Total	152	100%	105	100%		
80% Rule Index: 96.3%						
White	143	99%	99	99%	.692	0%
Pacific Islander	1	1%	1	1%	1.000	0%
Total	144	100%	100	100%		
80% Rule Index: 144.5%						
White	143	98%	99	99%	.692	+1%
Native American	3	2%	1	1%	.333	-1%
Total	146	100%	100	100%		
80% Rule Index: 48.1%						
White	143	94%	99	93%	.692	-1%
Other, Non-White	10	6%	7	7%	.700	+1%
Total	153	100%	106	100%		
80% Rule Index: 101.2%						

Table 35.
Students Assessed by MDTP4 and Recommended to Enroll by
Ethnicity into Math 211

Ethnicity	Tested		Eligible >= 24		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	143	83%	69	86%	.483	+3%
Latino	29	17%	11	14%	.379	-3%
Total	172	100%	80	100%		
80 % Rule Index: 78.6%						
White	143	99%	69	100%	.483	+1%
African American	2	1%	0	0%	.000	-1%
Total	145	100%	69	100%		
80 % Rule Index: 0.0%						
White	143	79%	69	78%	.483	-1%
Asian	39	21%	19	22%	.487	+1%
Total	182	100%	88	100%		
80 % Rule Index: 100.8%						
White	143	94%	69	92%	.483	-2%
Filipino	9	6%	6	8%	.667	+2%
Total	152	100%	75	100%		
80 % Rule Index: 138.1%						
White	143	99%	69	99%	.483	0%
Pacific Islander	1	1%	1	1%	1.000	0%
Total	144	100%	70	100%		
80 % Rule Index: 207.0%						
White	143	98%	69	99%	.483	+1%
Native American	3	2%	1	1%	.333	-1%
Total	146	100%	70	100%		
80 % Rule Index: 69.1%						
White	143	94%	69	96%	.483	+2%
Other, Non-White	10	6%	3	4%	.300	-2%
Total	153	100%	72	100%		
80 % Rule Index: 62.2%						

RECOMMENDED

Table 36.
Students Assessed by MDTP4 and Recommended to Enroll by
Ethnicity into Math 211

Ethnicity	Tested		Eligible ≥ 25		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
White	143	83%	59	86%	.413	+3%
Latino	29	17%	10	14%	.345	-3%
Total	172	100%	69	100%		
80% Rule Index: 83.6%						
White	143	99%	59	100%	.413	+1%
African American	2	1%	0	0%	.000	-1%
Total	145	100%	59	100%		
80% Rule Index: 0.0%						
White	143	79%	59	76%	.413	-3%
Asian	39	21%	19	24%	.487	+3%
Total	182	100%	78	100%		
80% Rule Index: 117.9%						
White	143	94%	59	91%	.413	-3%
Filipino	9	6%	6	9%	.667	+3%
Total	152	100%	65	100%		
80% Rule Index: 161.5%						
White	143	99%	59	98%	.413	-1%
Pacific Islander	1	1%	1	2%	1.000	+1%
Total	144	100%	60	100%		
80% Rule Index: 242.1%						
White	143	98%	59	98%	.413	0%
Native American	3	2%	1	2%	.333	0%
Total	146	100%	60	100%		
80% Rule Index: 80.8%						
White	143	94%	59	95%	.413	+1%
Other, Non-White	10	6%	3	5%	.300	-1%
Total	153	100%	62	100%		
80% Rule Index: 72.7%						

CURRENT

Table 37.
Students Assessed by MDTP4 and Recommended to Enroll
by Gender into Math 070

<u>Gender</u>	<u>Tested</u>		<u>Eligible ≥ 13</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	130	55%	111	54%	.854	-1%
Female	106	45%	93	46%	.877	+1%
Total	236	100%	204	100%		

80 % Rule Index: 102.7%

RECOMMENDED

Table 38.
Students Assessed by MDTP4 and Recommended to Enroll
by Gender into Math 070

<u>Gender</u>	<u>Tested</u>		<u>Eligible ≥ 10</u>		<u>Eligible/ Tested</u>	<u>% Pts. Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	130	55%	123	55%	.946	0%
Female	106	45%	99	45%	.934	0%
Total	236	100%	222	100%		

80 % Rule Index: 98.7%

CURRENT

Table 39.
Students Assessed by MDTP4 and Recommended to Enroll
by Gender into Math 102

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 18</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	130	55%	97	58%	.746	+3%
Female	106	45%	71	42%	.670	-3%
Total	236	100%	168	100%		

80% Rule Index: 89.8%

RECOMMENDED

Table 40.
Students Assessed by MDTP4 and Recommended to Enroll
by Gender into Math 102

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 19</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	130	55%	92	59%	.708	+4%
Female	106	45%	65	41%	.613	-4%
Total	236	100%	157	100%		

80% Rule Index: 86.6%

CURRENT

Table 41.
Students Assessed by MDTP4 and Recommended to Enroll
by Gender into Math 211

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 24</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	130	55%	63	57%	.485	+2%
Female	106	45%	47	43%	.443	-2%
Total	236	100%	110	100%		

80% Rule Index: 91.5%

RECOMMENDED

Table 42.
Students Assessed by MDTP4 and Recommended to Enroll
by Gender into Math 211

<u>Gender</u>	<u>Tested</u>		<u>Eligible</u> <u>>= 25</u>		<u>Eligible/</u> <u>Tested</u>	<u>% Pts.</u> <u>Differ.</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>		
Male	130	55%	57	58%	.438	+3%
Female	106	45%	42	42%	.396	-3%
Total	236	100%	99	100%		

80% Rule Index: 90.4%

CURRENT

Table 43.
Students Assessed by MDTP4 and Recommended to Enroll
by Age Group into Math 070

Age	Tested		Eligible ≥ 13		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	13	6%	10	5%	.769	-1%
Under 20	211	94%	184	95%	.872	+1%
Total	224	100%	194	100%		
80% Rule Index: 113.4%						
20 - 24	13	65%	10	67%	.769	+2%
25 - 29	7	35%	5	33%	.714	-2%
Total	20	100%	15	100%		
80% Rule Index: 92.9%						
20 - 24	13	81%	10	77%	.769	-4%
30 - 49	3	19%	3	23%	1.000	+4%
Total	16	100%	13	100%		
80% Rule Index: 130.0%						
20 - 24	13	100%	10	100%	.769	0%
50 Plus	0	0%	0	0%	.000	0%
Total	13	100%	10	100%		
80% Rule Index: 0.0%						

RECOMMENDED

Table 44.
Students Assessed by MDTP4 and Recommended to Enroll
by Age Group into Math 070

Age	Tested		Eligible ≥ 10		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	13	6%	12	6%	.923	0%
Under 20	211	94%	200	94%	.948	0%
Total	224	100%	212	100%		
80% Rule Index: 102.7%						
20 - 24	13	65%	12	71%	.923	+6%
25 - 29	7	35%	5	29%	.714	-6%
Total	20	100%	17	100%		
80% Rule Index: 77.4%						
20 - 24	13	81%	12	80%	.923	-1%
30 - 49	3	19%	3	20%	1.000	+1%
Total	26	100%	15	100%		
80% Rule Index: 108.3%						
20 - 24	13	100%	12	100%	.923	0%
50 Plus	0	0%	0	0%	.000	0%
Total	13	100%	12	100%		
80% Rule Index: 0.0%						

CURRENT

Table 45.
Students Assessed by MDTP4 and Recommended to Enroll
by Age Group into Math 102

Age	Tested		Eligible ≥ 18		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	13	6%	8	5%	.615	-1%
Under 20	211	94%	153	95%	.725	+1%
Total	224	100%	161	100%		
80 % Rule Index: 117.9%						
20 - 24	13	65%	8	67%	.615	+2%
25 - 29	7	35%	4	33%	.571	-2%
Total	20	100%	12	100%		
80 % Rule Index: 92.9%						
20 - 24	13	81%	8	80%	.615	-1%
30 - 49	3	19%	2	20%	.667	+1%
Total	16	100%	10	100%		
80 % Rule Index: 108.5%						
20 - 24	13	100%	8	100%	.615	0%
50 Plus	0	0%	0	0%	.000	0%
Total	13	100%	8	100%		
80 % Rule Index: 0.0%						

RECOMMENDED

Table 46.
Students Assessed by MDTP4 and Recommended to Enroll
by Age Group into Math 102

Age	Tested		Eligible >= 19		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	13	6%	8	5%	.615	-1%
Under 20	211	94%	142	95%	.673	+1%
Total	224	100%	150	100%		

80 % Rule Index: 109.4%

20 - 24	13	65%	8	67%	.615	+2%
25 - 29	7	35%	4	33%	.571	-2%
Total	20	100%	12	100%		

80 % Rule Index: 92.9%

20 - 24	13	81%	8	80%	.615	-1%
30 - 49	3	19%	2	20%	.667	+1%
Total	16	100%	10	100%		

80 % Rule Index: 108.5%

20 - 24	13	100%	8	100%	.615	0%
50 Plus	0	0%	0	0%	.000	0%
Total	13	100%	8	100%		

80 % Rule Index: 0.0%

CURRENT

Table 47.
Students Assessed by MDTP4 and Recommended to Enroll
by Age Group into Math 211

Age	Tested		Eligible >= 24		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	13	6%	6	6%	.462	0%
Under 20	211	94%	98	94%	.464	0%
Total	224	100%	104	100%		
80% Rule Index: 100.4%						
20 - 24	13	65%	6	60%	.462	-5%
25 - 29	7	35%	4	40%	.571	+5%
Total	20	100%	10	100%		
80% Rule Index: 123.6%						
20 - 24	13	81%	6	86%	.462	+5%
30 - 49	3	19%	1	14%	.333	-5%
Total	16	100%	7	100%		
80% Rule Index: 72.2%						
20 - 24	13	100%	6	100%	.462	0%
50 Plus	0	0%	0	0%	.000	0%
Total	13	100%	6	100%		
80% Rule Index: 0.0%						

RECOMMENDED

Table 48.
Students Assessed by MDTP4 and Recommended to Enroll
by Age Group into Math 211

Age	Tested		Eligible ≥ 25		Eligible/ Tested	% Pts. Differ.
	N	%	N	%		
20 - 24	13	6%	5	5%	.385	-1%
Under 20	211	94%	88	95%	.417	+1%
Total	224	100%	93	100%		
80% Rule Index: 108.3%						
20 - 24	13	65%	5	56%	.385	-9%
25 - 29	7	35%	4	44%	.571	+9%
Total	20	100%	9	100%		
80% Rule Index: 148.3%						
20 - 24	13	81%	5	83%	.385	+2%
30 - 49	3	19%	1	17%	.333	-2%
Total	16	100%	6	100%		
80% Rule Index: 86.7%						
20 - 24	13	100%	5	100%	.385	0%
50 Plus	0	0%	0	0%	.000	0%
Total	13	100%	5	100%		
80% Rule Index: 0.0%						

DISCUSSION

Current Cut Scores

Using the 80% rule and considering the currently used cut scores, a review of the placement scheme is warranted for the following:

Where the cell size for tested students falls below 20, the numbers are too small to make a determination.

MDTP1 - Algebra Readiness Test

Math 060 - Latino, African American, Native American and female students are placed disproportionately.

MDTP2 - Elementary Algebra Test

Math 060 - African American students are placed disproportionately.

Math 070 - Latino, African American, and students age 30 to 49 are placed disproportionately.

MDTP3 - Intermediate Algebra Test

Math 070 - Latino, African American, and Filipino students are placed disproportionately.

Math 102 - Latino, African American, and Filipino students are placed disproportionately.

MDTP4 - Precalculus Test

Math 070 - Latino students are placed disproportionately.

Math 102 - Latino students are placed disproportionately.

Math 211 - Latino students are placed disproportionately.

Recommended Cut Scores

Using the 80% rule and considering the recommended cut scores, disproportionate impact would be present for the following:

MDTP1 - Algebra Readiness Test

Math 060 - Latino, African American, Native American, female students and students age 30-49 would be disproportionately placed. The cell size for tested students is too small for Pacific Islander students and for those age "50 and above".

MDTP2 - Elementary Algebra Test

Math 060 - African American students and students age 30-49 would be disproportionately placed. The cell size for tested students is too small for Pacific Islander and Native American students, as well as for the "50 and above" age group.

Math 070 - Latino, African American, Other Non-White, and students age 25-29 would be disproportionately placed. The cell size for tested students is too small for Pacific Islander and Native American students, as well as for the "50 and above" age group.

MDTP3 - Intermediate Algebra Test

Math 070 - Latino and African American students would be placed disproportionately. The cell size for tested students is too small for Pacific Islander and Native American students, as well as for all groups age 25 and above.

Math 102 - Latino, African American, Filipino, and Other Non-White students would be placed disproportionately. The cell size for tested students is too small for Pacific Islander and Native American students, as well as for all groups age 25 and above.

MDTP4 - Precalculus Test

Math 070 - The cell size for tested students is too small for all but White, Latino and Asian students and the "Under 20" age group. None of these groups would be disproportionately placed.

Math 102 - The cell size for tested students is too small for all but White, Latino and Asian students and the "Under 20" age group. None of these groups would be disproportionately placed.

Math 211 - The cell size for tested students is too small for all but White, Latino and Asian students and the "Under 20" age group. None of these groups would be disproportionately placed.

FUTURE RESEARCH

Further research is needed to determine why differences exist between certain groups. Are the differences related to the nature of the test instrument or are they due to socioeconomic factors?

A study of differential prediction may be helpful in determining whether the MDTP tests predict differentially for certain groups of students.