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ABSTRACT
        This publication is designed to help admissions committees,
other medical school officers, and health professions advisors interpret
students' Medical College Admission Test (MCAT) performance. The data can
also help in comparing individual students with their peers in terms of
attitudes, preferences, and beliefs about medical school and medical
practice. Data in part 1, "Performance Characteristics of 1998 MCAT
Examinees," come from MCAT registration records and are reported in terms of
examinations administered. The data include percentile tables, performance by
undergraduate major, and performance by state of legal residence. Data in
part 2, "1998 MCAT Examinee Characteristics and Perceptions of Medicine,"
come from the Premedical Student Questionnaire (PMQ), a survey completed as
part of the MCAT registration process. The PMQ includes questions about
background, educational experiences, career plans, and perceptions of
medicine. Part 2 includes data on students' demographic characteristics,
academic characteristics, and perceptions of medicine and career plans.
Appended are: an undergraduate major classification; text of the PMQ item,
"most important influence on decision to study medicine"; text of the PMQ
item, "reasons for choosing a career in medicine"; and text of the PMQ item,
"perceptions of medicine." (SM)

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MCAT AAMC
MEDICAL COLLEGE ADMISSION TEST

The assistance of Donna Ashford was invaluable in the preparation of this report. Many thanks are extended to Ms. Ashford for her contributions.

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Introduction

Characteristics of MCAT Examinees is a publication of the Association of American Medical Colleges (AAMC). It is prepared by the Section for the Medical College Admission Test (MCAT). The publication is designed to assist admissions committees, other medical school officials, and health professions advisors with interpreting student Medical College Admission Test (MCAT) performance.

Data presented in this publication may be useful for those providing career counseling or designing programs to attract students to the practice of medicine. Information in the following sections also may assist health professions advisors and medical school admissions officers in comparing individual students with their peers in terms of attitudes, preferences, and beliefs about medical school and medical practice.

The characteristics of those who apply to medical school may differ slightly from the population of examinees described in this report since not all individuals who take the MCAT apply to allopathic medical school. Some examinees use their scores to apply to schools of osteopathic medicine, podiatric medicine, or veterinary medicine. Others take the MCAT in addition to other graduate and professional entrance exams while trying to make definite decisions about future education. Still others choose not to pursue a career in medicine subsequent to taking the MCAT.

The MCAT is administered twice a year, in April and August. This edition includes information for the two administrations in 1998.

Information in this Report

"Characteristics of MCAT Examinees" is separated into two parts. Only records with complete information for each of the classification variables (gender, racial/ethnic group, date of birth, and undergraduate major) are included.

The data contained in Part I are gathered from MCAT registration records. These data are reported in terms of examinations administered. Scores for individuals testing for the first time are included with first-time examinee data; scores for examinees who have tested previously are reported with repeating examinee data. Thus, both sets of scores for individuals testing twice in the year are included in the Part I tables for all examinees; the first set of scores are reported with first-time examinee data; scores from the second testing are included with repeating examinee data.

Data are reported for each MCAT area of assessment individually. Composite, total, or average scores for the content areas are not provided since such a score would be contradictory to the purposes of the score reporting format. Separate scores are reported because each represents an assessment of different skills and knowledge. The use of an average, total, or composite score ignores differences in the content of each area of assessment and the characteristics of individual and group performance patterns.

The information contained in Part II is collected through the Premedical Student Questionnaire (PMQ), a survey completed as part of the MCAT registration process. The PMQ includes questions about the examinee's background, educational experiences, career plans, and perceptions of medicine. This section of the report describes the demographic characteristics of individuals sitting for the MCAT; numbers and percentages are based on individuals. Thus, only one set of data is included for examinees who have taken both examinations in a year.

The table below summarizes the number of records included in each part of this report.

Total MCATs administered	Complete records (Part I)	First-time examinees (Part 1)	Repeating examinees (Part I)	Examinees testing twice in the year (Part I*)	Individuals represented (Part II)
57,846	57,795	37,143	20,652	6,341	51,454
*Individuals testing twice in the year are included twice in Part I tables for all examinees.					

1998 Examinee Characteristics

Part I:

Performance Characteristics of MCAT Examinees

- Percentile Tables for MCAT Content Areas

- 25th, 50th, and 75th Percentile Tables for MCAT Content Areas by Gender, Racial/Ethnic Group, and Age for All, First-Time, and Repeating Examinees

- 25th, 50th, and 75th Percentile Scores for MCAT Content Areas by Undergraduate Major

- 25th, 50th, and 75th Percentile Scores for MCAT Content Areas by State of Legal Residence

Performance Characteristics
of MCAT Examinees

The first part of this section summarizes performance of all examinees on the MCAT. Part I data for 1998 include 57,795 examinations for 37,143 first-time examinees and 20,652 repeating examinees.

A graphical representation of 25th, 50th (median), and 75th percentile score information by undergraduate major follows the percentile rank quartile tables. These data allow comparison of group performance and provide a simple method for interpreting individual performance. A summary of the specific majors included in each category is included in Appendix A.

The final table in this section presents quartile scores by state of legal residence. State categories represent the state in which the examinee legally resided at the time he or she tested; this may not be the state in which students have obtained their undergraduate education or where they will apply tomedical school.

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Percentile Tables

Separate percentile rank tables are presented for all examinees, those taking the test for the first time, and those repeating the examination within the year. Within the three broad categories, performance is summarized by gender, racial/ethnic self-identification, and age. Group means and standard deviations are presented for the three multiple choice sections (Verbal Reasoning, Physical Sciences, and Biological Sciences); 25th, 50th (Median), and 75th percentiles are presented for the Writing Sample.

The percentile tables allow comparison of an individual's performance with that of his or her peers. For example, the table entitled "Percentile Rank Ranges for MCAT Content areas for All, First-Time, and Repeating Examinees in 1998" shows that a scaled score of 9 in Verbal Reasoning is associated with a percentile range of 57.5 to 73.6.

This range of percentiles indicates that 57.5 percent of the total group received scores lower than 9 and that 26.4 percent of the total group (100 – 73.6) received scores of 10 or higher. A first-time examinee receiving a 9 in Verbal Reasoning has scored higher than 54.2 percent of all other first-time examinees, lower than 29.8 percent of first-time examinees, and the same as 16 percent of all other first-time examinees. A repeating examinee achieving the same score has performed better than 63.2 percent of all repeating examinees; 20.3 percent of the repeating examinees achieved a score of 10 or higher.

The scaled score intervals (1-4, 5-6, 7, 8, 9, 10-11, and 12-15) utilized in the percentile tables were derived as a convenience in summarizing the performance of each population group. These intervals are not suggested for use by admissions committees as operational groups for selection decisions. The particular group differences shown in this section apply to MCAT examinees only and may not generalize to medical school applicants or to college students as a whole.

Percentile Rank Ranges for MCAT Content Areas
For All, First Time, and Repeating Examinees in 1998

Scaled Score	First Time	Repeat	All
Verbal Reasoning			
12-15	95.8 - 99.9	98.3 - 99.9	96.7 - 99.9
10-11	70.3 - 95.7	79.8 - 98.2	73.7 - 96.6
9	54.2 - 70.2	63.2 - 79.7	57.5 - 73.6
8	41.5 - 54.1	48.1 - 63.1	43.9 - 57.4
7	29.0 - 41.4	32.9 - 48.0	30.4 - 43.8
5-6	9.9 - 28.9	9.8 - 32.8	9.8 - 30.3
1-4	0.0 - 9.8	0.0 - 9.7	0.0 - 9.7
Mean	7.9	7.6	7.8
Standard Deviation	2.5	2.2	2.4

Scaled Score	First Time	Repeat	All
Physical Sciences			
12-15	88.6 - 99.9	94.8 - 99.9	90.8 - 99.9
10-11	66.7 - 88.5	76.3 - 94.7	70.1 - 90.7
9	55.2 - 66.6	63.3 - 76.2	58.1 - 70.0
8	38.6 - 55.1	43.0 - 63.2	40.2 - 58.0
7	24.9 - 38.5	26.0 - 42.9	25.3 - 40.1
5-6	5.4 - 24.8	4.2 - 25.9	5.0 - 25.2
1-4	0.0 - 5.3	0.0 - 4:1	0.0 - 4.9
Mean	8.3	7.9	8.2
Standard Deviation	2.5	2.1	2.4

Scaled Score	First Time	Repeat	All
Biological Sciences			
12-15	89.8 - 99.9	94.7 - 99.9	91.7 - 99.9
10-11	63.8 - 89.7	71.0 - 94.6	66.5 - 91.6
9	47.1 - 63.7	51.1 - 70.9	48.7 - 66.4
8	31.9 - 47.0	32.0 - 51.0	32.1 - 48.6
7	22.9 - 31.8	21.9 - 31.9	22.7 - 32.0
5-6	8.1 - 22.8	6.3 - 21.8	7.6 - 22.6
1-4	0.0 - 8.0	0.0 - 6.2	0.0 - 7.5
Mean	8.4	8.2	8.3
Standard Deviation	2.5	2.2	2.4

Scaled Score	First Time	Repeat	All
Writing Sample			
S - T	95.1 - 99.9	96.9 - 99.9	96.0 - 99.9
Q - R	65.6 - 95.0	69.7 - 96.8	67.2 - 95.9
P	51.4 - 65.5	55.1 - 69.6	52.8 - 67.1
O	37.9 - 51.3	40.2 - 55.0	38.8 - 52.7
N	27.0 - 37.8	28.9 - 40.1	27.8 - 38.7
L - M	4.9 - 26.9	5.0 - 28.8	5.0 - 27.7
J - k	0.0 - 4.8	0.0 - 4.9	0.0 - 4.9
Median	O	O	O
25th percentile	M	M	M
75th percentile	Q	Q	Q

Number and percentage of examinees: First Time Examinees = 37,143 (64.3%);
Repeating Examinees = 20,652 (35.7%); Total = 57,795 (Examinees with complete records).

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Percentile Rank Ranges for MCAT Content Areas
By Gender for All Examinees in 1998

Scaled Score	Female	Male
Verbal Reasoning		
12-15	96.6 - 99.8	96.6 - 99.9
10-11	74.0 - 96.5	73.2 - 96.5
9	57.8 - 73.9	57.0 - 73.1
8	44.4 - 57.7	43.3 - 56.9
7	31.3 - 44.3	29.4 - 43.2
5-6	10.3 - 31.2	9.3 - 29.3
1-4	0.0 - 10.2	0.0 - 9.2
Mean	7.8	7.8
Standard Deviation	2.4	2.4

Scaled Score	Female	Male
Physical Sciences		
12-15	95.0 - 99.8	86.9 - 99.9
10-11	78.6 - 94.9	62.0 - 86.8
9	67.4 - 78.5	49.2 - 61.9
8	48.9 - 67.3	31.8 - 49.1
7	32.1 - 48.8	18.8 - 31.7
5-6	6.7 - 32.0	3.3 - 18.7
1-4	0.0 - 6.6	0.0 - 3.2
Mean	7.7	8.7
Standard Deviation	2.2	2.4

Scaled Score	Female	Male
Biological Sciences		
12-15	94.6 - 99.9	88.6 - 99.9
10-11	73.0 - 94.5	59.9 - 88.5
9	55.6 - 72.9	41.6 - 59.8
8	37.7 - 55.5	26.4 - 41.5
7	27.5 - 37.6	17.9 - 26.3
5-6	9.5 - 27.4	5.6 - 17.8
1-4	0.0 - 9.4	0.0 - 5.5
Mean	7.9	8.7
Standard Deviation	2.4	2.4

Scaled Score	Female	Male
Writing Sample		
S - T	96.6 - 99.9	95.1 - 99.9
Q - R	66.9 - 96.5	67.3 - 95.0
P	51.9 - 66.8	53.6 - 67.2
O	37.8 - 51.8	39.7 - 53.5
N	26.9 - 37.7	28.5 - 39.6
L - M	4.9 - 26.8	5.1 - 28.4
J - k	0.0 - 4.8	0.0 - 5.0
Median	O	O
25th percentile	M	M
75th percentile	Q	Q

Number and percentage of examinees: Female = 28,348 (49.0%); Male = 29,447 (51.0%).

Percentile Rank Ranges for MCAT Content Areas
By Gender for First Time Examinees in 1998

Scaled Score	Female	Male
Verbal Reasoning		
12-15	96.0 - 99.9	95.5 - 99.8
10-11	71.5 - 95.9	69.0 - 95.4
9	55.2 - 71.4	53.2 - 68.9
8	42.7 - 55.1	40.3 - 53.1
7	30.4 - 42.6	27.5 - 40.2
5-6	10.7 - 30.3	9.0 - 27.4
1-4	0.0 - 10.6	0.0 - 8.9
Mean	7.9	8.0
Standard Deviation	2.5	2.4

	Female	Male
Physical Sciences		
12-15	93.8 - 99.9	83.7 - 99.9
10-11	75.9 - 93.7	57.8 - 83.6
9	64.8 - 75.8	45.9 - 57.7
8	47.5 - 64.7	30.0 - 45.8
7	31.8 - 47.4	18.2 - 29.9
5-6	7.3 - 31.7	3.6 - 18.1
1-4	0.0 - 7.2	0.0 - 3.5
Mean	7.8	8.9
Standard Deviation	2.3	2.5

	Female	Male
Biological Sciences		
12-15	93.5 - 99.9	86.3 - 99.9
10-11	70.9 - 93.4	57.0 - 86.2
9	54.6 - 70.8	39.9 - 56.9
8	37.9 - 54.5	26.3 - 39.8
7	28.0 - 37.8	18.2 - 26.2
5-6	10.5 - 27.9	6.1 - 18.1
1-4	0.0 - 10.4	0.0 - 6.0
Mean	8.0	8.8
Standard Deviation	2.5	2.5

	Female	Male
Writing Sample		
S - T	96.1 - 99.9	94.2 - 99.9
Q - R	65.8 - 96.0	65.4 - 94.1
P	51.1 - 65.7	51.6 - 65.3
O	37.4 - 51.0	38.3 - 51.5
N	26.5 - 37.3	27.5 - 38.2
L - M	4.9 - 26.4	4.9 - 27.4
J - k	0.0 - 4.8	0.0 - 4.8
Median	O	O
25th percentile	M	M
75th percentile	Q	Q

Number and percentage of examinees: Female = 18,308 (49.3%); Male = 18,835 (50.7%).

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Percentile Rank Ranges for MCAT Content Areas
By Gender for Repeating Examinees in 1998

Scaled Score	Female	Male
Verbal Reasoning		
12-15	98.3 - 99.9	98.2 - 99.9
10-11	78.9 - 98.2	80.5 - 98.1
9	62.8 - 78.8	63.5 - 80.4
8	47.8 - 62.7	48.4 - 63.4
7	33.1 - 47.7	32.7 - 48.3
5-6	9.7 - 33.0	9.7 - 32.6
1-4	0.0 - 9.6	0.0 - 9.6
Mean	7.6	7.5
Standard Deviation	2.2	2.2

Scaled Score	Female	Male
Physical Sciences		
12-15	97.5 - 99.9	92.4 - 99.9
10-11	83.7 - 97.4	69.4 - 92.3
9	72.3 - 83.6	55.0 - 69.3
8	51.5 - 72.2	35.1 - 54.9
7	32.6 - 51.4	19.9 - 35.0
5-6	5.6 - 32.5	2.9 - 19.8
1-4	0.0 - 5.5	0.0 - 2.8
Mean	7.5	8.4
Standard Deviation	2.0	2.1

Scaled Score	Female	Male
Biological Sciences		
12-15	96.8 - 99.9	92.6 - 99.8
10-11	77.2 - 96.7	65.0 - 92.5
9	57.8 - 77.1	44.7 - 64.9
8	37.7 - 57.7	26.6 - 44.6
7	26.8 - 37.6	17.3 - 26.5
5-6	7.9 - 26.7	4.8 - 17.2
1-4	0.0 - 7.8	0.0 - 4.7
Mean	7.9	8.6
Standard Deviation	2.2	2.1

Scaled Score	Female	Male
Writing Sample		
S - T	97.3 - 99.9	96.4 - 99.9
Q - R	68.8 - 97.2	70.4 - 96.3
P	53.1 - 68.7	56.8 - 70.3
O	38.3 - 53.0	41.9 - 56.7
N	27.6 - 38.2	30.1 - 41.8
L - M	4.7 - 27.5	5.2 - 30.0
J - k	0.0 - 4.6	0.0 - 5.1
Median	O	O
25th percentile	M	M
75th percentile	Q	Q

Number and percentage of examinees: Female = 10,040 (48.6%); Male = 10,612 (51.4%).

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Percentile Rank Ranges for MCAT Content Areas
By Age for All Examinees in 1998

Scaled Score	<21	21-22	23-27	28-31	>31
Verbal Reasoning					
12-15	95.3 – 99.9	97.1 – 99.9	96.9 – 99.8	96.6 – 99.9	96.3 – 99.8
10-11	66.3 – 95.2	74.4 – 97.0	76.7 – 96.8	76.5 – 96.5	77.8 – 96.2
9	48.2 – 66.2	57.5 – 74.3	62.0 – 76.6	62.7 – 76.4	65.3 – 77.7
8	34.5 – 48.1	43.2 – 57.4	48.9 – 61.9	51.0 – 62.6	54.0 – 65.2
7	22.1 – 34.4	29.0 – 43.1	35.3 – 48.8	37.8 – 50.9	42.4 – 53.9
5-6	6.4 – 22.0	8.2 – 28.9	12.3 – 35.2	15.1 – 37.7	18.9 – 42.3
1-4	0.0 – 6.3	0.0 – 8.1	0.0 – 12.2	0.0 – 15.0	0.0 – 18.8
Mean	8.3	7.8	7.5	7.4	7.1
Standard Deviation	2.3	2.3	2.5	2.7	2.7

Scaled Score	<21	21-22	23-27	28-31	>31
Physical Sciences					
12-15	83.9 – 99.9	91.7 – 99.9	94.0 – 99.9	94.6 – 99.9	95.6 – 99.9
10-11	57.0 – 83.8	70.6 – 91.6	76.2 – 93.9	79.7 – 94.5	82.6 – 95.5
9	44.8 – 56.9	58.0 – 70.5	64.4 – 76.1	68.9 – 79.6	74.1 – 82.5
8	28.6 – 44.7	39.4 – 57.9	45.6 – 64.3	51.6 – 68.8	57.8 – 74.0
7	16.9 – 28.5	24.1 – 39.3	29.3 – 45.5	34.7 – 51.5	41.8 – 57.7
5-6	3.0 – 16.8	4.4 – 24.0	5.8 – 29.2	8.5 – 34.6	10.5 – 41.7
1-4	0.0 – 2.9	0.0 – 4.3	0.0 – 5.7	0.0 – 8.4	0.0 – 10.4
Mean	9.0	8.2	7.8	7.5	7.2
Standard Deviation	2.4	2.3	2.3	2.3	2.3

Scaled Score	<21	21-22	23-27	28-31	>31
Biological Sciences					
12-15	87.1 – 99.9	91.8 – 99.8	93.4 – 99.9	94.5 – 99.9	96.1 – 99.9
10-11	57.0 – 87.0	66.5 – 91.7	69.6 – 93.3	75.3 – 94.4	79.7 – 96.0
9	39.5 – 56.9	48.2 – 66.4	51.7 – 69.5	58.1 – 75.2	64.0 – 79.6
8	25.2 – 39.4	31.2 – 48.1	34.2 – 51.6	40.5 – 58.0	47.3 – 63.9
7	17.6 – 25.1	21.6 – 31.1	24.4 – 34.1	29.6 – 40.4	36.9 – 47.2
5-6	5.5 – 17.5	6.8 – 21.5	8.4 – 24.3	10.3 – 29.5	14.9 – 36.8
1-4	0.0 – 5.4	0.0 – 6.7	0.0 – 8.3	0.0 – 10.2	0.0 – 14.8
Mean	8.9	8.4	8.2	7.8	7.4
Standard Deviation	2.4	2.4	2.4	2.4	2.5

Scaled Score	<21	21-22	23-27	28-31	>31
Writing Sample					
S - T	94.5 – 99.9	96.2 – 99.9	96.0 – 99.9	96.4 – 99.9	95.4 – 99.8
Q - R	60.6 – 94.4	66.9 – 96.1	70.5 – 95.9	70.9 – 96.3	73.8 – 95.3
P	45.5 – 60.5	52.0 – 66.8	56.8 – 70.4	58.6 – 70.8	61.4 – 73.7
O	32.0 – 45.4	37.6 – 51.9	42.9 – 56.7	45.1 – 58.5	48.4 – 61.3
N	21.7 – 31.9	26.5 – 37.5	31.5 – 42.8	34.6 – 45.0	36.4 – 48.3
L - M	3.9 – 21.6	4.4 – 26.4	5.7 – 31.4	7.0 – 34.5	7.2 – 36.3
J - k	0.0 – 3.8	0.0 – 4.3	0.0 – 5.6	0.0 – 6.9	0.0 – 7.1
Median	P	O	O	O	O
25th percentile	N	M	M	M	M
75th percentile	Q	Q	Q	Q	Q

Number and percentage of examinees: Age <21 = 12,339 (21.3%); Age 21 – 22 = 24,624 (42.6%); Age 23 – 27 = 14,825 (25.7%);
Age 28 – 31 = 3,363 (5.8%); Age > 31 = 2,644 (4.6%).

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Percentile Rank Ranges for MCAT Content Areas
By Age for First Time Examinees in 1998

Scaled Score	<21	21-22	23-27	28-31	>31
Verbal Reasoning					
12-15	94.8 - 99.9	96.5 - 99.9	96.3 - 99.9	95.3 - 99.9	95.1 - 99.9
10-11	64.8 - 94.7	71.8 - 96.4	74.0 - 96.2	72.3 - 95.2	73.4 - 95.0
9	46.7 - 64.7	55.6 - 71.7	60.1 - 73.9	58.8 - 72.2	60.2 - 73.3
8	33.6 - 46.6	42.4 - 55.5	48.3 - 60.0	47.6 - 58.7	49.6 - 60.1
7	21.4 - 33.5	29.1 - 42.3	36.3 - 48.2	36.1 - 47.5	39.0 - 49.5
5-6	6.4 - 21.3	9.0 - 29.0	14.2 - 36.2	15.5 - 36.0	17.1 - 38.9
1-4	0.0 - 6.3	0.0 - 8.9	0.0 - 14.1	0.0 - 15.4	0.0 - 17.0
Mean	8.4	7.9	7.6	7.6	7.4
Standard Deviation	2.3	2.4	2.6	2.7	2.9

Scaled Score	<21	21-22	23-27	28-31	>31
Physical Sciences					
12-15	82.6 - 99.9	89.9 - 99.9	92.7 - 99.9	93.2 - 99.9	94.6 - 99.9
10-11	55.2 - 82.5	68.3 - 89.8	75.2 - 92.6	77.2 - 93.1	80.1 - 94.5
9	43.3 - 55.1	56.4 - 68.2	64.6 - 75.1	67.1 - 77.1	70.9 - 80.0
8	27.9 - 43.2	38.9 - 56.3	48.1 - 64.5	51.0 - 67.0	55.1 - 70.8
7	16.4 - 27.8	24.8 - 38.8	32.5 - 48.0	35.7 - 50.9	40.5 - 55.0
5-6	3.0 - 16.3	4.9 - 24.7	7.7 - 32.4	10.4 - 35.6	12.3 - 40.4
1-4	0.0 - 2.9	0.0 - 4.8	0.0 - 7.6	0.0 - 10.3	0.0 - 12.2
Mean	9.0	8.3	7.8	7.6	7.3
Standard Deviation	2.5	2.4	2.4	2.4	2.4

Scaled Score	<21	21-22	23-27	28-31	>31
Biological Sciences					
12-15	86.3 - 99.9	90.6 - 99.9	91.9 - 99.9	93.0 - 99.9	94.8 - 99.9
10-11	55.6 - 86.2	64.5 - 90.5	69.8 - 91.8	73.3 - 92.9	76.8 - 94.7
9	38.6 - 55.5	47.6 - 64.4	53.4 - 69.7	58.6 - 73.2	61.1 - 76.7
8	24.8 - 38.5	32.0 - 47.5	37.4 - 53.3	42.6 - 58.5	46.3 - 61.0
7	17.4 - 24.7	22.7 - 31.9	27.3 - 37.3	32.4 - 42.5	36.9 - 46.2
5-6	5.5 - 17.3	8.0 - 22.6	10.3 - 27.2	12.4 - 32.3	15.8 - 36.8
1-4	0.0 - 5.4	0.0 - 7.9	0.0 - 10.2	0.0 - 12.3	0.0 - 15.7
Mean	8.9	8.4	8.0	7.8	7.5
Standard Deviation	2.4	2.5	2.6	2.6	2.7

Scaled Score	<21	21-22	23-27	28-31	>31
Writing Sample					
S - T	94.3 - 99.9	95.7 - 99.9	95.7 - 99.9	95.2 - 99.9	94.6 - 99.9
Q - R	59.9 - 94.2	66.2 - 95.6	70.8 - 95.6	69.9 - 95.1	73.1 - 94.5
P	44.8 - 59.8	51.7 - 66.1	57.6 - 70.7	57.7 - 69.8	60.2 - 73.0
O	31.6 - 44.7	37.6 - 51.6	44.5 - 57.5	45.1 - 57.6	47.7 - 60.1
N	21.2 - 31.5	26.5 - 37.5	33.2 - 44.4	35.1 - 45.0	36.4 - 47.6
L - M	3.7 - 21.1	4.6 - 26.4	6.5 - 33.1	7.2 - 35.0	7.5 - 36.3
J - k	0.0 - 3.6	0.0 - 4.5	0.0 - 6.4	0.0 - 7.1	0.0 - 7.4
Median	P	O	O	O	O
25th percentile	N	M	M	M	M
75th percentile	Q	Q	Q	Q	Q

Number and percentage of examinees: Age <21 = 10,687 (28.8%); Age 21 – 22 = 16,147 (43.5%); Age 23 – 27 = 7,044 (19.0%); Age 28 – 31 = 1,790 (4.8%); Age > 31 = 1,475 (4.0%).

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Percentile Rank Ranges for MCAT Content Areas
By Age for Repeating Examinees in 1998

Scaled Score	<21	21-22	23-27	28-31	>31
Verbal Reasoning					
12-15	97.8 - 99.9	98.5 - 99.9	97.9 - 99.9	98.3 - 99.9	98.2 - 99.9
10-11	75.6 - 97.7	79.9 - 98.4	79.5 - 97.8	81.4 - 98.2	83.5 - 98.1
9	57.5 - 75.5	61.5 - 79.8	64.0 - 79.4	67.2 - 81.3	71.9 - 83.4
8	39.9 - 57.4	45.2 - 61.4	49.7 - 63.9	54.9 - 67.1	59.8 - 71.8
7	26.3 - 39.8	29.2 - 45.1	34.6 - 49.6	39.8 - 54.8	46.9 - 59.7
5-6	5.9 - 26.2	7.0 - 29.1	10.7 - 34.5	14.7 - 39.7	21.2 - 46.8
1-4	0.0 - 5.8	0.0 - 6.9	0.0 - 10.6	0.0 - 14.6	0.0 - 21.1
Mean	7.9	7.7	7.5	7.2	6.8
Standard Deviation	2.1	2.1	2.3	2.4	2.6

Scaled Score	<21	21-22	23-27	28-31	>31
Physical Sciences					
12-15	91.8 - 99.9	94.7 - 99.9	95.3 - 99.9	96.1 - 99.9	96.9 - 99.9
10-11	68.3 - 91.7	74.6 - 94.6	77.3 - 95.2	82.5 - 96.0	86.0 - 96.8
9	54.1 - 68.2	60.7 - 74.5	64.5 - 77.2	70.9 - 82.4	78.2 - 85.9
8	33.0 - 54.0	40.2 - 60.6	43.7 - 64.4	52.3 - 70.8	61.3 - 78.1
7	20.1 - 32.9	22.8 - 40.1	26.8 - 43.6	33.6 - 52.2	43.6 - 61.2
5-6	2.7 - 20.0	3.5 - 22.7	4.4 - 26.7	6.5 - 33.5	8.3 - 43.5
1-4	0.0 - 2.6	0.0 - 3.4	0.0 - 4.3	0.0 - 6.4	0.0 - 8.2
Mean	8.4	8.1	7.9	7.5	7.1
Standard Deviation	2.1	2.1	2.1	2.1	2.1

Scaled Score	<21	21-22	23-27	28-31	>31
Biological Sciences					
12-15	92.4 - 99.9	94.7 - 99.9	94.4 - 99.8	96.4 - 99.9	97.7 - 99.9
10-11	66.0 - 92.3	70.6 - 94.6	69.1 - 94.3	77.7 - 96.3	83.3 - 97.6
9	45.2 - 65.9	49.8 - 70.5	49.9 - 69.0	57.7 - 77.6	67.5 - 83.2
8	27.8 - 45.1	30.2 - 49.7	31.1 - 49.8	38.2 - 57.6	48.4 - 67.4
7	18.7 - 27.7	20.0 - 30.1	21.6 - 31.0	26.4 - 38.1	36.8 - 48.3
5-6	4.8 - 18.6	5.0 - 19.9	6.6 - 21.5	7.9 - 26.3	13.7 - 36.7
1-4	0.0 - 4.7	0.0 - 4.9	0.0 - 6.5	0.0 - 7.8	0.0 - 13.6
Mean	8.5	8.3	8.3	7.9	7.3
Standard Deviation	2.2	2.1	2.2	2.2	2.3

Scaled Score	<21	21-22	23-27	28-31	>31
Writing Sample					
S - T	96.6 - 99.9	97.0 - 99.9	96.3 - 99.9	97.7 - 99.9	96.9 - 99.9
Q - R	65.4 - 96.5	68.4 - 96.9	70.3 - 96.2	72.0 - 97.6	75.1 - 96.8
P	50.1 - 65.3	52.8 - 68.3	56.2 - 70.2	59.5 - 71.9	63.2 - 75.0
O	34.5 - 50.0	37.7 - 52.7	41.5 - 56.1	45.0 - 59.4	49.6 - 63.1
N	24.4 - 34.4	26.5 - 37.6	30.1 - 41.4	34.0 - 44.9	36.8 - 49.5
L - M	5.3 - 24.3	4.1 - 26.4	5.0 - 30.0	6.8 - 33.9	7.0 - 36.7
J - k	0.0 - 5.2	0.0 - 4.0	0.0 - 4.9	0.0 - 6.7	0.0 - 6.9
Median	O	O	O	O	O
25th percentile	N	M	M	M	M
75th percentile	Q	Q	Q	Q	P

Number and percentage of examinees: Age <21 = 1,652 (8.0%); Age 21 – 22 = 8,477 (41.0%); Age 23 – 27 = 7,781(37.7%); Age 28 – 31 = 1,573 (7.6%); Age > 31 = 1,169 (5.7%).

12

Percentile Rank Ranges for MCAT Content Areas
By Race/Ethnic Group for All Examinees in 1998

Verbal Reasoning

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	99.6 - 99.9	95.9 - 99.9	98.0 - 99.7	97.5 - 99.9	99.1 - 99.9	99.3 - 99.9	99.8 - 99.9	98.1 - 99.9	94.2 - 99.9
10-11	93.4 - 99.5	68.2 - 95.8	81.6 - 97.9	77.0 - 97.4	87.2 - 99.0	90.0 - 99.2	98.7 - 99.9	81.6 - 98.0	65.0 - 94.1
9	85.8 - 93.3	49.8 - 68.1	64.9 - 81.5	61.0 - 76.9	74.2 - 87.1	81.6 - 89.9	95.7 - 98.6	68.0 - 81.5	48.8 - 64.9
8	76.5 - 85.7	35.2 - 49.7	53.5 - 64.8	46.9 - 60.9	60.3 - 74.1	73.0 - 81.5	92.4 - 95.6	55.8 - 67.9	35.9 - 48.7
7	62.6 - 76.4	21.6 - 35.1	35.5 - 53.4	33.0 - 46.8	44.3 - 60.2	61.4 - 72.9	86.4 - 92.3	42.2 - 55.7	24.2 - 35.8
5-6	27.4 - 62.5	4.7 - 21.5	11.7 - 35.4	10.8 - 32.9	13.8 - 44.2	35.2 - 61.3	56.4 - 86.3	12.3 - 42.1	8.9 - 24.1
1-4	0.0 - 27.3	0.0 - 4.6	0.0 - 11.6	0.0 - 10.7	0.0 - 13.7	0.0 - 35.1	0.0 - 56.3	0.0 - 12.2	0.0 - 8.8
Mean	6.0	8.3	7.4	7.6	7.0	5.8	4.4	7.2	8.3
Standard Deviation	2.2	2.2	2.3	2.4	2.2	2.7	2.1	2.3	2.5

Physical Sciences

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	99.0 - 99.9	91.1 - 99.9	97.6 - 99.9	86.1 - 99.9	97.2 - 99.9	97.1 - 99.9	99.8 - 99.9	95.2 - 99.9	84.8 - 99.9
10-11	94.6 - 98.9	69.1 - 91.0	88.5 - 97.5	58.7 - 86.0	87.7 - 97.1	88.9 - 97.0	98.9 - 99.7	80.6 - 95.1	59.8 - 84.7
9	90.2 - 94.5	55.8 - 69.0	81.6 - 88.4	45.2 - 58.6	79.4 - 87.6	85.7 - 88.8	97.0 - 98.8	68.7 - 80.5	47.8 - 59.7
8	78.9 - 90.1	36.2 - 55.7	64.9 - 81.5	27.0 - 45.1	63.0 - 79.3	74.9 - 85.6	92.9 - 96.9	49.5 - 68.6	31.7 - 47.7
7	63.4 - 78.8	20.4 - 36.1	46.6 - 64.8	14.8 - 26.9	42.2 - 62.9	59.7 - 74.8	81.8 - 92.8	31.4 - 49.4	19.8 - 31.6
5-6	18.0 - 63.3	2.6 - 20.3	9.2 - 46.5	2.3 - 14.7	8.4 - 42.1	23.7 - 59.6	32.7 - 81.7	6.2 - 31.3	4.6 - 19.7
1-4	0.0 - 17.9	0.0 - 2.5	0.0 - 9.1	0.0 - 2.2	0.0 - 8.3	0.0 - 23.6	0.0 - 32.6	0.0 - 6.1	0.0 - 4.5
Mean	6.1	8.4	6.9	8.9	7.1	6.3	5.3	7.6	8.8
Standard Deviation	1.9	2.2	2.0	2.3	2.0	2.3	1.6	2.2	2.5

Biological Sciences

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	98.8 - 99.8	95.4 - 99.9	98.7 - 99.9	89.4 - 99.9	97.0 - 99.9	98.9 - 99.9	99.7 - 99.9	95.0 - 99.9	85.7 - 99.9
10-11	92.8 - 98.8	64.3 - 95.3	75.9 - 98.5	59.4 - 89.3	82.5 - 96.9	87.5 - 98.8	97.2 - 99.6	73.9 - 94.9	56.5 - 85.6
9	84.7 - 92.7	43.9 - 63.3	69.9 - 86.0	40.0 - 59.3	67.9 - 82.4	75.3 - 87.4	93.4 - 97.1	57.9 - 73.8	38.8 - 56.4
8	70.5 - 84.6	26.5 - 43.8	49.5 - 69.8	23.8 - 39.9	49.0 - 67.8	64.5 - 75.2	84.0 - 93.3	40.5 - 57.8	25.0 - 38.7
7	58.9 - 70.4	17.0 - 26.4	37.0 - 49.4	16.2 - 23.7	35.5 - 48.9	54.0 - 64.4	74.5 - 83.9	28.9 - 40.4	17.1 - 24.9
5-6	26.3 - 58.8	4.2 - 16.9	11.8 - 36.9	4.9 - 16.1	10.7 - 35.4	27.8 - 53.9	39.1 - 74.4	9.8 - 28.8	6.7 - 17.0
1-4	0.0 - 26.2	0.0 - 4.1	0.0 - 11.7	0.0 - 4.8	0.0 - 10.6	0.0 - 27.7	0.0 - 39.0	0.0 - 9.7	0.0 - 6.6
Mean	6.1	8.7	7.2	8.8	7.4	6.4	5.2	7.8	8.9
Standard Deviation	2.3	2.2	2.2	2.3	2.3	2.6	2.1	2.4	2.5

Writing Sample

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
S - T	98.8 - 99.9	95.4 - 99.9	98.7 - 99.9	95.7 - 99.9	97.7 - 99.9	97.4 - 99.8	99.8 - 99.9	97.0 - 99.9	93.6 - 99.9
Q - R	81.2 - 98.7	64.3 - 95.3	75.9 - 98.6	65.8 - 95.6	74.6 - 97.6	84.2 - 97.3	98.0 - 99.7	71.1 - 96.9	60.8 - 93.5
P	69.7 - 81.1	48.9 - 64.2	60.8 - 75.8	51.7 - 65.7	58.9 - 74.5	73.4 - 84.1	97.3 - 97.9	57.6 - 71.0	46.9 - 60.7
O	55.8 - 69.6	34.5 - 48.8	45.7 - 60.7	38.0 - 51.6	42.4 - 58.8	65.0 - 73.3	95.6 - 97.2	42.2 - 57.5	33.1 - 46.8
N	43.2 - 55.7	23.3 - 34.4	33.8 - 45.6	27.1 - 37.9	29.6 - 42.3	57.6 - 64.9	93.0 - 95.5	30.4 - 42.1	24.7 - 33.0
L - M	7.7 - 43.1	2.5 - 23.2	6.2 - 33.7	4.2 - 27.0	3.7 - 29.5	34.4 - 57.5	67.9 - 92.9	5.8 - 30.3	5.6 - 24.6
J - k	0.0 - 7.6	0.0 - 2.4	0.0 - 6.1	0.0 - 4.1	0.0 - 3.6	0.0 - 34.3	0.0 - 67.8	0.0 - 5.7	0.0 - 5.5
Median	N	P	O	O	O	M	K	O	P
25th percentile	M	N	M	M	M	J	J	M	N
75th percentile	P	Q	P	Q	Q	P	L	Q	Q

Number and percentage of examinees: Black = 5,275 (9.1%); White = 32,959 (57.0%); American Indian/Alaskan/Hawaiian = 377 (0.7%); Asian/Pacific Islander = 12,248 (21.2%); Hispanic/Mexican American = 1,241 (2.1%); Hispanic/Puerto Rico (Mainland) = 474 (0.8%); Hispanic/Puerto Rico (Commonwealth) = 953 (1.6%); Other Hispanic = 1,335 (2.3%); Unknown = 2,933 (5.1%).

Percentile Rank Ranges for MCAT Content Areas By Race/Ethnic Group for First Time Examinees in 1998

Verbal Reasoning

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	99.4 - 99.9	95.0 - 99.9	97.6 - 99.9	96.7 - 99.9	98.4 - 99.8	99.0 - 99.9	98.9 - 99.9	97.3 - 99.8	93.5 - 99.9
10-11	91.8 - 99.3	65.0 - 94.9	77.1 - 97.5	73.9 - 96.6	85.1 - 98.3	88.9 - 98.9	95.3 - 98.8	78.2 - 97.2	61.8 - 93.4
9	83.8 - 91.7	47.0 - 64.9	60.2 - 77.0	53.9 - 73.8	72.3 - 85.0	80.3 - 88.8	92.1 - 95.2	64.6 - 78.1	46.0 - 61.7
8	74.6 - 83.7	33.5 - 46.9	51.1 - 60.1	45.2 - 58.2	58.3 - 72.2	71.7 - 80.2	87.1 - 92.0	54.3 - 64.5	33.4 - 45.9
7	61.6 - 74.5	20.7 - 33.4	33.8 - 51.0	32.8 - 45.1	44.1 - 58.2	59.8 - 71.6	62.4 - 87.0	40.6 - 54.2	23.0 - 33.3
5-6	28.3 - 61.5	4.9 - 20.6	12.0 - 33.7	11.5 - 32.7	14.1 - 44.0	35.0 - 59.7	0.0 - 62.3	12.5 - 40.5	9.1 - 22.9
1-4	0.0 - 28.2	0.0 - 4.8	0.0 - 11.9	0.0 - 11.4	0.0 - 14.0	0.0 - 34.9		0.0 - 12.4	0.0 - 9.0
Mean	6.0	8.4	7.5	7.7	7.1	5.8	4.1	7.4	8.4
Standard Deviation	2.4	2.2	2.4	2.5	2.3	2.7	2.1	2.4	2.6

Physical Sciences

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	98.6 - 99.9	88.9 - 99.9	96.0 - 99.9	83.2 - 99.9	96.5 - 99.9	96.6 - 99.9	99.8 - 99.9	93.5 - 99.9	81.1 - 99.9
10-11	92.9 - 98.5	65.1 - 88.8	85.7 - 95.9	56.3 - 83.1	86.2 - 96.4	88.7 - 96.5	99.1 - 99.7	77.9 - 93.4	55.8 - 81.0
9	87.8 - 92.8	52.3 - 65.0	79.5 - 85.6	44.4 - 56.2	77.9 - 86.1	85.8 - 88.6	97.0 - 99.0	66.4 - 77.8	44.5 - 55.7
8	76.6 - 87.7	34.3 - 52.2	62.6 - 79.4	27.7 - 44.3	62.1 - 77.8	76.1 - 85.7	94.5 - 96.9	49.4 - 66.3	29.5 - 44.4
7	63.0 - 76.5	19.9 - 34.2	47.0 - 62.5	16.2 - 27.6	42.8 - 62.0	59.2 - 76.0	85.2 - 94.4	31.1 - 49.3	18.7 - 29.4
5-6	20.2 - 62.9	2.8 - 19.8	11.2 - 46.9	2.8 - 16.1	9.2 - 42.7	25.7 - 59.1	39.5 - 85.1	7.4 - 31.0	4.8 - 18.6
1-4	0.0 - 20.1	0.0 - 2.7	0.0 - 11.1	0.0 - 2.7	0.0 - 9.1	0.0 - 25.6	0.0 - 39.4	0.0 - 7.3	0.0 - 4.7
Mean	6.2	8.5	7.0	9.0	7.1	6.3	5.0	7.7	9.0
Standard Deviation	2.1	2.3	2.2	2.4	2.1	2.3	1.6	2.3	2.6

Biological Sciences

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	98.6 - 99.9	89.1 - 99.9	97.6 - 99.9	87.4 - 99.9	96.2 - 99.9	99.0 - 99.9	99.8 - 99.9	94.3 - 99.9	82.9 - 99.9
10-11	91.1 - 98.5	60.5 - 89.0	84.9 - 97.5	58.5 - 87.3	81.3 - 96.1	83.9 - 98.9	97.8 - 99.7	72.3 - 94.2	52.6 - 82.8
9	82.7 - 91.0	42.4 - 60.4	70.5 - 84.8	40.8 - 58.4	66.2 - 81.2	73.8 - 83.8	94.9 - 97.7	56.4 - 72.2	36.5 - 52.5
8	69.5 - 82.6	26.4 - 42.3	53.2 - 70.4	25.8 - 40.7	49.1 - 66.1	64.4 - 73.7	86.7 - 94.8	41.9 - 56.3	24.5 - 36.4
7	58.9 - 69.4	17.4 - 26.3	41.3 - 53.1	18.0 - 25.7	36.3 - 49.0	54.0 - 64.3	80.3 - 86.6	29.9 - 41.8	16.6 - 24.4
5-6	29.8 - 58.8	4.5 - 17.3	12.9 - 41.2	5.9 - 17.9	11.3 - 36.2	29.9 - 53.9	47.7 - 80.2	10.6 - 29.8	6.8 - 16.5
1-4	0.0 - 29.7	0.0 - 4.4	0.0 - 12.8	0.0 - 5.8	0.0 - 11.2	0.0 - 29.8	0.0 - 47.6	0.0 - 10.5	0.0 - 6.7
Mean	6.1	8.7	7.2	8.8	7.4	6.4	4.8	7.9	9.0
Standard Deviation	2.5	2.3	2.3	2.4	2.4	2.7	2.2	2.5	2.6

Writing Sample

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
S - T	98.4 - 99.9	94.7 - 99.9	99.3 - 99.9	95.0 - 99.9	96.9 - 99.9	97.0 - 99.9	99.7 - 99.9	96.9 - 99.9	93.3 - 99.9
Q - R	80.2 - 98.3	63.0 - 94.6	76.3 - 99.2	64.3 - 94.9	72.2 - 96.8	85.1 - 96.9	98.1 - 99.6	70.3 - 96.8	60.5 - 93.2
P	69.1 - 80.1	47.7 - 62.9	61.1 - 76.2	50.5 - 64.2	56.8 - 72.1	73.2 - 85.0	97.7 - 98.0	58.8 - 70.2	46.8 - 60.4
O	56.0 - 69.0	34.0 - 47.6	47.9 - 61.0	36.8 - 50.4	40.0 - 56.7	64.9 - 73.1	95.7 - 97.6	43.4 - 58.7	33.9 - 46.7
N	42.8 - 55.9	22.9 - 33.9	37.6 - 47.8	26.1 - 36.7	27.5 - 39.9	57.3 - 64.8	93.7 - 95.6	32.4 - 43.3	25.7 - 33.8
L - M	8.1 - 42.7	2.6 - 22.8	5.5 - 37.5	4.2 - 26.0	3.7 - 27.4	32.8 - 57.2	71.0 - 93.6	6.8 - 32.3	6.1 - 25.6
J - k	0.0 - 8.0	0.0 - 2.5	0.0 - 5.4	0.0 - 4.1	0.0 - 3.6	0.0 - 32.7	0.0 - 70.9	0.0 - 6.7	0.0 - 6.0
Median	N	P	O	O	O	M	J	O	P
25th percentile	M	N	M	M	M	K	J	M	M
75th percentile	P	Q	P	Q	Q	P	L	Q	Q

Number and percentage of examinees: Black = 3,132 (8.4%); White = 22,053 (59.4%); American Indian/Alaskan/Hawaiian = 243 (0.7%); Asian/Pacific Islander = 7,283 (19.6%); Hispanic/Mexican American = 779 (2.1%); Hispanic/Puerto Rico (Mainland) = 278 (0.7%); Hispanic/Puerto Rico (Commonwealth) = 561 (1.5%); Other Hispanic = 794 (2.1%); Unknown = 2,020 (5.4%).

Percentile Rank Ranges for MCAT Content Areas
By Race/Ethnic Group for Repeating Examinees in 1998

Verbal Reasoning

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	99.9 - 99.9	97.8 - 99.9	99.3 - 99.9	98.6 - 99.9	99.6 - 99.9	99.7 - 99.9		98.9 - 99.9	95.8 - 99.9
10-11	95.8 - 99.8	74.7 - 97.7	90.3 - 99.2	81.4 - 98.5	90.3 - 99.5	91.5 - 99.6	98.5 - 99.9	86.4 - 98.8	72.0 - 95.7
9	88.8 - 95.7	55.3 - 74.6	73.9 - 90.2	64.8 - 81.3	77.1 - 90.2	83.3 - 91.4	96.2 - 98.4	72.9 - 86.3	55.0 - 71.9
8	79.3 - 88.7	38.6 - 55.2	58.2 - 73.8	49.2 - 64.7	63.5 - 77.0	74.6 - 83.2	92.9 - 96.1	57.9 - 72.8	41.5 - 54.9
7	64.0 - 79.2	23.5 - 38.5	38.8 - 58.1	33.0 - 49.1	44.5 - 63.4	63.4 - 74.5	85.5 - 92.8	44.6 - 57.8	27.2 - 41.4
5-6	26.1 - 63.9	4.5 - 23.4	11.2 - 38.7	9.6 - 32.9	13.4 - 44.4	35.3 - 63.3	48.0 - 85.4	12.1 - 44.5	8.5 - 27.1
1-4	0.0 - 26.0	0.0 - 4.4	0.0 - 11.1	0.0 - 9.5	0.0 - 13.3	0.0 - 35.2	0.0 - 47.9	0.0 - 12.0	0.0 - 8.4
Mean	5.9	8.1	7.1	7.5	6.9	5.8	4.8	7.0	8.0
Standard Deviation	2.1	2.0	2.1	2.2	2.0	2.6	1.9	2.2	2.4

Physical Sciences

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	99.7 - 99.9	95.6 - 99.9		90.3 - 99.9	98.3 - 99.9	98.1 - 99.9	100 - 99.9	97.9 - 99.9	92.8 - 99.9
10-11	97.1 - 99.6	77.0 - 95.5	93.3 - 99.9	62.3 - 90.2	89.9 - 98.2	89.4 - 98.0	98.7 - 99.9	84.9 - 97.8	68.6 - 92.7
9	93.6 - 97.0	62.6 - 76.9	85.1 - 93.2	46.5 - 62.2	81.7 - 89.8	85.8 - 89.3	97.2 - 98.6	72.3 - 84.8	55.0 - 68.5
8	82.3 - 93.5	39.7 - 62.5	68.7 - 85.0	26.1 - 46.4	64.2 - 81.6	73.6 - 85.7	90.8 - 97.1	49.9 - 72.2	36.3 - 54.9
7	64.0 - 82.2	21.3 - 39.6	45.6 - 68.6	12.8 - 26.0	40.8 - 64.1	60.8 - 73.5	77.0 - 90.7	32.0 - 49.8	22.0 - 36.2
5-6	14.9 - 63.9	2.1 - 21.2	5.3 - 45.5	1.7 - 12.7	6.8 - 40.7	21.0 - 60.7	22.9 - 76.9	4.6 - 31.9	4.1 - 21.9
1-4	0.0 - 14.8	0.0 - 2.0	0.0 - 5.2	0.0 - 1.6	0.0 - 6.7	0.0 - 20.9	0.0 - 22.8	0.0 - 4.5	0.0 - 4.0
Mean	6.1	8.1	6.8	8.8	7.0	6.3	5.6	7.5	8.3
Standard Deviation	1.6	1.9	1.6	2.1	1.8	2.1	1.5	1.9	2.2

Biological Sciences

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
12-15	99.6 - 99.9	94.7 - 99.9	97.9 - 99.9	91.8 - 99.9	98.3 - 99.9	98.6 - 99.9	98.6 - 99.9	96.5 - 99.9	91.9 - 99.9
10-11	95.6 - 99.5	69.0 - 94.6	75.5 - 97.8	60.4 - 91.7	84.5 - 98.2	92.5 - 98.5	96.8 - 99.9	76.9 - 96.4	65.1 - 91.8
9	88.1 - 95.5	46.7 - 68.9	60.6 - 75.4	38.5 - 60.3	70.9 - 84.4	77.2 - 92.4	91.7 - 96.7	60.6 - 76.8	44.1 - 65.0
8	72.4 - 88.0	26.3 - 46.6	42.6 - 60.5	20.5 - 38.4	49.0 - 70.8	64.4 - 77.1	80.5 - 91.6	39.0 - 60.5	26.1 - 44.0
7	59.2 - 72.3	15.8 - 26.2	29.2 - 42.5	13.2 - 20.4	34.3 - 48.9	53.7 - 64.3	66.5 - 80.4	27.9 - 38.9	18.0 - 26.0
5-6	21.5 - 59.1	3.3 - 15.7	9.8 - 29.1	3.3 - 13.1	9.8 - 34.2	24.6 - 53.6	27.0 - 66.4	9.0 - 27.8	6.3 - 17.9
1-4	0.0 - 21.4	0.0 - 3.2	0.0 - 9.7	0.0 - 3.2	0.0 - 9.7	0.0 - 24.5	0.0 - 26.9	0.0 - 8.9	0.0 - 6.2
Mean	6.2	8.5	7.4	8.9	7.4	6.4	5.8	7.8	8.6
Standard Deviation	2.0	1.9	1.9	2.0	2.1	2.4	1.9	2.2	2.2

Writing Sample

Scaled Score	Black	White	Am.Indian/ Alaskan/ Hawaiian	Asian/ Pacific Islander	Hispanic Mexican American	Hispanic Puerto Rico (Mainland)	Hispanic Puerto Rico (Common.)	Other Hispanic	Unknown
S - T	98.9 - 99.8	96.7 - 99.9	97.9 - 99.9	96.4 - 99.9	98.7 - 99.9	98.6 - 99.9	98.2 - 99.9	97.3 - 99.9	94.8 - 99.9
Q - R	82.4 - 98.8	66.9 - 96.6	75.5 - 97.8	67.6 - 96.3	78.4 - 98.6	83.2 - 98.5	96.9 - 98.1	72.6 - 97.2	61.8 - 94.7
P	70.3 - 82.3	51.3 - 66.8	60.6 - 75.4	53.1 - 67.5	62.2 - 78.3	74.0 - 83.1	95.6 - 96.8	56.1 - 72.5	47.6 - 61.7
O	55.3 - 70.2	35.6 - 51.2	41.9 - 60.5	39.3 - 53.0	46.2 - 62.1	65.3 - 73.9	92.0 - 95.5	40.8 - 56.0	31.7 - 47.5
N	43.5 - 55.2	24.0 - 35.5	27.0 - 41.8	28.2 - 39.2	32.8 - 46.1	58.2 - 65.2	63.4 - 91.9	27.7 - 40.7	22.8 - 31.6
L - M	7.0 - 43.4	2.4 - 23.9	7.6 - 26.9	4.0 - 28.1	3.6 - 32.7	36.8 - 58.1	0.0 - 63.3	4.6 - 27.6	4.7 - 22.7
J - k	0.0 - 6.9	0.0 - 2.3	0.0 - 7.5	0.0 - 3.9	0.0 - 3.5	0.0 - 36.7		0.0 - 4.5	0.0 - 4.6
Median	N	O	O	O	O	M	K	O	P
25th percentile	M	N	M	M	M	J	J	M	N
75th percentile	P	Q	P	Q	P	P	L	Q	Q

Number and percentage of examinees: Black = 2,143 (10.4%); White = 10,906 (52.8%); American Indian/Alaskan/Hawaiian = 134 (0.6%); Asian/Pacific Islander = 4,965 (24.0%); Hispanic/Mexican American = 462 (2.2%); Hispanic/Puerto Rico (Mainland) = 196 (0.9%); Hispanic/Puerto Rico (Commonwealth) = 392 (1.9%); Other Hispanic = 541 (2.6%); Unknown = 913 (4.4%).

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Performance by Undergraduate Major

The graphs in this section present 25th, 50th, and 75th percentile score quartiles grouped by undergraduate major. Each graph represents the quartile information for a content area to allow easy comparison of group performance as well as to provide a basis for interpreting individual performance.

Undergraduate major is grouped into the seven broad categories for ease of presentation: biological sciences, humanities, mathematics and statistics, physical sciences, social sciences, specialized health sciences, and other. A list of the specific majors included within each group is included in Appendix A of this document.

On each graph, an interval is marked indicating the range of scores attained by the middle 50 percent of the students in each group. The bottom line of the interval indicates the score level below which 25 percent of the students scored. The top line of the interval indicates the score level above which 25 percent of the students scored. The thicker cross bar marks the median score, the score below which 50 percent of students scored.

As an example, the 1998 graph for Verbal Reasoning shows that 50 percent of biological science majors scored between 6 and 9; the median score was 8. By inference, 25 percent of biology majors scored below 6, while 25 percent scored above 9.

The percentile intervals displayed for the various groups can also be used to interpret individual scores. For example, a biological science major with a score of 10 has achieved a level of performance higher than 75 percent of his or her peers, while a biological science major attaining a score of 5 is performing at a level lower than 75 percent of his or her peers.

25th, 50th, and 75th Percentile Scores
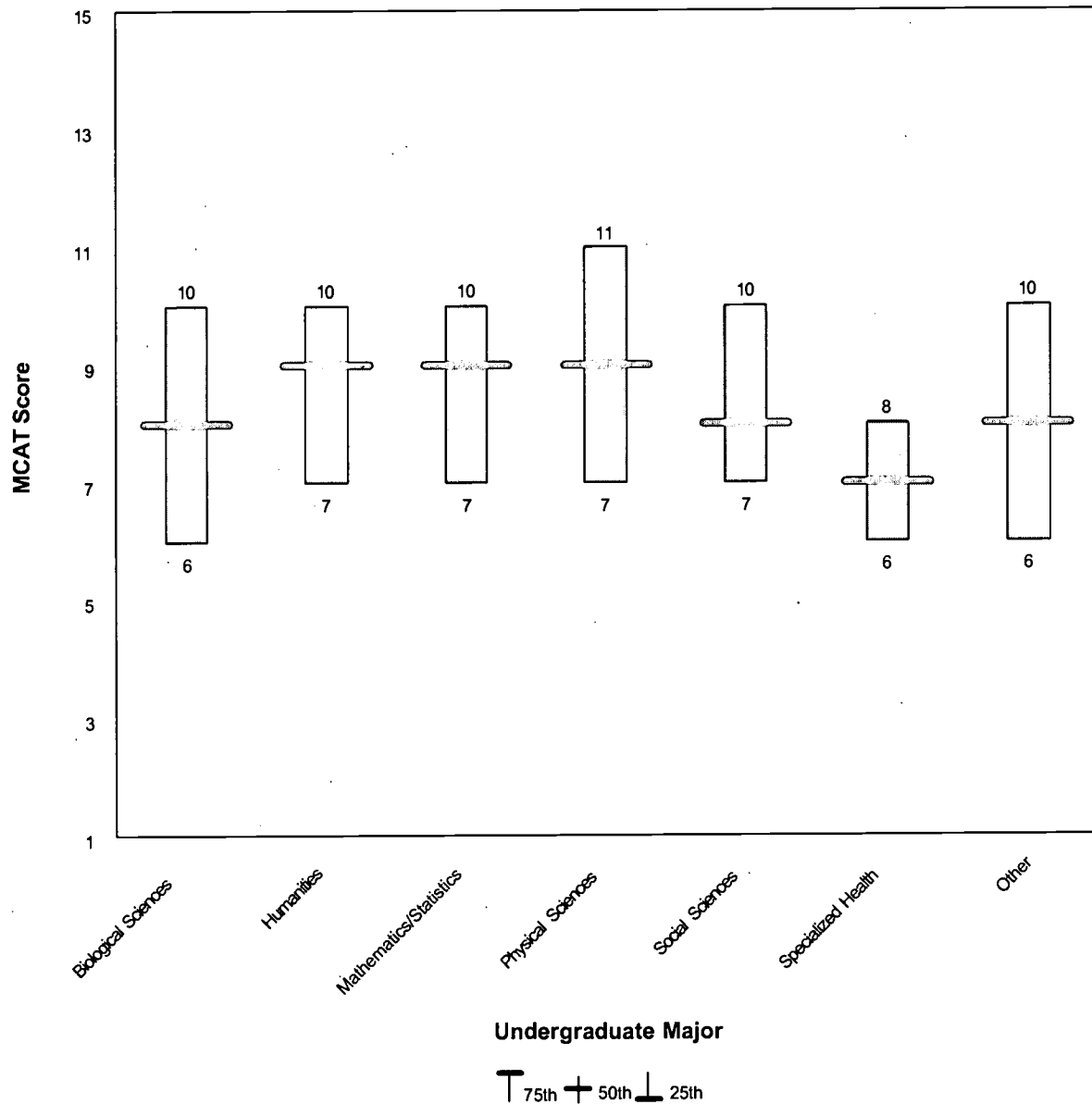## for All 1998 MCAT Examinees
by Undergraduate Major
Verbal Reasoning
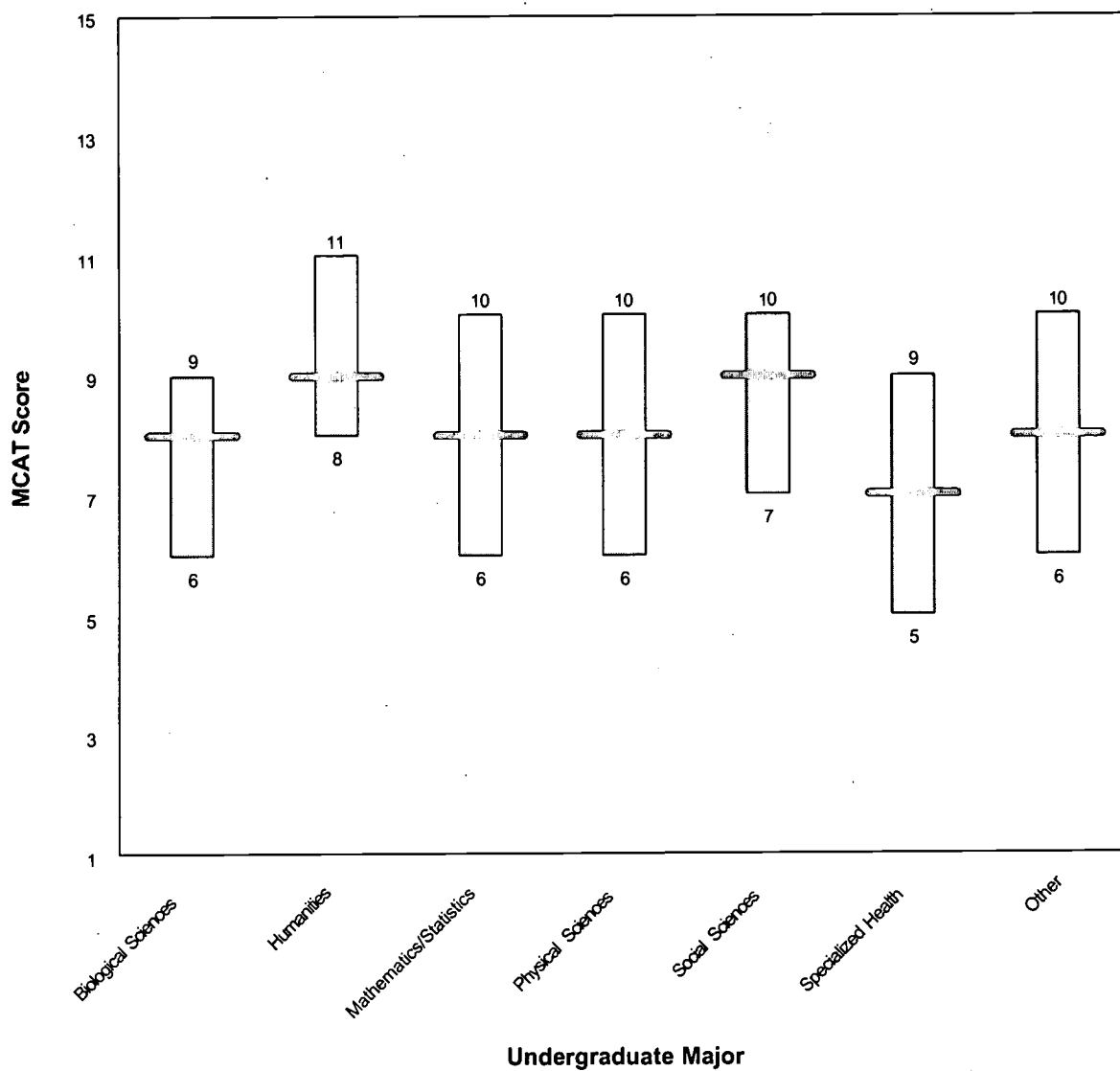
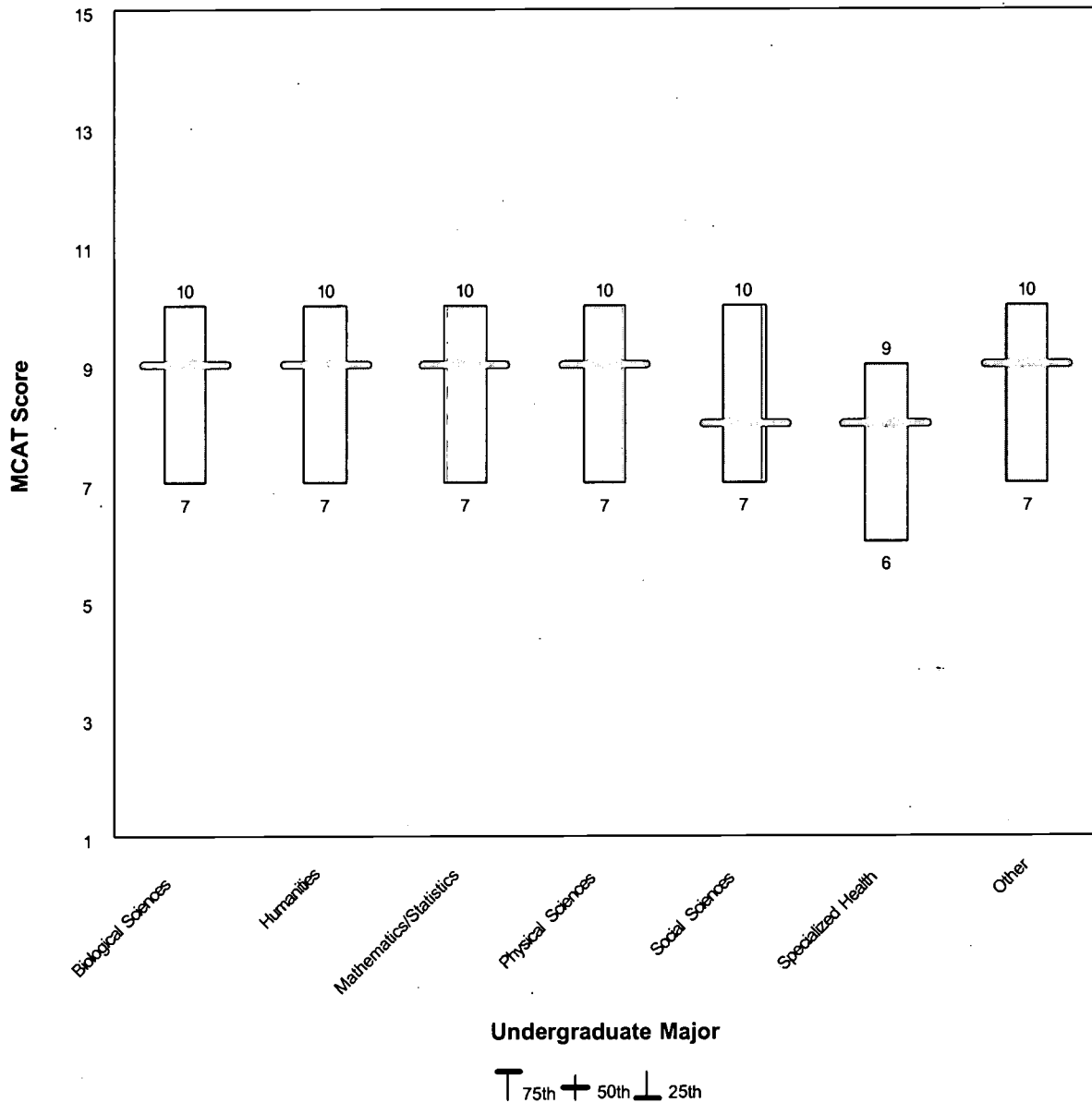Undergraduate Major
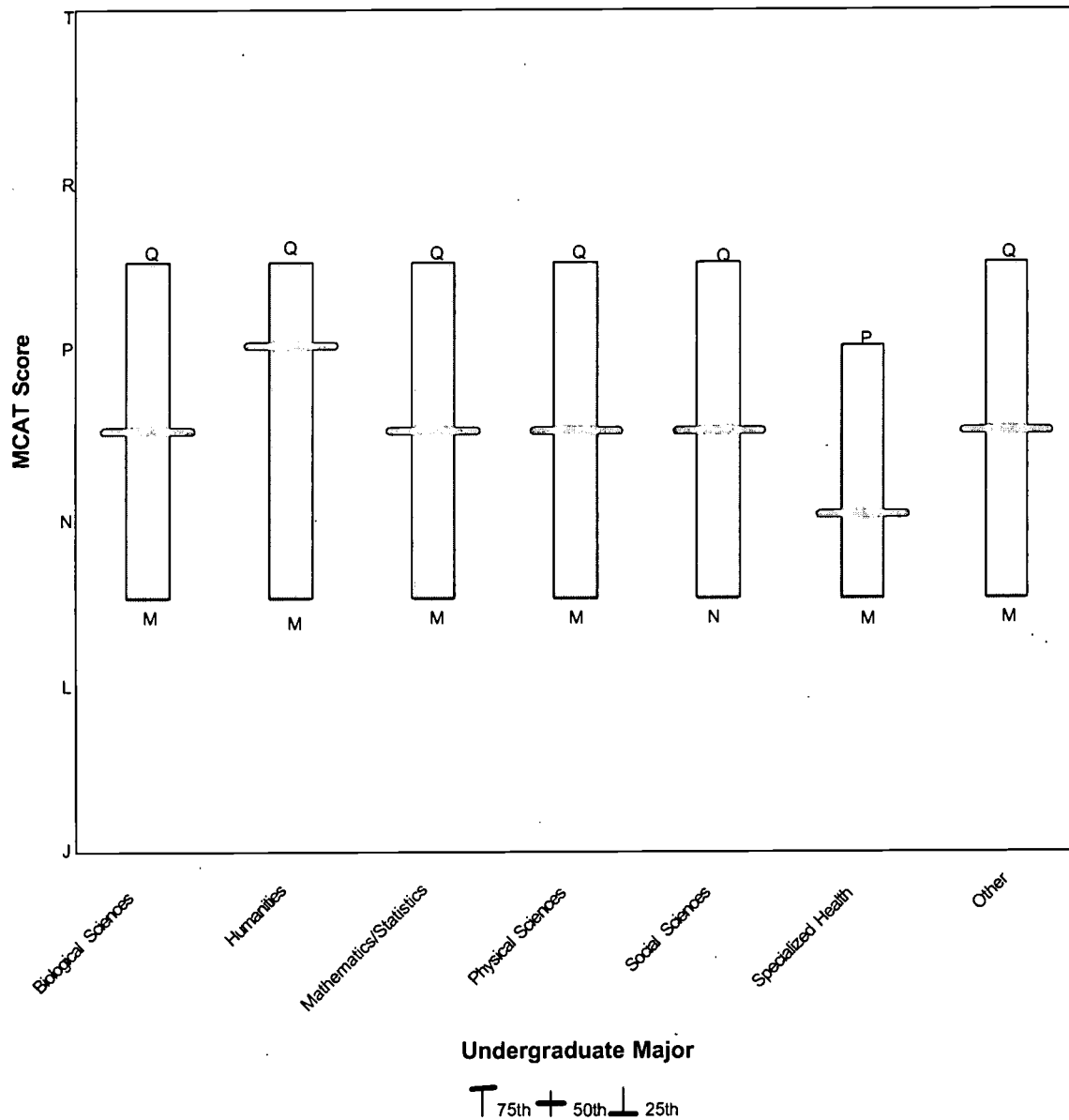
$\top$ 75th $+$ 50th $\perp$ 25th

Number and percentage of examinees: Biological Sciences = 35,633 (61.7%); Humanities = 1,976 (3.4%); Mathematics/Statistics = 374 (0.6%); Physical Sciences = 6,474 (11.2%); Social Sciences = 5,829 (10.1%); Specialized Health = 3,324 (5.8%); Other = 4,185 (7.2%); Total = 57,795

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25th, 50th, and 75th Percentile Scores
for All 1998 MCAT Examinees
by Undergraduate Major
Physical Sciences

T 75th + 50th ⊥ 25th

Undergraduate Major

Number and percentage of examinees: Biological Sciences = 35,633 (61.7%); Humanities = 1,976 (3.4%); Mathematics/Statistics = 374 (0.6%); Physical Sciences = 6,474 (11.2%); Social Sciences = 5,829 (10.1%); Specialized Health = 3,324 (5.8%); Other = 4,185 (7.2%); Total = 57,795

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25th, 50th, and 75th Percentile Scores
for All 1998 MCAT Examinees
by Undergraduate Major

Biological Sciences

Undergraduate Major

⊤ 75th ✛ 50th ⊥ 25th

Number and percentage of examinees: Biological Sciences = 35,633 (61.7%); Humanities = 1,976 (3.4%); Mathematics/Statistics = 374 (0.6%); Physical Sciences = 6,474 (11.2%); Social Sciences = 5,829 (10.1%); Specialized Health = 3,324 (5.8%); Other = 4,185 (7.2%); Total = 57,795

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25th, 50th, and 75th Percentile Scores
for All 1998 MCAT Examinees
by Undergraduate Major
Writing Sample

Undergraduate Major

T 75th ✛ 50th ⊥ 25th

Number and percentage of examinees: Biological Sciences = 35,633 (61.7%); Humanities = 1,976 (3.4%); Mathematics/Statistics = 374 (0.6%); Physical Sciences = 6,474 (11.2%); Social Sciences = 5,829 (10.1%); Specialized Health = 3,324 (5.8%); Other = 4,185 (7.2%); Total = 57,795

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Performance by State of Legal Residence

These tables provide quartile information by state of legal residence. State categories represent the state in which the examinees legally resided at the time of testing, not the state in which they obtained their undergraduate education nor where they will apply to medical school.

Interpretation of the data contained in these tables is identical to that described in the previous section for graphs showing performance by undergraduate major. For each state, three scores are provided under each area of assessment. The first score indicates the 25th percentile, the level below which 25 percent of examinees scored. The middle score is the Median, or 50th percentile, and the third score represents the 75th percentile. For example, in 1998, 25 percent of all students whose legal residence was Alabama scored below 6 in Verbal Reasoning. The median score was 8, and 25 percent of Alabama state residents scored above 9.

25th, 50th, and 75th Percentile Scores for All 1998 MCAT Examinees by State of Legal Residence

State	Number (percent) of Examinees		Verbal Reasoning			Physical Sciences			Biological Sciences			Writing Sample		
Alabama	830	(1.4)	6	8	9	6	7	9	6	8	9	M	O	P
Alaska	78	(0.1)	7	9	11	7	8	10	8	9	10	N	P	Q
Arizona	622	(1.1)	6	8	10	7	8	10	7	9	10	N	P	Q
Arkansas	441	(0.8)	6	8	9	6	7	8	6	8	9	M	N	P
California	6,008	(10.4)	6	8	10	7	9	11	8	9	11	N	P	Q
Colorado	768	(1.3)	7	9	10	7	8	10	8	9	10	O	P	Q
Connecticut	472	(0.8)	7	9	10	7	9	10	8	9	10	O	P	R
Delaware	116	(0.2)	7	9	10	7	9	10	8	9	10	N	P	Q
District of Columbia	85	(0.1)	6	8	10	6	8	10	6	8	10	N	P	Q
Florida	2,159	(3.7)	6	8	9	6	8	9	6	8	10	M	O	Q
Georgia	1,273	(2.2)	6	8	9	6	8	9	6	8	10	M	O	Q
Hawaii	235	(0.4)	6	8	10	7	8	10	8	9	10	N	O	Q
Idaho	151	(0.3)	7	8	10	7	8	10	8	9	10	N	O	Q
Illinois	2,508	(4.3)	6	8	10	7	8	10	7	8	10	M	O	Q
Indiana	911	(1.6)	7	8	10	7	8	10	7	9	10	M	O	Q
Iowa	490	(0.8)	7	8	10	7	8	10	7	9	10	N	P	Q
Kansas	612	(1.1)	7	8	10	6	8	9	7	8	10	M	O	Q
Kentucky	742	(1.3)	6	8	9	6	7	9	6	8	9	M	O	Q
Louisiana	1,257	(2.2)	6	7	9	6	7	8	6	8	9	M	O	Q
Maine	106	(0.2)	7	9	10	6	8	10	7	9	10	N	P	Q
Maryland	1,249	(2.2)	6	8	10	7	8	10	7	9	10	N	P	Q
Massachusetts	1,151	(2.0)	7	9	10	7	9	11	8	9	11	N	P	Q
Michigan	1,930	(3.3)	6	8	10	7	8	10	7	9	10	M	O	Q
Minnesota	915	(1.6)	7	9	10	7	8	10	8	9	10	N	O	Q
Mississippi	635	(1.1)	5	7	9	5	6	8	5	7	8	M	N	P
Missouri	882	(1.5)	6	8	10	6	8	10	6	8	10	M	O	Q
Montana	147	(0.3)	7	9	10	7	8	10	7	9	10	N	P	Q

Scores for 25th, 50th (median), and 75th percentiles for each state are presented in the format: 25 50 75

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25th, 50th, and 75th Percentile Scores for All 1998 MCAT Examinees by State of Legal Residence

State	Number (percent) of Examinees		Verbal Reasoning			Physical Sciences			Biological Sciences			Writing Sample		
Nebraska	473	(0.8)	6	8	9	6	8	9	7	8	9	N	O	Q
Nevada	247	(0.4)	6	8	9	6	8	9	7	8	10	M	O	Q
New Hampshire	116	(0.2)	8	9	10	7	8	10	8	9	11	N	P	Q
New Jersey	1,854	(3.2)	6	8	10	7	8	10	7	9	10	N	P	Q
New Mexico	327	(0.6)	6	8	10	6	8	9	7	8	10	N	O	Q
New York	3,856	(6.7)	6	8	10	7	8	10	7	9	10	M	O	Q
North Carolina	1,150	(2.0)	6	8	10	6	8	9	6	8	10	M	O	Q
North Dakota	154	(0.3)	6	8	9	6	8	9	7	8	10	M	N	P
Ohio	2,220	(4.4)	6	8	10	7	8	10	7	8	10	M	O	Q
Oklahoma	789	(1.4)	6	8	9	6	7	9	6	8	9	M	O	Q
Oregon	349	(0.6)	7	9	10	7	9	10	8	9	10	N	P	Q
Pennsylvania	1,984	(3.4)	7	8	10	7	8	10	7	9	10	N	P	Q
Rhode Island	102	(0.2)	6	8	9	6	8	10	6	8	10	N	P	Q
South Carolina	722	(1.2)	6	8	10	6	7	9	6	8	9	M	O	P
South Dakota	156	(0.3)	7	8	9	6	8	9	6	8	9	M	N	P
Tennessee	956	(1.7)	6	8	10	6	7	9	6	8	9	M	O	Q
Texas	3,705	(6.4)	6	8	9	6	8	10	7	8	10	M	O	Q
Utah	1,382	(2.4)	7	9	10	7	9	10	8	10	11	N	P	Q
Vermont	99	(0.2)	7	10	11	7	8	10	8	9	10	N	P	Q
Virginia	506	(0.9)	6	8	10	7	8	10	7	9	10	N	P	Q
Washington	715	(1.2)	7	9	10	8	9	10	8	9	11	N	P	Q
West Virginia	558	(1.0)	6	7	9	6	7	8	6	7	9	M	N	P
Wisconsin	703	(1.2)	7	9	10	7	8	10	8	9	10	N	P	Q
Wyoming	71	(0.1)	7	9	10	7	8	10	8	8	10	M	O	Q
Canada	3,976	(6.9)	6	8	10	7	9	10	8	9	10	N	P	Q
U.S. Territories	1,382	(2.4)	3	4	6	4	5	7	4	6	8	J	K	M
No Response	2,524	(4.4)	5	7	9	6	7	9	6	8	9	M	O	Q

Scores for 25th, 50th (median), and 75th percentiles for each state are presented in the format: 25 50 75

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1998 Examinee Characteristics

Part II:

Characteristics and Perceptions of Medicine of MCAT Examinees

- Demographic Characteristics of MCAT Examinees

- Academic Characteristics of MCAT Examinees

- Time of Decision and Influences on the Decision to Study Medicine

- Perceptions of Medicine and Career Plans of MCAT Examinees

Characteristics and Perceptions of Medicine
of MCAT Examinees

Part II includes information on 51,454 individuals who sat for the MCAT in 1998. Numbers and percentages in this section differ from those in Part I because individuals testing twice were counted twice in that section. No individual is counted twice in Part II. Individuals who sat for two administrations in one year are represented by PMQ responses from the fall (latter) testing.

As in Part I, records were included if they contained complete information with respect to gender, racial/ethnic group, undergraduate major, and date of birth. Because valid responses to Parts II items were not required for inclusion in the data set, non-response categories are provided where appropriate.

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Demographic Characteristics of MCAT Examinees

Percentage of MCAT Examinees from 1991-1998 provides the number and percentage of individuals by gender, racial/ethnic group, age, and size of hometown for examinations given in 1991-1998.

Age was grouped into five categories for convenience of presentation. The traditional college student tests during the junior or senior year when he or she is between 20 and 22, then proceeds with the medical school application process. Recently, medical schools have reported increasing numbers of "non-traditional" applicants; that is, applicants who have worked for several years in another career and are older than the typical 22 year old applicant.

Size of Hometown is obtained on the PMQ through a question requesting that respondents indicate the size of the community in which they spent the majority of their high school years. Hometown size data were grouped for ease of presentation using the following definitions:

> **Large City** - city, or suburb of a city, with a population of at least 500,000
> **Moderate City** - city, or suburb of a city, with a population of 50,000 to 500,000
> **Small City** - city, not a suburb, with a population of 10,000 to 50,000
> **Town** - not a suburb, with a population of 2,500 to 10,000
> **Rural Areas** - unincorporated areas

State of Legal Residence displays the number of examinees legally residing in each state, Canada, and U.S. territories. State categories do not necessarily indicate the state in which examinees have obtained their undergraduate education or where they will apply to medical school. These data do, however, provide a projection of in-state applicant pools.
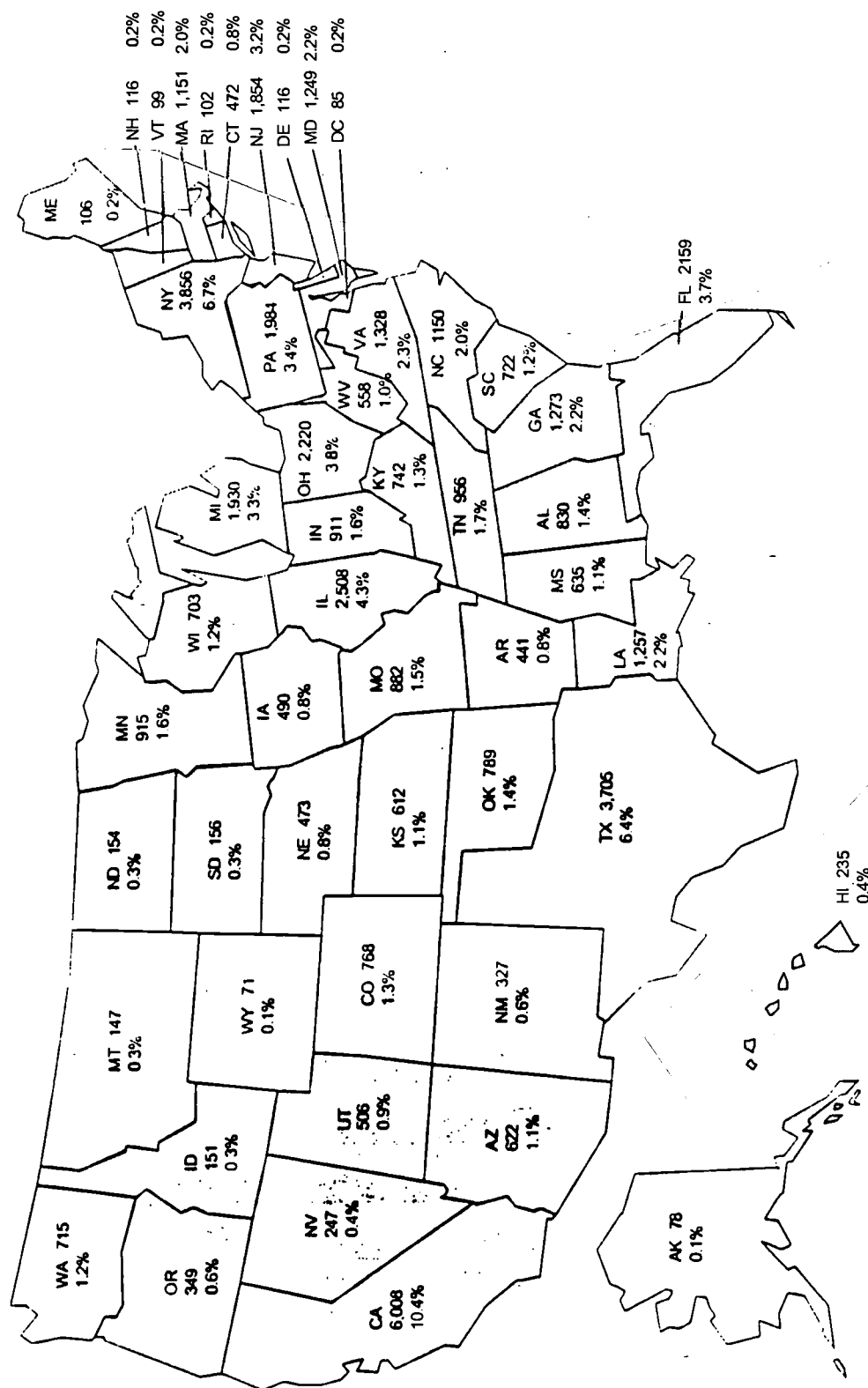
Percentage of MCAT Examinees from 1991-1998 by Gender, Racial/Ethnic Group, Age, and Size of Hometown*

Percent of Examinees

Group	1991 %	1992 %	1993 %	1994 %	1995 %	1996 %	1997 %	1998 %
Gender:								
Male	57	57	56	55	55	54	53	51
Female	43	43	44	45	45	46	47	49
Racial/Ethnic Group:								
Black, not Hispanic	8	8	8	8	9	9	9	9
White, not Hispanic	68	56	64	62	61	61	57	57
Native American**	1	1	1	1	1	1	1	1
Asian/Pacific Islander	18	20	21	23	23	23	22	21
Hispanic:								
Mexican American	2	2	2	2	2	2	2	2
Puerto Rican (Mainland)	1	1	1	1	1	1	1	1
Puerto Rican (Commonwealth)	1	1	1	1	1	2	2	2
Other Hispanic	2	2	2	2	2	2	2	2
Age:								
20 or Younger	16	19	18	18	18	20	21	20
21 to 22	47	44	42	42	42	42	41	43
23 to 27	24	25	27	27	28	27	27	27
28 to 31	6	6	7	7	7	6	6	6
32 or Older	8	6	6	6	6	5	5	5
Size of Hometown:								
Large City	27	25	26	28	29	28	28	27
Moderate Size City	20	18	19	20	20	20	20	19
Small City	11	10	10	10	10	10	10	10
Town	11	10	11	11	11	11	8	8
Small Town or Rural Area	2	2	2	2	2	2	5	5
No Response	30	35	32	29	28	29	29	32

*This table and reported percentages are based on usable records; percentages may not add to 100 because of rounding.
**Includes Native Hawaiians and Alaskan Natives.

Number and Percent of 1998 MCAT Examinees by State of Legal Residence

NH 116   0.2%
VT 99   0.2%
MA 1,151   2.0%
RI 102   0.2%
CT 472   0.8%
NJ 1,854   3.2%
DE 116   0.2%
MD 1,249   2.2%
DC 85   0.2%

ME 106   0.2%

NY 3,856   6.7%

PA 1,984   3.4%

VA 1,328   2.3%

WV 558   1.0%

NC 1150   2.0%

SC 722   1.2%

GA 1,273   2.2%

FL 2159   3.7%

OH 2,220   3.8%

KY 742   1.3%

MI 1,930   3.3%

IN 911   1.6%

TN 956   1.7%

AL 830   1.4%

IL 2,508   4.3%

MS 635   1.1%

WI 703   1.2%

AR 441   0.8%

LA 1,257   2.2%

MN 915   1.6%

IA 490   0.8%

MO 882   1.5%

ND 154   0.3%

SD 156   0.3%

NE 473   0.8%

KS 612   1.1%

OK 789   1.4%

TX 3,705   6.4%

HI 235   0.4%

MT 147   0.3%

WY 71   0.1%

CO 768   1.3%

NM 327   0.6%

ID 151   0.3%

UT 506   0.9%

AZ 622   1.1%

AK 78   0.1%

WA 715   1.2%

OR 349   0.6%

NV 247   0.4%

CA 6,008   10.4%

Canada = 3,976 (6.9%); U.S. Territories = 1,382 (2.4%); No response = 2,524 (4.4   %); Total = 51,454

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Academic Characteristics of MCAT Examinees

Undergraduate Major is grouped into seven categories: biological sciences, humanities, mathematics and statistics, physical sciences, social sciences, specialized health sciences, and other. Although many examinees continue to major in the physical and biological sciences, increasing numbers have recently been noted in the humanities and social science area.

Grade Point Average summarizes examinee responses to a question on the PMQ requesting information on the cumulative undergraduate GPA. Examinees are provided with nine GPA categories in addition to a "Don't know" option. For the purposes of this report, responses were combined for the three lowest categories, "Below 1.00," "1.00-1.50," and "1.51 to 2.00."

Course Hours consists of a series of charts displaying the number of course hours examinees report having taken in twelve areas: social science, English, humanities, behavioral sciences, biology, general chemistry, organic chemistry, physics, biochemistry, calculus, mathematics other than calculus, and computer sciences. Course hour data are presented in terms of semester.hours.

1998 MCAT Examinees
by Undergraduate Major
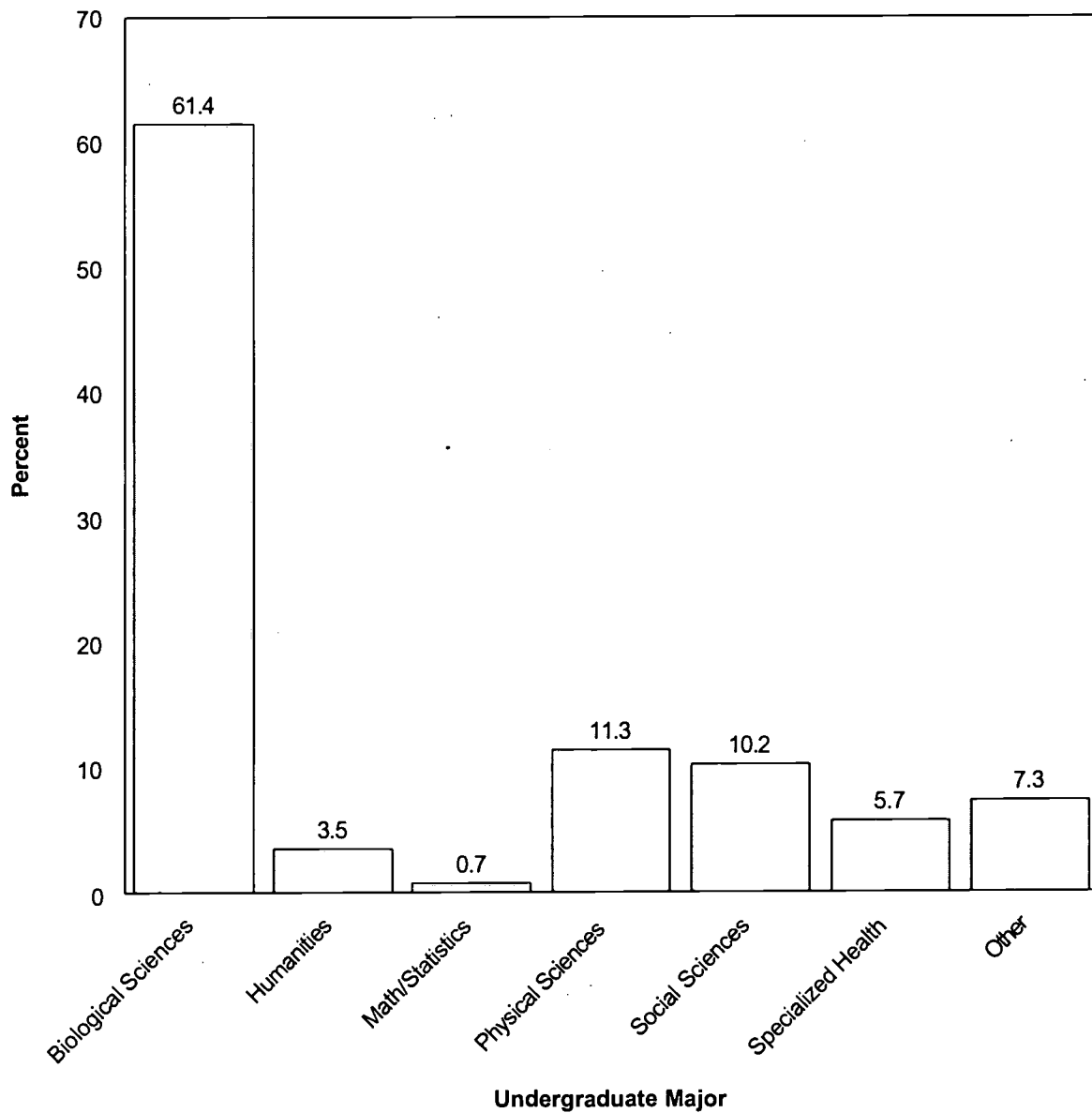
Number and percentage of examinees: Total examinees = 51,454; Biological Sciences = 31,610 (61.4%); Humanities = 1,795 (3.5%); Mathematics/Statistics = 338 (0.7%); Physical Sciences = 5,806 (11.3%); Social Sciences = 5,244 (10.2%); Specialized Health Sciences = 2,917 (5.7%); Other = 3,744 (7.3%)

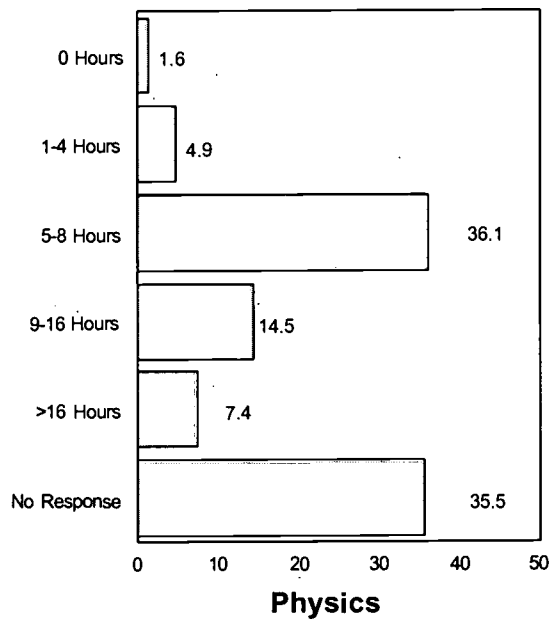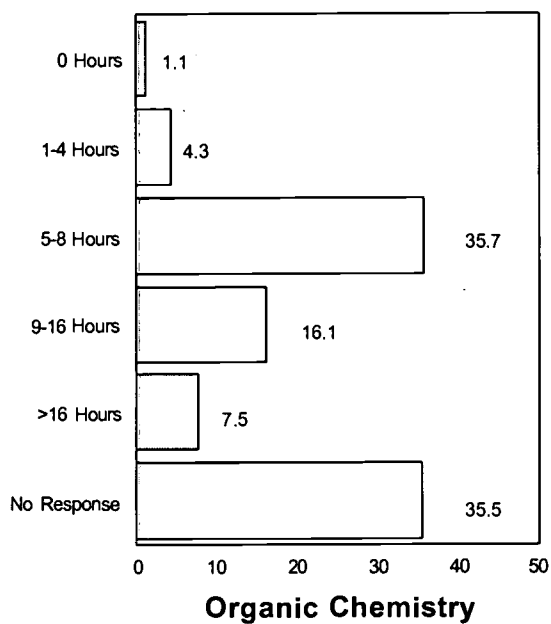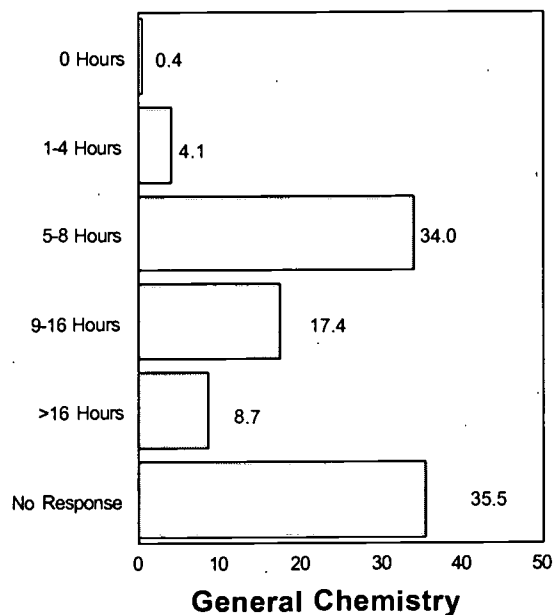# 1998 MCAT Examinees'
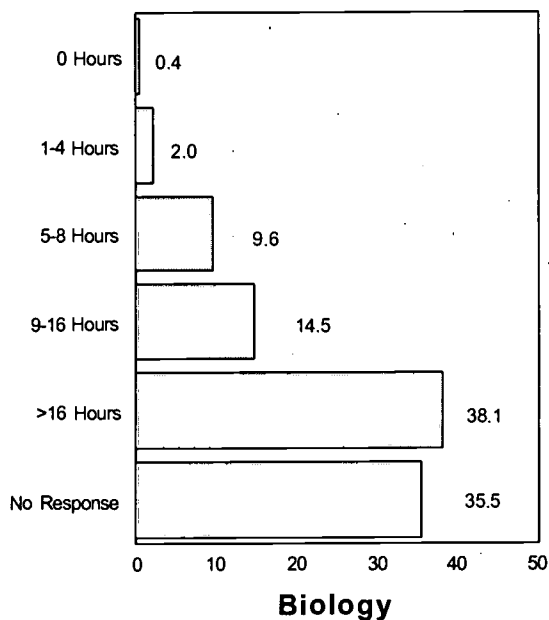# Self-Reported Cumulative
Grade-Point Average
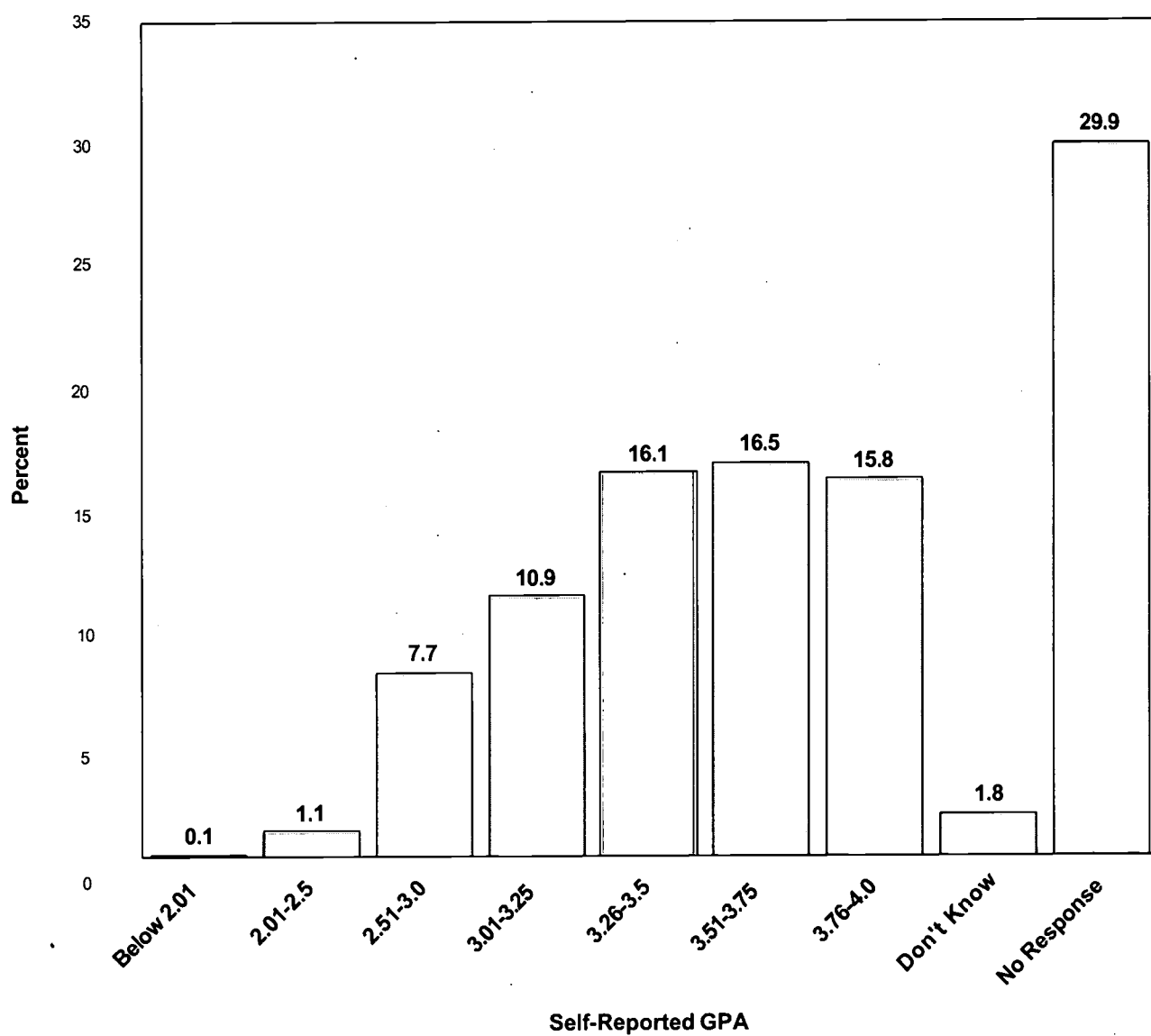
Self-Reported GPA

Percentage of 1998 MCAT Examinees' Reported Undergraduate Course Hours By Subject Area

Social Sciences

0 Hours	3.1
1-4 Hours	7.3
5-8 Hours	13.1
9-16 Hours	23.5
>16 Hours	20.6
No Response	35.5

English

0 Hours	2.8
1-4 Hours	9.5
5-8 Hours	25.5
9-16 Hours	18.6
>16 Hours	6.2
No Response	35.5

Humanities

0 Hours	3.3
1-4 Hours	7.3
5-8 Hours	12.8
9-16 Hours	20.7
>16 Hours	23.2
No Response	35.5

Behavorial Sciences

0 Hours	15.8
1-4 Hours	23.2
5-8 Hours	10.1
9-16 Hours	6.0
>16 Hours	9.4
No Response	35.5
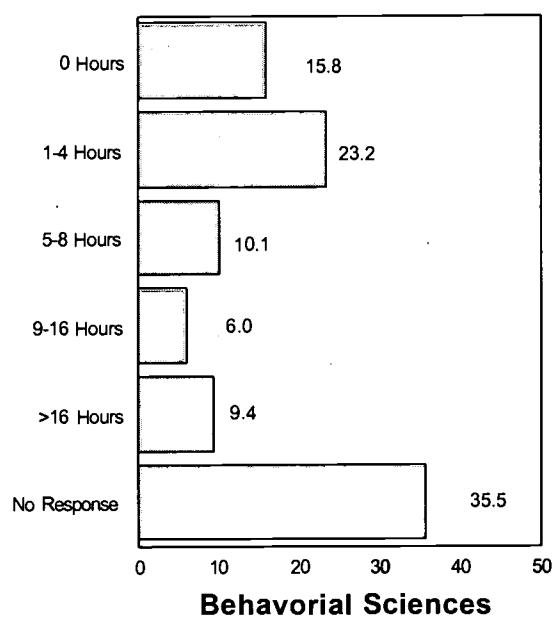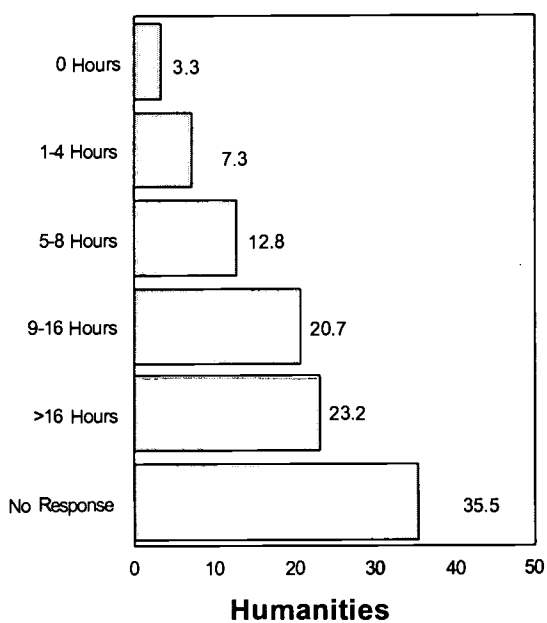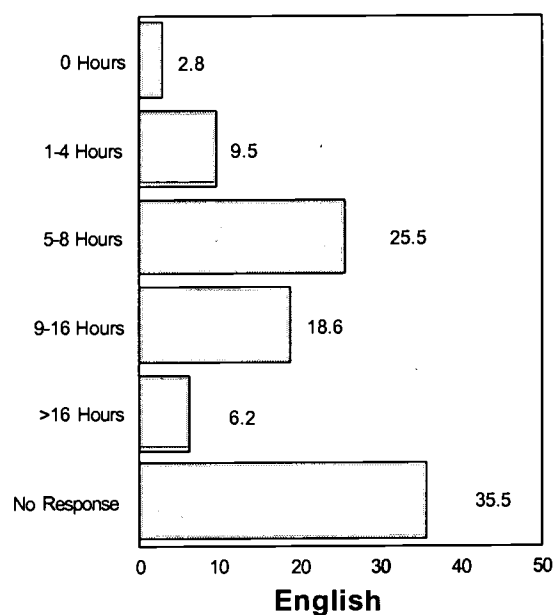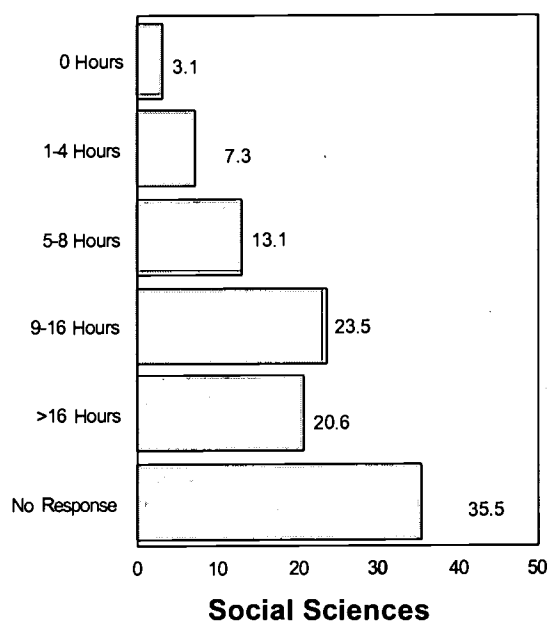
N = 51,454; Percentages may not add to 100 because of rounding

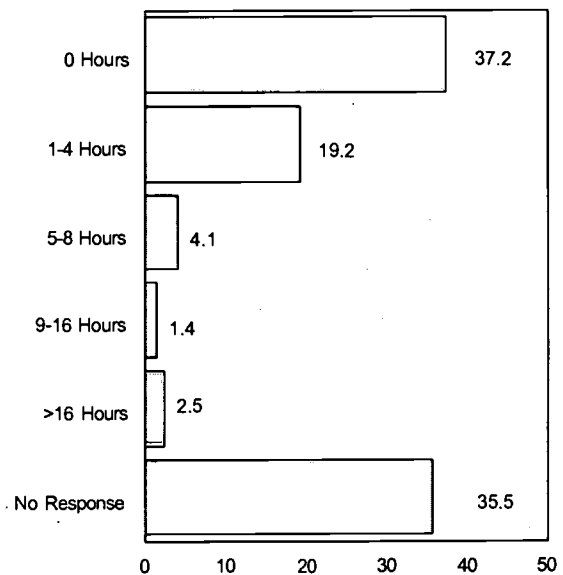# Percentage of 1998 MCAT Examinees' Reported Undergraduate Course Hours By Subject Area

Biology

Hours	Percentage
0 Hours	0.4
1-4 Hours	2.0
5-8 Hours	9.6
9-16 Hours	14.5
>16 Hours	38.1
No Response	35.5

General Chemistry

Hours	Percentage
0 Hours	0.4
1-4 Hours	4.1
5-8 Hours	34.0
9-16 Hours	17.4
>16 Hours	8.7
No Response	35.5

Organic Chemistry

Hours	Percentage
0 Hours	1.1
1-4 Hours	4.3
5-8 Hours	35.7
9-16 Hours	16.1
>16 Hours	7.5
No Response	35.5

Physics

Hours	Percentage
0 Hours	1.6
1-4 Hours	4.9
5-8 Hours	36.1
9-16 Hours	14.5
>16 Hours	7.4
No Response	35.5

N = 51,454; Percentages may not add to 100 because of rounding.

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Percentage of 1998 MCAT Examinees'
Reported Undergraduate Course Hours
By Subject Area

Biochemistry
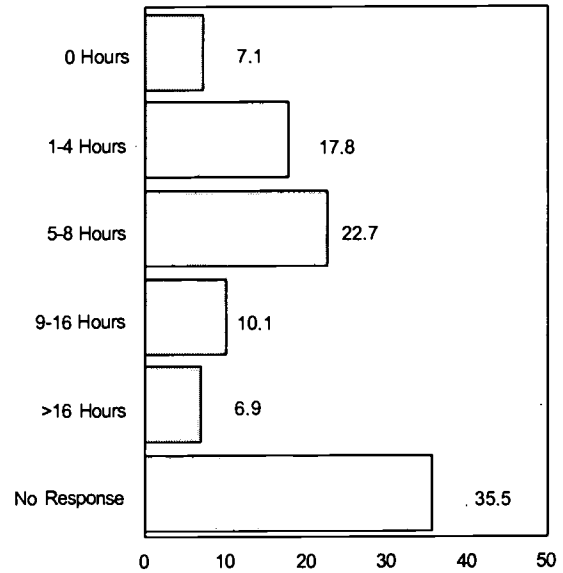
Category	Percentage
0 Hours	28.9
1-4 Hours	18.7
5-8 Hours	8.7
9-16 Hours	3.1
>16 Hours	4.9
No Response	35.5
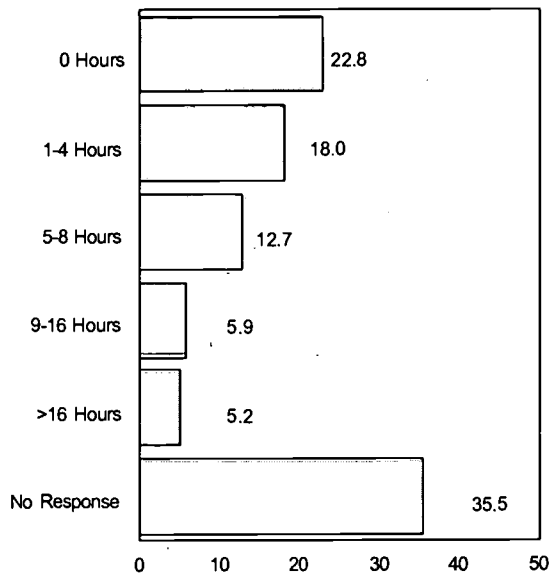
Calculus

Category	Percentage
0 Hours	7.1
1-4 Hours	17.8
5-8 Hours	22.7
9-16 Hours	10.1
>16 Hours	6.9
No Response	35.5

Mathematics

Category	Percentage
0 Hours	22.8
1-4 Hours	18.0
5-8 Hours	12.7
9-16 Hours	5.9
>16 Hours	5.2
No Response	35.5

Computer Sciences

Category	Percentage
0 Hours	37.2
1-4 Hours	19.2
5-8 Hours	4.1
9-16 Hours	1.4
>16 Hours	2.5
No Response	35.5

N = 51,454; Percentages may not add to 100 because of rounding

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Perceptions of Medicine and Career Plans
of MCAT Examinees

This section presents information on topics related to examinee decisions to pursue a career in medicine. Response data are presented for all examinees and for gender and racial/ethnic groups. Individuals are assigned to gender and racial/ethnic groups based on responses to self-identification items on MCAT registration materials.

Three racial/ethnic categories are presented: underrepresented minority, other minority, and white. The underrepresented minority group includes examinees describing themselves as black, American Indian, Alaskan Native, Mexican American, or Mainland Puerto Rican; these are racial/ethnic groups currently underrepresented in medical schools. Examinees identifying themselves as Commonwealth Puerto Rican, other Hispanic, or Asian/Pacific Islander are included in the "other minority" category.

This section is further divided into subcategories:

- Time of Decision and Influences on the Decision to Study Medicine

- Reasons for Choosing a Career in Medicine

- Perceptions of Medicine

- Career Plans (Medical Specialty Preference and Preferred Practice Setting)

Time of Decision and Influences on the Decision to Study Medicine

The following charts illustrate when this group of examinees chose to pursue a medical career and who or what was the primary influence on that decision.

The first two graphs show the percentage of examinees making the decision to study medicine at selected stages of education; data are presented grouped by racial/ethnic and gender status. Data for these graphs are derived from a PMQ item asking examinees to indicate if they definitely decided to study medicine before high school, during high school, during their first two years of college, during their junior year of college, during their senior year of college, after completing their baccalaureate degree, or after receiving an advanced degree. A "Not yet decided" option is also available.

The last two graphs in this group combine responses to two PMQ items to show the most important influence on the decision to study medicine based upon when the decision was made. The PMQ provides examinees with a series of eleven sources of influence on the decision to study medicine and asks that they select the three most important. The first choice indicated by examinees is reported in this graph. The full wording of the item is provided in Appendix B.

1998 MCAT Examinees'
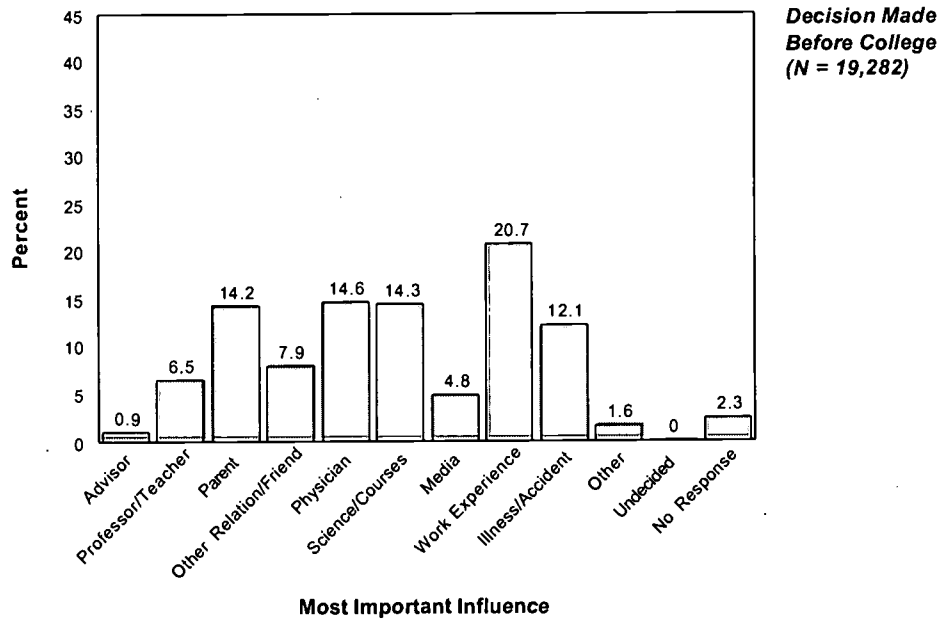# Time of Decision to Study Medicine
by Gender
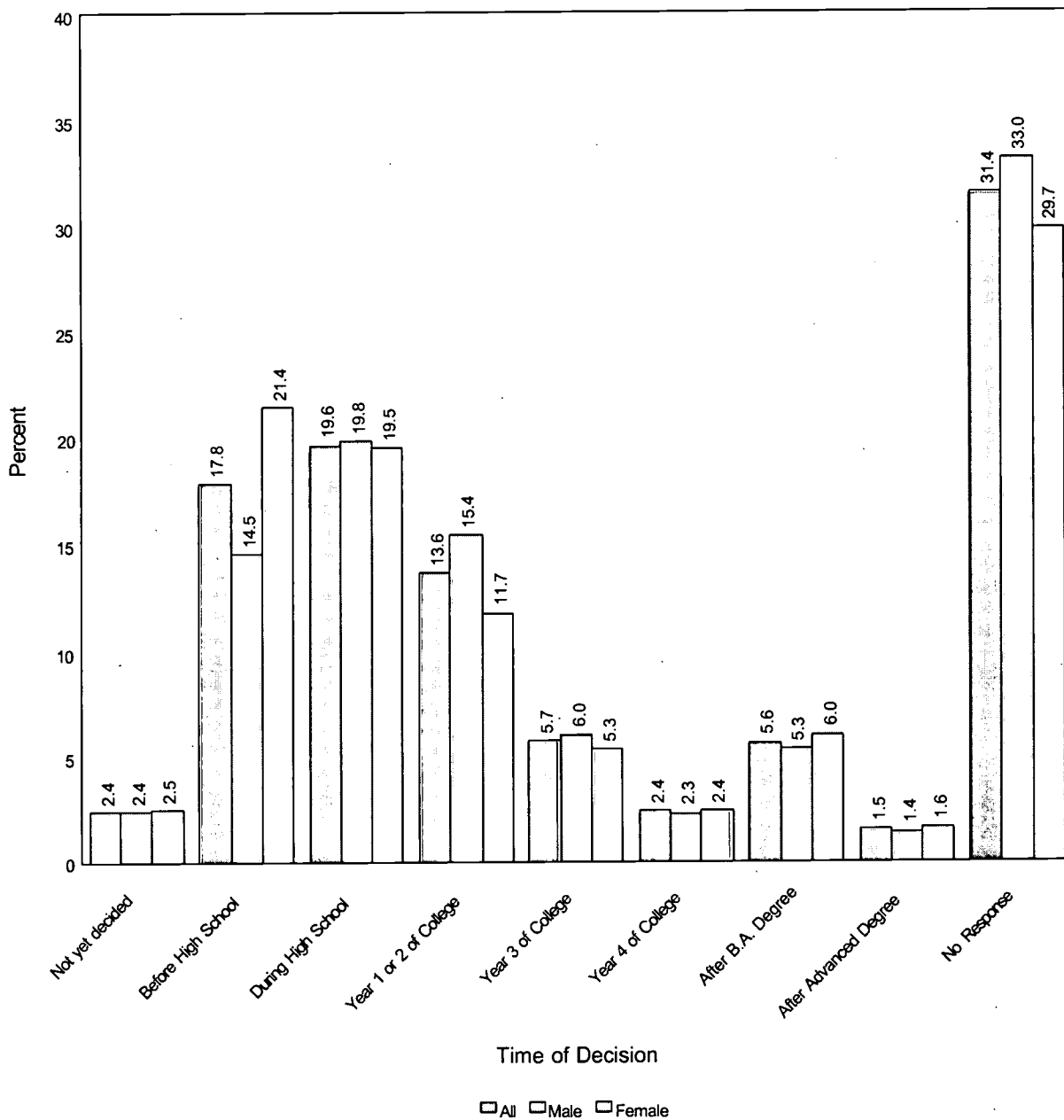
Percent

Time of Decision	All	Male	Female
Not yet decided	2.4	2.4	2.5
Before High School	17.8	14.5	21.4
During High School	19.6	19.8	19.5
Year 1 or 2 of College	13.6	15.4	11.7
Year 3 of College	5.7	6.0	5.3
Year 4 of College	2.4	2.3	2.4
After B.A. Degree	5.6	5.3	6.0
After Advanced Degree	1.5	1.4	1.6
No Response	31.4	33.0	29.7

Time of Decision

□All □Male □Female

Number and percentage of examinees: All = 51,454; Male = 26,432 (51.4%); Female = 25,022 (48.6%)

1998 MCAT Examinees'
Time of Decision to Study Medicine
by Racial/Ethnic Group

Time of Decision

□Underrepresented Minority   □Other Minority   □White
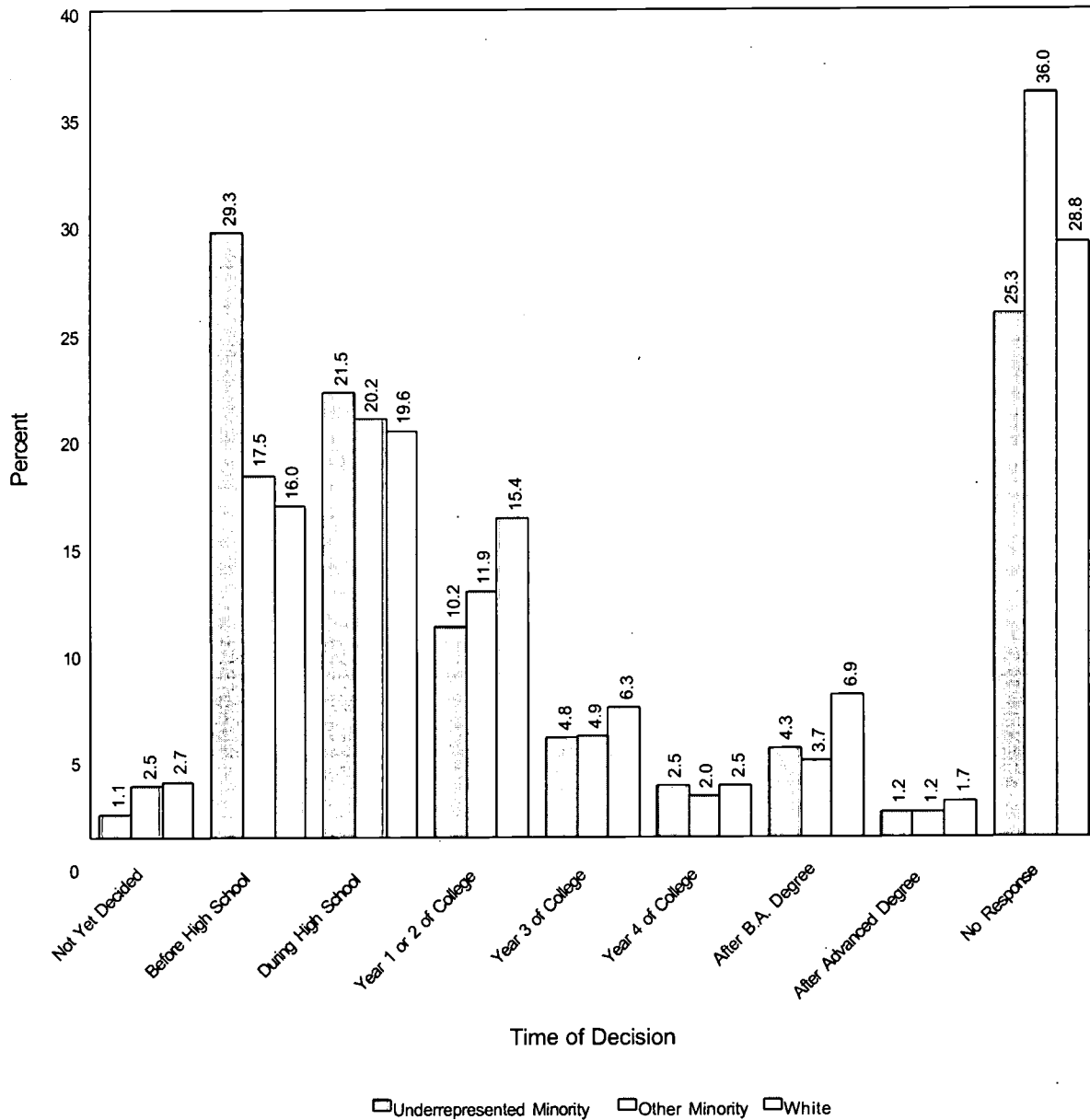
Number and percentage of examinees: Underrepresented Minority = 6,488 (13%); Other Minority = 12,957 (25%);
White = 29,321 (57%); Race Not Reported = 2.680 (5%).

Most Important Influence on Decision to Study Medicine by Time of Decision as Reported by the 1998 MCAT Examinees


Decision Made Before College (N = 19,282)

Bar chart, Percent vs. Most Important Influence:
- Advisor: 0.9
- Professor/Teacher: 6.5
- Parent: 14.2
- Other Relation/Friend: 7.9
- Physician: 14.6
- Science/Courses: 14.3
- Media: 4.8
- Work Experience: 20.7
- Illness/Accident: 12.1
- Other: 1.6
- Undecided: 0
- No Response: 2.3

Most Important Influence

Decision Made During College Year 1 or 2 (N = 6,992)

Bar chart, Percent vs. Most Important Influence:
- Advisor: 1.2
- Professor/Teacher: 6.8
- Parent: 11.8
- Other Relation/Friend: 9.1
- Physician: 15.1
- Science/Courses: 17.1
- Media: 4.1
- Work Experience: 18.8
- Illness/Accident: 12.2
- Other: 1.5
- Undecided: 0
- No Response: 2.2

Most Important Influence

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Most Important Influence on Decision to Study Medicine
by Time of Decision
as Reported by the 1998 MCAT Examinees

**Decision Made
During College
Year 3 or 4
(N = 4,119)**

Most Important Influence

**Decision Made
After College
(N = 3,643)**

Most Important Influence

40
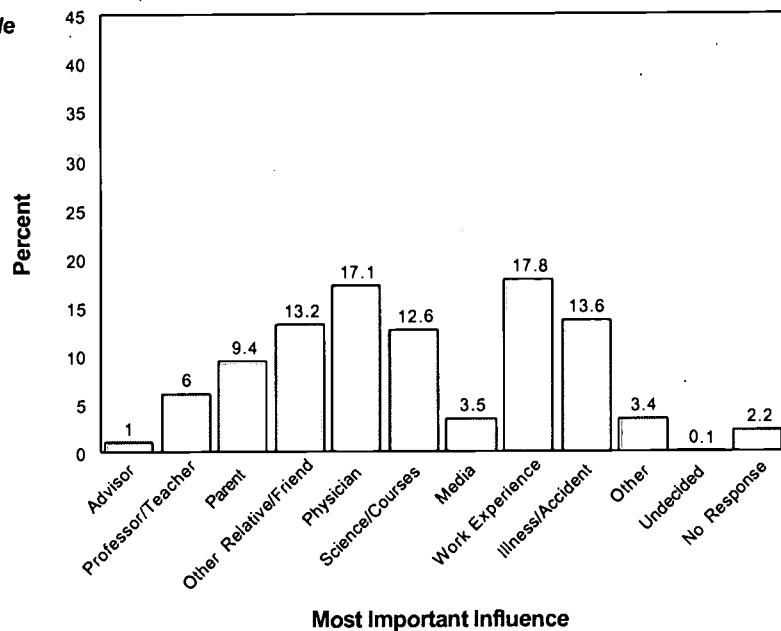
Reason for Choosing a Career in Medicine

These two graphs show response patterns to a PMQ question asking which of fourteen reasons was the most important motivation in their selection of medicine as a career. Text for these items is in Appendix C.

Examinees rate the fourteen factors on a scale of four: "Not important," "Slightly important," "Moderately important," and "Extremely important." The graphs report the percentages of examinees rating a factor as moderately or extremely important. Responses are provided for the entire group and by gender and racial/ethnic group.

1998 MCAT Examinees'
Reason for Choosing a Medical Career
by Gender

Reason for Choosing a Medical Career

☒ All   ☐ Male   ☐ Female
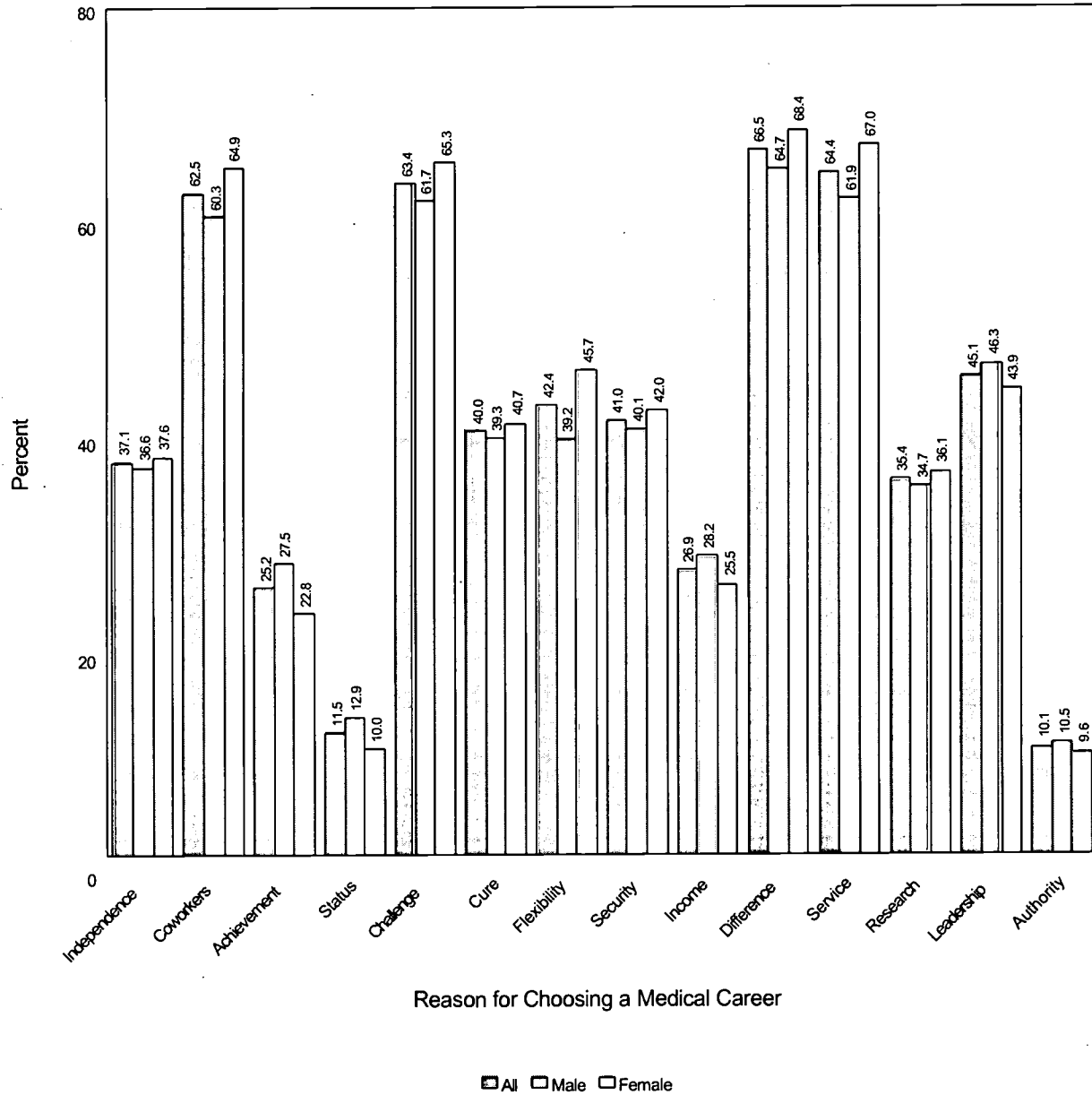
Number and percentage of examinees: All = 51,454; Male = 29,447 (51.4%); Female = 28,348 (48.6%)

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1998 MCAT Examinees'
Reason for Choosing a Medical Career
by Racial/Ethnic Group
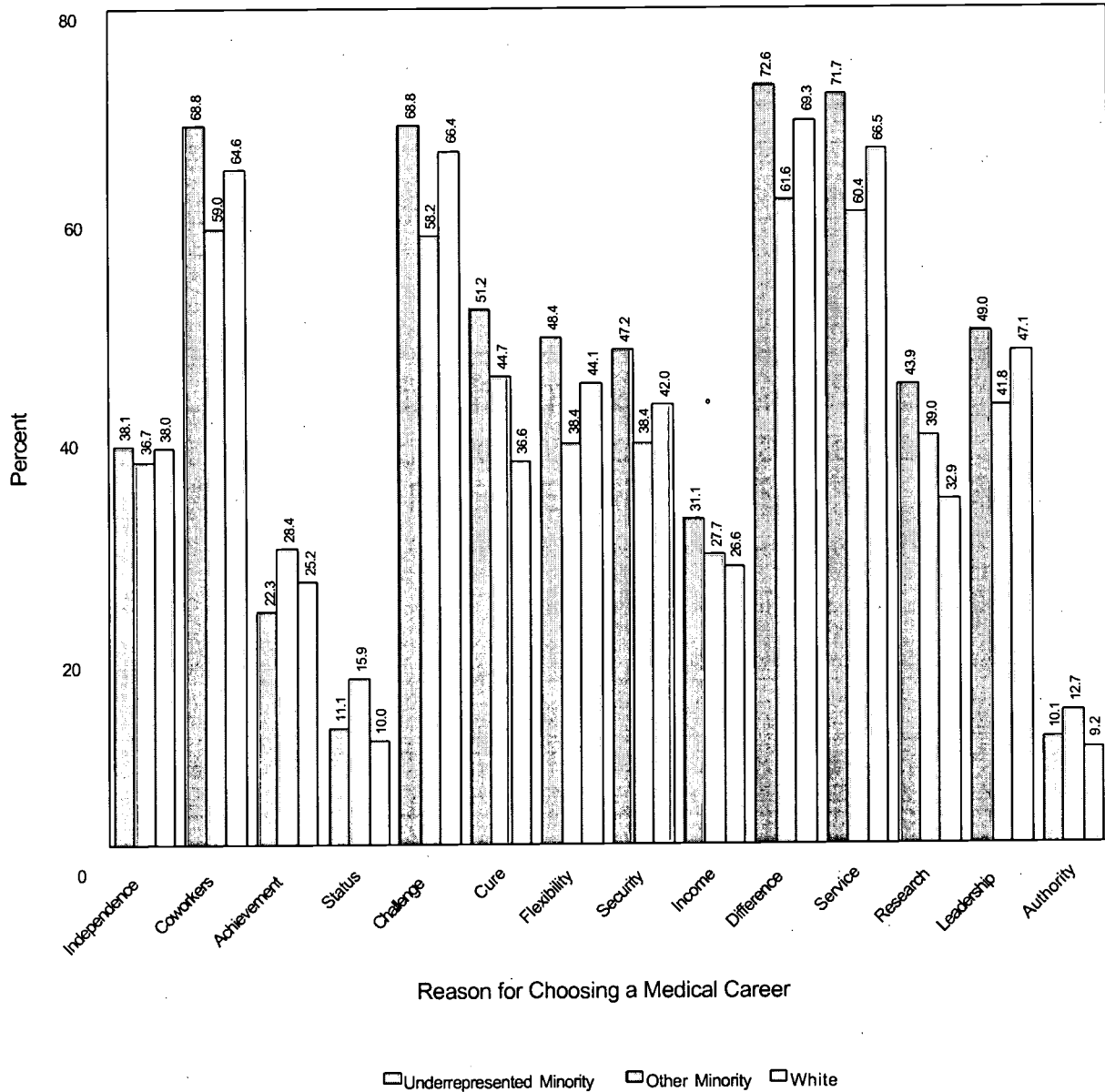
Reason for Choosing a Medical Career

☐ Underrepresented Minority   ☐ Other Minority   ☐ White

Number and percentage of examinees: Underrepresented Minority = 6,488 (12.5%); Other Minority = 12,957 (25.2%);
White = 29,321 (57%)

Perceptions of Medicine

This set of figures present examinee reactions to thirteen PMQ statements about contemporary medical care and practice. Examinee response patterns provide information about the way those who are considering medical careers view the field and its future. The complete text of these statements is listed in Appendix D.

For each statement students are asked to indicate whether they "Agree strongly," "Agree somewhat," "Disagree somewhat," "Disagree strongly," or have "No opinion" about the statement. The data are reported in terms of the percent who agree ("Agree strongly" or "Agree somewhat") with each statement, except for three statements which are worded in such a way that examinees are not expected to agree with them. These items state that malpractice and legal responsibilities are not problems, that demands of work do not interfere with family relations, and that unequal access to medical care is not a problem in the United Sates. Data for the percentage of examinees disagreeing with these statements ("Strongly disagree" or "Disagree somewhat") is presented.

1998 MCAT Examinees'
Agreement with Selected Statements about
Medicine and Medical Practice
by Gender

Perceptions of Medicine

□ All   □ Male   □ Female
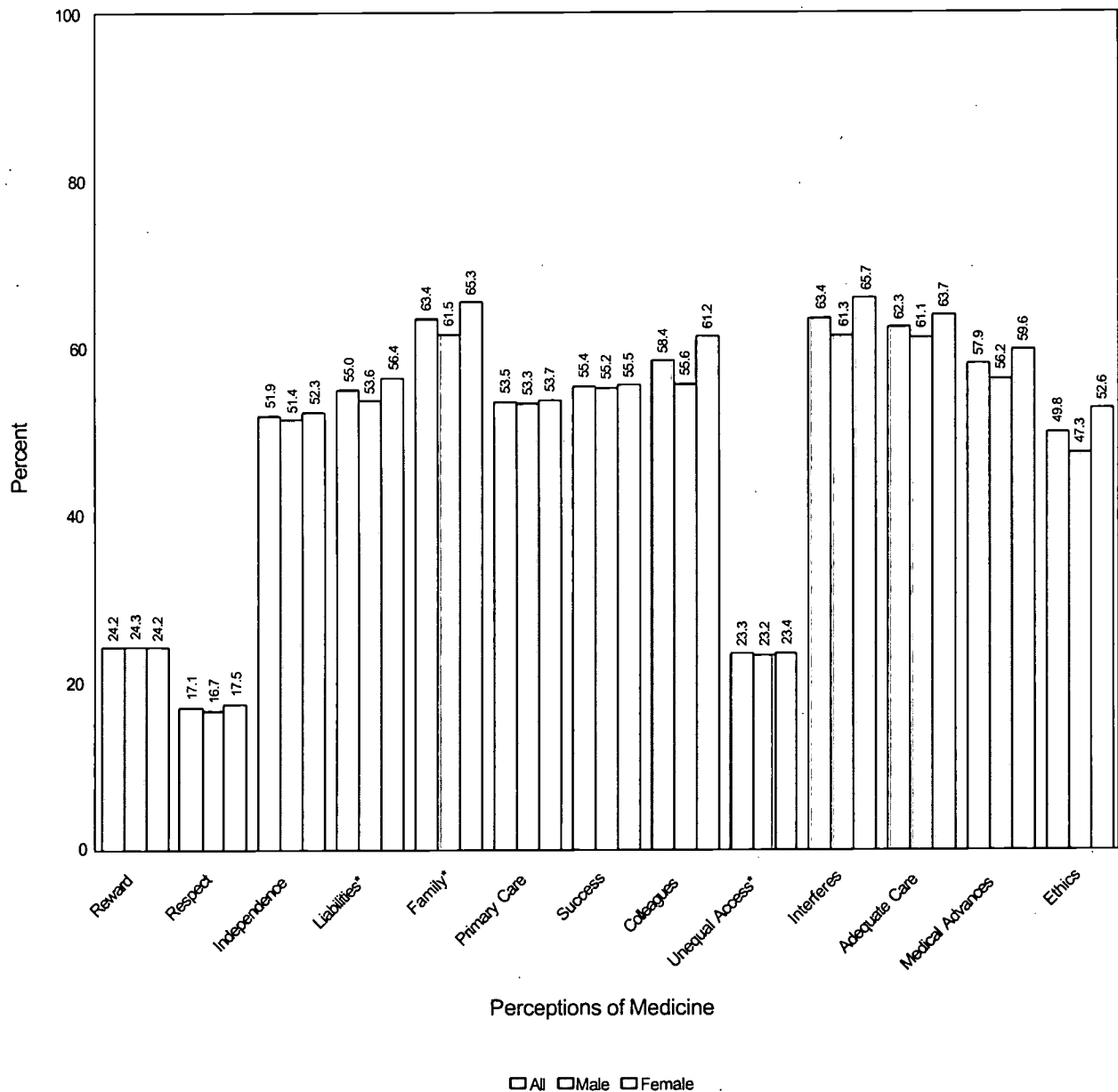
Number and percentage of examinees: All = 51,454; Male = 26,432 (51.4%); Female = 25,022 (48.6%)

* Because the wording of this item was expected to elicit disagreement, the percentage disagreeing is presented in the graph.
  See Appendix D for item text.

1998 MCAT Examinees'
Agreement with Selected Statements about Medicine and Medical Practice by Racial/Ethnic Group
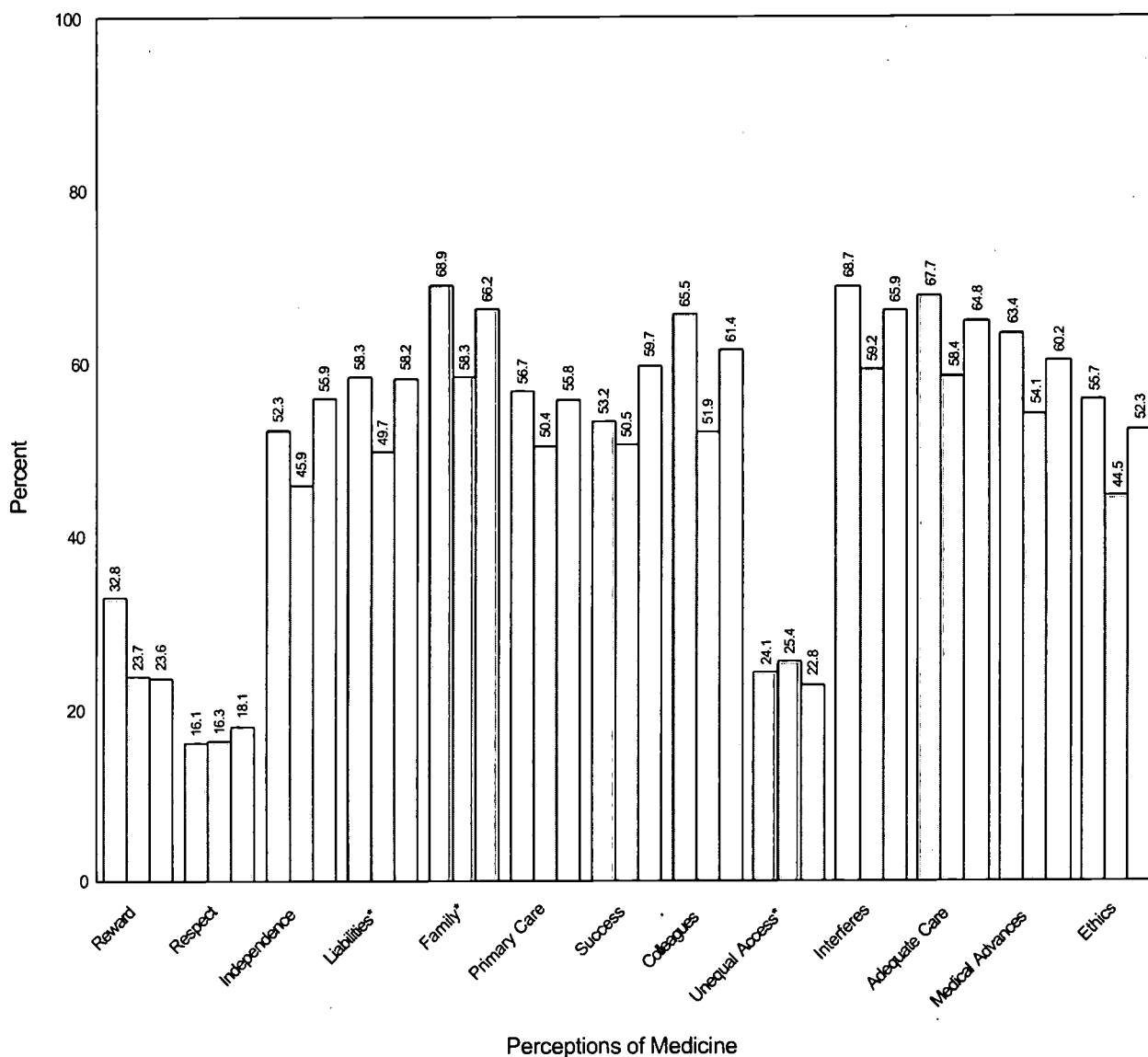
Percent (y-axis): 0, 20, 40, 60, 80, 100

Values by category (Underrepresented Minority, Other Minority, White):

- Reward: 32.8, 23.7, 23.6
- Respect: 16.1, 16.3, 18.1
- Independence: 52.3, 45.9, 55.9
- Liabilities*: 58.3, 49.7, 58.2
- Family*: 68.9, 58.3, 66.2
- Primary Care: 56.7, 50.4, 55.8
- Success: 53.2, 50.5, 59.7
- Colleagues: 65.5, 51.9, 61.4
- Unequal Access*: 24.1, 25.4, 22.8
- Interferes: 68.7, 59.2, 65.9
- Adequate Care: 67.7, 58.4, 64.8
- Medical Advances: 63.4, 54.1, 60.2
- Ethics: 55.7, 44.5, 52.3

Perceptions of Medicine

☐ Underrepresented Minority ☐ Other Minority ☐ White

Number and percentage of examinees: Underrepresented Minority = 6,488 (12.5%); Other Minority = 12,957 (25.2%); White = 29,321 (57%)

* Because the wording of this item was expected to elicit disagreement, the percentage disagreeing is presented in the graph. See Appendix D for item text.

Career Plans

The final set of figures describe examinee career plans in terms of their preference for a specialty and intended practice setting.

Specialty preference of MCAT examinees is grouped by gender and racial/ethnic group. These data are based on a two-part PMQ question. Students are initially asked the extent to which they have decided on a specialty. Those who have definitely decided or who are inclined toward a particular specialty are then requested to indicate the area. The data show that at the time students are preparing to take the MCAT many have not definitely decided on a specialty. However, approximately two-thirds responded that they are inclined toward a certain specialty.

The final figures illustrate responses to two PMQ questions; the first asks students the size of the community in which they spent the major portion of their high school years; the second requests students to indicate the size of community in which they intend to practice. Responses to the two questions are considered jointly to show where examinees from various types of communities plan to practice. Community size data were grouped for ease of presentation into the following categories:

Large City - city, or suburb of a city, with a population of at least 500,000
Moderate City - city, or suburb or a city, with a population of 50,000 to 500,000
Small City - city, not a suburb, with a population of 10,000 to 50,000
Town - not a suburb, with a population of 2,500 to 10,000
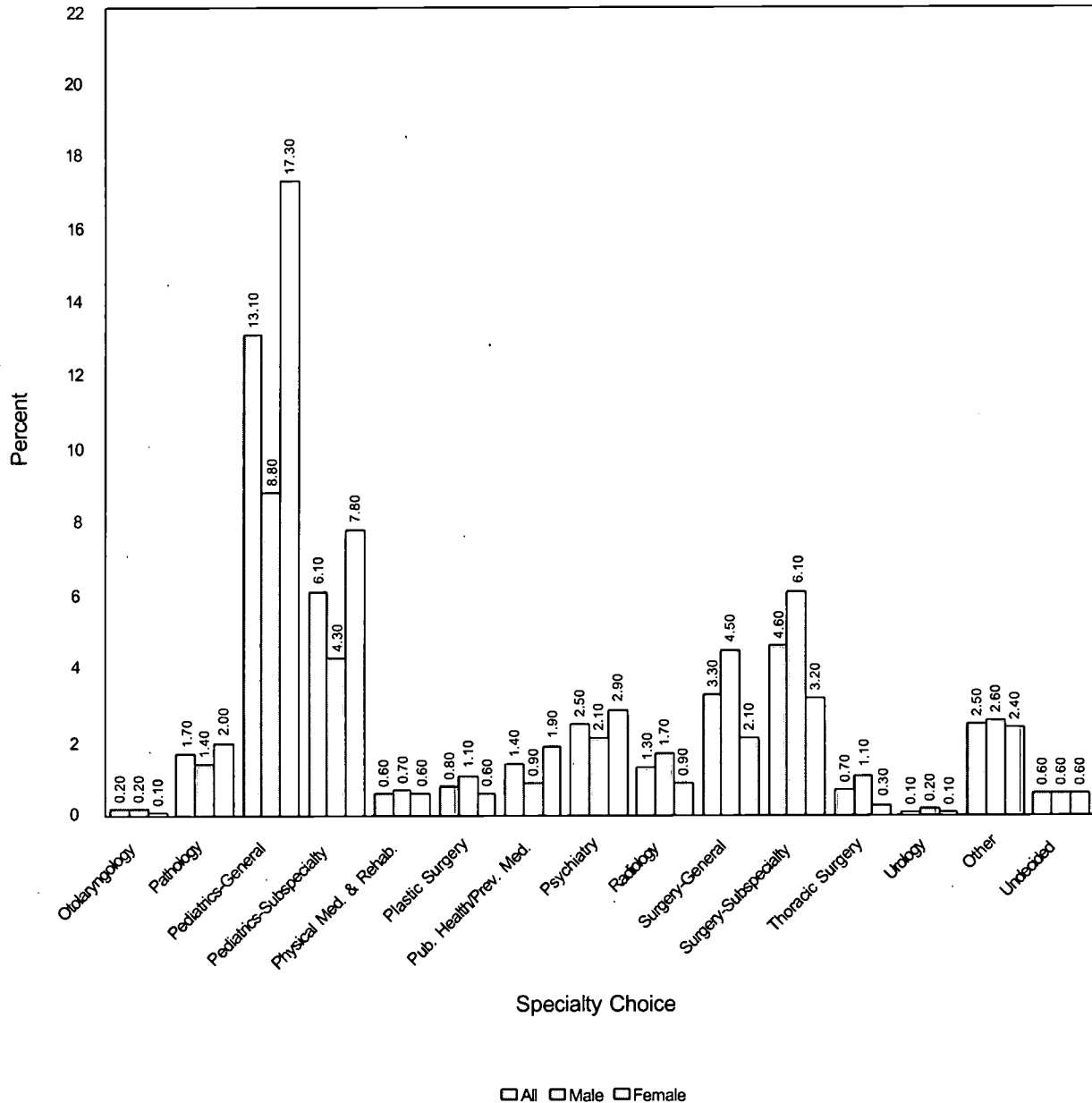**Rural Areas** - unincorporated areas.

Each bar indicates the percentage of examinees planning to practice in the particular area based upon the size of their hometown. Each bar indicates the number of examinees planning to practice in the particular area based upon the size of their hometown. Numbers of examinees are indicated rather than percentages in order to make clear the relative size of populations. The percentage indicating a preference for a particular practice setting from each type of community can be estimated from the numbers represented by each bar. Approximately 8,170 examinees, or more than 50 percent of those from large cities plan to return to a large city to practice (cluster 1, bar 1), while only about 298, or 11.3% of rural examinees prefer to practice in a large city (cluster 1, bar 5). An estimated 627 individuals, or approximately 23.8% from a rural area plan to return to rural areas (cluster 5, bar 5); approximately 485 (3.5%) of examinees from large cities (cluster 5, bar 1) plan to practice in a rural area.

1998 MCAT Examinees'
Reported Specialty Preference
By Gender

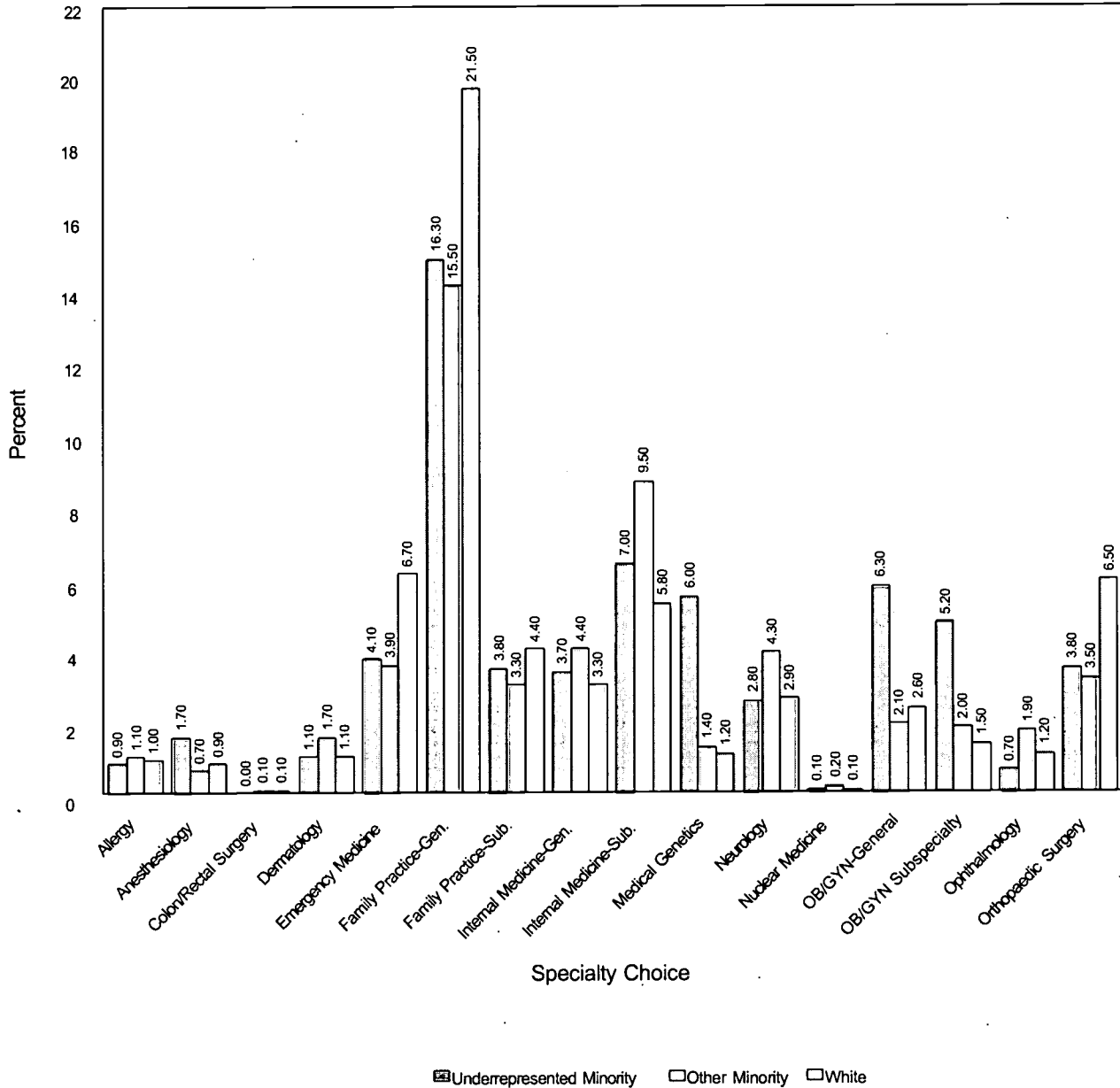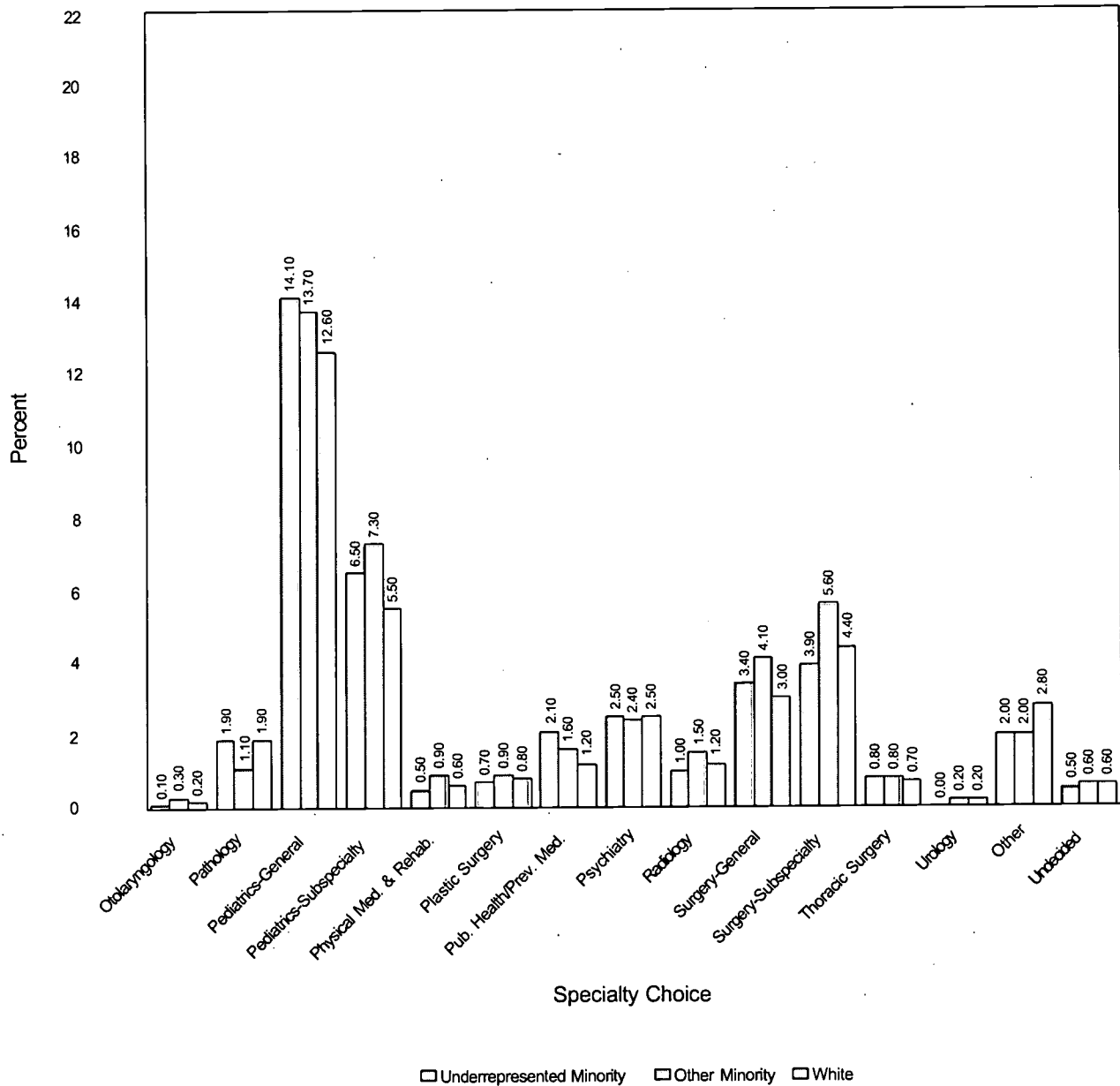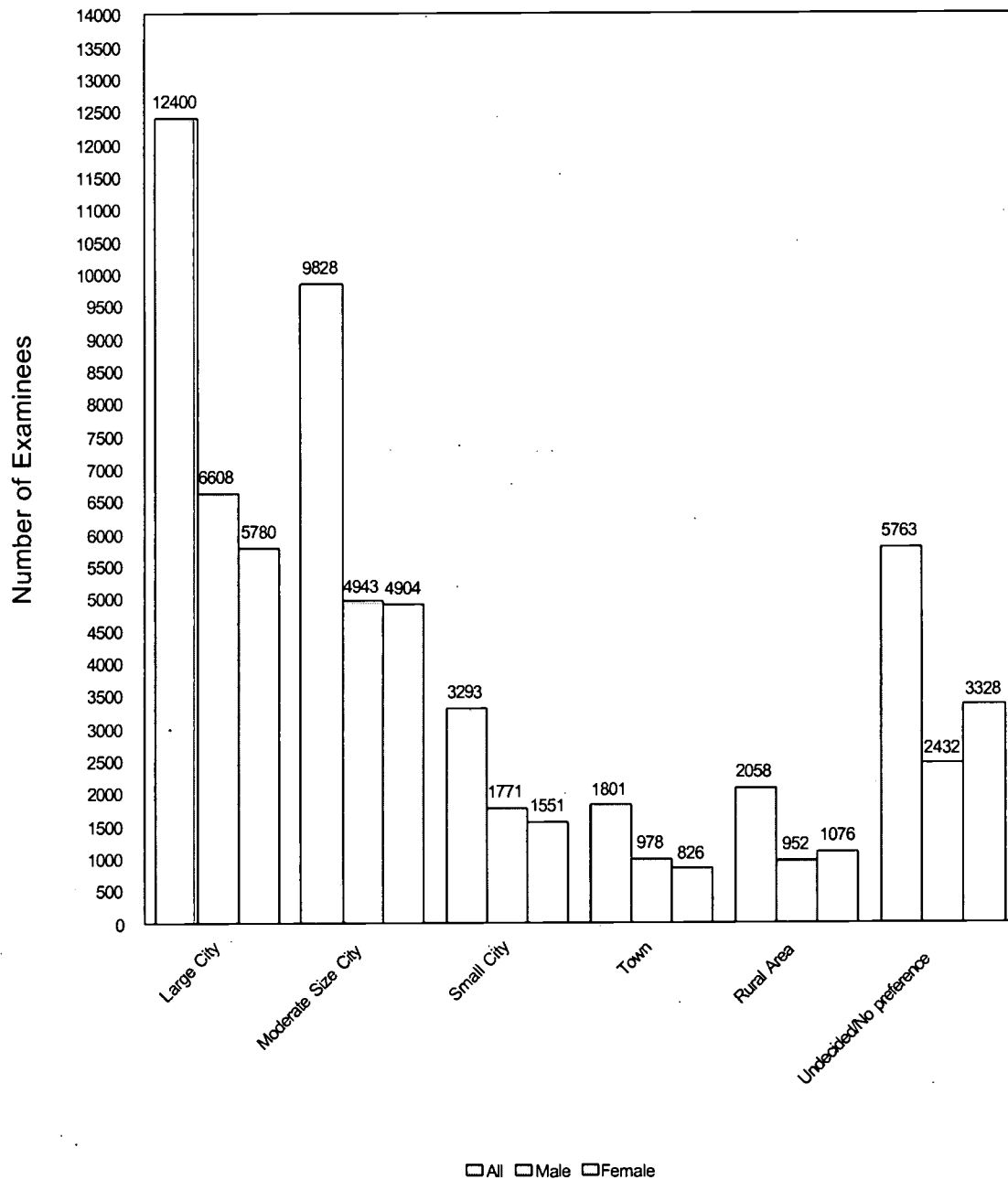Specialty Choice

☐All ☐Male ☐Female

Number and percentage of examinees: All = 51,454; Male = 26,432 (51.4%); Female = 25,022 (48.6%)

1998 MCAT Examinees' Reported Specialty Preference By Gender

Percent

| Specialty Choice values (All / Male / Female) |

Otolaryngology: 0.20, 0.20, 0.10
Pathology: 1.70, 1.40, 2.00
Pediatrics-General: 13.10, 8.80, 17.30
Pediatrics-Subspecialty: 6.10, 4.30, 7.80
Physical Med. & Rehab.: 0.60, 0.70, 0.60
Plastic Surgery: 0.80, 1.10, 0.60
Pub. Health/Prev. Med.: 1.40, 0.90, 1.90
Psychiatry: 2.50, 2.10, 2.90
Radiology: 1.30, 1.70, 0.90
Surgery-General: 3.30, 4.50, 2.10
Surgery-Subspecialty: 4.60, 6.10, 3.20
Thoracic Surgery: 0.70, 1.10, 0.30
Urology: 0.10, 0.20, 0.10
Other: 2.50, 2.60, 2.40
Undecided: 0.60, 0.60, 0.60

Specialty Choice

☐ All ☐ Male ☐ Female

Number and percentage of examinees: All = 51,454; Male = 26,432 (51.4%); Female = 25,022 (48.6%)

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1998 MCAT Examinees'
Reported Specialty Preference
By Racial/Ethnic Group

Specialty Choice

⊞Underrepresented Minority   ☐Other Minority   ☐White

Number and percentage of examinees: Underrepresented Minority = 6,488 (12.5%); Other Minority = 12,957 (25.2%);
White = 29,321 (57%)

1998 MCAT Examinees'
Reported Specialty Preference
By Racial/Ethnic Group

Specialty Choice

☐ Underrepresented Minority   ☐ Other Minority   ☐ White

Number and percentage of examinees: Underrepresented Minority = 6,488 (12.5%); Other Minority = 12,957 (25.2%);
White = 29,321 (57%).

1998 MCAT Examinees'
Preferred Practice Setting
by Gender

Number of Examinees (y-axis, 0 to 14000)

Categories (x-axis): Large City, Moderate Size City, Small City, Town, Rural Area, Undecided/No preference

Large City: 12400, 6608, 5780
Moderate Size City: 9828, 4943, 4904
Small City: 3293, 1771, 1551
Town: 1801, 978, 826
Rural Area: 2058, 952, 1076
Undecided/No preference: 5763, 2432, 3328

☐ All ☐ Male ☐ Female

Number and percentage of examinees: All = 51,454; Male = 26,432 (51.4%); Female = 25,022 (48.6%)
*Numbers may not add to total due to nonresponse

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1998 MCAT Examinees'
Preferred Practice Setting
by Racial/Ethnic Group
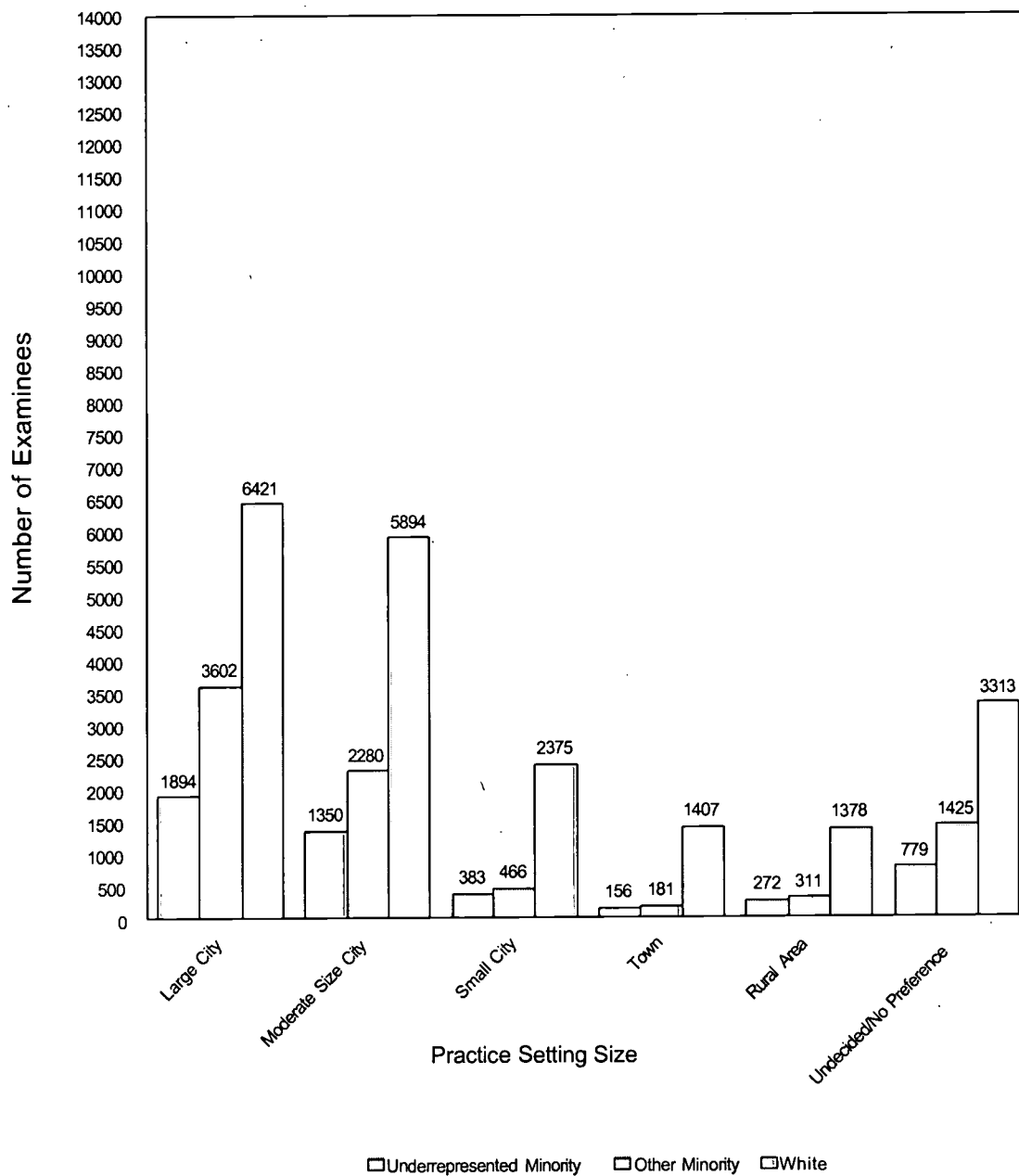
Number and percentage of examinees: All = 51,454; Underrepresented Minority = 6,488 (12.5%); Other Minority = 12,957 (25.2%); White = 29,321 (57%)

*Numbers may not add to total due to nonresponse

1998 MCAT Examinees'
Preferred Practice Setting
by Hometown Size

Practice Setting Size

Size of Hometown

▨Large City ▢Moderate City ■Small City ▢Town ▢Rural
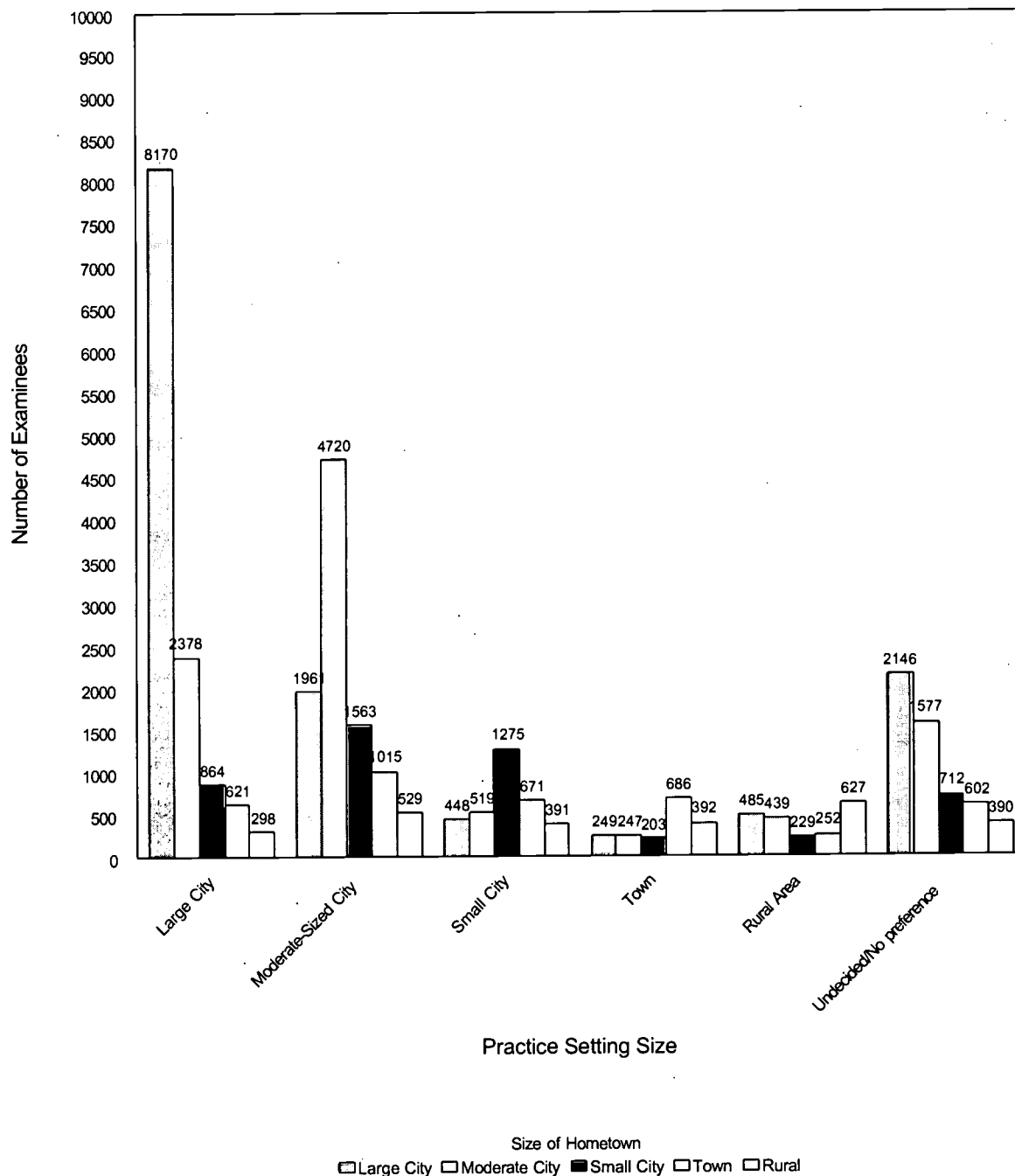
Number and percentage of examinees from: Large City = 13,846 (26.9%); Moderate-Sized City = 9,984 (19.4%); Small City = 4,880 (9.5%); Town = 3,881 (7.5%); Rural = 2,635 (5.1%); No Response = 16,228 (31.5%)

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Appendices

Appendix A

Undergraduate Major Classification

Biological Sciences

Agriculture
Anatomy
Biochemistry
Biology
Biomedical Science
Botany
Chemistry
Genetics
Human Biology

Microbiology
Neuroscience
Nutrition
Other Biological Science
Pharmacology
Pathology
Psychobiology
Physiology
Zoology

Physical Sciences

Aerospace Engineering
Architecture
Astronomy
Biomedical Engineering
Biomathematics
Biophysics
Civil Engineering
Chemical Engineering
Chemistry
Computer Science
Dual Science Major

Engineering
Environmental Science
Forestry
Geography
Geophysics
Meteorology
Mechanical Engineering
Natural Science
Oceanography
Other Physical Science
Physics

Social Science

Anthropology
Black Studies
Business
Communication
Economics
Education
Home Economics
History
International Relations

Law
Military Science
Journalism
Physical Education
Political Science
Psychology
Sociology
Social Science
Social Work

Undergraduate Major Classification (con't)

Humanities

Art

Classics

English

Foreign Language

Humanities

Library Science

Linguistics

Literature

Music

Philosophy

Religion

Speech

Theatre Arts

Mathematics and Statistics

Accounting

Mathematics

Statistics

Specialized Health Science

Hospital Administration

Medical Technology

Nursing

Occupational Therapy

Optometry

Pharmacy

Physical Therapy

Public Health

Premedical

Other

Dual Major Nonscience

Dual Major

Science/Nonscience

General Science

General Studies

Interdisciplinary Studies

No Major

Other Preprofessional

Appendix B

PMQ Text: "Most Important Influence
on Decision to Study Medicine"

From the list of influences below, please indicate the first, second, and third **most important influences** in your decision to study medicine.

- a. First
- b. Second
- c. Third

1. Health professions advisor
2. Professor or teacher
3. Parent
4. Another relative or friend
5. Physician
6. Science course
7. Particular book, article, film, television program
8. Experience with illness/accident
9. Other, specify
10. Have not decided

Appendix C

PMQ Text: "Reasons for Choosing a Career in Medicine"

Please rate the importance of each of the following factors in your decision to study medicine.

1. Not important
2. Slightly important
3. Moderately important
4. Extremely important

   a. Profession provides opportunity to work independently. **(Independence)***
   b. Coworkers share desire to help people. **(Coworkers)**
   c. Profession represents achievement higher than any other profession. **(Achievement)**
   d. Physicians receive immediate status and prestige. **(Status)**
   e. Profession provides a constant challenge. **(Challenge)**
   f. Profession provides opportunity to discover a great cure. **(Cure)**
   g. Profession offers flexible practice and location options. **(Flexibility)**
   h. Physicians are rarely unemployed. **(Security)**
   i. Profession offers possibility of a high income. **(Income)**
   j. Profession provides opportunity to make a difference in people's lives. **(Difference)**
   k. Profession provides chance to serve community needs. **(Service)**
   l. Profession provides chance to pursue interest in research. **(Research)**
   m. Profession provides opportunity to satisfy personal desire for authority. **(Authority)**

*Descriptor used to identify the factor in the associated graphs.

Appendix D

PMQ Text: "Perception of Medicine"

Please indicate whether you agree or disagree with the following perceptions of medicine and medical practice by coding the appropriate number for your response.

1. Agree strongly
2. Agree somewhat
3. Disagree somewhat
4. Disagree strongly
5. Don't know or no opinion

    a. Medicine will be as financially rewarding in the future as in the past. **(Reward)***

    b. Physicians will not receive the same respect from society in the future as they have in the past. **(Respect)**

    c. Changes in the health care system are impairing physicians' independence. **(Independence)**

    d. Physicians' legal liabilities and the high cost of malpractice insurance are not major problems. **(Liabilities)****

    e. The demands of a physicians' work do not interfere with family relations. **(Family)****

    f. Primary care physicians are as important as specialists. **(Primary Care)**

    g. Opportunities to build a successful practice are always available to physicians who work hard. **(Success)**

    h. Having interesting and intelligent colleagues is a major benefit of being a physician. **(Colleagues)**

    i. Unequal access to medical care is no longer a problem in the United States. **(Unequal Access)****

    j. The demands of a physician's work interfere too much with other interests and pursuits. **(Interferes)**

    k. Everyone is entitled to receive adequate medical care regardless of his or her station in life. **(Adequate Care)**

    l. Advances in the biomedical sciences and their application to the care of patients will make being a doctor more stimulating, challenging, and fulfilling in the future. **(Medical Advances)**

    m. Physicians have an ethical duty to treat patients with infectious diseases even where there is a risk of contracting the disease. **(Ethics)**

*Descriptor used to identify the factor in the associated graphs.

**Because the statement is worded in a way such that examinees are not expected to agree with it, the percentage disagreeing is presented in the graph.

NOTICE

Reproduction Basis

EFF-089 (3/2000)