MCAT
Medical College
Admission Test

AAMC

Using MCAT® Data in Medical Student Selection

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MCAT Medical College Admission Test | AAMC

Using MCAT® Data in Medical Student Selection

This guide provides admissions officers and medical school faculty members who serve on admissions committees with information about the design, interpretation, use, and predictive value of the Medical College Admission Test (MCAT). It answers the following questions:

What does the MCAT® exam measure?

The MCAT exam is designed to measure applicants' knowledge of undergraduate, introductory-level biology, organic chemistry, general chemistry, and physics concepts along with higher-order thinking skills like hypothesis testing, scientific problem solving, verbal reasoning, and quantitative reasoning. Results for MCAT exams taken in January 2013 or later include scores for three test sections:

- Biological Sciences (BS)
- Physical Sciences (PS)
- Verbal Reasoning (VR)

The **Biological Sciences** section examines introductory-level knowledge of biology and organic chemistry concepts along with test takers' skill at identifying main ideas, testing hypotheses, evaluating information, reasoning with flexibility and adaptability, and reasoning using quantitative data.

The BS section has 52 multiple-choice questions. Thirty-nine of them call for responses to scientific problems that are described by passages; many also include graphs, tables, or charts. The remaining thirteen BS questions are stand-alone items that do not relate to passages. Examinees have 70 minutes to complete the BS section.

An article about the MCAT exam and what it measures appeared in *Science* magazine (Zheng, Lawhorn, Lumley, & Freeman, 2008). It describes independent researchers' examination of the BS section and the scientific knowledge and higher-order thinking skills that it tests. The authors reported that 45% of BS questions test higher-order thinking skills, more than do similar questions on the Advanced Placement and Graduate Record Examination biology examinations or on tests given in the first year of medical school. The authors concluded that, "…the biology portion of the MCAT fulfills its stated goal of assessing problem-solving ability and critical thinking, in addition to mastery of basic biology concepts."

The **Physical Sciences** section tests examinees' introductory-level knowledge of physics and general (inorganic) chemistry concepts, along with the application of these concepts to scientific problems. The problem-solving skills the PS section examines, the question formats, and testing time all parallel those for the BS section.

The **Verbal Reasoning** section of the MCAT exam tests examinees' ability to understand, evaluate, and apply information and arguments presented in prose text, as well as examinees' skill at incorporating information. VR passages are drawn from the natural sciences, social sciences, and humanities. All information that test takers need to respond to VR questions appears in the passages. There are 40 multiple-choice questions; all are passage based. Examinees have 60 minutes to complete the VR section.

Prior to January 2013, the MCAT exam included a fourth section, the **Writing Sample** section. This section tested examinees' ability to develop a central idea, synthesize concepts and ideas, present ideas cohesively and logically, and write clearly following accepted writing conventions.[1] Applicants who took the MCAT exam prior to January 2013 will have MCAT results for this fourth section, reported on an alphabetic scale that ranges from J (low) to T (high).

The decision to remove the Writing Sample section from the exam was based in part on input from medical school admissions officers who reported that scores on this section of the test are used for only a very small group of applicants (e.g., applicants with low Verbal Reasoning or Writing Sample scores, and/or applicants who have difficulty communicating in their interviews). In place of the Writing Sample section, a voluntary, unscored trial section was added to the exam to help evaluate test questions in psychology, sociology, and biochemistry that will be included in the new version of the MCAT exam to be introduced in Spring 2015.

[1] The Writing Sample section presented examinees with two open-ended statements ("writing prompts") with three associated writing tasks for each. Examinees had 30 minutes to write each essay. Essays were scored twice on a six-point scale, once by an expert reader and once by a computer algorithm. The agreement rates between expert readers and the computer algorithm were very high; when expert and computer scorers disagreed by more than a point, a second expert provided the final score. Numeric scores were converted to an alphabetic scale that ranged from J (low) to T (high) for reporting.

How is the MCAT® exam scored?

Scores on the multiple-choice sections of the MCAT exam are reported on a numeric scale ranging from 1 to 15. Scores on the three multiple-choice sections of the test are summed to create a total score, ranging from 3 to 45. All MCAT results for tests taken in January 2013 or later will include these three section scores and the total score. In addition, total scores for MCAT exams taken before January 2013 will range from 3 to 45 and include a Writing Sample score appended at the end (e.g., 28Q).

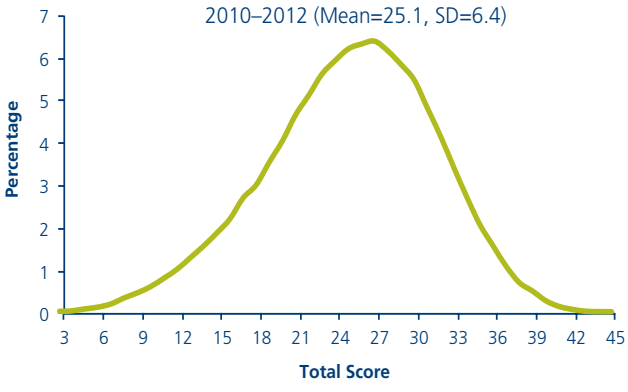
How well do examinees score on the MCAT® exam?

Figure 1 shows the distribution of MCAT total and section scores for all exams administered from 2010 to 2012. The mean MCAT total score for these exams was 25.1, and the standard deviation was 6.4.[2]

Figure 2 shows the distributions of MCAT total scores for exams administered from 2010 to 2012 by sex and racial/ethnic group. It uses box-and-whisker plots, which show the 10th, 25th, 50th (median), 75th, and 90th percentile scores for each group. The 10th and 90th percentile scores are shown by the ends of the "whiskers", the 25th and 75th percentile scores are shown by the "box" (the left edge of each box shows the 25th percentile score, and the right edge shows the 75th percentile score), and the median is shown by the vertical bar inside each box. For example, the 10th, 25th, median, 75th, and 90th percentile scores for female examinees were 15, 20, 24, 29, and 32, respectively. The mean MCAT total score for each group appears in parentheses by the group label.

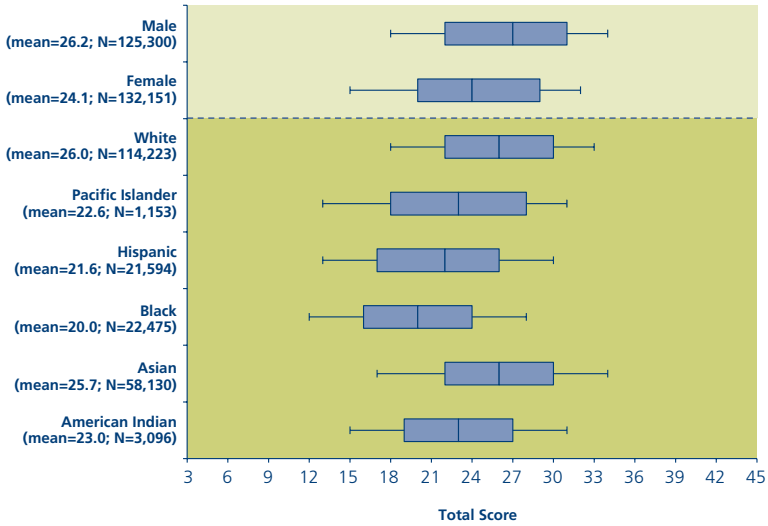
There is variability in the median MCAT total scores for examinees in different sex and racial/ethnic groups. However, there is a great deal of overlap in the score distributions for different groups. The similarities and differences in these data are similar to those reported in the literature for other admissions tests (Roth, Bevier, Bobko, Switzer, & Tyler, 2001). Recent research suggests these differences in MCAT total scores for racial/ethnic minorities do not reflect test bias (Davis, Dorsey, Franks, Sackett, Searcy, & Zhao, 2013).

Figure 1. Distribution of MCAT Total Scores for Exams Administered from 2010–2012 (N=257,638)



Score Summary for Exams Administered from 2010-2012	
	2010-2012 (N=257,638) Mean (SD)
Physical Sciences	8.4 (2.5)
Verbal Reasoning	8.0 (2.5)
Biological Sciences	8.8 (2.5)

Figure 2. MCAT Total Scores for Exams Administered from 2010–2012 by Sex and Race/Ethnicity



[2] A summary of MCAT total and section scores for all exams administered in 2013 will be provided in November 2013 after the testing year is complete.

How accurate are examinees' MCAT® scores and how should they be interpreted?

Like other standardized tests, the MCAT exam is an imperfect measure of test takers' achievement. Examinees' scores can be dampened by factors like fatigue, test anxiety, and less than optimal test room conditions or they can be boosted by recent exposure to some of the tested topics.

A test's reliability is a reflection of the accuracy with which it measures the knowledge and skills it targets. Reliability estimates are used to calculate the standard error of measurement (SEM) of examinees' test scores. The SEM is useful because it defines the size of the confidence intervals that surround the reported scores. Confidence intervals represent the range of test scores within which examinees' true achievement levels probably lie. For MCAT total scores, the SEM is two points.[3]

An examinee's MCAT total score plus or minus two points defines the 68% confidence interval. Adding and subtracting two points to an MCAT total score of 23, for example, defines a confidence band that begins at 21 and goes to 25. This means that in 68% of cases the true score for an examinee with a reported score of 23 lays within the band that goes from 21 to 25.

Reviewing applicants' scores with the confidence bands in mind prevents over-interpretation of small differences in test scores. Figures 3 and 4 illustrate how confidence intervals can be used to interpret MCAT total scores. The reported score for each examinee is shown with a blue box. The 68% confidence interval around each examinee's score is shown by the dashed lines in the figure.

In Figure 3, examinee A scored 23 and examinee B scored 26. The 68% confidence intervals around these scores overlap. The overlap between the two confidence intervals suggests that the two reported scores may not be meaningfully different from each other.

Figure 4 shows a score of 21 for examinee C and a score of 28 for examinee D. The confidence intervals around their scores do not overlap, suggesting the two scores are more likely to be meaningfully different from each other (compared to examinees A and B).

Figure 3. Confidence Bands for Two Examinees with Similar Reported Scores

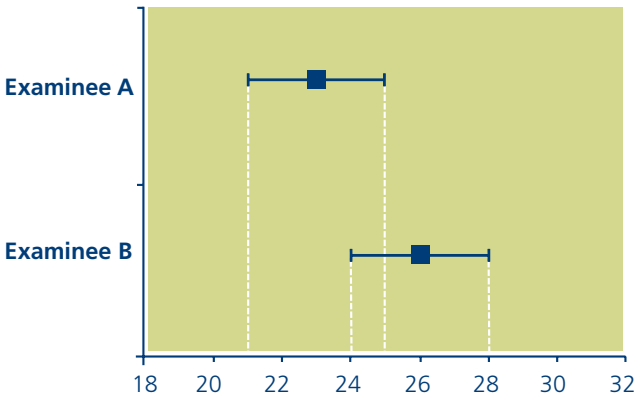
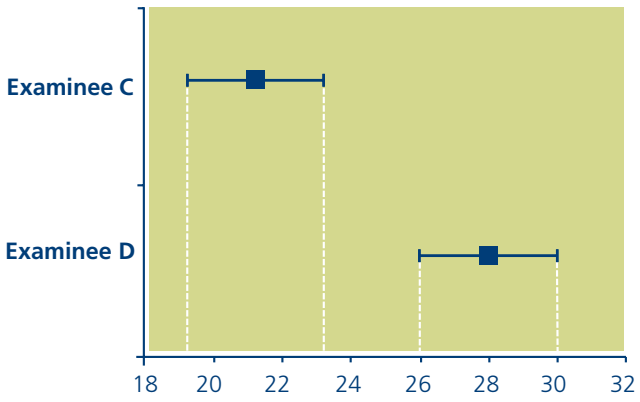


Figure 4. Confidence Bands for Two Examinees with Dissimilar Scores



[3] MCAT total scores provide better estimates of examinees' true knowledge and skill levels than do MCAT section scores. This is because MCAT total scores are based on more multiple-choice questions than are MCAT section scores.

Why are some MCAT® scores marked as non-standard?

Consistent with the Americans with Disabilities Act (1990), the MCAT testing program offers accommodations to examinees with documented disabilities. Examples of common accommodations include a separate testing room, extra breaks, extended time for the test, enlarged font, and authorization to bring medication, medical supplies, or food/drink in the testing room.

In accordance with professional testing standards (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 1999), the AAMC annotates score reports if there is evidence that scores may not be comparable to scores obtained under standard test administration conditions.

How do examinees' scores change when they retake the MCAT® exam and how do admissions officers use scores for applicants who test more than once?

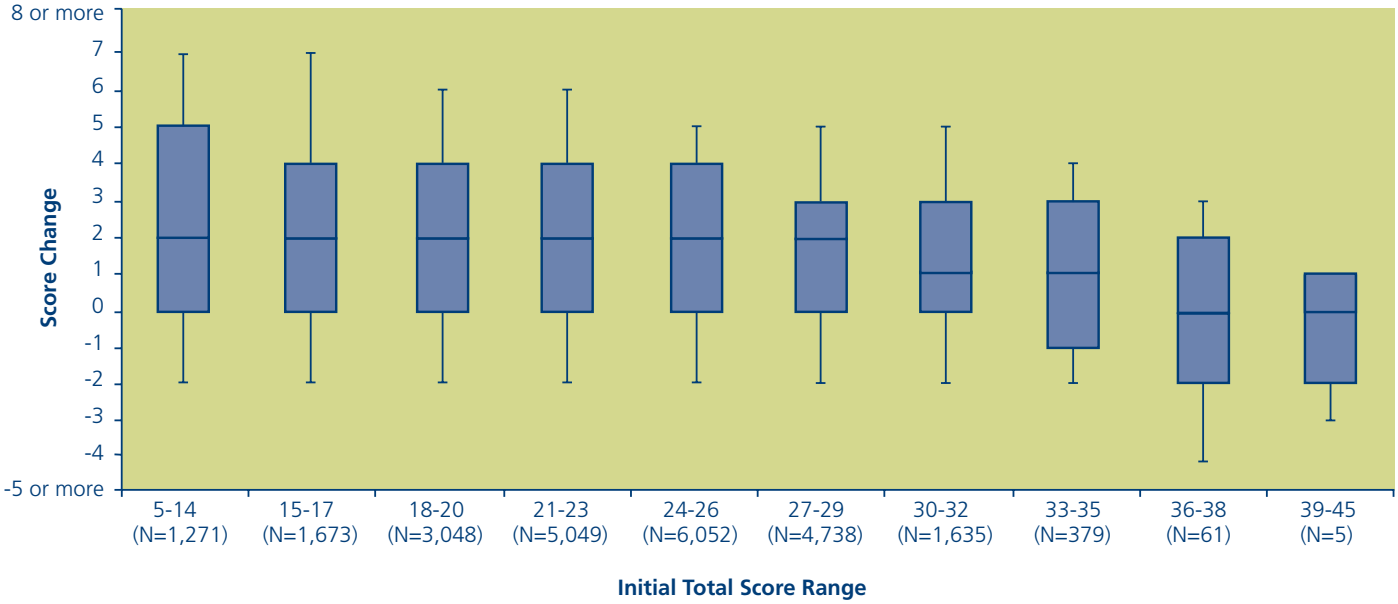
MCAT examinees can test up to three times in one calendar year with no lifetime limit on the number of times they may test. In 2012, approximately 13 percent of examinees tested more than once in the same year.

To give admissions committee members a sense of the types of score gains obtained by examinees testing multiple times, MCAT staff examined MCAT total scores for test takers who initially sat for the MCAT exam in 2010, 2011, or 2012 and retested in the same year. Figure 5 uses box-and-whisker plots (described earlier for Figure 2) to illustrate the distribution of score gains (and losses) on examinees' second administrations of the MCAT exam. The data show that retesters tend to obtain higher scores on their second exams, but the amount of score improvement varies inversely with examinees' initial scores. That is, the lower the initial scores, the greater the improvement tends to be on retesting.

Figure 5 shows that the median gain for examinees who tested two or more times in the same year and whose initial scores ranged from 5 to 29 was two score points; one for examinees whose initial scores ranged from 30 to 35; zero for examinees whose initial scores ranged from 36 to 38; and minus two for examinees whose initial scores were 39 or greater. It is important to note, however, that there was considerable variability in the magnitude and direction of score changes, with some examinees posting increases or decreases greater than four points. There also was more variability in score changes among examinees with lower initial scores than those with higher initial scores.

In the 2012 AMCAS cycle, approximately 47 percent of applicants submitted more than one set of MCAT scores in their application. To understand the ways in which admissions officials use retesters' MCAT total scores in the admissions process, MCAT staff surveyed medical school admissions officers in 2008 (Dunleavy, Oppler, & Mitchell, 2008). The results showed that admissions officers use a number of strategies for examining retesters' scores. For example, some admissions committees use applicants' most recent exam scores in the admissions process, whereas others use applicants' "best scores" as represented either by the highest total scores or by the sum of the highest section scores across multiple administrations. Other committees compute the average total score across the multiple administrations.

Figure 5. Changes in MCAT Total Multiple–Choice Scores For Examinees Who Tested in 2010–2012 and Retested in the Same Year



After conducting the survey, MCAT staff analyzed application and medical student outcome data to see which of these strategies best predicts students' performance in medical school. MCAT staff examined the following student outcomes: four-year graduation rates, five-year graduation rates, withdrawal/dismissal for academic reasons, and United States Medical Licensing Examination (USMLE) scores (Zhao, Dunleavy, Oppler, & Kroopnick, 2011; Zhao, Oppler, Dunleavy, & Kroopnick, 2010). Analyses showed that average MCAT total scores were the most accurate predictors of medical student performance. The other strategies tended to over-predict the performance of retesters in medical school. The data also showed that the larger the number of testings, the larger the amount of over-prediction. Therefore, the strategy that results in the most accurate prediction of medical student performance for the majority of applicants who retest is the use of average MCAT total scores.

Despite these findings, it is very important that admissions committee members be aware of the circumstances of individual applicants and use that information (if available) in considering retesters' scores. For example, if an applicant's scores from a particular administration are out of line with other scores—because the applicant was sick (in the case of an unusually low performance) or recently completed extensive additional study (in the case of unusually high performance)—then that information should be taken into consideration in evaluating the applicant's scores.

How do admissions officers use MCAT® scores and other application data in the holistic review of applicants' qualifications?

MCAT scores are among many sources of application data that admissions committees use to select medical students. MCAT scores help admissions officers interpret grades and other academic data that come from undergraduate institutions with different curricular emphases and grading standards. In addition to applicants' academic data, admissions officers examine applicants' experiences and demographic and personal attributes. Applicants provide a great deal of data about their academic and other experiences, and demographic and personal characteristics through their applications, personal statements, and interviews. Recommenders also provide rich information about applicants' academic, experiential, and personal attributes.

The procedures that admissions officers from different medical schools use to review these varied data differ in ways that reflect schools' unique educational missions and goals and the size of their applicant pools. To learn more about the holistic review of applicants' qualifications, in 2013 AAMC staff surveyed admissions officers about the relative importance of different academic, experiential, and demographic and personal attribute data in deciding which applicants to admit.[4] The data presented in this report are a subset of the data that the admissions officers provided.

Admissions officers rated the importance of these variables for three phases of the admissions process: deciding to send a secondary application, extending interview invitations, and extending acceptance offers. In assigning their ratings, admissions officers used a scale that ranged from 1 to 4 ('Not Important', 'Somewhat Important', 'Important', and 'Very Important', respectively). Only a subset of the medical schools (N=44) reported that they use application data to decide which applicants to send secondary applications. The majority (N=83) do not select applicants at this stage; they either send secondary applications to all of their applicants or they do not use secondary applications.

Table 1 lists the application variables organized in four types: academic metrics, experiences, demographics, and other sources of applicant information. They are grouped by overall mean importance, reflecting the average ratings of importance for deciding which applicants to interview and which to admit. Academic metrics that were rated 'Important' to 'Very Important' for deciding which applicants to interview and accept include cumulative science/math undergraduate grade point averages (UGPAs), MCAT total scores, trends in undergraduate grades, cumulative total UGPAs, and performance in post-baccalaureate programs. Experiences that were rated 'Important' to 'Very Important' for both interview invitations and acceptance offers include healthcare experience, community service/volunteer experience, experience with underserved populations, experience navigating through cultural barriers or challenges, and leadership experience. Interview assessments, letters of evaluation or recommendation, and personal statements also were rated 'Important' to 'Very Important'.

The mean importance ratings assigned by admissions officers from public versus private institutions differed significantly for some variables, as shown in italics in Table 1. For example, private institutions rated selectivity of undergraduate institutions as 'Important' to 'Very Important' (and significantly more important) than did public institutions; conversely, public institutions rated U.S. citizenship/permanent residency and state residency as 'Important' to 'Very Important' (and significantly more important) than did private institutions.

There were also differences in importance ratings between the public and private medical schools that use application data to select the applicants who will receive secondary applications. All ten of the private schools selecting applicants to receive secondary applications rated MCAT and UGPA data as 'Important' to 'Very Important' to their decisions. Approximately 80% of admissions officers from public medical schools gave MCAT and UGPA data high importance ratings (i.e., 'Important' to 'Very Important') in deciding which applicants to send secondary applications; about ten percent of public schools rated them as 'Somewhat Important', and about ten percent said they were 'Not Important'.[5]

[4] The survey was conducted in Winter 2013. The survey asked admissions officers to rate the importance of various application data to admissions decisions. The results are based on data from 127 U.S. medical schools consisting of 75 public institutions and 52 private institutions representative of all U.S. medical schools.

[5] For public schools that screen applicants before sending secondary applications, 28 of 34 rated MCAT total scores as 'Important' or 'Very Important'; 2 rated them as 'Somewhat Important'; and 4 rated them as 'Not Important'. For these same schools, 27 rated UGPAs as 'Important' or 'Very Important'; 3 rated them as 'Somewhat Important'; and 4 rated them as 'Not Important'.

Table 1. Mean Importance Ratings of Academic, Experiential, and Demographic Application Data Used by Admissions Committees for making Decisions about which Applicants to Receive an Interview Invitation and Offer Acceptance (N=127)[1]

Mean Importance Ratings	Academic Metrics	Experiences	Demographics[2]	Sources of Applicant Information
Highest Importance Ratings (>= 3.0)	• UGPA: Cumulative science/math • MCAT total score • Upward or downward grade trend • UGPA: Cumulative total • Performance in a post-baccalaureate program • *Selectivity of undergraduate institution (Private)*[5]	• Healthcare experience • Community service/ volunteer experience • Experience with underserved populations • Navigated through cultural barriers or challenges • Leadership experience	• *U.S. citizenship/ permanent residency (Public)*[5] • *State residency (Public)*[5]	• Interview assessments[3] • Letters of evaluation or recommendation • Personal statements
Medium Importance Ratings (>=2.5 and <3.0)	• On schedule to meet pre-medical coursework • UGPA: Cumulative non-science/math	• *Research experience (Private)*[5] • Experience with populations unlike the applicant • Lack of access to optimal educational resources • Special family obligations or other circumstances • Work or athletic scholarship obligations while in school	• *Rural or urban background (Public)*[5] • First-generation college student • *U.S. citizenship/ permanent residency (Private)*[5] • Race/ethnicity • Socioeconomic status (SES)	• Secondary application responses[4]
Lowest Importance Ratings (<2.5)	• Completion of challenging non-science courses • *Selectivity of undergraduate institution (Public)*[5]	• Experience with prejudice • *Research experience (Public)*[5]	• *Rural or urban background (Private)*[5] • Multilingual • Legacy • Gender • *State residency (Private)*[5]	

[1] Importance was rated on a four-point scale ranging from 1 to 4 ('Not Important', 'Somewhat Important', 'Important', and 'Very Important', respectively). For each variable, we computed an overall mean importance rating based on admissions officers' ratings of importance for making decisions about whom to interview and whom to accept (the mean importance rating for the interview variable is the exception to this rule because interview data were not available until applicants were invited to interview). We chose to classify variables using overall mean importance ratings because their mean importance ratings were similar for the interview and the acceptance phases. Variables are ordered by overall mean importance rating.

[2] The demographic variables listed here were culled from a larger list of variables that included personal attributes such as 'Service Orientation', 'Integrity', 'Communication Skills', and 'Cultural Competence', for example.

[3] Only available at the admissions stage where admissions committees make a decision to offer an acceptance

[4] Only available for institutions that use application data to select the applicants who will receive secondary applications

[5] Overall mean importance ratings for public and private institutions were significantly different from one another.

National-level data on the academic credentials of applicants whom admissions committees accept reinforce the messages these survey data provide. Table 2 shows the percentages of applicants with different UGPAs and MCAT total scores who were accepted into one or more medical schools in 2010, 2011, and 2012. These data show that, while UGPAs and MCAT total scores are important factors in admissions, they are not the sole determinants of admissions decisions. For example, nine percent of applicants with UGPAs of 3.8 or higher and MCAT total scores of 39 or above were rejected by all of the medical schools to which they applied. In contrast, about 10 percent of applicants with UGPAs of 3.0 to 3.19 and MCAT total scores ranging from 21 to 23 were accepted by at least one medical school.

Table 2. Percentage of 2010-2012 Applicants Accepted into at Least One Medical School, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	**3%** 2/80	**5%** 8/176	**15%** 80/517	**24%** 336/1,408	**40%** 1,376/3,401	**65%** 4,126/6,334	**80%** 6,536/8,134	**86%** 5,552/6,444	**90%** 3,150/3,500	**91%** 1,255/1,377	**71%** 22,421/31,371
3.60-3.79	**0%** 0/165	**3%** 12/382	**10%** 99/1,006	**17%** 387/2,220	**27%** 1,223/4,580	**49%** 3,724/7,622	**70%** 5,763/8,239	**79%** 4,108/5,211	**82%** 1,647/1,999	**83%** 372/446	**54%** 17,335/31,870
3.40-3.59	**1%** 2/299	**3%** 18/529	**8%** 95/1,204	**15%** 383/2,541	**23%** 1,038/4,557	**35%** 2,371/6,808	**52%** 3,539/6,804	**65%** 2,285/3,496	**71%** 799/1,122	**80%** 188/236	**39%** 10,718/27,596
3.20-3.39	**0%** 1/318	**2%** 9/513	**7%** 74/1,099	**13%** 258/2,060	**19%** 612/3,260	**25%** 1,051/4,257	**38%** 1,463/3,876	**50%** 891/1,793	**63%** 333/527	**65%** 70/107	**27%** 4,762/17,810
3.00-3.19	**0%** 1/405	**3%** 13/484	**5%** 49/948	**10%** 155/1,479	**16%** 329/2,007	**24%** 530/2,247	**30%** 530/1,766	**43%** 331/777	**47%** 97/206	**58%** 19/33	**20%** 2,054/10,352
2.80-2.99	**0%** 0/339	**1%** 4/394	**4%** 25/631	**9%** 72/814	**15%** 151/1,010	**15%** 144/976	**23%** 174/745	**31%** 86/274	**33%** 29/87	**46%** 11/24	**13%** 696/5,294
2.60-2.79	**0%** 0/270	**1%** 3/275	**4%** 13/343	**6%** 28/443	**11%** 53/485	**16%** 66/421	**24%** 71/297	**28%** 32/113	**35%** 13/37	**18%** 2/11	**10%** 281/2,695
2.40-2.59	**0%** 0/184	**0%** 0/144	**1%** 2/179	**3%** 6/208	**8%** 17/225	**13%** 21/157	**22%** 23/105	**19%** 9/47	**18%** 3/17	**--**	**6%** 81/1,268
2.20-2.39	**0%** 0/137	**0%** 0/61	**2%** 2/90	**3%** 2/71	**12%** 9/77	**11%** 7/61	**0%** 0/27	**14%** 2/14	**--**	**--**	**4%** 22/543
2.00-2.19	**0%** 0/64	**0%** 0/45	**0%** 0/39	**0%** 0/28	**4%** 1/27	**7%** 1/15	**12%** 2/17	**--**		**--**	**2%** 4/238
1.47-1.99	**0%** 0/43	**0%** 0/13	**0%** 0/10	**--**	**--**	**0%** 0/10	**--**	**--**			**1%** 1/97
All	**0%** 6/2,305	**2%** 67/3,016	**7%** 439/6,066	**14%** 1,627/11,279	**24%** 4,810/19,635	**42%** 12,041/28,910	**60%** 18,101/30,020	**73%** 13,296/18,172	**81%** 6,071/7,498	**86%** 1,917/2,239	**45%** 58,375/129,140

Notes:

1. Dark Green shading = acceptance rates ≥ 75%; Light Green shading = acceptance rates of 50-74%; Grey shading = acceptance rates of 25-49%.

2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.

3. For students who took the MCAT exam multiple times, the most recent MCAT total score in each application year was used in this analysis.

How well do undergraduate GPAs (UGPAs) and MCAT® scores predict students' performance in medical school?

The value of UGPAs and MCAT scores in predicting students' performance in medical school has been well established (Dunleavy, Kroopnick, Dowd, Searcy, & Zhao, 2013; Donnon, Paolucci, & Violato, 2007; Kuncel & Hezlett, 2007; Julian, 2005; Koenig & Wiley, 1997). Studies show that undergraduate grades and MCAT scores predict students' grades in medical school, academic difficulty or distinction, time to graduation, scores on USMLE Step exams, and unimpeded progress toward graduation.[6]

The tables below (and in the Appendix) show the relationships between UGPAs, MCAT total scores, and several of these outcomes for students who started medical school in 2005, 2006, and 2007. They show the rates at which medical students who entered with different combinations of UGPAs and MCAT total scores: (1) graduated in four years, (2) graduated in five years, (3) withdrew or were dismissed for academic reasons, (4) passed the USMLE Step 1, Step 2-CK, and Step 2-CS exams on their first attempt, and (5) eventually passed the Step exams.

Table 3 shows the relationships between UGPAs, MCAT total scores, and four-year graduation rates. Overall, 86 percent of the medical students graduated in four years, an impressive result given the 62 percent average graduation rate from U.S. graduate and professional schools generally (Bradburn, Nevill, Cataldi, & Perry, 2006). The percentages in the cells of Table 3 show that higher UGPAs and MCAT total scores generally are associated with higher four-year graduation rates.

Table 3. Percentage of 2005-2007 Students Who Graduated from Medical School in Four Years, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**71%** 10/14	**74%** 69/93	**85%** 307/362	**87%** 1,161/1,333	**90%** 3,074/3,399	**90%** 3,780/4,193	**89%** 2,796/3,141	**86%** 1,438/1,666	**86%** 486/567	**89%** 13,123/14,771
3.60-3.79	--	**47%** 7/15	**69%** 83/121	**78%** 339/432	**84%** 1,163/1,390	**89%** 3,097/3,499	**89%** 3,528/3,969	**88%** 2,214/2,517	**87%** 879/1,009	**89%** 226/255	**87%** 11,538/13,213
3.40-3.59	--	**45%** 9/20	**73%** 91/125	**70%** 252/358	**79%** 878/1,114	**86%** 2,225/2,591	**88%** 2,537/2,895	**89%** 1,390/1,564	**85%** 470/550	**85%** 112/132	**85%** 7,970/9,356
3.20-3.39	--	**53%** 9/17	**60%** 60/100	**69%** 232/338	**78%** 505/651	**85%** 1,099/1,291	**88%** 1,235/1,411	**87%** 610/705	**88%** 208/236	**84%** 42/50	**83%** 4,001/4,803
3.00-3.19	--	**47%** 7/15	**52%** 38/73	**64%** 138/214	**73%** 261/358	**84%** 460/546	**85%** 495/580	**88%** 227/258	**86%** 80/93	**81%** 13/16	**80%** 1,720/2,155
2.80-2.99	--	--	**55%** 17/31	**64%** 78/122	**68%** 127/186	**83%** 161/195	**83%** 132/159	**86%** 66/77	**82%** 23/28	**100%** 12/12	**75%** 619/822
2.60-2.79	--	--	**60%** 12/20	**45%** 22/49	**60%** 35/58	**78%** 59/76	**80%** 45/56	**79%** 22/28	**80%** 8/10	--	**68%** 207/305
2.40-2.59		--	--	**43%** 6/14	**68%** 15/22	**76%** 16/21	**83%** 20/24	--	--		**74%** 73/98
2.20-2.39		--	--	--	--	--	--		--	--	**47%** 14/30
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--	--		--		--				--
All	**50%** 13/26	**48%** 49/103	**66%** 375/572	**73%** 1,378/1,900	**81%** 4,148/5,119	**88%** 10,194/11,624	**89%** 11,777/13,294	**88%** 7,335/8,300	**86%** 3,108/3,594	**86%** 893/1,035	**86%** 39,270/45,567

Notes:

1. Blue shading = graduation rates of 90-100%; Green shading = graduation rates of 80-89%; Orange shading = graduation rates of 70-79%.

2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.

3. Students enrolled in joint programs (e.g., MD-PhD), participating in special research/non-research studies, or deceased are not included in this table.

4. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

[6] The median corrected validity coefficient for predicting 1st-year medical school grades from UGPAs and MCAT total scores was .75, .71 for predicting 2nd-year grades (Koenig & Wiley, 1997), and .54 for predicting 3rd-year grades (Julian, 2005). The median corrected validity coefficient was .64 for predicting USMLE Step 1 scores from UGPAs and MCAT total scores, .54 for Step 2 Clinical Knowledge scores, and .55 for Step 3 scores (Kroopnick, Dunleavy, Dowd, Searcy, & Zhao, 2013).

Table 4 shows the relationships between UGPAs, MCAT total scores, and five-year graduation rates. These data show that 94 percent of the students who entered medical school between 2005 and 2007 graduated in five years. The pattern of results shows that most students graduated from medical school in five years, including those who entered with modest MCAT scores. The percentages in the cells of Table 4 show that higher UGPAs and MCAT total scores generally are associated with higher five-year graduation rates.

Table 4. Percentage of 2005-2007 Students Who Graduated from Medical School in Five Years, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**93%** 13/14	**85%** 79/93	**92%** 332/362	**94%** 1,253/1,333	**96%** 3,262/3,399	**97%** 4,052/4,193	**97%** 3,041/3,141	**96%** 1,607/1,666	**95%** 539/567	**96%** 14,181/14,771
3.60-3.79	--	**67%** 10/15	**81%** 98/121	**88%** 382/432	**93%** 1,290/1,390	**95%** 3,323/3,499	**96%** 3,823/3,969	**96%** 2,421/2,517	**95%** 961/1,009	**95%** 243/255	**95%** 12,553/13,213
3.40-3.59	--	**60%** 12/20	**86%** 107/125	**84%** 301/358	**90%** 999/1,114	**94%** 2,443/2,591	**96%** 2,771/2,895	**96%** 1,500/1,564	**96%** 526/550	**92%** 122/132	**94%** 8,788/9,356
3.20-3.39	--	**76%** 13/17	**85%** 85/100	**81%** 274/338	**88%** 573/651	**94%** 1,216/1,291	**95%** 1,338/1,411	**96%** 674/705	**95%** 224/236	**92%** 46/50	**93%** 4,445/4,803
3.00-3.19	--	**80%** 12/15	**67%** 49/73	**84%** 179/214	**87%** 310/358	**93%** 510/546	**94%** 543/580	**95%** 246/258	**92%** 86/93	**81%** 13/16	**90%** 1,950/2,155
2.80-2.99	--	--	**68%** 21/31	**82%** 100/122	**84%** 157/186	**91%** 177/195	**91%** 145/159	**91%** 70/77	**96%** 27/28	**100%** 12/12	**87%** 717/822
2.60-2.79	--	--	**70%** 14/20	**80%** 39/49	**78%** 45/58	**87%** 66/76	**93%** 52/56	**93%** 26/28	**80%** 8/10	--	**84%** 255/305
2.40-2.59		--	--	**79%** 11/14	**77%** 17/22	**90%** 19/21	**96%** 23/24	--	--		**89%** 87/98
2.20-2.39		--	--	--	--	--	--		--	--	**63%** 19/30
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--	--		--		--				--
All	**65%** 17/26	**72%** 74/103	**80%** 459/572	**86%** 1,625/1,900	**91%** 4,650/5,119	**95%** 11,021/11,624	**96%** 12,752/13,294	**96%** 7,988/8,300	**96%** 3,441/3,594	**94%** 977/1,035	**94%** 43,004/45,567

Notes:

1. Blue shading = graduation rates of 90-100%; Green shading = graduation rates of 80-89%; Orange shading = graduation rates of 70-79%.

2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.

3. Students enrolled in joint programs (e.g., MD-PhD), participating in special research/non-research studies, or deceased are not included in this table.

4. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Table 5 shows the relationships between UGPAs, MCAT total scores, and withdrawal or dismissal from medical school for academic reasons. According to these data, only 1.4 percent of entrants withdrew or were dismissed from medical school for academic reasons. These results show a negative association between UGPAs, MCAT total scores, and this outcome. In general, lower UGPAs and MCAT total scores are associated with higher levels of academic withdrawal or dismissal from medical school for academic reasons.

Table 5. Percentage of 2005-2007 Students Who Withdrew or Were Dismissed from Medical School for Academic Reasons, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**7.1%** 1/14	**1.1%** 1/95	**1.9%** 7/375	**1.5%** 21/1,381	**0.8%** 29/3,558	**0.5%** 22/4,629	**0.4%** 15/3,697	**0.2%** 4/2,088	**0.1%** 1/781	**0.6%** 101/16,621
3.60-3.79	--	**6.3%** 1/16	**4.0%** 5/125	**3.3%** 15/449	**2.4%** 34/1,431	**1.5%** 55/3,650	**0.9%** 39/4,303	**0.5%** 15/2,885	**0.4%** 5/1,250	**0.3%** 1/344	**1.2%** 171/14,459
3.40-3.59	--	**10.0%** 2/20	**4.7%** 6/128	**5.4%** 20/372	**3.7%** 43/1,154	**1.6%** 45/2,738	**1.0%** 30/3,133	**0.8%** 15/1,818	**1.2%** 8/661	**1.2%** 2/162	**1.7%** 171/10,193
3.20-3.39	--	**5.9%** 1/17	**7.5%** 8/106	**7.8%** 28/358	**4.3%** 29/679	**1.7%** 23/1,354	**1.3%** 19/1,513	**1.4%** 11/787	**0.4%** 1/265	**0%** 0/56	**2.4%** 121/5,139
3.00-3.19	--	**6.7%** 1/15	**14.9%** 11/74	**6.4%** 14/220	**4.8%** 18/373	**1.9%** 11/574	**1.5%** 9/614	**0%** 0/285	**0.9%** 1/109	**5.3%** 1/19	**2.9%** 66/2,286
2.80-2.99	--	--	**9.7%** 3/31	**9.6%** 12/125	**8.8%** 17/193	**3.9%** 8/206	**2.3%** 4/174	**1.1%** 1/88	**0%** 0/30	**0%** 0/12	**5.6%** 49/871
2.60-2.79	--	--	**4.8%** 1/21	**7.8%** 4/51	**9.7%** 6/62	**5.1%** 4/79	**1.6%** 1/62	**3.3%** 1/30	**18.2%** 2/11	--	**6.5%** 21/324
2.40-2.59		--	--	**14.3%** 2/14	**13.6%** 3/22	**9.1%** 2/22	**0%** 0/25	--	--		**6.9%** 7/102
2.20-2.39		--	--	--	--	--	--	--	--	--	**19.4%** 6/31
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--	--		--		--				--
All	**11.1%** 3/27	**11.5%** 12/104	**6.3%** 37/589	**5.3%** 105/1,975	**3.2%** 171/5,302	**1.5%** 178/12,187	**0.9%** 125/14,460	**0.6%** 58/9,603	**0.5%** 21/4,418	**0.4%** 6/1,377	**1.4%** 716/50,042

Notes:

1. Blue shading = withdrawal/dismissal rates of 0-10%; Green shading = withdrawal/dismissal rates of 10.1-20%; Orange shading = withdrawal/dismissal rates of 20.1-30%.

2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.

3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Tables that show the same types of relationships between UGPAs, MCAT total scores, and USMLE Step exam pass rates appear in Appendix A. The data show positive relationships between UGPAs, MCAT total scores, and first-time and eventual pass rates on the Step exams. Refer to Tables A1, A3, and A5 for grids summarizing the relationships with first-time pass rates on USMLE Step 1, Step 2 CK, and Step 2 CS exams. Tables A2, A4, and A6 summarize these relationships for students' eventual pass rates for these exams.

Taken together, the examination of graduation rates, withdrawal or dismissal from medical school for academic reasons, and USMLE Step exam pass rates suggests that applicants with a wide range of UGPAs and MCAT scores can succeed in medical school. These data suggest the facility with which admissions committee members predict their students' eventual success by combining information about candidates' qualifications from applications, transcripts, letters, and interviews with information about the curricula, support services, and graduation requirements of their medical schools. These results also are an important testament to the academic and other support that faculty provide to their students to help them succeed in medical school.

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Appendix.
Relationships between UGPAs, MCAT® scores, and USMLE outcomes

Table A1. Percentage of 2005-2007 Students Passing the Step 1 Exam on the First Attempt, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**85%** 11/13	**80%** 74/93	**88%** 321/363	**93%** 1,253/1,341	**97%** 3,405/3,494	**98%** 4,465/4,543	**99%** 3,614/3,643	**100%** 2,059/2,063	**100%** 768/771	**98%** 15,972/16,327
3.60-3.79	--	**63%** 10/16	**71%** 82/115	**85%** 360/424	**92%** 1,269/1,385	**95%** 3,402/3,566	**98%** 4,141/4,238	**98%** 2,787/2,836	**100%** 1,225/1,228	**100%** 339/340	**96%** 13,617/14,152
3.40-3.59	--	**58%** 11/19	**77%** 92/119	**82%** 284/345	**87%** 958/1,099	**94%** 2,526/2,674	**97%** 2,993/3,076	**99%** 1,760/1,784	**98%** 639/649	**100%** 160/160	**95%** 9,430/9,932
3.20-3.39	--	**75%** 12/16	**63%** 64/102	**81%** 264/327	**87%** 557/643	**93%** 1,229/1,318	**95%** 1,413/1,480	**98%** 763/778	**99%** 259/262	**96%** 51/53	**93%** 4,613/4,983
3.00-3.19	--	**53%** 8/15	**68%** 43/63	**72%** 150/207	**84%** 294/349	**92%** 511/558	**94%** 568/602	**96%** 269/280	**98%** 105/107	**100%** 16/16	**89%** 1,965/2,200
2.80-2.99	--	--	**68%** 19/28	**72%** 84/117	**86%** 157/182	**90%** 179/199	**95%** 164/172	**98%** 83/85	**97%** 29/30	**92%** 11/12	**87%** 730/835
2.60-2.79	--	--	**55%** 11/20	**72%** 33/46	**72%** 43/60	**85%** 64/75	**100%** 59/59	**97%** 28/29	**100%** 10/10	--	**83%** 253/306
2.40-2.59		--	--	**75%** 9/12	**71%** 15/21	**100%** 21/21	**88%** 22/25	--	--		**85%** 83/98
2.20-2.39		--	--	--	--	--	--	--	--	--	**67%** 18/27
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--			--		--				--
All	**56%** 14/25	**62%** 61/98	**71%** 389/547	**82%** 1,511/1,850	**89%** 4,549/5,086	**95%** 11,341/11,910	**97%** 13,830/14,202	**99%** 9,317/9,448	**99%** 4,330/4,353	**99%** 1,348/1,355	**96%** 46,690/48,874

Notes:
1. Blue shading = passing rates of 90-100%; Green shading = passing rates of 80-89%; Orange shading = passing rates of 70-79%.
2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.
3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Table A2. Percentage of 2005-2007 Students Eventually Passing the Step 1 Exam, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**100%** 13/13	**95%** 88/93	**94%** 343/363	**97%** 1,300/1,341	**99%** 3,455/3,494	**99%** 4,515/4,543	**100%** 3,626/3,643	**100%** 2,060/2,063	**100%** 770/771	**99%** 16,173/16,327
3.60-3.79	--	**94%** 15/16	**91%** 105/115	**96%** 405/424	**97%** 1,343/1,385	**98%** 3,506/3,566	**99%** 4,186/4,238	**99%** 2,820/2,836	**100%** 1,223/1,228	**100%** 339/340	**99%** 13,943/14,152
3.40-3.59	--	**68%** 13/19	**91%** 108/119	**92%** 319/345	**95%** 1,048/1,099	**98%** 2,611/2,674	**99%** 3,041/3,076	**99%** 1,771/1,784	**99%** 645/649	**100%** 160/160	**98%** 9,723/9,932
3.20-3.39	--	**88%** 14/16	**89%** 91/102	**91%** 299/327	**96%** 615/643	**97%** 1,278/1,318	**99%** 1,460/1,480	**99%** 772/778	**99%** 260/262	**100%** 53/53	**97%** 4,844/4,983
3.00-3.19	--	**87%** 13/15	**84%** 53/63	**92%** 191/207	**93%** 326/349	**97%** 542/558	**98%** 591/602	**99%** 277/280	**99%** 106/107	**100%** 16/16	**96%** 2,118/2,200
2.80-2.99	--	--	**89%** 25/28	**92%** 108/117	**95%** 172/182	**98%** 196/199	**97%** 166/172	**100%** 85/85	**100%** 30/30	**100%** 12/12	**96%** 802/835
2.60-2.79	--	--	**95%** 19/20	**93%** 43/46	**87%** 52/60	**92%** 69/75	**98%** 58/59	**100%** 29/29	**100%** 10/10	--	**93%** 285/306
2.40-2.59		--	--	**100%** 12/12	**90%** 19/21	**100%** 21/21	**100%** 25/25	--	--		**97%** 95/98
2.20-2.39		--	--	--	--	--	--	--	--	--	**81%** 22/27
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--			--		--				--
All	**76%** 19/25	**84%** 82/98	**90%** 493/547	**93%** 1,728/1,850	**96%** 4,881/5,086	**98%** 11,683/11,910	**99%** 14,048/14,202	**99%** 9,392/9,448	**100%** 4,338/4,353	**100%** 1,353/1,355	**98%** 48,017/48,874

Notes:
1. Blue shading = passing rates of 90-100%; Green shading = passing rates of 80-89%; Orange shading = passing rates of 70-79%.
2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.
3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Table A3. Percentage of 2005-2007 Students Passing the Step 2 CK Exam on the First Attempt, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**92%** 12/13	**92%** 78/85	**97%** 337/347	**98%** 1,271/1,292	**99%** 3,351/3,390	**99%** 4,266/4,301	**100%** 3,322/3,330	**100%** 1,768/1,772	**100%** 616/617	**99%** 15,024/15,150
3.60-3.79	--	**83%** 10/12	**92%** 97/105	**96%** 378/393	**97%** 1,288/1,332	**98%** 3,369/3,446	**99%** 3,986/4,042	**99%** 2,617/2,642	**99%** 1,081/1,087	**99%** 275/277	**98%** 13,103/13,338
3.40-3.59	--	**93%** 14/15	**85%** 97/114	**94%** 303/322	**96%** 999/1,045	**98%** 2,539/2,585	**98%** 2,902/2,948	**98%** 1,636/1,661	**99%** 580/585	**99%** 139/141	**98%** 9,215/9,423
3.20-3.39	--	**81%** 13/16	**90%** 81/90	**88%** 266/302	**94%** 565/600	**97%** 1,230/1,267	**98%** 1,385/1,415	**99%** 714/724	**98%** 240/246	**98%** 47/48	**96%** 4,542/4,709
3.00-3.19	--	**92%** 11/12	**82%** 47/57	**86%** 159/185	**94%** 306/327	**94%** 502/532	**97%** 555/570	**96%** 255/265	**99%** 95/96	**100%** 13/13	**94%** 1,945/2,060
2.80-2.99	--	--	**92%** 22/24	**89%** 93/105	**92%** 153/167	**95%** 180/189	**94%** 150/159	**96%** 71/74	**100%** 27/27	**100%** 12/12	**93%** 713/766
2.60-2.79		--	**93%** 13/14	**74%** 31/42	**91%** 43/47	**90%** 62/69	**96%** 52/54	**85%** 22/26	--	--	**89%** 236/266
2.40-2.59		--	--	**91%** 10/11	**84%** 16/19	**95%** 19/20	**100%** 24/24	--	--		**92%** 85/92
2.20-2.39		--	--	--	--	--	--	--	--		**78%** 18/23
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--					--				--
All	**83%** 15/18	**85%** 72/85	**89%** 439/496	**92%** 1,583/1,714	**96%** 4,645/4,834	**98%** 11,256/11,503	**99%** 13,326/13,519	**99%** 8,646/8,733	**99%** 3,802/3,825	**99%** 1,104/1,110	**98%** 44,888/45,837

Notes:
1. Blue shading = passing rates of 90-100%; Green shading = passing rates of 80-89%; Orange shading = passing rates of 70-79%.
2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.
3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Table A4. Percentage of 2005-2007 Students Eventually Passing the Step 2 CK Exam, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**100%** 13/13	**96%** 82/85	**99%** 343/347	**100%** 1,286/1,292	**100%** 3,374/3,390	**100%** 4,290/4,301	**100%** 3,328/3,330	**100%** 1,771/1,772	**100%** 617/617	**100%** 15,107/15,150
3.60-3.79	--	**92%** 11/12	**98%** 103/105	**99%** 389/393	**99%** 1,316/1,332	**100%** 3,431/3,446	**100%** 4,028/4,042	**100%** 2,635/2,642	**100%** 1,083/1,087	**100%** 277/277	**100%** 13,275/13,338
3.40-3.59	--	**100%** 15/15	**97%** 111/114	**99%** 318/322	**99%** 1,032/1,045	**99%** 2,568/2,585	**99%** 2,928/2,948	**100%** 1,655/1,661	**99%** 582/585	**99%** 140/141	**99%** 9,355/9,423
3.20-3.39	--	**94%** 15/16	**98%** 88/90	**98%** 297/302	**98%** 590/600	**99%** 1,252/1,267	**99%** 1,406/1,415	**100%** 722/724	**99%** 243/246	**100%** 48/48	**99%** 4,662/4,709
3.00-3.19	--	**92%** 11/12	**95%** 54/57	**96%** 178/185	**99%** 323/327	**98%** 519/532	**99%** 563/570	**98%** 261/265	**100%** 96/96	**100%** 13/13	**98%** 2,020/2,060
2.80-2.99	--	--	**100%** 24/24	**96%** 101/105	**97%** 162/167	**98%** 186/189	**99%** 157/159	**99%** 73/74	**100%** 27/27	**100%** 12/12	**98%** 748/766
2.60-2.79		--	**100%** 14/14	**93%** 39/42	**96%** 45/47	**96%** 66/69	**96%** 52/54	**96%** 25/26	--	--	**95%** 254/266
2.40-2.59		--	--	**100%** 11/11	**89%** 17/19	**100%** 20/20	**96%** 23/24	--	--		**97%** 89/92
2.20-2.39		--	--	--	--	--	--	--	--		**96%** 22/23
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--					--				--
All	**83%** 15/18	**93%** 79/85	**97%** 483/496	**98%** 1,683/1,714	**99%** 4,776/4,834	**99%** 11,421/11,503	**100%** 13,453/13,519	**100%** 8,709/8,733	**100%** 3,813/3,825	**100%** 1,109/1,110	**99%** 45,541/45,837

Notes:
1. Blue shading = passing rates of 90-100%; Green shading = passing rates of 80-89%; Orange shading = passing rates of 70-79%.
2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.
3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Table A5. Percentage of 2005-2007 Students Passing the Step 2 CS Exam on the First Attempt, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**100%** 12/12	**94%** 78/83	**98%** 334/341	**99%** 1,258/1,275	**99%** 3,323/3,360	**99%** 4,224/4,261	**99%** 3,286/3,320	**99%** 1,766/1,775	**100%** 619/622	**99%** 14,902/15,051
3.60-3.79	--	**100%** 12/12	**92%** 93/101	**97%** 380/391	**99%** 1,298/1,314	**98%** 3,355/3,415	**98%** 3,927/4,004	**99%** 2,575/2,609	**99%** 1,074/1,083	**99%** 279/282	**98%** 12,995/13,213
3.40-3.59	--	**80%** 12/15	**90%** 100/111	**95%** 290/306	**98%** 1,006/1,030	**98%** 2,509/2,561	**98%** 2,845/2,901	**98%** 1,600/1,637	**99%** 570/576	**99%** 135/136	**98%** 9,072/9,279
3.20-3.39	--	**81%** 13/16	**89%** 76/85	**95%** 278/293	**95%** 569/598	**97%** 1,208/1,246	**98%** 1,359/1,392	**96%** 692/719	**97%** 233/240	**100%** 48/48	**97%** 4,477/4,638
3.00-3.19	--	**82%** 9/11	**80%** 39/49	**93%** 169/182	**95%** 304/320	**95%** 504/531	**97%** 549/565	**97%** 256/264	**97%** 89/92	**100%** 13/13	**95%** 1,935/2,030
2.80-2.99	--	--	**96%** 22/23	**90%** 92/102	**95%** 157/166	**96%** 173/181	**93%** 148/160	**94%** 68/72	**100%** 26/26	**100%** 12/12	**94%** 705/751
2.60-2.79		--	**79%** 11/14	**79%** 30/38	**96%** 43/45	**97%** 66/68	**96%** 50/52	**92%** 24/26	--	--	**92%** 236/257
2.40-2.59		--	--	--	**84%** 16/19	**90%** 18/20	**87%** 20/23	--	--		**86%** 76/88
2.20-2.39		--	--	--	--	--	--	--	--		**87%** 20/23
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--					--				--
All	**94%** 15/16	**87%** 72/83	**90%** 424/473	**95%** 1,586/1,668	**98%** 4,655/4,772	**98%** 11,160/11,387	**98%** 13,127/13,364	**98%** 8,511/8,658	**99%** 3,769/3,804	**99%** 1,108/1,115	**98%** 44,427/45,340

Notes:
1. Blue shading = passing rates of 90-100%; Green shading = passing rates of 80-89%; Orange shading = passing rates of 70-79%.
2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.
3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

Table A6. Percentage of 2005-2007 Students Eventually Passing the Step 2 CS Exam, by MCAT Total Score and Undergraduate GPA Range

	MCAT Total										
GPA Total	**5-14**	**15-17**	**18-20**	**21-23**	**24-26**	**27-29**	**30-32**	**33-35**	**36-38**	**39-45**	**All**
3.80-4.00	--	**100%** 12/12	**94%** 78/83	**99%** 339/341	**100%** 1,273/1,275	**100%** 3,348/3,360	**100%** 4,248/4,261	**100%** 3,314/3,320	**100%** 1,773/1,775	**100%** 620/622	**100%** 15,007/15,051
3.60-3.79	--	**100%** 12/12	**97%** 98/101	**99%** 387/391	**100%** 1,310/1,314	**99%** 3,397/3,415	**100%** 3,987/4,004	**100%** 2,604/2,609	**100%** 1,080/1,083	**100%** 281/282	**100%** 13,158/13,213
3.40-3.59	--	**93%** 14/15	**98%** 109/111	**98%** 301/306	**99%** 1,024/1,030	**99%** 2,541/2,561	**99%** 2,882/2,901	**99%** 1,627/1,637	**100%** 575/576	**100%** 136/136	**99%** 9,215/9,279
3.20-3.39	--	**94%** 15/16	**99%** 84/85	**99%** 289/293	**98%** 589/598	**99%** 1,238/1,246	**99%** 1,384/1,392	**99%** 712/719	**100%** 239/240	**100%** 48/48	**99%** 4,599/4,638
3.00-3.19	--	**91%** 10/11	**98%** 48/49	**99%** 181/182	**99%** 317/320	**99%** 524/531	**99%** 557/565	**100%** 264/264	**100%** 92/92	**92%** 12/13	**99%** 2,008/2,030
2.80-2.99	--	--	**96%** 22/23	**99%** 101/102	**98%** 162/166	**98%** 178/181	**98%** 156/160	**99%** 71/72	**100%** 26/26	**100%** 12/12	**98%** 735/751
2.60-2.79		--	**79%** 11/14	**97%** 37/38	**98%** 44/45	**100%** 68/68	**98%** 51/52	**100%** 26/26	--	--	**97%** 249/257
2.40-2.59		--	--	--	**100%** 19/19	**100%** 20/20	**100%** 23/23	--	--		**99%** 87/88
2.20-2.39		--	--	--	--	--	--	--	--		**91%** 21/23
2.00-2.19		--		--		--	--	--			--
1.47-1.99		--					--				--
All	**100%** 16/16	**92%** 76/83	**96%** 456/473	**99%** 1,650/1,668	**99%** 4,742/4,772	**99%** 11,318/11,387	**99%** 13,294/13,364	**100%** 8,629/8,658	**100%** 3,796/3,804	**100%** 1,111/1,115	**99%** 45,088/45,340

Notes:
1. Blue shading = passing rates of 90-100%; Green shading = passing rates of 80-89%; Orange shading = passing rates of 70-79%.
2. Dashes = cells with fewer than ten observations; blank cells = cells with zero observations.
3. For students who took the MCAT exam multiple times, the most recent MCAT total score at the time of matriculation was used in this analysis.

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