



# **Medical School Year Two Questionnaire**

2014 All Schools Summary Report

February 2015

# Table of Contents

	<b>Page</b>
Executive Summary	1
Demographic Data	4
Medical Education Experiences	5
Overall Satisfaction with Medical Education	5
Interprofessional Education	6
Pre-Clerkship Courses and Lectures	7
USMLE Step 1 Exam	8
Mistreatment Policies	8
Educational Environment	8
Perceptions of Learning Environment	8
Medical School Learning Environment Survey Scale	9
Professionalism	10
Mentoring	12
Personal Characteristics	12
Tolerance for Ambiguity Scale	12
Interpersonal Reactivity Index Scale	12
Career Plans and Interests	13
Specialty Preference	13
Primary Care Interest	13
Estimated Salary	14
Well-Being	14
Quality of Life Scale	14
Perceived Stress Scale - 4	15
Oldenburg Burnout Inventory for Medical Students Scale	16
Time Spent Doing Activities	16
Behaviors Experienced During Medical School	17
Background Information	19
Gender Identity and Sexual Orientation	19
Control of Medical School	19
Region of Medical School	19
References	20

## 2014 AAMC Medical School Year Two Questionnaire All Schools Summary Report

### Executive Summary

#### Background

The first Association of American Medical Colleges (AAMC) Medical School Year Two Questionnaire (Y2Q) was launched in 2014 as a method for the AAMC, medical schools, and other organizations to identify and address issues critical to the future of medical education and the well-being of medical students. These issues include satisfaction with an educational program's ability to help students adjust to medical school, career and specialty plans, and perceptions of the learning environment. The Y2Q can be used by medical schools, faculty, students, and researchers for benchmarking purposes and for improving medical education programs.

Development of the Y2Q was informed by existing research on stress, wellness, and the learning environment, as well as by the data obtained by the AAMC anonymous survey of second-year medical students conducted in 2013\*. The Y2Q was developed to align with the other AAMC Student Surveys. For example, the Y2Q includes scales and other questions that are also included in the AAMC Matriculating Student Questionnaire (MSQ) and the AAMC Medical School Graduation Questionnaire (GQ). The availability of these data across cohorts of students will help schools with program evaluation and will support longitudinal research. The intention is to provide school-level data in future years.

Copies of the Y2Q All Schools Summary Report and the survey instrument are publicly available on the AAMC website at [www.aamc.org/data/y2q](http://www.aamc.org/data/y2q). For the 2014 survey, there are no school or campus reports.

#### Methodology

The 2014 Y2Q All Schools Summary Report provides aggregate data from the 140 U.S. medical education programs accredited by the Liaison Committee on Medical Education (LCME) as of September 29, 2014 with second-year students in the 2014-2015 academic year. The 2014 Y2Q was open from October 1, 2014 through December 15, 2014. Initial participants were individuals identified by the AAMC Student Records System (SRS). While the survey was open, medical schools could request edits to the list of eligible participants to reflect changes in second-year status. The AAMC sent email invitations and reminders to each student at the email address on record in SRS.

The data in the 2014 Y2Q All Schools Summary Report reflect the responses of 10,270 second-year medical students. This represents a 50.5 percent response rate of the 20,348 medical students who were eligible to participate. Survey data for participating individuals may not be comparable to data for nonparticipants.

The response rates varied among the 140 medical schools. There were 5 medical schools with response rates of 90 percent or above; 26 medical schools with response rates between 70 and 89 percent; 46 medical schools with response rates between 50 and 69 percent; 50 medical schools with response rates between 30 and 49 percent; and 13 medical schools with response rates between 10 and 29 percent. No medical school had a response rate below 10 percent.

The Y2Q included questions used to better understand the lifestyles, personal characteristics, and learning environment of current second-year medical students. Established research scales were included to assess tolerance for ambiguity, empathy, quality of life, perceived stress, perceptions of the learning environment, and burnout. Descriptions of each scale and scoring conventions are provided within the report. Where applicable, a reliability estimate (Cronbach's alpha) is also provided as a measure of internal consistency. To examine the adequacy of these scales for use with medical students, current scores were compared with scores reported in the research literature, where possible. This analysis showed that the means and standard deviations obtained for this sample are similar to those found in the literature using these scales. A reference list for articles describing these scales is provided at the end of this report.

\* [https://www.aamc.org/download/377520/data/april2014aib\\_personalwell-beingamongmedicalstudents.pdf](https://www.aamc.org/download/377520/data/april2014aib_personalwell-beingamongmedicalstudents.pdf)

The Y2Q also included questions regarding gender identity and sexual orientation. If participants did not self-identify with one of the available response options, they had the opportunity to indicate how they self-identify in a separate text box. These responses are not reflected in the gender identity and sexual orientation results. Additionally, the gender identity that was self-reported on the Y2Q may differ from the gender data displayed in the report that are provided from other AAMC data sources, such as the Student Records System.

Percentages displayed in the report may not sum to 100 due to rounding or to questions permitting more than one response. All percentages are rounded. As a result, a percentage of "0.0" does not necessarily indicate that no student responded to that survey option.

## **Selected Findings**

### *Overall Satisfaction with Medical Education*

Slightly more than eighty-five percent of second-year medical students in 2014 reported being satisfied with the quality of their medical education. This figure comprises 55.6 percent who responded "Agree" and 29.8 percent who responded "Strongly agree" to the statement, "Overall, I am satisfied with the quality of my medical education."

### *Interprofessional Medical Education*

In 2014, nearly two thirds (63.1 percent) of second-year medical students reported that they had participated in required learning activities with students of other health professions. Respondents who participated in such interprofessional learning activities said they most frequently interacted with nursing students (70.3 percent) and pharmacy students (55.3 percent). Additionally, a large majority of these respondents (70.7 percent) indicated that learning alongside students from other health professions helped them gain a better understanding of the role of other professions in patient care.

### *Pre-Clerkship Courses or Lectures*

Slightly more than half of second-year medical students in 2014 reported having attended in-person pre-clerkship courses or lectures at their medical school "Most of the time" (39.4 percent) or "Often" (15.3 percent). One in six (16.8 percent) reported attending in-person pre-clerkship courses or lectures "Almost never." A combined 50.7 percent of second-year medical students said they attended a virtual pre-clerkship course or lecture at their medical school "Most of the time" (35.5 percent) or "Often" (15.2 percent).

### *Online Resources*

Roughly half (51.9 percent) of 2014 second-year medical students indicated that they accessed other online content for medical education information on a daily basis. Fourteen percent of second-year medical students said they used online medical education courses from other medical schools "At least once a week" (10.7 percent) or "Daily" (3.3 percent).

### *Awareness of Policies and Procedures Regarding Mistreatment*

The proportion of 2014 second-year medical students who reported being "aware that your school has policies regarding the mistreatment of medical students" was 84.6 percent. Additionally, more than half (58.3 percent) of 2014 second-year medical students reported knowing the procedures at their medical school for reporting mistreatment.

### *Learning Environment*

Approximately two-thirds of students felt that there are "Never" (17.4 percent) or "Almost never" (48.1 percent) "disconnects between what I am taught about professional behaviors/attitudes and what I see being demonstrated by faculty." Two-thirds of 2014 second-year medical students also reported that their medical school faculty spend time providing direction and constructive feedback "Always" (28.4 percent) or "Very often" (39.4 percent).

When asked to respond to the statement, "My medical school has done a good job fostering and nurturing my development as a future physician," more than nine out of ten students reported that they "Agree" (47.2 percent) or "Strongly agree" (44.0 percent). When asked whether "My medical school has done a good job fostering and nurturing my development as a person," a combined 68.5 percent of second-year medical students indicated that they "Agree" (43.3 percent) or "Strongly agree" (25.2 percent).

### *Career Plans*

When asked what specialty choice they were considering, second-year medical students most frequently cited internal medicine (17.4 percent), pediatrics (12.6 percent), emergency medicine (9.6 percent), surgery (6.9 percent), and family medicine (6.8 percent). Additionally, 13.1 percent of second-year medical students reported that they were undecided about their specialty choice.

When asked, "If you could revisit your career choice, would you choose to attend medical school again?" a combined 87.5 percent of second-year medical students reported "Yes" (57.7 percent) or "Probably yes" (29.8 percent).

### *Time Spent During the Day*

In 2014, second-year medical students reported spending, on average, over 10 hours per day doing educational activities, such as attending class or studying. They also reported sleeping an average of 7.1 hours each day.

### **Providing Feedback**

We encourage constituents to provide feedback regarding the Y2Q reports. If you would like to provide feedback, please contact [Y2Q@aamc.org](mailto:Y2Q@aamc.org), or Donna Strok, M.S., Senior Database Specialist, Data Operations and Services ([dstrok@aamc.org](mailto:dstrok@aamc.org)).

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 All Medical Schools
 

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2014

Total number of students who responded to the questionnaire: 10,270

## 1. Gender:

Note: This information is populated from other AAMC data sources (e.g., SRS).

	<u>Percent</u>
Male	48.9
Female	51.1
<hr/>	
Number of respondents	10,270

## 2. Age during second-year:

Note: This information is populated from other AAMC data sources (e.g., SRS).

	<u>Percent</u>
Under 21	0.1
21 through 23	36.3
24 through 26	45.2
27 through 29	12.1
Over 29	6.2
<hr/>	
Number of respondents	10,270
<hr/>	
Median age at second-year	24

## 3. How do you self-identify?

Note: Percentages may not sum to 100% as multiple responses are allowed. This information is populated from other AAMC data sources (e.g., SRS).

	<u>Percent</u>
<b>Hispanic, Latino, or of Spanish origin</b>	8.9
Argentinean	0.2
Colombian	0.7
Cuban	0.9
Dominican	0.3
Mexican, Mexican American, Chicano/Chicana	2.8
Peruvian	0.2
Puerto Rican	1.9
Other Hispanic, Latino, or of Spanish origin	2.0
<b>American Indian or Alaska Native</b>	1.0
<b>Asian</b>	20.6
Bangladeshi	0.2
Cambodian	0.1
Chinese	6.1
Filipino	1.1
Indian	5.8
Indonesian	0.1
Japanese	1.0
Korean	2.3
Laotian	0.0
Pakistani	0.8
Taiwanese	1.5
Vietnamese	1.6
Other Asian	0.8

**All Medical Schools**

**2014**

**3. How do you self-identify?**

**Note: Percentages may not sum to 100% as multiple responses are allowed. This information is populated from other AAMC data sources (e.g., SRS). (Continued)**

	<u>Percent</u>
<b>Black or African American</b>	7.0
African	1.6
African American	4.2
Afro-Caribbean	1.5
Other Black or African American	0.1
<b>Native Hawaiian or Other Pacific Islander</b>	0.3
Guamian	0.0
Native Hawaiian	0.2
Samoan	0.0
Other Pacific Islander	0.1
<b>White</b>	66.1
<b>Other</b>	3.5
Number of respondents	9,286

**4. What is your current marital status?**

	<u>Percent</u>
Single (never legally married)	84.1
Legally married	14.3
Common law or civil union	0.6
Divorced	0.7
Separated, but still legally married	0.3
Widowed	0.0
Number of respondents	8,892

**5. How many dependents do you have (not including a spouse/partner)?**

	<u>Percent</u>
None	94.9
One	3.0
Two	1.4
Three	0.4
Four or more	0.2
Number of respondents	8,893

**6. Please indicate the extent to which you agree with the following statement:**

		<u>Percentage of Respondents Selecting Each Rating</u>					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Count
Overall, I am satisfied with the quality of my medical education							
All Medical Schools	2014	1.1	4.4	9.1	55.6	29.8	10,264

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**All Medical Schools**


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**2014**
**7. Have you participated in any required curricular activities where you had the opportunity to learn with students from different health professions?**

	<u>Percent</u>
Yes	63.1
No	30.5
Not Sure	6.4
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Number of respondents	10,233

**8. With which other profession(s) have you had the opportunity to participate or interact in educational activities? Select all that apply.**

**Note: Only those who responded "Yes" to Q7 could respond to this item. As multiple responses were permitted, totals may exceed 100%.**

	<u>Percent</u>
Dentistry	31.2
Nursing	70.3
Occupational Therapy	24.9
Osteopathic Medicine	7.6
Pharmacy	55.3
Physical Therapists	40.2
Physician Assistants	38.3
Psychology	10.9
Public Health	28.1
Social Work	27.2
Veterinary Medicine	2.6
Other	11.0
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Number of respondents	6,338

**9. What was the nature of the learning experience(s) with other health professions students? Select all that apply.**

**Note: Only those who responded "Yes" to Q7 could respond to this item. As multiple responses were permitted, totals may exceed 100%.**

	<u>Percent</u>
Lecture only, basic science	24.3
Lecture only, clinical subject (i.e., universal precautions, informed consent, advanced cardiac life support (ACLS) certification, population health)	27.4
Patient-centered case problems (classroom or student setting)	55.1
Clinical simulations	29.3
Active engagement with patients (i.e., inpatient or ambulatory based team rotation, longitudinal clinics, practice-based clerkships)	28.2
Community projects or service learning activities	31.5
Team Skills Training	36.2
Other	6.3
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Number of respondents	6,341



10. **Indicate your level of agreement with the following statement:**  
**Note: Only those who responded "Yes" to Q7 could respond to this item.**

		Percentage of Respondents Selecting Each Rating					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Count
The learning experience with other health professions students helped me gain a better understanding of other professions in care of patients							
All Medical Schools	2014	2.4	7.1	19.8	51.9	18.8	6,349

11. **Please describe how often you attend:**

		Percentage of Respondents Selecting Each Rating					
		Almost never	Occasionally	Somewhat often	Often	Most of the time	Count
In-person pre-clerkship courses/lectures at YOUR medical school							
All Medical Schools	2014	16.8	15.9	12.6	15.3	39.4	9,920
Virtual pre-clerkship courses/lectures (e.g., podcast or video) at YOUR medical school							
All Medical Schools	2014	20.9	16.4	11.9	15.2	35.5	9,819

12. **Please describe how often you utilize the following online resources:**

		Percentage of Respondents Selecting Each Rating					
		Never	Less than once a month	At least once a month	At least once a week	Daily	Count
Online medical education courses/lectures from OTHER medical schools							
All Medical Schools	2014	38.4	30.0	17.5	10.7	3.3	9,915
Online videos for medical education information (e.g., YouTube)							
All Medical Schools	2014	5.7	22.6	31.8	30.7	9.1	9,908
Other online content for medical education information (e.g., Wikipedia)							
All Medical Schools	2014	1.0	3.1	8.8	35.4	51.9	9,894

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**All Medical Schools**


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2014

**13. When did you take, or when do you expect to take, the USMLE Step 1 exam?**

	<u>Percent</u>
I have already taken Step 1	0.2
I will take Step 1 before the end of the calendar year 2014	1.0
I will take Step 1 sometime from January 2015 to March 2015	11.4
I will take Step 1 sometime after March of 2015	87.4
Number of respondents	9,936

**14. Are you aware that your school has policies regarding the mistreatment of medical students?**

	<u>Percent</u>
Yes	84.6
No	15.4
Number of respondents	9,920

**15. Do you know the procedures at your school for reporting the mistreatment of medical students?**

	<u>Percent</u>
Yes	58.3
No	41.7
Number of respondents	9,933

**16. Please indicate the extent to which you agree with the following statements about your medical school:**

		<u>Percentage of Respondents Selecting Each Rating</u>					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Count
My medical school prepares students to effectively communicate with people across a broad spectrum of backgrounds							
All Medical Schools	2014	0.6	2.9	9.7	49.4	37.3	9,744
I often feel isolated at school							
All Medical Schools	2014	28.9	41.1	15.0	11.6	3.5	9,711
My teachers and mentors have told me that they have high standards for my performance							
All Medical Schools	2014	1.3	7.7	26.5	47.9	16.5	9,713
I often feel that my performance is being judged more closely than others							
All Medical Schools	2014	26.7	50.0	15.4	6.1	1.8	9,728

**16. Please indicate the extent to which you agree with the following statements about your medical school:  
(Continued)**

		Percentage of Respondents Selecting Each Rating					Count
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
My teachers and mentors have told me that they feel sure that I can perform well against high standards							
All Medical Schools	2014	1.9	8.9	28.7	42.9	17.5	9,728
I closely share the professional values and interests of most of my classmates							
All Medical Schools	2014	1.7	7.8	20.5	54.6	15.3	9,683
I often feel as if my performance is being judged as a member of the identity group that I belong to more than as an individual							
All Medical Schools	2014	26.1	35.5	21.8	13.2	3.4	9,714
Students learn effective tools for recognizing their own bias in interacting with people of different identity groups							
All Medical Schools	2014	2.9	10.1	26.0	46.9	14.2	9,687
The medical school experience, to this point, contributes to students' ability to work in disadvantaged communities							
All Medical Schools	2014	2.5	9.9	22.0	45.6	19.9	9,727

**17. Learning Environment Scales**

A shortened version of the Medical School Learning Environment Survey (MSLES) instrument consists of 11 items measuring three dimensions of the learning environment – emotional climate, student-faculty interaction, and student-student interaction. Each subscale is calculated by summing across the items, which are measured on a 0-5 point scale. **Higher scores for each subscale indicate more positive perceptions of the learning environment.** Only participants who responded to every item on the scale are included in the summary statistics. For each subscale, the mean score, the standard deviation, and the number of respondents are displayed below. Additionally, a reliability estimate (Cronbach's alpha) is shown as a measure of internal consistency. The measure varies from 0 to 1, and an instrument is often considered to be reliable if the estimate is 0.7 or higher.

**Emotional Climate**

The emotional climate subscale combines the responses of three items assessing a student's affective response to the learning environment. These questions ask to what extent [or, how often] the educational experience leads to a sense of achievement, valuing oneself, and confidence in one's academic abilities. The possible range of responses for the emotional climate subscale is 0 to 15, and higher scores are correlated with positive perceptions of the learning environment.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.9	9.2	3.1	9,155

## 17. Learning Environment Scales (Continued)

### Student-Student Interaction

The student-student interaction subscale combines responses to four items assessing peer relations at the medical school. In addition to asking about perceived distance among students, these questions ask to what extent students get to know each other well, spend time assisting each other, and gather in informal activities. The possible range of responses for the student-student interaction subscale is 0 to 20, and higher scores are correlated with positive perceptions of the learning environment.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	15.1	3.1	9,181

### Student-Faculty Interaction

The student-faculty interaction subscale combines responses to four items assessing a student's perception of faculty supportiveness. In addition to asking about perceived distance between faculty and students, these questions ask to what extent students feel that faculty are helpful when providing academic advice, when providing non-academic advice, and when answering questions and providing criticism. The possible range of responses for the student-faculty interaction subscale is 0 to 20, and higher scores are correlated with positive perceptions of the learning environment.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	14.7	3.2	9,160

## 18. Think about how often you experience the following at your medical school. Determine your response by choosing one of the categories of frequency given below. Choose the category that best approximates your perceptions.

		Percentage of Respondents Selecting Each Rating						
		Never	Almost never	Sometimes	Fairly often	Very often	Always	Count
There are disconnects between what I am taught about professional behaviors/attitudes and what I see being demonstrated by faculty								
All Medical Schools	2014	17.4	48.1	23.8	5.4	3.9	1.4	9,278

## 19. Please rate how often the following professional behaviors/attitudes are demonstrated by your medical school's faculty.

		Percentage of Respondents Selecting Each Rating						
		Never	Almost never	Sometimes	Fairly often	Very often	Always	Count
Respecting patient confidentiality								
All Medical Schools	2014	0.0	0.2	1.3	5.2	28.5	64.9	9,152
Using professional language/avoiding derogatory language								
All Medical Schools	2014	0.6	0.9	2.5	8.7	38.2	49.1	9,147

**19. Please rate how often the following professional behaviors/attitudes are demonstrated by your medical school's faculty. (Continued)**

		Percentage of Respondents Selecting Each Rating						Count
		Never	Almost never	Sometimes	Fairly often	Very often	Always	
Dressing in a professional manner								
All Medical Schools	2014	0.0	0.1	1.3	5.8	32.7	60.0	9,135
Resolving conflicts in ways that respect the dignity of all involved								
All Medical Schools	2014	0.1	0.5	4.4	11.7	39.1	44.1	9,102
Being respectful of house staff and other physicians								
All Medical Schools	2014	0.0	0.2	2.2	8.1	38.1	51.4	9,111
Respecting diversity								
All Medical Schools	2014	0.2	0.5	3.8	9.8	34.3	51.4	9,070
Being respectful of other health professions								
All Medical Schools	2014	0.1	0.4	3.7	12.5	39.4	43.8	9,140
Being respectful of other specialties								
All Medical Schools	2014	0.1	0.4	4.9	15.2	40.8	38.6	9,113
Being on time and managing a schedule well								
All Medical Schools	2014	0.3	1.2	7.1	19.6	42.9	28.9	9,124
Providing direction and constructive feedback								
All Medical Schools	2014	0.4	2.2	9.5	20.1	39.4	28.4	9,120
Showing respectful interaction with students								
All Medical Schools	2014	0.1	0.5	3.9	11.9	43.1	40.5	9,113
Showing empathy and compassion								
All Medical Schools	2014	0.3	0.8	5.8	15.0	42.5	35.6	9,129

20. Indicate whether you agree or disagree with the following statement.

		Percentage of Respondents Selecting Each Rating					Count
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
My medical school has done a good job of fostering and nurturing my development as a person							
All Medical Schools	2014	2.7	7.5	21.3	43.3	25.2	8,680
My medical school has done a good job of fostering and nurturing my development as a future physician							
All Medical Schools	2014	0.5	1.8	6.5	47.2	44.0	9,173

21. Tolerance for Ambiguity (TFA)

Tolerance for Ambiguity (TFA) is a measure of one's ability to cope with situations of uncertainty. Scales measuring TFA have been used in prior research to show how ambiguity impacts medical education and medical care. TFA scores are calculated by summing across seven items, which are measured on a 1-6 point scale. **The possible range of scores is 7 to 42, and higher scores are correlated with higher tolerance for ambiguity.** Only participants who responded to every item on the scale are included in the summary statistics. The mean TFA score, the standard deviation, and the number of respondents are displayed below. Additionally, a reliability estimate (Cronbach's alpha) is shown as a measure of internal consistency. The measure varies from 0 to 1, and an instrument is often considered to be reliable if the estimate is 0.7 or higher.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	23.7	5.8	8,887

22. Interpersonal Reactivity Index (IRI)

The Interpersonal Reactivity Index (IRI) is a measure of individual differences in empathy. Scales measuring empathy have been used in prior research to show how levels of empathy may change throughout medical education. The original IRI contains four seven-item subscales, each assessing different empathy constructs. For Y2Q purposes, the abbreviated eight-item version of the IRI consists of four items from the Empathic Concern subscale and four items from the Perspective-taking subscale. The IRI score is calculated by summing across these 8 items, which are measured on a 0-4 point scale. **The possible range of scores is 0 to 32, and higher scores are correlated with higher levels of empathy.** Only participants who responded to every item on the scale are included in the summary statistics. The mean IRI score, the standard deviation, and the number of respondents are displayed below. Additionally, a reliability estimate (Cronbach's alpha) is shown as a measure of internal consistency. The measure varies from 0 to 1, and an instrument is often considered to be reliable if the estimate is 0.7 or higher.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	23.8	4.4	8,791

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**All Medical Schools**


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**2014****23. What general specialty are you considering?**

	<u>Percent</u>
Allergy and Immunology	0.4
Anesthesiology	2.4
Colon and Rectal Surgery	0.1
Dermatology	1.6
Emergency Medicine	9.6
Family Medicine	6.8
Internal Medicine	17.4
Medical Genetics	0.3
Neurological Surgery	1.8
Neurology	2.7
Nuclear Medicine	0.0
Obstetrics and Gynecology	5.3
Ophthalmology	2.1
Orthopaedic Surgery	5.4
Otolaryngology	1.7
Pathology	1.0
Pediatrics	12.6
Physical Medicine and Rehabilitation	0.9
Plastic Surgery	1.1
Preventive Medicine	0.2
Psychiatry	2.1
Radiation Oncology	0.8
Radiology	1.7
Surgery	6.9
Thoracic Surgery	1.0
Urology	0.9
Undecided	13.1
<hr/>	
Number of respondents	8,985

**24. You selected an interest in Family Medicine, Internal Medicine, Obstetrics and Gynecology, or Pediatrics. What career are you considering?**  
**Note: Only those who responded “Family Medicine,” “Internal Medicine,” “Obstetrics and Gynecology,” or “Pediatrics” to Q23 could respond to this item.**

	<u>Percent</u>
Primary care practice (i.e., office-based continuing care in general Family Medicine, general Internal Medicine, or general Pediatrics)	26.3
Hospitalist (i.e., salaried, full-time care of hospitalized patients)	6.9
Sub-specialty (e.g., Cardiology, Pediatric Oncology, Family Medicine/Sports Medicine)	45.0
Undecided	21.7
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Number of respondents	3,780

**All Medical Schools**

**2014**

- 25. Please tell us your estimate of the current average salary for the specialty you selected.**  
**Note: Those who responded “Undecided” to Q23 could not respond to this item.**

	<u>Percent</u>
Less than \$150,000	7.2
\$150,000 to \$199,999	24.8
\$200,000 to \$249,999	25.2
\$250,000 to \$299,999	15.8
\$300,000 to \$399,999	12.4
\$400,000 to \$499,999	3.9
\$500,000 or more	1.6
Don't know	9.0
Number of respondents	7,806

- 26. Indicate whether you agree or disagree with the following statement:**

		<u>Percentage of Respondents Selecting Each Rating</u>					
		No	Probably not	Neutral	Probably yes	Yes	Count
If you could revisit your career choice, would you choose to attend medical school again?							
All Medical Schools	2014	1.3	3.5	7.7	29.8	57.7	8,993

- 27. Quality of Life (QOL) Scale**

The Quality of Life (QOL) scale, which includes items from the Linear Analogue Self-Assessment Scale (LASA-6), is a measure of the following aspects of life: overall quality of life, mental (intellectual) well-being, physical well-being, emotional well-being, level of social activity, and spiritual well-being. The QOL questions ask about feelings that respondents experienced in the past week. QOL scores are calculated by summing across the six items, which are measured on a 0-10 point scale. **The possible range of responses is 0 to 60, and higher scores are correlated with higher quality of life.** Only participants who responded to every item on the scale are included in the summary statistics. The mean QOL score, the standard deviation, and the number of respondents are displayed below. Additionally, a reliability estimate (Cronbach's alpha) is shown as a measure of internal consistency. The measure varies from 0 to 1, and an instrument is often considered to be reliable if the estimate is 0.7 or higher.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.9	40.4	10.3	8,859



**27. Quality of Life (QOL) Scale (Continued)**

**Additional Quality of Life (QOL) Scales**

Additional Quality of Life (QOL) items are also taken from the Linear Analogue Self-Assessment Scale (LASA) and are distinct measures of the following aspects of life: level of fatigue, level of social support from family and friends, and level of financial concerns. The QOL questions ask about feelings that respondents experienced in the past week, and the scores are calculated individually on 0-10 point scales. **The possible range of responses is 0 to 10, and higher scores represent more positive outcomes: no fatigue, higher levels of social support from family and friends, and no financial concerns.** The summary statistics displayed below include the mean score, the standard deviation, and the number of respondents. Because the additional QOL items are calculated individually, the internal consistency estimate is not provided.

		Mean	Standard Deviation	Count
<b>QOL - Level of fatigue (0 = Constant tiredness, 10 = No fatigue)</b>				
All Medical Schools	2014	4.7	2.3	8,949

		Mean	Standard Deviation	Count
<b>QOL - Level of social support from family and friends (0 = No support, 10 = Highest level of support)</b>				
All Medical Schools	2014	8.1	2.0	8,943

		Mean	Standard Deviation	Count
<b>QOL - Level of financial concerns (0 = Constant concerns, 10 = No concerns)</b>				
All Medical Schools	2014	5.3	3.0	8,974

**28. Perceived Stress Scale - 4**

The Perceived Stress Scale - 4 (PSS-4) is a four-item version of a widely used instrument for measuring the perception of stress. The scale measures the degree to which situations in one's life are considered stressful. The scale also includes a number of direct questions about current levels of experienced stress. The PSS-4 also includes questions that ask about feelings and thoughts that respondents experienced during the last month. In each case, respondents are asked how often they felt a certain way. PSS-4 scores are calculated by summing across four items, which are measured on a 0-4 point scale. **The possible range of scores is 0 to 16, and higher scores are correlated with higher perceived levels of stress.** Only participants who responded to every item on the scale are included in the summary statistics. The mean PSS-4 score, the standard deviation, and the number of respondents are displayed below. Additionally, a reliability estimate (Cronbach's alpha) is shown as a measure of internal consistency. The measure varies from 0 to 1, and an instrument is often considered to be reliable if the estimate is 0.7 or higher.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	5.8	2.9	8,886

## 29. Oldenburg Burnout Inventory for Medical Students Scale

The Oldenburg Burnout Inventory for Medical Students (OLBI-MS) is a modified and shortened version of the Oldenburg Burnout Inventory (OLBI). The OLBI-MS instrument consists of 16 items measuring two dimensions of burnout – exhaustion and disengagement. Each subscale is calculated by summing across the items, which are measured on a 0-3 point scale.

**Higher scores are correlated with higher levels of burnout.** Only participants who responded to every item on the scale are included in the summary statistics. For each subscale, the mean score, the standard deviation, and the number of respondents are displayed below. Additionally, a reliability estimate (Cronbach's alpha) is shown as a measure of internal consistency. The measure varies from 0 to 1, and an instrument is often considered to be reliable if the estimate is 0.7 or higher.

### Disengagement

The disengagement subscale includes eight items on a 0-3 point scale and refers to distancing oneself from the object and content of medical school work and to negative attitudes toward medical school in general. The possible range of responses for the disengagement subscale is 0 to 24, and higher scores are correlated with higher levels of burnout.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	9.7	3.8	8,677

### Exhaustion

The exhaustion subscale includes eight items on a 0-3 point scale and refers to the cognitive and physical strain as a consequence of the demands of medical school. The possible range of responses for the exhaustion subscale is 0 to 24, and higher scores are correlated with higher levels of burnout.

		Reliability Estimate	Mean	Standard Deviation	Count
All Medical Schools	2014	0.8	11.8	3.9	8,664

## 30. In thinking about a typical week during your pre-clerkship education, please provide the average number of hours PER DAY that you spent doing the following activities?

**Note: Responses needed to total 24 hours.**

		<b>All Medical Schools</b>	
		<b>2014</b>	
Sleep	Mean		7.1
	Standard Deviation		1.0
Educational activities (e.g., attending class, studying)	Mean		10.1
	Standard Deviation		2.5
Non-educational activities (e.g., being with friends/family, solitary recreation)	Mean		3.6
	Standard Deviation		2.0
Paid work	Mean		0.1
	Standard Deviation		0.6
Exercise/sports	Mean		1.0
	Standard Deviation		0.7
Other	Mean		2.0
	Standard Deviation		1.9
Number of respondents			8,841

31. For each of the following behaviors, please indicate the frequency you personally experienced that behavior during medical school. Include in your response any behaviors performed by faculty, nurses, residents/interns, other institution employees or staff, and other students. Please do not include behaviors performed by patients.  
During medical school, how frequently have you...

		Percentage of Respondents Selecting Each Rating				
		Never	Once	Occasionally	Frequently	Count
Been publicly embarrassed?						
All Medical Schools	2014	74.6	15.4	9.6	0.4	8,849
Been publicly humiliated?						
All Medical Schools	2014	91.9	5.4	2.5	0.2	8,840
Been threatened with physical harm?						
All Medical Schools	2014	99.2	0.5	0.3	0.0	8,836
Been physically harmed?						
All Medical Schools	2014	99.3	0.5	0.2	0.0	8,827
Been required to perform personal services?						
All Medical Schools	2014	97.5	0.8	1.3	0.4	8,841
Been subjected to unwanted sexual advances?						
All Medical Schools	2014	96.9	1.8	1.2	0.1	8,839
Been asked to exchange sexual favors for grades or other rewards?						
All Medical Schools	2014	99.7	0.1	0.2	0.0	8,831
Been denied opportunities for training or rewards based on gender?						
All Medical Schools	2014	97.8	1.2	0.9	0.1	8,827
Been subjected to offensive sexist remarks/names?						
All Medical Schools	2014	90.7	4.9	4.0	0.4	8,816
Received lower evaluations or grades solely because of gender rather than performance?						
All Medical Schools	2014	98.6	0.9	0.5	0.0	8,840

**31. For each of the following behaviors, please indicate the frequency you personally experienced that behavior during medical school. Include in your response any behaviors performed by faculty, nurses, residents/interns, other institution employees or staff, and other students. Please do not include behaviors performed by patients.**

**During medical school, how frequently have you... (Continued)**

		Percentage of Respondents Selecting Each Rating				
		Never	Once	Occasionally	Frequently	Count
Been denied opportunities for training or rewards based on race or ethnicity?						
All Medical Schools	2014	96.3	1.1	2.0	0.6	8,832
Been subjected to racially or ethnically offensive remarks/names?						
All Medical Schools	2014	94.3	2.8	2.7	0.2	8,833
Received lower evaluations or grades solely because of race or ethnicity rather than performance?						
All Medical Schools	2014	99.0	0.5	0.4	0.1	8,817
Been denied opportunities for training or rewards based on sexual orientation?						
All Medical Schools	2014	99.5	0.2	0.2	0.0	8,820
Been subjected to offensive remarks/names related to sexual orientation?						
All Medical Schools	2014	98.1	0.9	0.9	0.1	8,822
Received lower evaluations or grades solely because of sexual orientation rather than performance?						
All Medical Schools	2014	99.7	0.1	0.2	0.0	8,818

**All Medical Schools**

**2014**

**32. Percent of respondents who indicated they personally experienced any of the listed behaviors, excluding "publicly embarrassed." The data are derived from the responses to the survey question reported in Q31 above.**

	Percent
Yes	24.4
No	75.6
Number of respondents	8,857

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 All Medical Schools
 

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2014

**33. How do you self-identify?**

**Note: Respondents who indicated “Transgender female-to-male,” “Transgender male-to-female,” or “Transgender do not identify as exclusively male or female” are combined and displayed as “Transgender”.**

	<u>Percent</u>
Female	51.4
Male	48.4
Transgender	0.1
Number of respondents	<hr/> 8,886

**34. How do you self-identify?**

	<u>Percent</u>
Bisexual	2.4
Gay or lesbian	3.1
Heterosexual or straight	94.6
Number of respondents	<hr/> 8,808

**35. Control of medical school:**

**Note: This information is populated from other AAMC data sources.**

	<u>Percent</u>
Private	38.8
Public	61.2
Number of respondents	<hr/> 10,270

**36. Region of medical school:**

**Note: This information is populated from other AAMC data sources.**

	<u>Percent</u>
Central	27.2
Northeast	27.6
South	32.7
West	12.5
Number of respondents	<hr/> 10,270

## 2014 Y2Q References

Each item number below refers to the question number in the 2014 Y2Q All Schools Summary Report.

### **Q17. Medical School Learning Environment Survey (MSLES) Scale**

Marshall RE. Measuring the medical school learning environment. *Journal of medical education*. 1978;53(2):98-104.

### **Q19. Professionalism**

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### **Q21. Tolerance for Ambiguity (TFA) Scale**

Geller G, Tambor ES, Chase GA, Holtzman NA. Measuring physicians' tolerance for ambiguity and its relationship to their reported practices regarding genetic testing. *Medical care*. 1993;31(11):989-1001.

Caulfield M, Andolsek K, Grbic D, Roskovensky L. Ambiguity tolerance of students matriculating to U.S. medical schools. *Acad Med*. 2014;89(11):1526-1532.

### **Q22. Interpersonal Reactivity Index (IRI) Scale**

Hojat M, Spandorfer J, Louis DZ, Gonnella JS. Empathic and sympathetic orientations toward patient care: conceptualization, measurement, and psychometrics. *Acad Med*. 2011;86(8):989-995.

Davis MH. Measuring individual differences in empathy: evidence for a multidimensional approach. *Journal of personality and social psychology*. 1983;44:113-126.

### **Q27: Quality of Life (QOL) Scale**

Thomas MR, Dyrbye LN, Huntington JL, et al. How do distress and well-being relate to medical student empathy? A multicenter study. *J Gen Intern Med*. 2007;22(2):177-183.

### **Q28: Perceived Stress Scale (PSS-4) Scale**

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Cohen S, Kamarck T, Mermelstein R. A global measure of perceived stress. *Journal of health and social behavior*. 1983; 24(4):385-396.

### **Q29. Oldenburg Burnout Inventory for Medical Students Scale**

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