

# Medical School Expansion Plans: Results of the 2006 AAMC Survey

Center for Workforce Studies

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## Summary

Based on the fall 2006 survey of U.S. medical schools, the AAMC estimates that first-year U.S. M.D. enrollment will grow to nearly 19,300 in 2012 from 16,488 in 2002—an increase of 17 percent. This is a significant and encouraging step toward the AAMC-recommended increase of 30 percent by 2015. The expected increase primarily reflects enrollment growth at existing medical schools, with three quarters of existing schools indicating a likelihood of some increase compared to 2002 enrollment. While several new medical schools are expected to open in the coming decade, their enrollment by 2012 is expected to be limited.

Existing medical schools have undertaken a wide array of activities and studies to assess whether and how to expand enrollment. Most U.S. medical schools have: assessed the financial aspects of expansion; assessed the depth and quality of the applicant pool; constructed new teaching space; and/or developed new teaching or curriculum methods. These activities are ongoing. The medical schools also report a number of barriers to expansion, including a lack of adequate funding for scholarships, classroom space, ambulatory preceptors, and general costs of expansion.

## Introduction

In 2006, in response to growing concerns of a likely future physician shortage, the AAMC recommended a 30 percent increase in U.S. medical school enrollment by 2015 compared to enrollment in 2002<sup>[1]</sup>. A 30 percent increase would require more than 4,900 additional students per year<sup>[2]</sup>.

National advisory bodies, including the Graduate Medical Education National Advisory Committee, the Council on Graduate Medical Education and the Institute of Medicine, issued reports between 1980 and the mid-1990s projecting surpluses of physicians<sup>[3], [4], [5]</sup>; all expressed a concern with a likely surplus of physicians. As a result, U.S. medical school enrollment was essentially flat at about 16,000 graduates between 1980 and 2002<sup>[6]</sup>. During this period, the U.S. population grew by 71 million. Given the long time frames needed to expand medical school capacity and to educate and train physicians, the AAMC recommended that existing U.S. medical schools expand enrollment and that the overall number of U.S. medical schools be increased to meet expected future needs.

The AAMC also recommended ongoing monitoring of supply and demand for physicians in order to continue to provide guidance to the medical education and training community. The AAMC Center for Workforce Studies administered the third annual survey of all U.S. medical schools in the fall of 2006 to better assess and measure medical school expansion plans. Most of the information contained in this report was provided by the 121 U.S. medical schools (M.D. granting) that participated in the survey. The survey was designed to track enrollment and expansion trends over time and to assess the likelihood

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<sup>[1]</sup> AAMC Statement on the Physician Workforce. <http://www.aamc.org/workforce/workforceposition.pdf>

<sup>[2]</sup> First-year enrollment for the baseline year of 2002 was 16,488. [www.aamc.org/facts](http://www.aamc.org/facts)

<sup>[3]</sup> Report of the Graduate Medical Education National Advisory Committee – Vol. 1: Summary Report. DHHS Publication No. HRA) 81-651. US Government Printing Office, 1980

<sup>[4]</sup> Council on Graduate Medical E. Fourth Report: Recommendation to Improve Access to Health Care Through Physician Workforce Reform. ed; 1994.

<sup>[5]</sup> Committee on the U.S. Physician S. *The Nation's Physician Workforce: Options for Balancing Supply and Requirements*. Washington, DC: Institute of Medicine; 1996.

<sup>[6]</sup> Salsberg E, Grover A. Physician workforce shortages: implications and issues for academic health centers and policymakers. *Acad Med*. 2006 Sep; 81(9):782-7.

of the respondents to expand their medical school enrollment over the coming five years. The center also gathered public information on new medical schools planned or under discussion to provide a more complete picture of the likely future enrollment.

## Methodology

The deans of the 125 U.S. medical schools were asked to participate in the survey in fall of 2006. The invitation to the deans provided a link to a Web-based survey and was accompanied with a hard copy of the survey which could be returned by fax<sup>[7]</sup>. Of 125 U.S. medical schools, 121 completed the survey. Individual respondents to the survey included the deans or their designated appointee, typically an associate dean or financial administrator. While the survey was anonymous, each of the 121 schools identified themselves for tracking purposes. The information provided by the respondents was self-reported; therefore no verification of the data was conducted, with the exception of verification of the current year enrollment. Response rates by region and type of medical school are included in Appendix A.

## Plans to Increase Enrollment

Respondents were asked to provide their medical school's current first-year enrollment figure, as well as their expected first-year enrollment for each of the next 5 years, ending with the 2011-12 academic year. Compared to their 2005-06 enrollment, 71 (58.6 percent) schools plan to increase enrollment, including 64 schools with plans to increase first-year enrollment by five or more students by the 2011-12 academic year. Forty percent of these enrollment increases would be equal to or in excess of 10 percent of the current enrollment. Of the schools with plans to increase enrollment, seven plan to increase enrollment by more than 50 students in the next five years, with two schools indicating plans for an enrollment increase of more than 100 first-year students.

Fifty-one schools expect enrollment to remain unchanged or plan an increase of less than five students by 2011-12; six schools indicated they plan to decrease first-year enrollment over the next five years. The six schools with planned first-year enrollment decreases expect them to fall in the range of one to 12 students over the next five years.

Future enrollment expectations were compared with the baseline academic year of 2002-2003. **Total first-year enrollment at existing medical schools is expected to increase by 2,558 students (15.5 percent) between 2002-03 and 2011-12.** Of these 2,558 expected new enrollment slots, 1,880 (73.5 percent) would come from public institutions and 678 (26.5%) would come from private institutions. Current enrollment figures show an increase of 882 first-year students from 2002-03 to 2006-07. Table 1 below shows the expected increase and percentage growth in enrollment by institution type and region for existing schools. Ninety-three (76.8 percent) of the schools report an expected increase in first-year enrollment from their baseline 2002-03 enrollment figures.

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<sup>[7]</sup> The data collection protocol was approved by the Institutional Review Board (IRB) of the American Institutes for Research, which reviews the AAMC's research and data collection activities. The survey instrument itself was cleared through the association's survey clearance process (AAMC Survey Clearance ID: 06-044).

**Table 1. Planned Increases in First-Year Enrollment by Institution Type and Region** (existing schools only)

|  | <b>Baseline Enrollment<br/>2002-03</b> | <b>Planned Increase<br/>2011-12</b> | <b>Percentage Increase from<br/>Baseline</b> |
|--|--|-------------------------------------|--|
| <b>Institution Type</b>                        |  |                                     |  |
| Private  | 6,357                                  | 678                                 | 10.7%  |
| Public   | 9,721                                  | 1,880                               | 19.3%  |
| <b>Region</b>                                  |  |                                     |  |
| Central  | 4,497                                  | 584                                 | 13.0%  |
| Northeast                                      | 4,729                                  | 487                                 | 10.3%  |
| South  | 5,046                                  | 927                                 | 18.4%  |
| West   | 1,806                                  | 560                                 | 31.0%  |
| <i>All Responding Schools</i>                  | 16,078*                                | 2,558                               | 15.9%  |
| <i>All Schools</i>                             | 16,488                                 | 2,558                               | 15.5%  |
| <i>All Schools + Potential<br/>New Schools</i> | 16,488                                 | 2,808                               | 17.0%  |

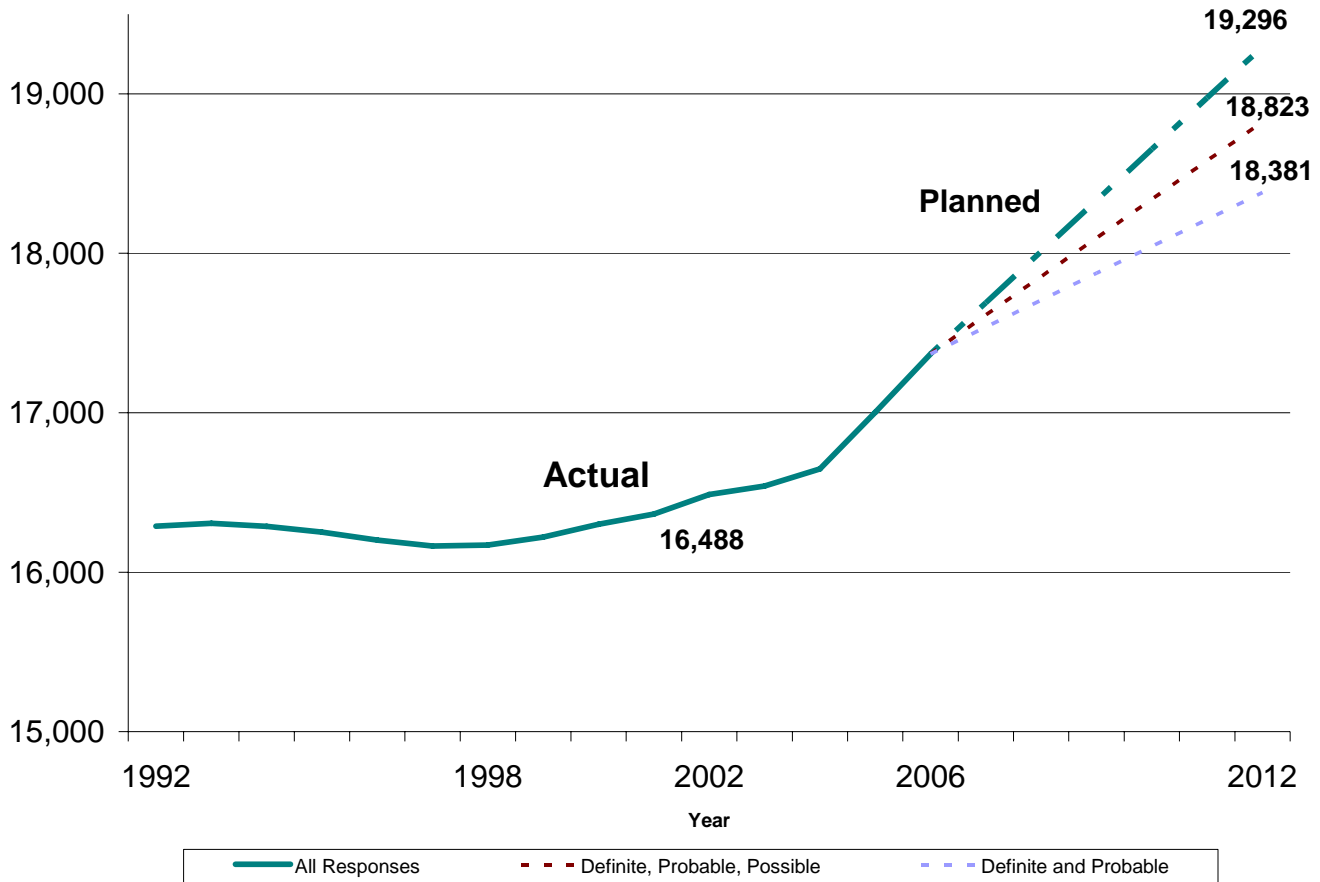
\*Baseline of 16,078 includes the 2002-03 enrollment of the 121 schools that responded to the survey. Totals and percentage increase by type and region are based on the baseline for the 121 schools. Total baseline enrollment in 2002-03 for all 125 schools was 16,488.

Seventy-three medical schools indicated the likelihood of their projected changes in first-year enrollment. Thirteen characterized their projection as “definite,” 36 deemed their projection as “probable,” while 18 indicated their projection was “possible;” six schools were “not certain” about the likelihood of their projection.

From the total expected increase in first-year enrollment of 2,558 students, the schools that are “definite” in their plans account for 628 of the students, while “probable” respondents account for an additional 1,015 students, and “possible” respondents account for an additional 442 students. The remaining 473 students out of the 2,558 total are from schools that are “not certain” or did not indicate the likelihood of their expected change in enrollment.

Based on public information, there are more than a dozen potential new medical schools being planned or actively discussed. It is not possible to know exactly how many schools will open and admit students in the next five years. A reasonable estimate is that five new medical schools will be operational by 2011-12, allowing the additional enrollment of 250 first-year students. Including students at potential new schools, total planned first-year enrollment for the 2011-12 academic year is 19,296<sup>[8]</sup> (Figure 1). **This represents a 17 percent increase in enrollment compared to the total baseline enrollment for the 2002-03 academic year.** Projections are also shown for increases in overall enrollment given the schools indication of the likelihood for a change in first-year enrollment.

**Figure 1. Projected Number of Matriculants in 2012**  
 (Current projection represents an increase of 17.0 percent from baseline of 2002)

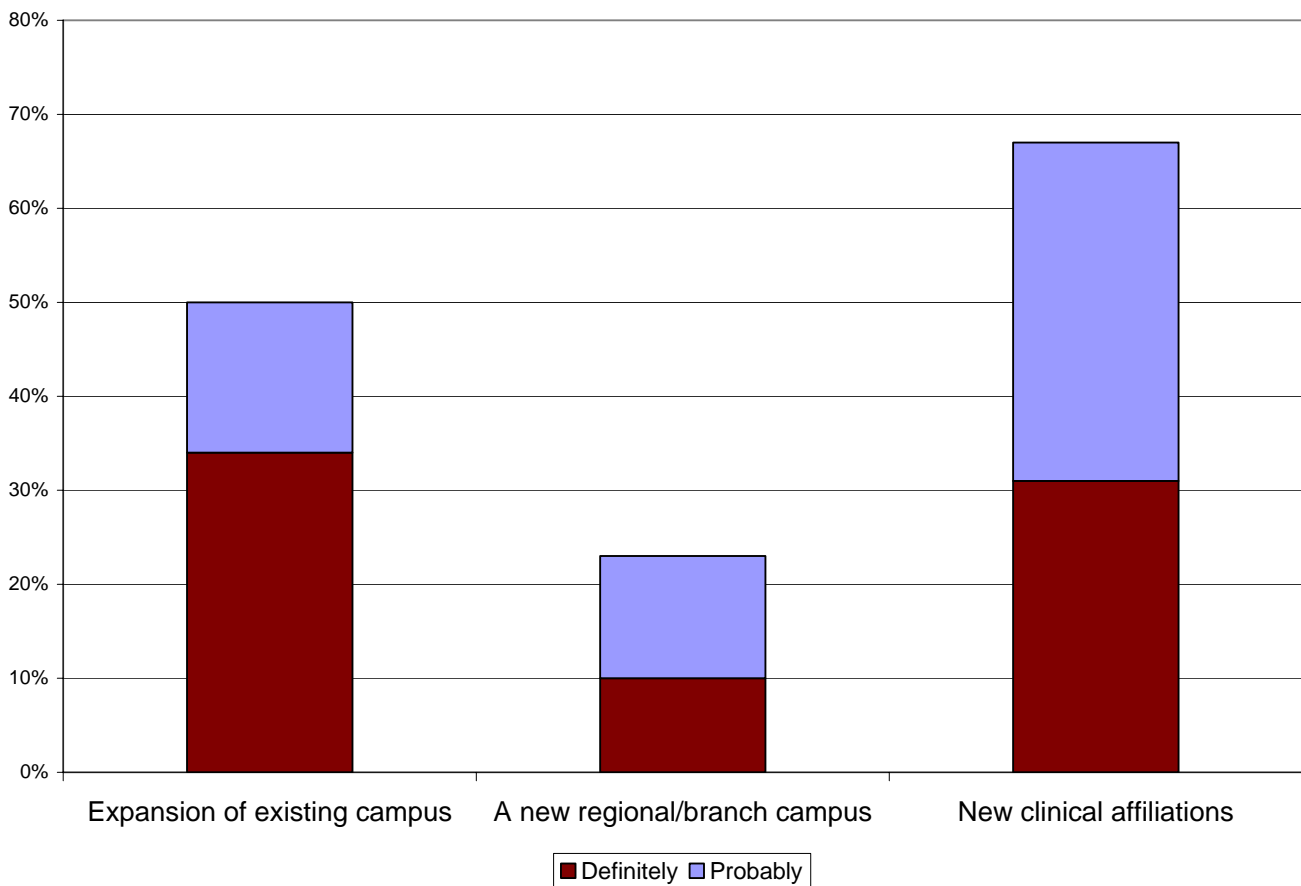


While expected increases through 2012 fall short of the AAMC’s call for a 30 percent increase in first-year enrollment by 2015, they indicate that medical schools are beginning to actively answer the call for increases in enrollment in an effort to minimize an impending physician shortage. It is also likely, given the interest in medical school expansion, that there will be additional expansion not yet in the formal planning phase. However, since many of these planned increases in first-year enrollment depend upon state support or other outside funding for medical education, it is unclear whether the 30% expansion will come to fruition over the next decade.

## Approaches to Expansion

US medical school expansion has occurred through a variety of mechanisms, including expansion of an existing campus, new regional or branch campuses, and new clinical affiliations. Respondents were asked to indicate which options were being used for planned (or recent) increases in enrollment. Twenty-seven schools indicated “definite” plans for the expansion of their existing campus, while 13 schools indicated that such an expansion was “probable” (Figure 2). Eight schools had “definite” plans to add a new regional or branch campus, and another 10 indicated that this type of expansion was “probable.” Twenty-four and 28 schools indicated plans to enter into new clinical affiliations as “definite” or “probable,” respectively. Some schools indicated that they planned to increase their joint- or dual-degree programs as a mechanism to increase their first-year enrollment.

**Figure 2. Options for Planned or Previous Expansion of First-Year Enrollment**

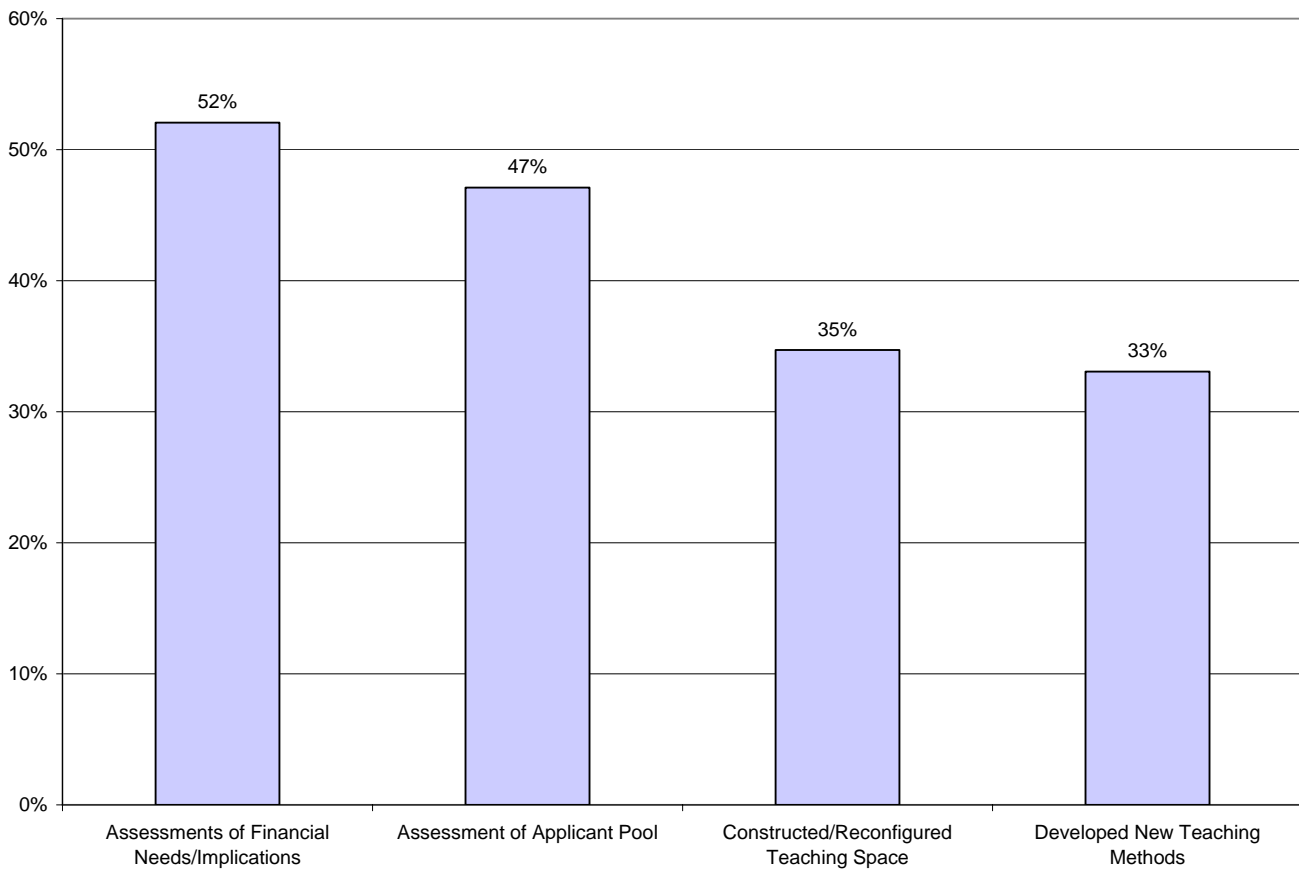


\*Includes only those schools with planned increases in enrollment.

## The Decision-Making Process

Most schools have undertaken evaluation and assessment activities to determine whether and/or how to effectively expand enrollment. Of the 121 schools that responded to the survey, 63 have already undertaken a financial analysis; 53 have conducted an assessment of the depth and quality of the applicant pool (Figure 3). Forty-two schools have constructed new teaching space and/or reconfigured existing space and 40 have developed new teaching or curriculum methods and practices. Twenty-three schools have hired new faculty, while 15 have obtained additional state funding for expansion. Finally, 11 schools have hired consultants to conduct studies or analysis related to expansion; a number of schools listed additional expansion activities including implementation of admissions’ retreats to discuss ideas and establishing task forces to review expansion. These activities show that medical schools are undertaking potential expansion with due diligence to ensure that proper academic infrastructure and resources, including potential students, are sufficient for increased enrollment.

**Figure 3. Assessing Medical School Expansion at the School Level**

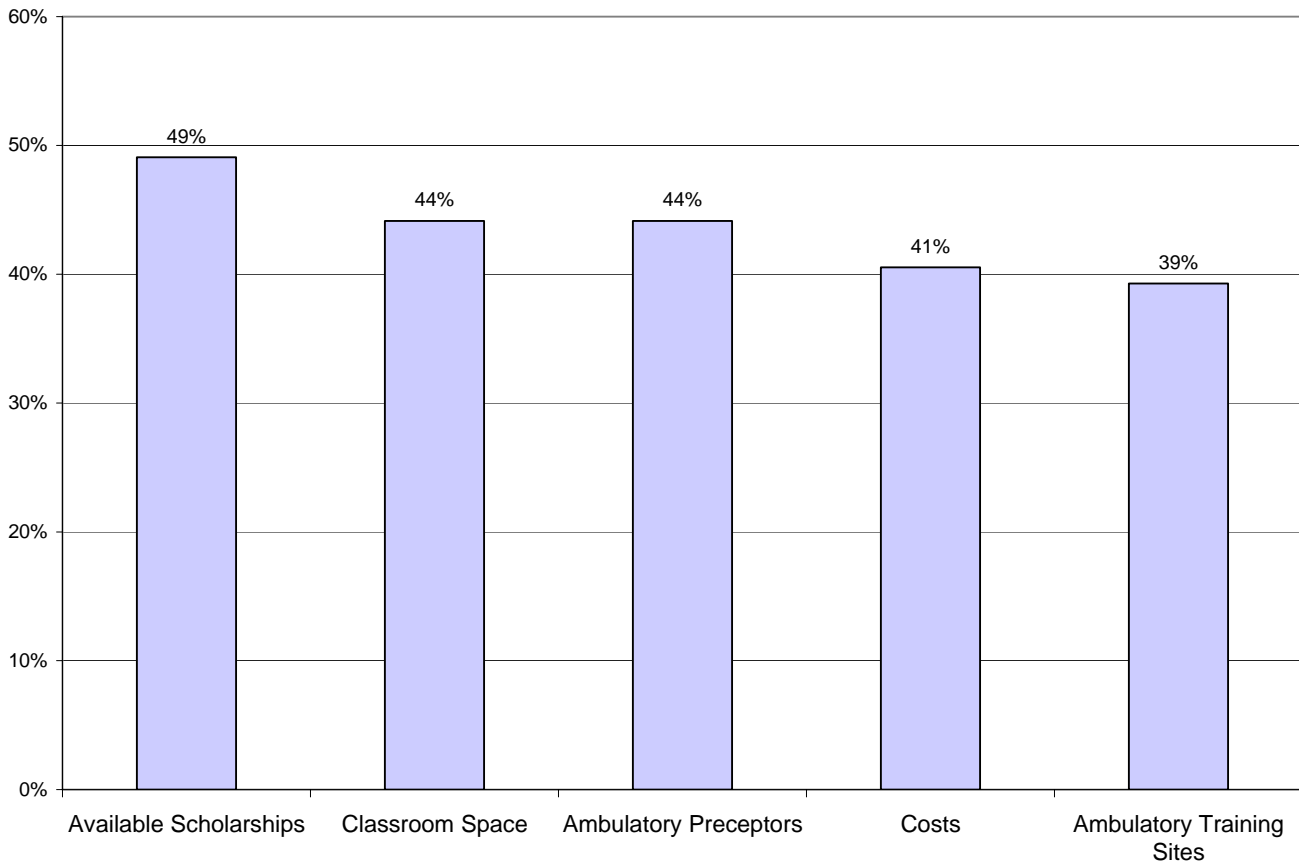


## Barriers to Expansion

To identify issues of concern to medical schools regarding expansion, the survey asked respondents, regardless of their plans, to rate possible barriers to enrollment increases. Since not all of the respondents provided valid responses, the number of respondents varies from 108 to 112. The respondents were most likely to report limited scholarship availability, classroom space, and ambulatory preceptors as “major” barriers to expansion (Figure 4). Less than 10 percent of respondents reported a lack of basic science faculty, numbers/variety of patients, regulatory/accreditation requirements, or quality of applicants as “major” barriers.

Many of the schools that indicated “major” barriers to expansion also indicate that their expansion plans are only “probable” or “possible.” Twenty-two (49 percent) of the 45 schools that indicate costs as a major barrier, also note that their expansion plans are “probable” or “possible.” Only six schools with “definite” expansion plans believe that costs are a “major” barrier. Similarly twenty-one (48 percent) of the 44 schools that indicate ambulatory training sites as a “major” barrier to expansion indicate that their expansion plans are “probable” or “possible.” Only one of the schools that believe costs are a “major” barrier indicates that its expansion plans are “definite.”

**Figure 4. Barriers to Enrollment Expansion**  
(Percentage of respondents identifying barrier as “major problem”)



## Conclusion

U.S. medical schools are responding to existing and expected physician shortages and the AAMC call for increased enrollment. More than half of U.S. medical schools plan to increase their first-year enrollment (or have already done so). While these efforts are encouraging, they fall short of the AAMC's call for a 30 percent increase in first-year enrollment in 2015. Moreover, their success will depend upon the availability of a number of resources.

There have been numerous discussions regarding new U.S. medical schools, yet it remains to be seen how many of these schools will come to fruition. In addition, there is uncertainty about the number of additional students these schools will be able to enroll over the next decade.

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## Appendix A. Survey Response Rates

Results are presented in aggregate by region (Northeast, South, Midwest, West), ownership (public, private), and institutional type (community-based, private freestanding, research-intensive). Table 1 provides the number of survey respondents and the response rate in each category.

**Table 1. Number of Survey Responses and Response Rate by Region, Ownership, and Institutional Type**

| Region           |         |              | Ownership      |         |              |
|------------------|---------|--------------|----------------|---------|--------------|
|                  | N/Total | (% Response) |                | N/Total | (% Response) |
| <b>Northeast</b> | 33/35   | (94%)        | <b>Public</b>  | 73/75   | (97%)        |
| <b>South</b>     | 41/43   | (95%)        | <b>Private</b> | 48/50   | (96%)        |
| <b>Midwest</b>   | 31/31   | (100%)       |                |         |              |
| <b>West</b>      | 16/16   | (100%)       |                |         |              |