

An Advisor's Guide to Secondary Applications

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Abstract:

Medical school aspirants submit a primary application and subsequently a secondary application to nearly every institution to which they apply. We conducted a systematic review of the costs, response lengths, and most common questions of the 2023-2024 secondary applications for all AAMC and AACOM accredited medical schools. Of the 222 schools, 97% required a secondary application, which cost between \$30-200 each (mean = \$83, SD = \$32). Secondary applications requested between 1-38 questions with an average of 5.1 questions (SD = 3.5). The most frequent categories of questions included why an applicant was applying to that institution, how an applicant contributed to or interacted with diversity, how an applicant overcame adversity, what applicant plans were for the upcoming year, and an optional query to expand on their application. Of the 32 categories of secondary questions, only 20 were asked by 10% or more of medical schools. This study can assist advisors in better preparing their students for completing secondary applications.

Keywords:

health profession, advising, medical school applications, secondary applications, systematic review

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Approximately 55,188 students Applied to U.S. allopathic (MD) medical schools in the 2022-2023 cycle. They applied to an average of 17.95 MD schools, resulting in a total of 990,790 applications (Association of American Medical Colleges, 2023a). That cycle boasted a competitive acceptance rate of 41%; that is, 22,712 of the 55,188 applicants were accepted to at least one allopathic medical school. In the 2020-2021 cycle, 27,277 students applied to osteopathic (DO) medical schools; of

those, 8,516 successfully matriculated, resulting in a 31% matriculation rate (for the schools that reported both application and matriculation statistics; exact data for the 2022-2023 cycle have not been released at the time of this publication; American Association of Colleges of Osteopathic Medicine, 2022). Since many students apply simultaneously to both allopathic and osteopathic schools, the precise acceptance and matriculation rates for the entire applicant pool are not known with certainty.

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The medical school application is rigorous for both students and their advisors. That rigor includes completing, submitting, and paying for secondary applications required at almost all U.S. medical schools.

The secondary application contains supplementary information specific to the institution. Whereas the primary application provides general information regarding students' academics and extracurriculars, the secondary application permits students to match to specific institutions. There are obvious commonalities across secondary applications, but each response should be tailored to the institution and its unique mission.

Since most medical schools operate on rolling admissions, the sooner a student submits both their primary and secondary applications to an institution, the better their chances at moving forward in the process. According to some observers (e.g., Murphy, 2021; Tran, 2020), one of the biggest mistakes a medical school applicant can make is submitting their secondaries late. Not only will students hurt their chances by submitting their secondaries behind more applicants, but they also may appear less interested in the eyes of the institution and be accorded less attention.

Unfortunately, we did not locate any published studies on the prevalence or cost of secondary applications. Yet, these are frequent (and urgent) requests from students applying for medical school. Nor did we find any publications investigating the type or frequency of secondary application questions.

The present study was designed to systematically review and categorize the requirements, costs, and questions of all secondary applications for AAMC and AACOM affiliated medical schools. We hope that this information will assist health professions advisors in their work and will inform medical school applicants.

Method

Questions on secondary applications were obtained from the Prospective Doctor "Medical School Secondary Essay Prompts Database," a compilation of past and current secondary application questions for U.S. medical schools. We included all locations at which accredited medical schools delivered instruction; hence, some medical schools with two (or more) campuses were counted more than once as their secondary applications did not necessarily contain the same questions. Only questions from the most recent (2022-2023 and 2023-2024) cycles were collected (Prospective Doctor, 2023). These questions were compared against another pre-medical resource from similar sources like the Shemmassian Academic Consulting's "Medical School Secondary Essay Prompts" list to ensure consistency and accuracy (Shemmassian Consulting, 2023). The accuracy of questions collected from these websites

was not validated against secondary questions received by students directly from medical schools.

The secondary application questions from 50 randomly selected medical schools were independently classified by the authors into discrete topics or themes. The classification system consisted of 32 categories, including an "other" category for those questions which occurred in less than 1% of the secondary applications. The categories were:

1. Describe a time when you were in a minority or how you have interacted with another person who was part of a minority.
2. How do you contribute to diversity and how will you advocate for or contribute to the diversity of the institution?
3. Describe a time when you have overcome adversity.
4. Why have you chosen to apply to this institution and how do you fit its values, standards, and mission?
5. What community service have you provided to others and how has it impacted either you or your community?
6. Why have you decided to pursue a career as a physician?
7. Why have you decided to pursue osteopathic medicine?
8. Tell us something about yourself that is not included on your primary application (required).
9. Is there anything else you want the admissions committee to know that is not provided on your primary application? (similar to #8, but an optional question)
10. Describe your plans for the interim before matriculation into medical school.
11. If you are a reapplicant at this institution, what have you done to strengthen your application?
12. How do you meet the behavioral and professional standards of this institution?
13. Describe your relevant healthcare experience and the impact it has had on you.
14. Describe your most significant accomplishments, skills, and leadership positions.
15. How have you prepared yourself to become a physician, and how do you still need to prepare?
16. Read the following prompt or quotation (which varied by school) and respond to it.
17. How do you plan to develop new skills and improve yourself?
18. Do you have any additional hobbies, skills, or passions you want to disclose to the admissions committee?
19. How do you see yourself practicing medicine in the future, e.g., what specialty, location of practice, what demographic do you hope to serve?
20. Describe your interest in a specified healthcare setting (e.g., rural and underserved communities).
21. Describe any affiliations you have with this institution.
22. How has COVID-19 affected your path to medicine?

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23. Have you worked for compensation during your undergraduate career? If so, how much were you paid?
24. Have you ever taken any time off during your undergraduate education? If so, why?
25. What makes you unique?
26. Describe a time when you asked for help.
27. Describe a time when you were wrong or critiqued. How did you respond and what did you learn from the interaction?
28. Describe your religious or spiritual affiliations.
29. Explain any academic discrepancies in your application.
30. Describe experiences with teamwork (e.g., How do you work when part of a team?)
31. Describe a time when a member of your team was difficult to work with.)
32. Describe any experiences you have with research.
33. Other (not above).

Two independent judges established the inter-rater reliability of placing the questions in these 32 categories for 50 randomly selected secondary applications. The reliability coefficient was .97; the only incongruencies related to conditional questions. The authors subsequently coded all secondary application questions into the foregoing 32 categories.

Additional variables were collected for possible analysis. These included the state in which the school was located, the political party leaning of that state (determined via the Partisan Voting Index; 2022 Cook PVISM: State Map and List, n.d.), whether the school awarded an allopathic or osteopathic degree, whether a secondary application was required, the cost of the secondary application, whether the school accepted fee waivers for secondary applications, which applicants received secondary applications, whether the school was private or public, the number of (primary) applications received, the percent of applicants accepted, and the maximum length of responses to each secondary question. Response length was coded in words rather than characters; character limits were placed in charactercounter.com and converted to a word limit (Character to Words Conversion, n.d.).

AAMC and AACOM resources were used to obtain the above information. We used the MSAR tool and the MSAR report for applicants and advisors, and the AAMC secondary application policies (Association of American Medical Colleges, 2023b; Association of American Medical Colleges, 2023c; Become an Osteopathic Medical Doctor, n.d.). The AAMC's MD Matriculants form for the 2022-2023 cycle was used to obtain information on applicant numbers and matriculation rates (Association of American Medical Colleges, 2023c). The AACOM website provided the DO school information (American Association of Colleges of Osteopathic Medicine, 2022).

Results

In total, the secondary application requirements of all 222 medical schools were analyzed. The following bullets summarize the medical schools examined in our study.

- Percentage of MD schools = 70.72%
- Percentage of DO schools = 29.28%
- Percentage of private medical schools = 52.25%
- Percentage of public medical schools = 47.75%
- Percentage of medical schools located in a democrat-leaning state = 43.58%
- Percentage of medical schools located in a republican-leaning state = 56.42%
- Average acceptance rate of individual medical schools = 6.00% (SD = 3.10)

The percentage of these 222 medical schools requiring secondary applications was 96.85%. Of the schools charging a secondary fee, their average cost was \$83 with a standard deviation of \$32. They ranged in cost between \$30-200. The percentage of medical schools offering a fee waiver for qualified applicants was 86.04%; this secondary fee waiver for MD schools is linked in most cases to receipt of AAMC fee assistance. Hence, virtually all medical schools required submission of secondary applications, each costing a mean of \$83, unless that fee was waived, largely for financial need.

The number of questions in the secondary applications ranged from 1-38 and averaged 5.15 (SD = 3.53). The frequency of secondary application questions are presented in descending order in Table 1.

The most common questions were why an applicant was applying to that institution (52.3% of programs), how an applicant contributed to or interacted with diversity (30.6%), how an applicant overcame adversity (27.9%), what their plans were for the upcoming year (24.3%), and an optional query to expand on their application (26.6%). Two diversity questions—contribution to diversity and interaction with diverse people—were coded separately in the analyses; together, 50.4% of programs asked a least one question about diversity. Besides infrequent questions placed in the “other” category (operationally defined as occurring in less than 1% of secondary applications), less common questions included plans for self-improvement, teamwork skills, and religious/spiritual affiliation.

Table 1 also shows the average length of the maximum response to each category of secondary application question. As shown there, the typical maximum was 300 words. The two exceptions were about 500 words for responses concerning research experience and undergraduate employment.

Table 1. Frequency of Questions Asked in Secondary Applications

Question	% of programs requiring question	Average length of max response (words)	Standard deviation of max response (words)
Why applying here	52.3%	318	172
Contribution to diversity	30.6%	320	143
Overcoming adversity	27.9%	330	127
Tell us more (optional)	26.6%	337	184
Plans for upcoming year	24.3%	284	152
Other question	23.4%	304	152
Questions for reapplicants	21.2%	285	155
Interaction with diverse people	19.8%	324	151
Affiliations with this medical school	18.9%	313	177
How will you practice medicine	18.0%	291	147
How have you prepared	17.1%	323	121
Healthcare and clinical experience	15.8%	278	156
Effects of COVID-19	14.9%	360	173
Respond to this quote or prompt	14.0%	383	157
Address discrepancies in your academic record	13.1%	303	145
Why osteopathic medicine	12.2%	390	148
Specify healthcare interest	10.4%	264	138
Most significant accomplishment/ leadership	9.9%	319	148
What makes you unique	9.0%	339	172
Service and its impact on you	9.0%	318	145
Why medicine	9.0%	275	190
Do you meet our professional standards	8.6%	350	145
Did you take time off as undergraduate & why	7.2%	262	128
Any hobbies or skills	6.3%	266	125
Describe a time you were wrong	5.9%	343	110
Research experience	3.2%	504	70
Have you worked for compensation as undergrad	3.2%	442	150
Tell us more (required)	3.2%	325	248
Plans for self-improvement	2.3%	281	65
Teamwork skills	2.3%	303	145
Religious/spiritual affiliation	1.5%	387	112

We examined the type of secondary application questions across two variables: type of medical school (allopathic vs. osteopathic) and political leaning of the state in which the school was located (red/Republican vs. blue/Democratic). We could not investigate the potential covariates of the requirement or fee waiver of secondary applications because virtually all schools required secondaries and the vast majority offered fee waivers.

Chi-square analyses were performed on the 20 most frequent categories of questions requested on secondary applications. Statistically significant differences ($p < .05$, bidirectional) between MD and DO schools were found for the frequency of 8 of the 20 questions. Allopathic schools more frequently asked questions regarding: the optional tell us more (32% vs. 14%, $\chi^2(1) = 7.63$), interactions with diverse people (25% vs. 8%, $\chi^2(1) = 8.51$), contribution to diversity (36% vs. 17%, $\chi^2(1)$

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= 8.13), plans for the upcoming year (32% vs. 6%, $\chi^2(1) = 16.48$), most significant leadership or accomplishment (13% vs. 2%, $\chi^2(1) = 7.21$), effects of COVID-19 (20% vs. 2%, $\chi^2(1) = 12.89$), and academic discrepancies (17% vs. 5%, $\chi^2(1) = 5.76$). By contrast, osteopathic schools more frequently asked why osteopathic medicine (42% vs. 0%, $\chi^2(1) = 74.25$).

Fewer differences in secondary questions were identified as a function of the states' political leanings. Medical schools located in Democratic-leaning states more frequently requested that applicants specify their plans for the upcoming year (36% vs. 16%, $\chi^2(1) = 10.97$), while medical schools in Republican-leaning states more frequently inquired why applicants were applying to osteopathic schools (16% vs. 7%, $\chi^2(1) = 3.91$).

Discussion

Virtually all (97%) U.S. medical schools required secondary applications. These applications cost on average \$83. Applicants spent anywhere from \$30 to \$200 per secondary application. They answered an average of five questions per secondary, with a typical response limit of 300 words. Between 1 to 38 questions on a single secondary application proved possible. With an expected average of 18 secondary applications, students may find themselves scraping for time and money.

Applicants can expect to encounter questions on their secondary applications concerning fit, adversity, diversity, and themselves. Slightly more than half of medical schools asked students to explain why they wish to attend that school and how they fit the mission. For example, George Washington School of Medicine asked, "What is your specific interest in the MD Program at GW? What opportunities would you take advantage of as a student here? Why?" (*George Washington University Medical School Secondary Questions*, 2023). Almost a third of programs requested that students describe a time they overcame adversity. "Describe a significant challenge you have experienced in your life, share the strategies you employed to overcome the challenge, and what you learned from the experience" was found on the secondary application of Edward Via College of Osteopathic Medicine (*Edward Via College of Osteopathic Medicine Secondary Questions*, 2023). An open-ended question that appeared 26.6% of the time was the optional "tell us more about you." Johns Hopkins University School of Medicine, for instance, asked "Optional: The Admissions Committee values hearing about each candidate for admission, including what qualities the candidate might bring to the School of Medicine if admitted. If you feel there is information not already addressed in the application that will enable the Committee to know more about you and this has influenced your desire to be a physician, feel free to write a brief statement in the space below" (*Johns Hopkins University School of Medicine Secondary Questions*, 2023).

At least half of medical schools request that applicants address diversity, typically through their contribution to diversity and/or their interaction with diverse people. The Mayo Clinic Alix School of Medicine inquired, for example, "We are all differentiated from or connected to one another by individual inflections that constitute our diversity. Explain how your relationship with your own diversity and to the diversities of others manifests in your personal and professional activities" (*Mayo Clinic College of Medicine Secondary Questions*, 2023). A diversity question is more than twice as likely to appear on an application for allopathic (61%) than osteopathic (25%) institutions.

This systematic review of every secondary application for the 2023-2024 cycle can serve burdened advisors and strained applicants in several ways. First, this information can assist in navigating the trials and tribulations of the secondary application. Second, the 1,100 plus secondary questions are condensed into a more manageable and coherent 32 categories, of which only about 20 questions were asked by more than 10% of programs. Third, knowing the most frequent questions prior to applying to medical school can help applicants in pre-writing their secondaries for timely submission. Of course, many answers crafted for one secondary application can be used for other applications as well. We hope this information makes the application process to medical school less stressful and more bearable for advisors and applicants alike.

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