Oregon Health & Science University School of Medicine

Scholarly Projects Final Report

Title (Must match poster title; include key words in the title to improve electronic search capabilities.)

Why Not OHSU: Reasons Admitted Applicants Decline Admissions Offers

Student Investigator's Name

Yue Song

Date of Submission (*mm/dd/yyyy*)

03/14/2022

Graduation Year

2022

Project Course (Indicate whether the project was conducted in the Scholarly Projects Curriculum; Physician Scientist Experience; Combined Degree Program [MD/MPH, MD/PhD]; or other course.)

Scholarly Projects Curriculum

Co-Investigators (Names, departments; institution if not OHSU)

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Mentor's Name

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Concentration Lead's Name

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Project/Research Question

Why admitted applicants choose not to matriculate to OHSU?

- Is cost of attendance a big contributor to this decision?
- Is there a consistent trend on the reason(s) admitted applicants are not choosing OHSU?
- Is there a different reason for admitted underrepresented applicants?

Type of Project (Best description of your project; e.g., research study, quality improvement project, engineering project, etc.)

Medical Education

Key words (4-10 words describing key aspects of your project)

Medical School, Medical School Acceptance, Medical School Admissions, Medical School Matriculation, Undergraduate Medical Education.

Meeting Presentations

If your project was presented at a meeting besides the OHSU Capstone, please provide the meeting(s) name, location, date, and presentation format below (poster vs. podium presentation or other).

OHSU Research Week 2021, OHSU, 05/03/2021, Poster Presentation.

Publications (Abstract, article, other)

If your project was published, please provide reference(s) below in JAMA style.

None.

Submission to Archive

Final reports will be archived in a central library to benefit other students and colleagues. Describe any restrictions below (e.g., hold until publication of article on a specific date).

None.

Next Steps

What are possible next steps that would build upon the results of this project? Could any data or tools resulting from the project have the potential to be used to answer new research questions by future medical students?

Due to the COVID-19 pandemic, the interview process has been implemented virtually. Therefore, the next steps are to analyze how virtual interview experience have impacted applicant numbers, perception of OHSU, as well as acceptance to matriculation ratio.

Please follow the link below and complete the archival process for your Project in addition to submitting your final report.

https://ohsu.ca1.qualtrics.com/jfe/form/SV_3ls2z8V0goKiHZP

Student's Signature/Date (Electronic signatures on this form are acceptable.) This report describes work that I conducted in the Scholarly Projects Curriculum or alternative academic program at the OHSU School of Medicine. By typing my signature below, I attest to its authenticity and originality and agree to submit it to the Archive.

Student's full name

Mentor's Approval (Signature/date)



Mentor Name

Report: Information in the report should be consistent with the poster, but could include additional material. Insert text in the following sections targeting 1500-3000 words overall; include key figures and tables. Use Calibri 11-point font, single spaced and 1-inch margin; follow JAMA style conventions as detailed in the full instructions.

Introduction (≥250 words)

Oregon Health & Science University (OHSU) School of Medicine (SOM) is one of the oldest western medical schools and its roots were established back in the mid-19th century.¹ As the only Doctor of Medicine (M.D.) program in the state of Oregon, OHSU continues to be a leader in the medical community. With a newly implemented integrative medical education curriculum – YourMD and multiple prestigious graduate medical education programs including Family Medicine which is ranked number one in the United States², OHSU attracts a great number of applicants from both in and out of Oregon. Around 7000 students applied to OHSU every year, and it offers 200 to 250 acceptances for 160 spots in each of the matriculating medical school classes. This means on average 100 admitted students choose not to attend OHSU after gaining admissions. Although it is common for students to apply and potentially receive acceptances at multiple schools, OHSU strives to be their first choice. Therefore, post-acceptance surveys were conducted for multiple admissions cycles in the past few years. However, the data weren't effectively analyzed to yield tangible action plans to improve the acceptance to matriculation ratio.

Furthermore, student-led initiatives were started a few years ago to better engage with applicants especially interviewees to create a positive interview experience, as well as post-interview connections.³ This change yielded variable outcomes on overall acceptance to matriculation ratio. Therefore, the post-acceptance data can serve as valuable information for the Admissions team to continue to improve on the overall applicant experience especially to increase the number of matriculating admitted students.

Methods (≥250 words)

A cross-sectional study was utilized to identify and analyze reasons admitted applicants decline OHSU SOM's admissions offers and strategize tangible actions to improve the acceptance to matriculation ratio.

This cross-sectional study was conducted through survey data analysis of subjects from multiple cohort years. Post-acceptance surveys were created and administered by the Admissions team to admitted applicants since 2012. Responses were collected through an online platform anonymously. Surveys results were only available from 2012, 2014, 2015, 2016, and 2017 at the time of data analysis. While some of the survey questions and variables were different from year to year, the variables of interest were consistent and available for all of the survey years. Fifty-one variables from five survey domains, listed below, were selected for statistical analysis on a total of 603 admitted applicants from 2012 to 2017.

- Demographics
- Reasons to Accept or Decline Offer
- Satisfaction of Interview Day Information
- Interview and Second Look Day Experience
- Curriculum Transformation Influence

Statistical analysis software, SAS, was employed to analyze descriptive statistics across survey domains and provide an overview and general sense of the demographic information of admitted

applicants. The reasons for planning to matriculate and not to matriculate were quantitively summed to show statistical density. Data were further stratified by matriculation plan, 190 admitted applicants who do not plan to matriculate and 389 admitted applicants who plan to matriculate. Bivariate analyses were conducted using chi-square tests to identify potential differences that may exist between admitted applicants who planned to matriculate and those who did not.

Results (≥500 words)

Table 1 shows the demographics of the admitted applicants. Among the 603 admitted applicants, application years of 2012 and 2015 had the most responses of 140 admitted applicants (23%), most admitted applicants interviewed during the month of January (20.4%), 319 (57.0%) were female and 291 (51.8%) were under the age of 25. A majority (51.8%) of the admitted applicants were from the state of Oregon and the majority (85.3%) interviewed for the M.D. program. Most of the admitted applicants did not have diversity status (64.0%), 84.5% were considered underrepresented minority, 76.1% came from a rural background, and 65.3% did not have an adverse experience. Half of the admitted applicants (50.8%) had 2 to 5 interviews and more than half (64.5%) planned to matriculate in the fall.

Further comparing the characteristics of admitted applicants based on matriculation plan, there were significant associations shown in Table 1 between matriculation plan and age (p=0.02), state of residency (p<0.01), program interviewed (p<0.01), underrepresented minority (p=0.01), as well as number of interviews (p<0.01).

Characteristic N (Column %)	Total N=603	Do Not Plan to Matriculate N=190	Plan to Matriculate N=389	p-value					
					Age				0.02
					Under 25	291 (51.8)	111 (60.3)	180 (47.6)	
25-30	222 (39.5)	60 (32.6)	162 (42.9)						
Over 30	49 (8.7)	13 (7.1)	36 (9.5)						
State				<u><0.01</u>					
OR	342 (57.3)	60 (32.3)	269 (69.5)						
CA	99 (16.6)	57 (30.7)	40 (10.3)						
WA	33 (5.5)	11 (5.9)	20 (5.2)						
Other	123 (20.6)	58 (31.2)	58 (15.0)						
Program				<u><0.01</u>					
MD	512 (85.3)	146 (76.8)	344 (89.1)						
MD/MPH	45 (7.5)	20 (10.5)	24 (6.2)						
MD/PhD	43 (7.2)	24 (12.6)	18 (4.7)						
Underrepresented				<u>0.01</u>					
Minority	472 (84.6)	144 (79.1)	220 (07 2)						
No		. ,	329 (87.3)						
Yes	86 (15.4)	38 (20.9)	48 (12.7)						
Number of Interviews				<u><0.01</u>					
1	112 (18.6)	1 (0.5)	107 (27.7)						
2-5	305 (50.8)	80 (42.1)	213 (55.0)						
6-9	136 (22.6)	76 (40.0)	56 (14.5)						
10+	48 (8.0)	33 (17.4)	11 (2.8)						

Table 1. Characteristics of the Admitted Applicants by Matriculation Plan

Figures 1 and 2 display the top reasons for admitted applicants to accept or decline their offer. There were 18 pairs of reasons listed in the order of density. On the survey, admitted applicants were able to select as many reasons as possible to explain their matriculation plan. The top reason admitted applicants to accept the offer and plan to matriculate was the reputation of OHSU, followed by geographic location, then the cultural climate of Portland. The least selected reasons for admitted applicants who planned to matriculate include efforts to recruit me, affordability of housing, and financial aid or scholarships. On the other hand, the top reason they declined the offer and did not plan to matriculate was the cost of tuition/fees, followed by insufficient financial aid or scholarships, then lack of efforts to recruit me. The least selected reasons for admitted applicants who did not plan to matriculate include the opinion of faculty or advisors at my undergraduate school, teaching and student facilities, and negative impression of faculty.



Figure 1. Reasons to Accept Offer



Figure 2. Reasons to Decline Offer

Admitted applicants' satisfaction of interview day information were analyzed on a scale of 0 being very little information provided and left with unanswered questions to 3 being too much information provided, and a rating of 2 means sufficient information provided. Three of the 9 categories received a rating of 1.9 which are general OHSU information, admissions process, and the Center for Diversity and Inclusion. The categories of understanding how your learning style matches the education format of the curriculum and financial aid and scholarships received the lowest ratings of 1.5.

On the interview day, 85.5% of the admitted applicants felt that they had the opportunity to give a personal narrative. Most (73.1%) of the admitted applicants did not attend a Second Look Day. Out of the admitted applicants who attended a Second Look Day, 61.9% became more certain about matriculation.

The curriculum transformation influence domain had a wider range of responses. The scale for this domain ranged from 0 being I am very anxious about this to 4 being I am very excited about this, with 2 being I am neutral or do not have an opinion about this. Four categories were near neutral influence, the category of students' ability to influence the new curriculum received the highest rating of 2.8, and the categories of not having previous data of how the curriculum may influence students' board scores and not knowing what exactly the clinical curriculum will look like received the lowest ratings of 1.1.

Discussion (≥500 words)

The most important findings were emphasized by the statistically significant associations of admitted applicants' matriculation plans and the various demographic variables. The demographic variable of age was significantly different between the two matriculation plan groups. For the plan to matriculation group, the distribution between under 25 and 25 to 30 was more even (47.6% vs 42.9%, respectively) in contrast to the do not plan to matriculate group, which were 60.3% and 32.6%, respectively. More admitted applicants who were in the 25 to 30 age group planned to matriculate to OHSU, and this finding is consistent with the culture of OHSU SOM, which is more friendly and inclusive towards non-traditional applicants including older age. Similarly, the state of residency showed significant association with matriculation plan in a way that 69.5% of admitted applicants planned to matriculate were from Oregon while only 32.3% of those who did not plan to matriculate were from Oregon. OHSU being a public institution receives funding directly from the state of Oregon and it is required to provide access to medical education to Oregon residents. And for many applicants, it could be convenient and desirable to be trained in their home state.

When looking at the program types that applicants were accepted for, more dual degree admitted applicants did not plan to matriculate (10.5% for MD/MPH, 12.6% for MD/PhD) than those who planned to matriculate (6.2% for MD/MPH, 4.7% for MD/PhD). Dual degree applicants were usually more competitive due to their additional interests and preparation for an additional degree, and therefore they may have more choices when choosing a school. More (21.7%) admitted applicants who did not plan to matriculate were underrepresented minority, compared to 12.7% of those who planned to matriculate. While OHSU strives to be more inclusive and diverse, the current demographic of Portland and Oregon is predominantly White.⁴ Therefore, admitted applicants who were underrepresented minority, may worry that they will not be able to find a supportive community here or the fact they may face blunt discrimination or prejudice. Lastly, admitted applicants who had 6 to 9 interviews were lower in the plan to matriculate group (14.5% vs 40.0%, respectively), and those who had more than 10 interviews were also lower in the plan to matriculate group (2.8% vs 17.4%). This illustrates when applicants have more interviews and potentially more choices, they are more likely to choose another institution over OHSU.

A deeper dive into the reasons that admitted applicants choose to accept or decline the offer led to the discovery of the strengths and weaknesses of OHSU SOM. The reputation of OHSU was the number one

reason admitted applicants chose to matriculate, which is consistent with the national ranking and recognition OHSU has built for itself. In order to maintain the applicants who are more prestige-driven and desire a quality education, OHSU needs to continue to be a leader in medicine and medical education. The geographic location and cultural climate of Portland being the top reasons for matriculation are unchangeable or very difficult to change. Therefore, the Admissions team should amplify these positive traits associated with OHSU and make the program more desirable.

Factors that need to be addressed more urgently and seriously have a common theme of cost: cost of tuition/fees and insufficient financial aid or scholarship. The cost of attendance has been steadily increasing for medical education across the nation.⁵ While OHSU offers in-state tuition for Oregon residents, the cost continues to be a challenge for many applicants and families, and even worse for out-of-state applicants. Therefore, financial assistance is a very crucial resource and service that needs to be provided in order to attract more applicants to choose OHSU. However, OHSU is one of the few institutions nationally to have a financial advisor who works with their students, which is a very unique resource. This fact can be highlighted during the application process while the program can continue to allocate more funding to subsidize medical education for merit- and need-based scholarships. The third reason that admitted applicants declined the offer was the lack of efforts to recruit me, this is actively been addressed on both institutional and student levels. While the Admissions team plan to reach out to top applicants, the student organization and body also have initiated multiple avenues to reach out to all applicants especially those who are underrepresented minority or diversity status. The downstream effects of these initiatives may take a few cycles to realize, nonetheless, this concern has been an active work in process.

In terms of the other domains covered by the survey, admitted applicants were generally satisfied with the information provided on interview day and second look day, their experiences were positive overall. Small changes can be implemented annually based on the applicant, student, and faculty feedback. The relatively new curriculum has now been very well established and cycled through numerous classes of medical students, therefore, its influence on admitted applicants' decisions should be lessened, especially in regards to not having previous data or not knowing what exactly the curriculum will look like. Overall, these domains do not need immediate attention for a change.

Some of the limitations to this study include the available data can be considered somewhat outdated, more recent data is appreciated, and can make the findings more robust and convincing. Due to the recent outbreak of the COVID-19 pandemic, all interview activities have shifted to the virtual platform making personal interactions very limiting. Therefore, the relevance of this study is weakened, and additional survey questions should be added to incorporate applicants' virtual experience and perception of OHSU.

Conclusions (2-3 summary sentences)

Knowing the demographic groups of admitted applicants who did not accept their admissions offers and the top reasons for their decisions provide valuable information to the Admissions team. These new findings will guide strategic planning and implementation of specific aims targeting underrepresented minority and dual degree applicants, as well as initiate more financial support and maintain excellent reputation with the overall goal to increase admitted applicants' desire of choosing OHSU.

References (JAMA style format)

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- Achenjang, Joyce N., and Carol L. Elam. "Recruitment of Underrepresented Minorities in Medical School Through a Student-Led Initiative." *Journal of the National Medical Association*, vol. 108, no. 3, 2016, pp. 147–151., doi:10.1016/j.jnma.2016.05.003.
- 4. 1. U.S. Census Bureau QuickFacts: Portland city, Oregon. Accessed March 13, 2022. https://www.census.gov/quickfacts/portlandcityoregon
- 5. Average Cost of Medical School [2022]: Yearly + Total Costs. Education Data Initiative. Accessed March 13, 2022. https://educationdata.org/average-cost-of-medical-school