References

- Centers for Disease Control and Prevention. Underlying Cause of Death, 1999-2019. CDC WONDER Online Database. Atlanta, GA: Centers for Disease Control and Prevention; 2019. Accessed September 1, 2021. Available at: <https://wonder.cdc.gov/ucd-icd10.html>
- Grover A, Gorman K, Dall TM, Jonas R, Lytle B, Shemin R, et al. Shortage of cardiothoracic surgeons is likely by 2020. *Circulation*. 2009;120:488-94.
- Moffatt-Bruce S, Crestanello J, Way DP, Williams TE Jr. Providing cardiothoracic services in 2035: signs of trouble ahead. *J Thorac Cardiovasc Surg*. 2018;155:824-9.
- Tchantchaleishvili V, Barrus B, Knight PA, Jones CE, Watson TJ, Hicks GL. Six-year integrated cardiothoracic surgery residency applicants: characteristics, expectations, and concerns. *J Thorac Cardiovasc Surg*. 2013;146:753-8.
- Bui J, Bennett WC, Long J, Strassle PD, Haithecock B. Recent trends in cardiothoracic surgery training: data from the national resident matching program. *J Surg Educ*. 2021;78:672-8.
- Deboever N, Bayley E, Vaporciyan A, Antonoff M. Traits. Traits of the current traditional pathway cardiothoracic surgery training pool: results of a cross-sectional study. *J Thorac Cardiovasc Surg*. 2023;165:1743-50.

See Article page 1743.

Commentary: Characteristics of traditional pathway applicants may be stable, but for how long?

Peter D. Drevets, MD,^a and
Richard Lee, MD, JD, MBA^b

Cardiothoracic surgery training pathways have changed over the past 20 years. The introduction of the I-6 programs in conjunction with the traditional 2- or 3-year pathway, generally completed following a general surgery residency, has resulted in 2 distinct groups of trainees. Existing study data largely involve the I-6 trainees. In this edition of the *Journal*, Deboever and colleagues¹ attempt to identify trends in traditional-pathway applicants.

The authors' study analyzes characteristics of traditional-pathway applicants from 2015 to 2020. Data are sourced from applications received at the authors' institution, a well-known training program. The authors' institution received a total of 572 applications over the study period, which accounted for 72% of all applicants over the study time. General scholarly activity including number of publications and presentations were examined, as well as USMLE (United States Medical Licensing Examination)

Peter D. Drevets, MD, and Richard Lee, MD, JD, MBA

CENTRAL MESSAGE

Characteristics of applicants to the authors' home institution traditional-track training program have remained largely unchanged over the 5-year study period. This will likely change.

and American Board of Surgery Inservice Training Examination scores. The authors concluded that the characteristics of the applicants have largely remained unchanged, with a significant increase seen in USMLE examination scores.

The question the authors attempt to answer is indeed an interesting one. However, the limitations of the study make hard conclusions difficult. The applications received by the authors' institution account for 72% of total applicants, a reasonable sample size, but is this representative of the total applicant body? There may be underlying nuances in the type of applicants attracted to the authors' institution. USMLE step one scores have increased steadily for all-takers from 2010 to 2020, perhaps diluting the significance seen in a reciprocal increase in traditional-pathway applicants. It is unfortunate that data regarding the

From the ^aDepartment of Surgery, and ^bDivision of Cardiothoracic Surgery, Medical College of Georgia, Augusta University, Augusta, Ga.

Disclosures: The authors reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication Sept 13, 2021; revisions received Sept 13, 2021; accepted for publication Sept 15, 2021; available ahead of print Sept 20, 2021.

Address for reprints: Richard Lee, MD, JD, MBA, Division of Cardiothoracic Surgery, Augusta University, 1120 15th St, BA-4300, Augusta, GA 30912 (E-mail: ricklee@augusta.edu).

J Thorac Cardiovasc Surg 2023;165:1752-3

0022-5223/\$36.00

Copyright © 2021 Published by Elsevier Inc. on behalf of The American Association for Thoracic Surgery

<https://doi.org/10.1016/j.jtcvs.2021.09.025>

characteristics of matched candidates are not available, as data on the successful traditional-pathway applicant would highlight specific attributes favored by programs.

This topic is especially thought-provoking, considering the current changes to the interview process due to the coronavirus disease 2019 pandemic. With the increase in traditional-pathway applicants this previous application cycle, it will be interesting to see how the applicant pool adjusts to a more competitive environment. An increase in overall scholarly activity and scores seems likely. With the existing hypercompetitive pool for I-6 programs, the traditional pathway remains an important source of future cardiothoracic surgeons, especially as some trainees may recognize they do not meet criteria for I-6 programs and so choose the traditional pathway. The authors' sentiment

regarding grit and honesty among other important personal attributes having primacy over test scores is valid. However, the means to effectively evaluate those characteristics are much more elusive and challenging to discern. The current virtual interview environment complicates an already-difficult process. For better or worse, hard scores and publication numbers allow for easy comparison. The challenge for admissions committees in the future remains selecting the best overall applicant with consideration to both academic and personal attributes.

Reference

1. Deboever N, Bayley E, Vaporciyan A, Antonoff M. Traits of the current traditional pathway cardiothoracic surgery training pool: results of a cross-sectional study. *J Thorac Cardiovasc Surg.* 2023;165:1743-50.