

USING UNMATCHED MEDICAL GRADUATES TO IMPROVE ACCESS TO CARE IN TEXAS



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Using Unmatched Medical Graduates to Improve Access to Care in Texas

Kevin Dayaratna, Ph.D., John O’Shea, M.D., David Balat

Executive Summary

Access to healthcare, especially in rural areas of Texas, has been an ongoing problem ([Rural Health Information Hub, 2021](#); [Texas A&M International University, 2021](#)), with much of the attention on ameliorating this situation being focused on the demand side of care, especially in terms of health insurance. For example, the Patient Protection and Affordable Care Act, most commonly known as Obamacare, focused heavily on the impact of health insurance and access to care.

There is, however, a completely different side of the access-to-care equation that policymakers should pay a significant amount of attention to—the supply side. While medical licensing is intended to set standards of care, it can also create a barrier that prevents many capable medical school graduates from continuing in the industry. Reforms to medical licensing procedures can increase the supply of medical practitioners and significantly ameliorate problems regarding access to care, including in the state of Texas.

The Process of Becoming a Physician

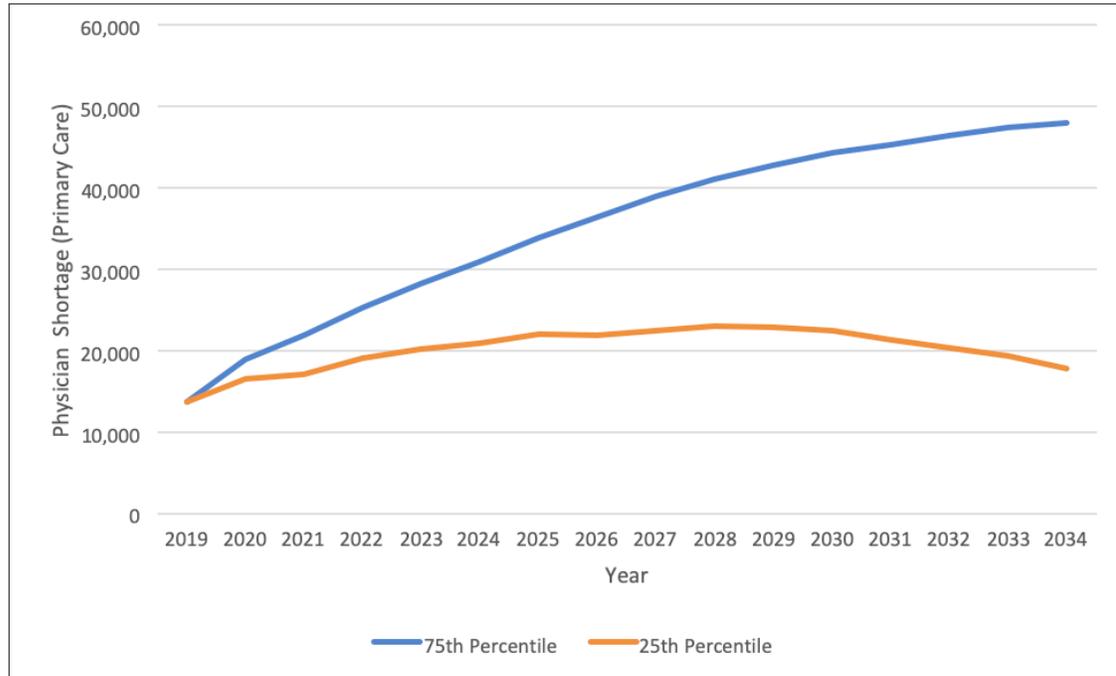
Potential physicians must satisfy a number of requirements before being able to practice medicine legally. Namely, physicians are required to graduate from an accredited medical school, complete a minimum period of postgraduate training, and obtain a license in each state in which they intend to practice medicine.

The transition between medical school and residency is one potential bottleneck for aspiring physicians. Up until the middle of the 20th century, post-medical school training—formally known as graduate medical education (GME)—was largely informal and offered via apprenticeships, informal training, and short courses for American medical students traveling to Europe ([Dayaratna et al., 2019](#)). Early in the 20th century, however, competition amongst hospitals for interns and amongst medical students for good internships resulted in training offers being extended as early as students’ third year of study. As a consequence, hospitals would have little information about students’ abilities and would need to make potentially suboptimal decisions about which students to choose. At the same time, medical students themselves were faced with offers with very short deadlines and were often forced to make decisions without knowing what other offers they may subsequently receive. In the 1950s, in order to address this “chaos,” a centralized matching system based on an algorithm intended to take into account the preferences of the applicants as well as the hospitals was developed. This process has evolved over the last several decades into a formal program known as “The Match,” administered through the National Residency Matching Program (NRMP; [Roth, 2003](#)). The program is structured around the academic year, and American medical students begin the match process at the start of their final year of medical school. Applications are due each September and applicants are invited for interviews in the

Key Points

- The transition between medical school and residency is one potential bottleneck for aspiring physicians.
- The study finds that the United States is already in the middle of a physician shortage, and the situation will only continue to worsen over time.
- One untapped resource could significantly ameliorate this situation: physician graduates.
- These graduates would be required to have received a medical degree from an accredited medical school and have passed the first two steps of the United States Medical Licensing Exams, or their equivalents. They would work under the supervision of a licensed and board-certified physician practicing primary care, which would be especially useful in areas that have been deemed to be underserved due to physician shortages.
- Six states have already taken steps in this direction.

Figure 1
Physician Shortage Will Continue to Increase in the Coming Years



Note. Reproduced using data from *The Complexities of Physician Supply and Demand: Projections From 2019 to 2034*, by the American Association of Medical Colleges, 2020 (<https://www.aamc.org/media/54681/download>).

subsequent months and matched into a residency program the following March via a computer algorithm developed by Nobel Prize-winning economists.

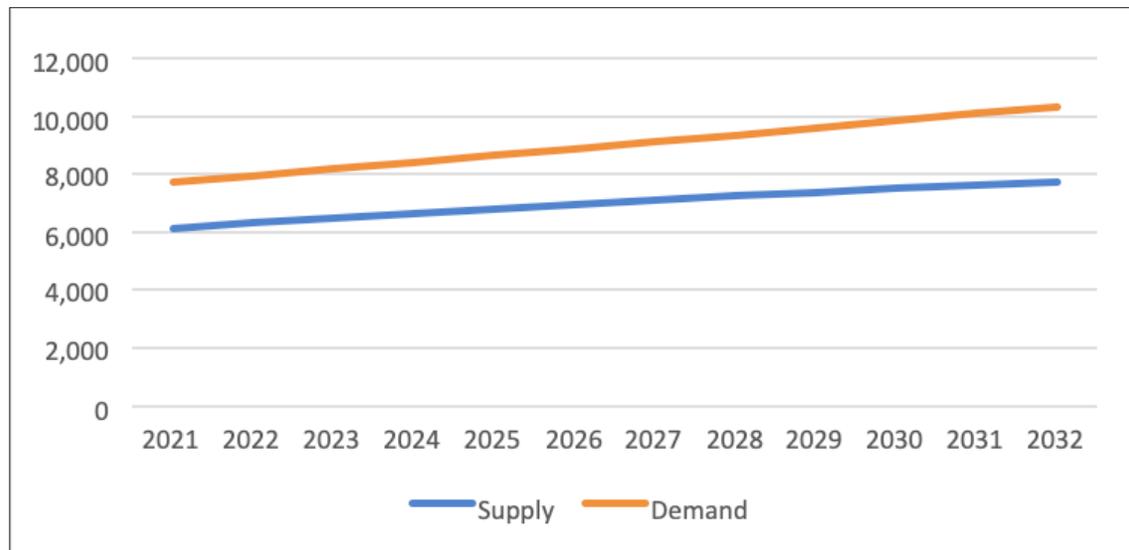
The minimum GME period for licensure varies from state to state. In Texas, for example, the minimum period is one year. In addition to meeting the minimum GME requirement for obtaining a medical license, graduates who complete a residency training program accredited by the American Board of Medical Specialties are eligible to take the relevant exam and apply for board certification in their chosen specialty ([Federation of State Medical Boards, n.d.](#)). A typical process of medical education and training after graduating from an accredited university includes 4 years of medical school, 3–5 years of basic residency, and an additional 1–2 years of fellowship in a sub-specialty. Although board certification is not a legal prerequisite for practicing medicine, it is a usual requirement for obtaining medical staff privileges at a hospital, as well as professional liability insurance, making board certification a de facto necessity for most physicians.

This approach, designed for American medical graduates, is required for virtually all foreign-trained doctors as well ([Dayaratna et al., 2019](#)). Namely, foreign graduates must also pass the United States Medical Licensing Exams (USMLEs) and complete a residency, thus going through the same process that is designed for American medical graduates in order to be able to practice medicine here in the U.S., even if they have considerable experience in their home country.

Forecast Shortage of Physicians in Texas and Nationally

The aging of the American population, physician burnout leading to early retirement, and difficulty recruiting physicians to work in rural areas all contribute to a significant medical workforce shortage and, therefore, demand for this pool of talent will continue to increase in the coming years. The Association of American Medical Colleges ([AAMC, 2021](#)) recently published a study that analyzes these trends and forecasts the supply and demand relationship across the American physician workforce. The study finds that the United States is already in the middle of a physician shortage, and the situation will only continue to worsen over

Figure 2
Demand for Primary Care Will Continue to Outstrip Supply (General Internal Medicine) in the State of Texas (Data via IHS Market's Health Workforce Model)



Note. Reproduced using data from *Workforce Supply & Demand Projections*, Texas Health Data, 2020 (<https://healthdata.dshs.texas.gov/dashboard/health-care-workforce/hprc/workforce-supply-and-demand>).

time. Specifically, the AAMC predicts that the nation will incur a physician shortage of between 37,800 and 124,000 physicians by 2034, which includes a shortage of between 17,800 and 48,000 primary care physicians. This phenomenon is illustrated in **Figure 1**.

As it is difficult, if not impossible, for models to exactly predict the future, **Figure 1** depicts a range of estimates (specifically 25th and 75th percentiles) of the shortage of physicians that the country will face through 2034. As these projections were made in 2019, there is uncertainty even today. Nevertheless, **Figure 1** illustrates that the physician shortage will continue to increase in the coming years, thus only exacerbating the current situation. This situation is particularly problematic in Texas, as **Figure 2** shows.

As is apparent in **Figure 2**, the demand for primary care physicians currently outstrips the supply of such physicians across the state and will continue to do so over the course of the next decade. As is depicted in **Figure 3**, however, some areas of Texas are hit particularly hard by this phenomenon. **Figure 3** presents the percentage of unmet demand in Texas, calculated as the ratio between the

absolute difference between supply and demand of primary care physicians in 2021 with respect to the demand. As is evident in the figure, the Rio Grande Valley (37.7% unmet demand), East Texas (27.6% unmet demand), and the Panhandle (21.7% unmet demand) are amongst the most in need of additional primary care physicians.

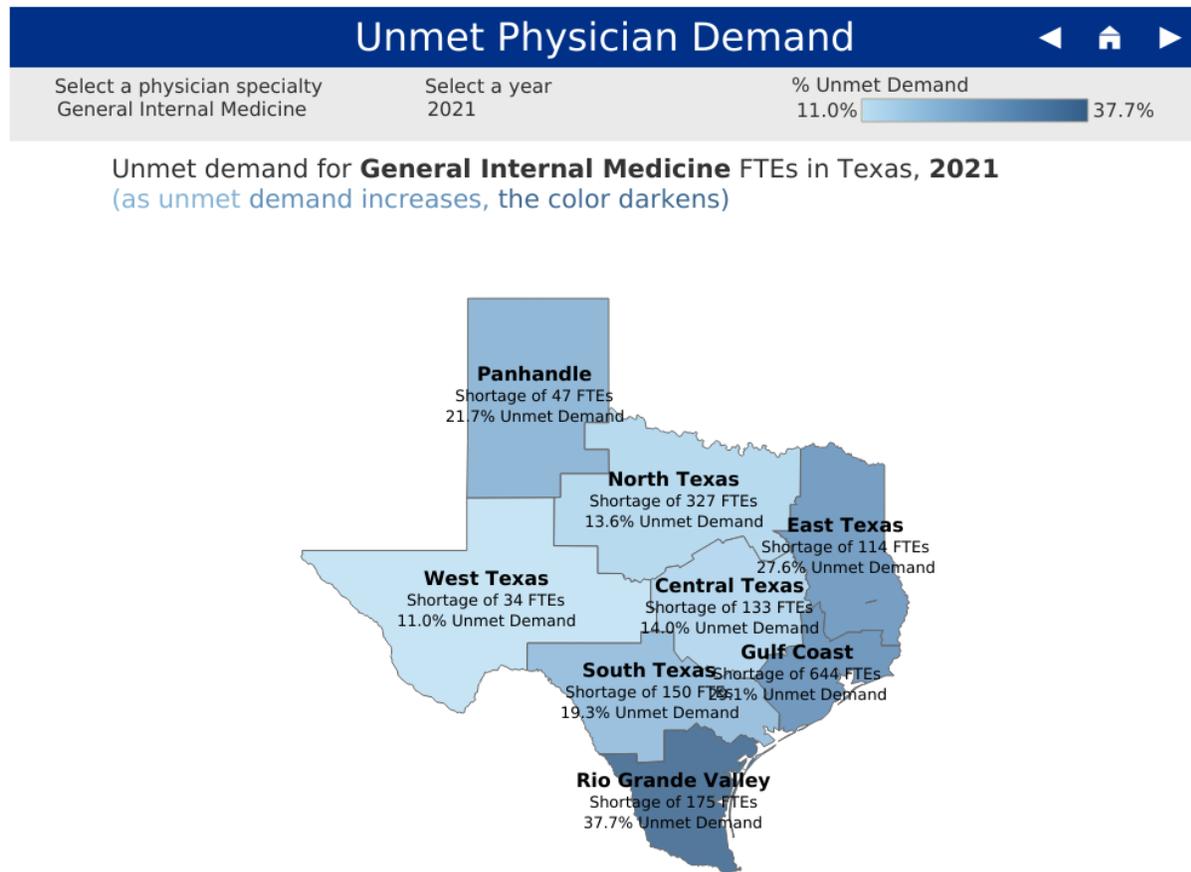
Although these and other areas of Texas suffer from a lack of access to physicians compared to other areas, there is an untapped resource that could significantly ameliorate this situation.

An Unutilized Pool of Talent

The medical field has not always faced a shortage of physicians. In fact, in the 1990s, due to concerns about a potential impending physician surplus, as well as to address the rapidly rising costs to the Medicare program of funding GME, the Balanced Budget Act of 1997 included a variety of provisions relating to GME, such as the imposition of a cap on the number of Medicare-funded allopathic and osteopathic residency slots at 1996 levels ([Dayaratna & O'Shea, 2017](#)). As a result, residency programs, primarily funded by Medicare, have been limited in number for

Figure 3

Regional Unmet Demand for Primary Care (General Internal Medicine) Physicians in the State of Texas in 2021 via IHS Markit's Health Workforce Model



Unmet demand for **General Internal Medicine** FTEs in Texas, **2021**
(as unmet demand increases, the color darkens)

Note. Reproduced using data from *Workforce Supply & Demand Projections*, Texas Health Data, 2020 (<https://healthdata.dshs.texas.gov/dashboard/health-care-workforce/hprc/workforce-supply-and-demand>).

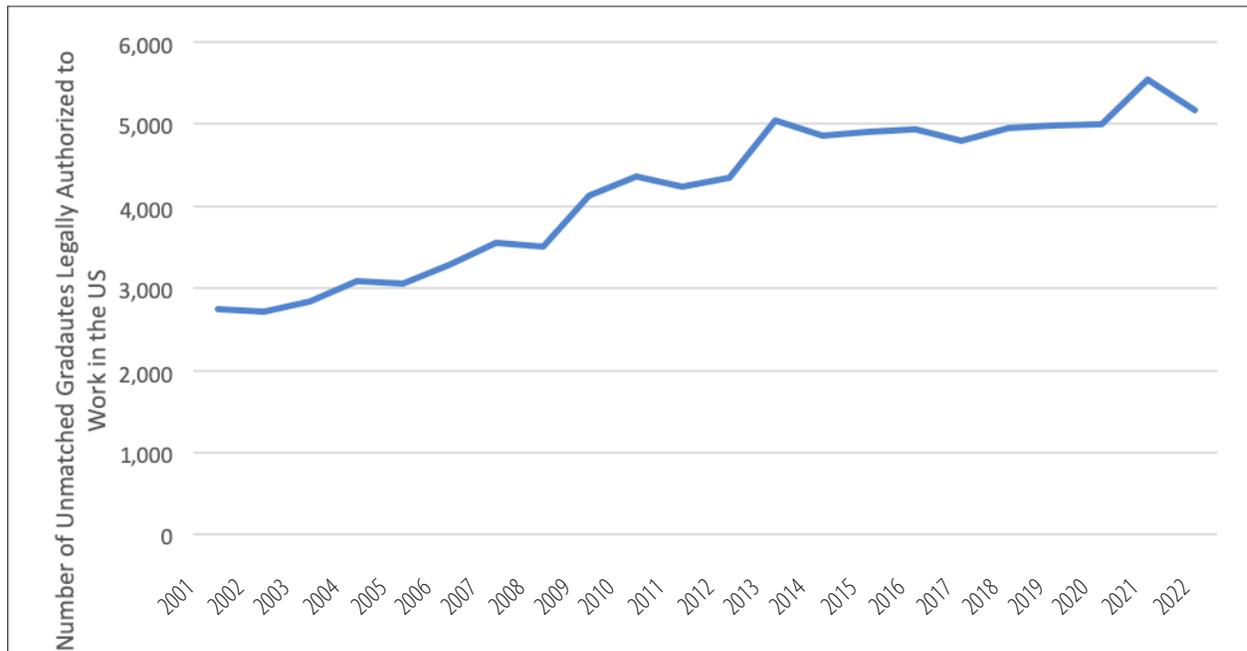
decades. Medicare currently funds about 80% of residency positions (GAO, 2021). Recent expansions of Medicare-funded residency positions for hospitals serving rural and underserved communities (see [Centers for Medicare & Medicaid Services, 2021](#)), as well as the use of alternate funding sources, will not be sufficient to compensate for the increases in demand outlined in **Figure 1** and the deficiency of physicians in certain parts of Texas shown in **Figure 2**.

The NRMP provides data on this issue, offering statistics about the number of students who have matched into each specialty as well as the number who did not match at all. The data indicate that there have been a significant number of medical graduates who have failed to match into a residency program over the last two decades.¹ The number of graduates exceeds the number of available residency positions because of the limitations in funding enough slots to train all of the medical graduates applying for The Match.²

¹ Residency programs with unfilled slots offer unmatched medical graduates the opportunity to apply for such positions during the week following the main residency match. Even after this process, a significant number of medical graduates are still without a residency.

² Although some of the increases in **Figure 3** may also be manifestations of population growth, they nevertheless fail to compensate for the increasing demand for physicians presented in **Figure 1**. For a fuller discussion of Medicare's role in GME financing, see: O'Shea, J., *Reforming Graduate Medical Education in the U.S.*, December 29, 2014, Heritage Foundation, <https://www.heritage.org/health-care-reform/report/reforming-graduate-medical-education-the-us>.

Figure 4
Unmatched Medical School Graduates Into First Year of Residency in U.S.



Note. Produced using data from *Advance Data Tables, 2022 Main Residency Match*, by The Match National Residency Matching Program, 2022 (<https://www.nrmp.org/wp-content/uploads/2022/03/Advance-Data-Tables-2022-FINAL.pdf>) and prior data presented in *Addressing the Physician Shortage by Taking Advantage of an Untapped Medical Resource* by K. Dayaratna and J. O’Shea, 2017 (<https://www.heritage.org/public-health/report/addressing-the-physician-shortage-taking-advantage-untapped-medical-resource>). Statistics include unmatched seniors of U.S. allopathic medical schools, previous graduates of U.S. allopathic medical schools, students/graduates of osteopathic medical schools, and U.S. citizen students/graduates of international medical schools during main residency match.

While some of these unmatched applicants are graduates of American medical schools, at least a third are foreign graduates, many of whom may even have a significant amount of experience in their home countries.³ Many of these “unmatched” medical graduates are either green card holders or U.S. citizens and are thus legally permitted to work in Texas or elsewhere in the country. **Figure 4** depicts this “idle resource,” namely the unmatched medical graduates who are either U.S. citizens or green card holders ([Dayaratna & O’Shea, 2017](#); [National Residency Matching Program, 2022](#)). As **Figure 4** illustrates, there have been several thousand medical graduates each year failing to match into a residency program due to an insufficient number of such positions available.

These graduates—both American and foreign—cannot practice medicine at all in the United States without

completing a residency and obtaining a license. Without a successful match to a residency, many of these medical graduates are relegated to other forms of work, such as ridesharing, selling sunglasses, and working at restaurants (“[Foreign-Trained Health Professionals](#),” 2011). Although unmatched medical graduates may re-apply for residency in subsequent years, the longer they are without a residency position, the less competitive their applications become.⁴

Policy Recommendation: Provisional Medical Licensure

Although some have suggested increasing Medicare funding for residencies as a potential solution to this problem, adding to the federal debt will have other economic consequences ([de Rugy & Salmon, 2020](#)).

³ The percentage of unmatched medical graduates in **Figure 3** who are from foreign medical schools (but have a green card or U.S. citizenship) varied between 35% and 45% between 2018 and 2022.

⁴ Although data on the number of attempts of American and foreign medical graduates at applying for residency are not readily available, such data can be acquired via survey methods and a statistical analysis of such data is a worthy topic of future research.

While other recent research has presented broader, more intricate potential reforms to GME in order to increase the supply of physicians (see, for example, [O’Shea, 2014](#) and [Dayaratna et al., 2019](#)), there is a relatively simple reform that policymakers could consider to quickly ameliorate the current situation.⁵ Namely, policymakers should create a provisional license for unmatched medical graduates.

The unmatched graduates depicted in **Figure 4** are a completely untapped resource that can be used to ameliorate the physician shortages depicted in **Figures 1** and **2**. These graduates would be required to have received a medical degree from a medical school that is appropriately accredited through a globally recognized set of criteria⁶ and to have passed the first two steps of the United States Medical Licensing Exams or the equivalent Comprehensive Osteopathic Medical Licensing Examination. They would work under the supervision of a licensed and board-certified physician practicing primary care, which would be especially useful in areas that have been deemed to be underserved due to physician shortages, such as those in **Figure 3**. Although these graduates may not yet have the experience to engage in highly specialized care, they almost surely should be able to help provide basic services to patients who otherwise would not have access to this care. Private entities such as medical practices and hospitals should be able to contract at will with medical graduates, provided the medical graduate meets the basic qualifications.

Six states have already taken steps in this direction. Specifically, Arkansas, Arizona, Missouri, Kansas, Utah, and Washington State have passed legislation allowing unmatched graduates to practice in such a capacity ([Kansas Statute 65 § 2811a, 2012](#); [Missouri Division of Professional Registration, n.d.](#); [Missouri Code of Occupations and Professions, Section 334.036](#); Arkansas’ [HB 1162, 2015](#); [HB 396, 2017](#); [SB 1271, 2021](#); [HB 1129, 2021](#)). Although there have been no comprehensive studies analyzing the quality of care provided by medical graduates using these licenses, there has been no evidence of quality of care being compromised in these states. Some organizations, such as the American Osteopathic Association, have criticized these efforts, suggesting that allowing these graduates to practice will weaken care given their lack of training ([The DO Staff, 2016](#)). Such organizations, however, benefit from overly

restrictive licensure by restricting supply to maintain high wages ([Dayaratna et al., 2019](#)).

Regardless, many of these unmatched applicants are foreign graduates and may have a significant amount of experience from abroad. Additionally, medical students do not receive substantially less training than physician assistants and nurse practitioners receive; yet the latter treat patients with a significant level of autonomy throughout the country.

Although unmatched medical graduates may currently be able to re-apply for residency in subsequent Match cycles, their applications are considerably weakened each year they are out of medical school and not in the physician workforce. Graduates who are able to gain practice experience can maintain or even increase the strength of their application, making it more likely that they will obtain the residency required for licensure. Therefore, provisional licensure could also give unmatched graduates opportunities to significantly improve their clinical experience while they apply for residency programs in subsequent Match cycles. This is a much better alternative than the current situation.

Conclusion

America has by far the best and most innovative healthcare system in the world. Although there are some obstacles to obtaining access to this great healthcare in some areas of Texas, the right reforms, such as those discussed in this paper, can enable us to make significant headway in ameliorating this issue. It is time to allow unmatched graduates to help provide basic medical care under the supervision of licensed physicians to help improve access to care throughout the state. ★

5 One potential reform is to adapt elements of the Australian medical licensure system where experienced foreign doctors can get streamlined into the system via a separate pathway, and leave the current GME system for American medical graduates and less experienced foreign doctors. The interested reader is referred to Dayaratna et al., (2019) for a full discussion.

6 The Liaison Committee on Medical Education publishes a list of accredited U.S. medical schools (see <https://lcme.org/directory/accredited-u-s-programs/>). Information on non-U.S. medical schools can be found on the World Directory of Medical Schools website (see <https://www.wdoms.org/>).

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Kevin Dayaratna, Ph.D., explores questions on the boundary of policy, statistics, and economics as chief statistician, data scientist, and senior research fellow in the Heritage Foundation's Center for Data Analysis (CDA). An applied statistician, he has researched and published on the use of high-powered statistical models in public policy, medical outcomes, business, economics, and professional sports among many other fields.



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