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IMPROVING RESIDENCY SELECTION AND ADDRESSING THREATS TO SCIENCE AND THE US HEALTHCARE SYSTEM

Testimony of:

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United States House of Representatives
Judiciary Committee
Wednesday, May 14, 2025
Washington, D.C.

Chair Fitzgerald, Ranking Member Nadler, Chair Jordan, Ranking Member Raskin, and Members of the Committee:

My name is William Feldman. I am pulmonologist, ICU physician, and health services researcher at Harvard Medical School and Brigham and Women's Hospital, where I have joint appointments in the Division of Pulmonary and Critical Care Medicine and the Division of Pharmacoepidemiology and Pharmacoeconomics. My research focuses on pharmaceutical regulation and chronic respiratory disease and is funded by the National Institutes of Health (NIH), the Food and Drug Administration (FDA), and non-profit foundations. I am a faculty member in the Program On Regulation, Therapeutics, And Law (PORTAL), which is one of the largest non-industry funded research groups in the US devoted to the study of pharmaceutical pricing, regulation, policy, and outcomes. I also serve as co-chair of the Ethics Committee at Brigham and Women's Hospital, and I teach and mentor trainees from Harvard College, Harvard Medical School, and the residency and fellowship programs at the Harvard teaching hospitals. I am honored to talk with you all today about medical training in the US and, more broadly, about ways of strengthening our healthcare system to improve outcomes for patients.

1. Background on residency training and the match

Each year, more than 40,000 medical students take up residency positions in the US.[1] This phase of training is a vital component of medical education and is generally a prerequisite for practicing medicine in the US. During residency, newly minted physicians not only learn from more experienced doctors, but they also contribute in countless ways to patient care at academic teaching hospitals—from presenting on rounds and documenting treatment plans to communicating with nurses and covering hospitals overnight.

The National Resident Matching Program (NRMP, "the match") is the mechanism by which residency applicants are paired with hospitals for training. Medical students select specialties, apply to programs, and then submit their preferences in rank-order. Each applicant matches to the highest-ranked program on his or her list among all programs that ranked the applicant with sufficient priority. The modern match was first launched in 1952, and the algorithm governing placement has undergone periodic refinement. But the match has long aimed to solve the twin problems of preserving student choice while ensuring that residency spots are filled in a time-sensitive fashion. In the absence of a match, students may face pressure to accept positions before having a chance to assess all programs (including with so-called "exploding offers"), and programs could struggle to fill slots when top-choice applicants accept positions elsewhere.[2] The match has sought to minimize these concerns while decreasing transaction costs and promoting applicant diversity.[3]

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[1] National Resident Matching Program. NRMP Releases Results for the 2025 Main Residency Match. March 21, 2025. Available online at: https://www.nrmp.org/match-data/2025/03/nrmp-releases-results-for-2025-main-residency-match/. Accessed May 13, 2025.
[2] Chae SH. Is the match illegal? N Engl J Med. 2003 Jan 23;348(4):352-6. doi: 10.1056/NEJMsb021241.
[3] Ibid.

2. Challenges to the residency match

Although the match has become the dominant mode by which residency slots are allocated in the US, there are certainly downsides to the system. The binding nature of the match means that medical students may end up in less desired programs, although they can always choose to exclude such programs from their rank-lists. Applicants are also unable to negotiate individually for compensation packages before committing to programs on their list.[4] A 2002 class-action lawsuit alleged that the match was anticompetitive for these reasons (and others), which, in turn, prompted Congress to pass a law specifically shielding residency programs from antitrust violations. Over the past two decades, the system has remained intact, and efforts to improve residency training have focused on collective bargaining for better salaries and benefits.

In March 2025, members of the House Judiciary Committee sent letters to the American Association of Medical Colleges (AAMC), the NRMP, and several hospitals seeking information as they explore potentially removing the match's antitrust exemption.[5] The two central arguments of those letters are that the match has created a bottleneck resulting in physician shortages and that it has depressed resident salaries (which averaged $66,712 in 2024).

Both goals—increasing the physician workforce and ensuring adequate compensation for residents—are laudable and ought to be pursued by policymakers. But the proposed solution of eliminating the match would not necessarily solve these problems. I would encourage the committee to think more broadly about how to deliver on these goals while strengthening innovation and competition across the healthcare system.

a. Physician shortages

The US has a shortage of physicians that is set to expand in the coming years. This shortage will likely increase from 37,000 in 2021 to as high as 86,000 by 2036, according to a recent AAMC report.[6] The need for primary care doctors and those who care for marginalized patient populations in rural communities is especially pronounced. One concern raised by members of this committee is that, despite the need for more physicians, residency slots go unfilled each year in the match. For example, in the 2024 match, of the 41,503 positions advertised, 5.9% (2,562) went unfilled on the first round. Yet, all but 93 of the 2,562 unfilled positions were subsequently filled in the Supplemental Offer and Acceptance Program (SOAP)—a

[4] Richman B. Now is the Time to Correct Residency Match and (Especially) Other Competition Issues in the Physician Market. Available online from: https://ground.news/article/now-is-the-time-to-correct-residency-match-and-especially-other-competition-issues-in-the-physician-market. Accessed May 13, 2025.
[5] Scarcella M. US House panel launches antitrust probe of medical residency system. Reuters. March 17, 2025. Available online from: https://www.reuters.com/legal/government/us-house-panel-launches-antitrust-probe-medical-residency-system-2025-03-17/. Accessed May 13, 2025.
[6] American Association of Medical Colleges. The Complexities of Physician Supply and Demand: Projections from 2021 to 2036. March 2024. Available online at: https://www.aamc.org/media/75236/download. Accessed May 13, 2025.

mechanism whereby unmatched applicants have a second chance to match to programs with unfilled spots.[7] Together, the 2 rounds of matching resulted in 99.6% of positions being filled.

Recognizing that some of the unfilled spots may have been in less popular fields or locations, it is not clear how ending the match would address the physician shortage. If we continue to value residency training as a key step towards independent practice, the harder and more relevant question is: how we do we fund and allocate more residency slots? The Centers for Medicare and Medicaid Services (CMS) contribute substantial sums each year to graduate medical education.[8] One possibility would be for CMS to contribute more for newly created spots; hospitals could also share in this burden. Both approaches may be supplemented by efforts to grow the pool of students matriculating at US medical schools. But eliminating the match without creating a path for training more physicians would not seem to address the physician shortage.

Beyond efforts to increase the number of US medical residents, lawmakers should also identify new ways of bringing international medical graduates into the US workforce. In 2022, international medical graduates represented 23% of physicians practicing in the US.[9] Several states have enacted legislation to streamline licensing requirements for these physicians.[10] Rigorous standards to ensure quality are vital, but studies show that outcomes among patients cared for by international medical graduates in the US are comparable and, in some cases, superior to outcomes among patients cared for by US medical graduates.[11] Numerous sectors in the US economy, from technology companies and academic research centers to banks and engineering firms, have benefited from the infusion of highly skilled workers who train abroad. Lawmakers seeking to promote competition should welcome these efforts to build the physician workforce on behalf of patients.

b. Residency wages and quality of life

Recent letters from the House Judiciary Committee to different stakeholders in the match rightly note that residency salaries are low. But, as with the problem of physician shortages, eliminating the match could cause substantial disruption without delivering on the goal of improving outcomes. As it stands, residency salaries are typically uniform across specialties at a single hospital or institution, and these salaries are publicly available online. Residency

[7] National Residency Matching Program. Results and Data: 2024 Main Residency Match. Available online at: https://www.nrmp.org/match-data/2024/06/results-and-data-2024-main-residency-match/. Accessed May 13, 2025.
[8] Wagner MJ, Frazier HA, Berger JS. Navigating the Rapids: How Government Funds Flow to Graduate Medical Education. J Grad Med Educ. 2024 Jun;16(3):339-340. doi: 10.4300/JGME-D-24-00378.1. Epub 2024 Jun 13. See also: Congressional Research Service. Medicare Graduate Medical Education Payments: An Overview. Available online from: https://www.congress.gov/crs-product/IF10960. Accessed May 13, 2025.
[9] Moyer DV, Erickson S, Opole IO. International Medical Graduates Are Integral to the Delivery of Patient Care in the United States. Ann Intern Med. 2025 Mar 4. doi: 10.7326/ANNALS-25-00847. Epub ahead of print.
[10] Federation of State Medical Boards. States with Enacted and Proposed Additional Licensure Pathways: State-by-State Overview. Available online at: http://www.fsmb.org/siteassets/advocacy/policies/states-with-enacted-and-proposed-additional-img-licensure-pathways-key-issue-chart.pdf. Accessed May 13, 2025.
[11] Tsugawa Y, Jena AB, Orav EJ, Jha AK. Quality of care delivered by general internists in US hospitals who graduated from foreign versus US medical schools: observational study. BMJ. 2017 Feb 2;356:j273. doi: 10.1136/bmj.j273.

programs that offer more competitive compensation packages today may receive more applications and higher priority from applicants on match-lists. Compensation packages have improved in recent years as a growing proportion of residents have unionized (now 20% of the resident workforce).[12] Through collective bargaining, residents have successfully negotiated wage increases, housing allowances, increased educational time, and numerous other benefits that help improve their quality of life and educational experience.

Residency programs can and should continue to offer more, and Congress could facilitate this in any number of ways beyond eliminating the match, from increasing CMS funding of residency programs and supporting the right to unionize to setting minimum salary floors and implementing more generous loan forgiveness programs.

3. Other threats to American medicine

Some of the biggest threats to medical education—and indeed to the practice of medicine in the United States—come not from the residency match or challenges with medical training but from efforts by the current administration to undermine the very fabric of scientific discovery in the US. Foundational research funded by the National Institutes of Health (NIH) and National Science Foundation (NSF) form the core of what medical students and residents learn during their training. Future groundbreaking cures that residents of today will prescribe to patients of tomorrow depend on a robust NIH and NSF for discovering these therapies, a well-staffed Food and Drug Administration (FDA) for evaluating them, and strong public payers, including Medicare and Medicaid, to ensure access for patients. The current administration has proposed or enacted changes that will undermine our capacity to deliver high-quality care and will put patients at risk.

a. National Institutes of Health (NIH)

The Trump administration has proposed in its recent budget blueprint to cut funding at the NIH by 37% and at the NSF by 50%.[13] Although now mired in lawsuits, the administration has announced cuts to indirect costs that would choke of scientific research at hospitals across the country.[14] Many study sections, which review grant applications, have been cancelled or

[12] Mikolajczyk AE, Goodman C. Resident Labor Unions-Learning as We Go. JAMA Netw Open. 2024 Jul 1;7(7):e2421634. doi: 10.1001/jamanetworkopen.2024.21634. See also Ahmed A, Li X. Labor Unionization Among Physicians in Training. JAMA. 2023 Nov 21;330(19):1905-1906. doi: 10.1001/jama.2023.17494; Rosenbaum L. What Do Trainees Want? The Rise of House Staff Unions. N Engl J Med. 2024 Jan 18;390(3):279-283. doi: 10.1056/NEJMms2308224. Epub 2024 Jan 3; Committee of Interns and Residents (CIR). The National Voice of Residents. Available online from: https://www.cirseiu.org/. Accessed May 13, 2025; Ahmed AM, Kadakia K, Ahmed A, Shultz B, Li X. Trends in Labor Unionization Among US Health Care Workers, 2009-2021. JAMA. 2022 Dec 27;328(24):2404-2411.

[13] Science. Trump's proposed budget would mean "disastrous" cuts to science. May 2, 2025. Available online from: https://www.science.org/content/article/trump-s-proposed-budget-would-mean-disastrous-cuts-science. Accessed May 13, 2025.

[14] Wiley. Update: Federal Judge Blocks NIH Cap on Indirect Rates for Grants. March 6, 2025. Available online from: https://www.wiley.law/alert-Federal-Judge-Blocks-NIH-Cap-on-Indirect-Rates-for-Grants. Accessed May 13, 2025.

delayed.[15] The NIH has been forced to lay off hundreds of employees.[16] Seven hundred and seventy-seven NIH grants, accounting for $1.9 billion in funding, have been terminated; more than half of the cancelled grants are from medical schools and hospitals, including clinical trials in disease-areas that represent significant threats to public health, from cancer and psychiatric illness to HIV and COVID-19.[17] The 5 states hit the hardest (New York, North Carolina, California, Texas, and Florida) span the political spectrum.

These cuts at NIH threaten to undermine the prominent role of the US as a biotechnology leader. Nearly all 210 drugs approved by the FDA from 2010 to 2016 had funding contributions from the NIH.[18] Members of our research group, PORTAL, have documented substantial NIH contributions to a wide range of new therapies, from cures for hepatitis C and vaccines for COVID-19 to cell and gene therapies for debilitating childhood diseases.[19] Often, the riskiest research is performed in basic science laboratories at universities and medical centers before being commercialized by pharmaceutical firms. Delays and cuts at the NIH will deprive residents practicing today of the best tools available to care for patients once in independent practice.

b. Food and Drug Administration (FDA)

Attacks on foundational science at the NIH and NSF have been accompanied by layoffs at the FDA, which now number more than 3,500.[20] Staffing cuts have already led to delays in review

[15] Molteni M, McFarling UL. Some NIH study sections will resume grant reviews, but final funding decisions are still in limbo. STAT. February 24, 2025. Available online from: https://www.statnews.com/2025/02/24/some-nih-study-sections-to-resume-grant-funding-future-unclear/. Accessed May 13, 2025.
[16] Stein R, Noguchi Y, Lupkin S, et al. "Your RIF notice is not cancelled." Inside a chaotic week of massive layoffs at HHS. NPR. April 5, 2025. Available online from: https://www.npr.org/sections/shots-health-news/2025/04/05/g-s1-58312/hhs-layoffs-rif-cdc-fda-nih. Accessed May 13, 2025.
[17] American Association of Medical Colleges. Impact of NIH Grant Terminations. May 6, 2025. Available online from: https://www.aamc.org/media/83356/download. Accessed May 13, 2025. See also Liu M, Kadakia KT, Patel VR, Krumholz HM. Characterization of Research Grant Terminations at the National Institutes of Health. *JAMA.* Published online May 08, 2025. doi:10.1001/jama.2025.7707
[18] Galkina Cleary E, Beierlein JM, Khanuja NS, McNamee LM, Ledley FD. Contribution of NIH funding to new drug approvals 2010-2016. Proc Natl Acad Sci U S A. 2018 Mar 6;115(10):2329-2334. doi: 10.1073/pnas.1715368115. Epub 2018 Feb 12.
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[20] Hopkins J. Drug Development is Slowing Down After Cuts at the FDA. Wall Street Journal. April 17, 2025. Available online from: https://www.wsj.com/health/healthcare/drug-development-is-slowing-down-after-cuts-at-the-

times for new therapies; the FDA, for example, was unable to meet its deadline for assessing the biologic Nucala (mepolizumab) for chronic obstructive pulmonary disease (COPD).[21] Peter Stein, who was terminated as director of the Office of New Drugs, likened the cuts to somebody walking onto a factory floor with no knowledge of the equipment and turning off different machines because they didn't look important.[22] FDA staff have been unable to provide timely answers to pharmaceutical companies about clinical trial design or give sufficient scrutiny to inspection activities.[23] An entire division in the Office of Generic Drugs tasked with developing product-specific guidance and facilitating entry of low-cost generic drugs to keep prices down for patients was terminated.[24] Gutting the FDA undermines innovation and will reduce competition for pharmaceuticals in the US.

c. Medicaid

Patients can only access cutting-edge technologies in the US if they have insurance, and yet the administration's budget blueprint would leave more than 8 million Medicaid beneficiaries uninsured and would raise out-of-pocket costs for those who remain insured.[25] Cuts to Medicaid will have disproportionate effects for hospitals that already struggle to cover the costs of uncompensated care, including many safety-net hospitals; those systems need more funding, not less, to train the next generation of physicians. As the richest country in the world, we should be finding ways to ensure that more people have access to healthcare.

4. Conclusions

The House Judiciary Committee has begun asking hard questions about medical training in the US. How can we ensure a sufficient supply of physicians and improve the residency selection process? Ending the match is no guarantee for either goal and, in the absence of a well-constructed alternative, could result in a free-for-all that undermines both. I would encourage the committee to widen the scope of their assessment and consider other tools for addressing physician shortages, the residency experience, and larger threats to science in our healthcare system.

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[22] Lawrence L, Herper M, Chen E. Crucial FDA reviews expected to be slowed by job cuts. STAT. April 10, 2025. Available online from: https://www.statnews.com/2025/04/10/fda-layoffs-will-slow-down-drug-reviews-biotech-letter-cassidy/. Accessed May 13, 2025.

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[24] Lawrence L, Herper M, Chen E. Crucial FDA reviews expected to be slowed by job cuts. STAT. April 10, 2025. Available online from: https://www.statnews.com/2025/04/10/fda-layoffs-will-slow-down-drug-reviews-biotech-letter-cassidy/. Accessed May 13, 2025.

[25] Sanger-Katz M, Edmondson C. Republicans Propose Paring Medicaid Coverage but Steer Clear of Deeper Cuts. New York Times. May 12, 2025. Available online from: https://www.nytimes.com/2025/05/12/us/politics/republicans-medicaid-cuts.html. Accessed May 13, 2025.