

Nos. 16-1436 and 16-1540

In the Supreme Court of the United States

Donald J. Trump et al.,

Petitioners,

v.

International Refugee Assistance Project et al.,

Respondents.

Donald J. Trump et al.,

Petitioners,

v.

State of Hawaii et al.,

Respondents.

*On Writs of Certiorari to the United States
Courts of Appeals for the Fourth and Ninth Circuits*

**BRIEF FOR THE ASSOCIATION OF
AMERICAN MEDICAL COLLEGES AND
OTHERS AS *AMICI CURIAE* SUPPORTING
RESPONDENTS**

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TABLE OF AUTHORITIES

Cases

<i>Doe v. Mercy Catholic Med. Ctr.</i> , 850 F.3d 545 (3d Cir. 2017)	22
<i>Hawai‘i v. Trump</i> , CV. No. 17-00050 DKW-KSC, 2017 WL 1167383 (D. Haw. Mar. 29, 2017), <i>aff’d in part and rev’d in part</i> , 859 F.3d 741 (9th Cir. 2017).....	3
<i>Int’l Refugee Assistance Project v.</i> <i>Trump</i> , 241 F. Supp. 3d 539 (D. Md.), <i>aff’d in</i> <i>relevant part en banc</i> , 857 F.3d 554 (4th Cir. 2017)	3
<i>McKeesport Hosp. v. Accreditation</i> <i>Council for Graduate Med. Educ.</i> , 24 F.3d 519 (3d Cir. 1994)	22
<i>Trump v. Int’l Refugee Assistance</i> <i>Project</i> , 137 S. Ct. 2080 (2017).....	4, 28

Statutes, Regulations, Executive Materials, and Rules

20 C.F.R. § 655.736 (2017)	26
20 C.F.R. § 655.737 (2017)	26
20 C.F.R. § 655.738 (2017)	26
20 C.F.R. § 655.739 (2017)	26
22 C.F.R. § 41.63 (2017)	24

Exec. Order No. 13,780, 82 Fed. Reg. 13,209 (Mar. 9, 2017), <i>amended</i> , Memorandum on the Effective Date in Executive Order 13780, 2017 Daily Comp. Pres. Doc. 401 (June 14, 2017)	1, 28
Immigration and Nationality Act § 212, 8 U.S.C. § 1182 (2012).....	22, 26
Immigration and Nationality Act § 214, 8 U.S.C. § 1184 (2012).....	22
S. Ct. R. 37	1
21st Century Cures Act, Pub. L. No. 114-255, 130 Stat. 1033 (2016).....	37
15 U.S.C. § 37b (2012).....	31
Other Authorities	
<i>About ECMFG</i> , Educ. Comm'n for Foreign Med. Graduates (last updated Apr. 2, 2013), http://www.ecfmg.org/about/	24
Fares Alahdab et al., <i>Syrian Doctors and the American Dream: Practicing Medicine in a New Immigration Landscape</i> , Health Aff. Blog (Feb. 24, 2017), http://healthaffairs.org/blog/2017/02/ 24/syrian-doctors-and-the-american- dream-practicing-medicine-in-a-new- immigration-landscape/	35

- Stuart Anderson, Nat'l Found. for Am. Policy, *The Contributions of Immigrants to Cancer Research in America* (Feb. 2013), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2226420..... 14
- Stuart Anderson, *Immigrants Flooding America with Nobel Prizes*, *Forbes* (Oct. 16, 2016, 10:48 am), <https://www.forbes.com/sites/stuartanderson/2016/10/16/immigrants-flooding-america-with-nobel-prizes/#57237ef06cb6> 36
- Katrina Armstrong et al., *Perspective, International Exchange and American Medicine*, *376 New Eng. J. Med.* e40 (2017) 11, 20
- Fred D. Baldwin, *Access to Care: Overcoming the Rural Physician Shortage*, *Appalachian Reg'l Comm'n* (last visited Sept. 15, 2017), https://www.arc.gov/magazine/articles.asp?ARTICLE_ID=98..... 21, 24
- Matthew Basilio & Michael Stepner, *The Immigration Ban and the Physician Workforce*, *Health Aff. Blog* (Mar. 6, 2017), <http://healthaffairs.org/blog/2017/03/06/the-immigration-ban-and-the-physician-workforce/> 10, 11

Joseph R. Betancourt et al., <i>Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care</i> , 118 <i>Pub. Health Rep.</i> 293 (2003).....	19, 20
John R. Boulet et al., <i>The International Medical Graduate Pipeline: Recent Trends in Certification and Residency Training</i> , 25 <i>Health Aff.</i> 469 (2006).....	33
Christopher R. Braden et al., <i>Progress in Global Surveillance and Response Capacity 10 Years After Severe Acute Respiratory Syndrome</i> , 19 <i>Emerging Infectious Diseases</i> 864 (2013)	15
Sarah E. Brotherton & Sylvia I. Etzel, <i>Graduate Medical Education 2011–2012</i> , 308 <i>JAMA</i> 2264 (2012).....	32
Sarah E. Brotherton & Sylvia I. Etzel, <i>Graduate Medical Education, 2012–2013</i> , 310 <i>JAMA</i> 2328 (2013).....	32
Sarah E. Brotherton & Sylvia I. Etzel, <i>Graduate Medical Education, 2013–2014</i> , 312 <i>JAMA</i> 2427 (2014).....	32
Sarah E. Brotherton & Sylvia I. Etzel, <i>Graduate Medical Education, 2014–2015</i> , 314 <i>JAMA</i> 2436 (2015).....	32
Sarah E. Brotherton & Sylvia I. Etzel, <i>Graduate Medical Education, 2015–2016</i> , 316 <i>JAMA</i> 2291 (2016).....	22, 32

Anthony P. Carnevale et al., Geo. Univ. Ctr. on Educ. & the Workforce, Healthcare (June 2012), https://cew.georgetown.edu/wp-content/uploads/2014/11/Healthcare-FullReport.090712.pdf	9, 10
Aaron Carroll, <i>Immigration Reform's Potential Effects on US Health Care</i> , JAMA Forum (Mar. 8, 2017), https://newsatjama.jama.com/2017/03/08/jama-forum-immigration-reforms-potential-effects-on-us-health-care/	12
Gary Cecchine & Melinda Moore, <i>Infectious Disease and National Security: Strategic Information Needs</i> (2006)	16
<i>Certification</i> , Educ. Comm'n for Foreign Med. Graduates (last updated Sept. 7, 2016), http://www.ecfmg.org/certification/index.html	26
Declaration of Michael F. Collins, <i>Louhghalam v. Trump</i> , 230 F. Supp. 3d 26 (D. Mass. 2017) (ECF No. 52-2)	38
Comm. on Global Health and the Future of the U.S., Nat'l Acads. of Scis., Eng'g & Med., <i>Global Health and the Future Role of the United States</i> (prepubl. copy 2017).....	13
158 Cong. Rec. (daily ed. Aug. 2, 2012)	21

158 Cong. Rec. (daily ed. Sept. 13, 2012).....	21
Michael J. Connor, Jr., et al., <i>Successful Delivery of RRT in Ebola Virus Disease</i> , 26 J. Am. Soc’y Nephrology 31 (2015).....	18
<i>Conrad 30 Reauthorization Bill Earns Bipartisan Support</i> , Am. Med. Ass’n (May 18, 2017), https://wire.ama- assn.org/ama-news/conrad-30- reauthorization-bill-earns- bipartisan-support	22
<i>Conrad 30 Waiver Program</i> , U.S. Citizenship & Immigration Servs. (last updated May 5, 2014), https://www.uscis.gov/working- united-states/students-and- exchange-visitors/conrad-30-waiver- program	22
<i>Dental Care Health Professional Shortage Areas (HPSAs)</i> , Henry J. Kaiser Fam. Found. (last visited Sept. 15, 2017), http://www.kff.org/other/state- indicator/dental-care-health- professional-shortage-areas- hpsas/?currentTimeframe=0&sortMo del=%7B%22colId%22:%22Location %22,%22sort%22:%22asc%22%7D	6

<i>Department of Defense Responsibility of Review of Waiver Requests</i> , Office of the Under Sec’y of Def. (Acquisition, Tech. & Logistics), U.S. Dep’t of Defense (last visited Sept. 15, 2017), http://www.acq.osd.mil/ecs/review-request.html	25
<i>Ebola-Affected Countries Receive NIH Support to Strengthen Research Capacity</i> , Nat’l Insts. of Health (Oct. 26, 2016), https://www.nih.gov/news-events/news-releases/ebola-affected-countries-receive-nih-support-strengthen-research-capacity	14
Educ. Comm’n for Foreign Med. Graduates, ECFMG Fact Sheet for Consular Officials (Mar. 30, 2017), http://www.ecfmg.org/annc/fact-sheet-consular-officials.pdf	34
<i>Emerging Pandemic Threats Program: EPT-2</i> , U.S. Agency for Int’l Dev. (last updated Nov. 25, 2014), https://www.usaid.gov/ept2	15
<i>Employment-Based Immigration: First Preference EB-1</i> , U.S. Citizenship & Immigration Servs. (last updated Oct. 29, 2015), https://www.uscis.gov/working-united-states/permanent-workers/employment-based-immigration-first-preference-eb-1	27

<i>Executive Order on Visas</i> , Bureau of Consular Affairs, U.S. Dep't of State (July 14, 2017), https://travel.state.gov/content/travel/en/news/important-announcement.html	29
<i>Frequently Asked Questions on Protecting the Nation from Foreign Terrorist Entry into the United States</i> , U.S. Dep't of Homeland Sec. (last updated July 21, 2017), https://www.dhs.gov/news/2017/06/29/frequently-asked-questions-protecting-nation-foreign-terrorist-entry-united-states	28
Howard H. Garrison et al., <i>Biomedical Science Postdocs: An End to the Era of Expansion</i> , 30 FASEB J. 41 (2016)	37
Atul Gawande, <i>Why Boston's Hospitals Were Ready</i> , New Yorker (Apr. 17, 2013), http://www.newyorker.com/news/news-desk/why-bostons-hospitals-were-ready	17
Global Health Security Agenda, Advancing the Global Health Security Agenda: Progress and Early Impact from U.S. Investment (n.d.), https://www.ghsagenda.org/docs/default-source/default-document-library/ghsa-legacy-report.pdf?sfvrsn=12	15

Global Virus Network, Zika Task Force Members (n.d.), http://gvn.org/wp-content/uploads/2016/03/GVN-ZTF-Bios.pdf	18
Akash Goel, <i>What Americans Will Lose When They Push Immigrants Away</i> , Time (Apr. 13, 2017, 12:45 pm), http://time.com/4733567/immigration-doctors-rust-belt/	11
Rebecca Grant, <i>The U.S. Is Running out of Nurses</i> , Atl. (Feb. 3, 2016), https://www.theatlantic.com/health/archive/2016/02/nursing-shortage/459741/	8
<i>Green Card Through a Physician National Interest Waiver (NIW)</i> , U.S. Citizenship and Immigration Servs. (last updated Feb. 17, 2016), https://www.uscis.gov/green-card/other-ways-get-green-card/green-card-through-physician-national-interest-waiver-niw	25
<i>Health Professional Shortage Areas (HPSAs)</i> , Health Res. & Servs. Admin. (last updated Oct. 2016), https://bhw.hrsa.gov/shortage-designation/hpsas	6
Declaration of Dierdre Heatwole, <i>Hawai'i v. Trump</i> , CV. NO. 17-00050 DKW-KSC, 2017 WL 1167383 (D. Haw. Mar. 29, 2017) (ECF No. 154 Ex. 1 Ex. C).....	30, 38

Esther Hing & Susan M. Schappert,
*Generalist and Specialty Physicians:
 Supply and Access, 2009–2010*
 (NCHS Data Brief No. 105, Sept.
 2012),
<https://www.cdc.gov/nchs/data/databriefs/db105.pdf>..... 10

Mike Hixenbaugh, *Doctor Prepares To
 Resume Lifesaving Work in Iran*,
 Hou. Chron., June 29, 2017, at A1 38

Mike Hixenbaugh, *Trump Issues
 Revised Travel Ban: Order Could
 Block Medical Graduates From
 Rural Areas in Need*, Hou. Chron.,
 Mar. 7, 2017, at A1..... 35

Marcia D. Hohn et al., *Immigrants in
 Health Care: Keeping Americans
 Healthy Through Care and
 Innovation* (June 2016),
[http://immigrationresearch-
 info.org/system/files/health_care_rep
 ort_FINAL_20160607.pdf](http://immigrationresearch-info.org/system/files/health_care_report_FINAL_20160607.pdf)..... 11

IHS Markit, *The Complexities of
 Physician Supply and Demand 2017
 Update: Projections from 2015 to
 2030* (Feb. 28, 2017), [https://aamc-
 black.global.ssl.fastly.net/production/
 media/filer_public/a5/c3/a5c3d565-
 14ec-48fb-974b-
 99fafaeeeb00/aamc_projections_upda
 te_2017.pdf](https://aamc-black.global.ssl.fastly.net/production/media/filer_public/a5/c3/a5c3d565-14ec-48fb-974b-99fafaeeeb00/aamc_projections_update_2017.pdf)..... 5, 6

Press Release, Darrell Issa & Brad
 Schneider, Reps. Issa and Schneider
 Introduce Bipartisan Legislation to
 Help Address Physician Shortages
 (Apr. 25, 2017),
[https://issa.house.gov/news-
 room/press-releases/reps-schneider-
 and-issa-introduce-bipartisan-
 legislation-help-address](https://issa.house.gov/news-room/press-releases/reps-schneider-and-issa-introduce-bipartisan-legislation-help-address)..... 21

*Joint West Africa Research Group To
 Foster Biopreparedness Collaborative
 Initiative To Focus on Expanding
 Research Capabilities in Region, U.S.
 Army Med. Res. & Materiel
 Command (last updated July 20,
 2016),
[http://mrmc.amedd.army.mil/index.cfm
 ?pageid=media_resources.articles.b
 iopreparedness_collaborative_initiati
 ve_in_west_africa](http://mrmc.amedd.army.mil/index.cfm?pageid=media_resources.articles.biopreparedness_collaborative_initiative_in_west_africa)..... 14*

M. Ihsan Kaadan, *I'm a Syrian Doctor
 Who Treated Patients in Aleppo. I'm
 in the US To Give Back*, STAT
 (Feb. 6, 2017),
[https://www.statnews.com/2017/02/0
 6/syria-aleppo-doctor-us/](https://www.statnews.com/2017/02/06/syria-aleppo-doctor-us/)..... 13

Peter A. Kahn & Tova M. Gardin,
*Distribution of Physicians with H-1B
 Visas by State and Sponsoring
 Employer*, 317 JAMA 2235 (2017)..... 26

Darrell G. Kirch & Kate Petelle,
Viewpoint, Addressing the Physician Shortage: The Peril of Ignoring Demography, 317 JAMA 1947 (2017).....9

Nicole Lurie, U.S. Dep’t of Health & Human Servs., National Health Security Strategy and Implementation Plan: 2015–2018 (n.d.),
<https://www.phe.gov/Preparedness/planning/authority/nhss/Documents/nhss-ip.pdf>8

Crystal Maynard, *Experts Delve into Issue of Wound Infections After Blast Injuries*, U.S. Army (Dec. 7, 2016),
https://www.army.mil/article/179290/experts_delve_into_issue_of_wound_infections_after_blast_injuries 13

Kristen McCabe, *Foreign-Born Health Care Workers in the United States*, Migration Info. Source (June 27, 2012),
<http://www.migrationpolicy.org/article/foreign-born-health-care-workers-united-states>.....9

Susan McCord, *AU Medical Residents in Visa Trouble*, Augusta (Ga.) Chron., July 6, 2017, at 1A 39

Jennifer McDermott, *Syrian Doctor Caught in Travel Ban Gives Up, Moves to Canada*, Bos. Globe (June 28, 2017), <https://www.bostonglobe.com/news/politics/2017/06/28/syrian-doctor-caught-travel-ban-gives-moves-canada/QqkVo4RNsnAdjyhQspNcpL/story.html> 39

Medical and Dental Education Program, U.S. Dep’t of Vets. Affairs (last updated Feb. 28, 2017), https://www.va.gov/oaa/gme_default.asp..... 33

Medically Underserved Area / Population (MUA/P) Application Process, Health Res. & Servs. Admin. (last updated Oct. 2016), <https://bhw.hrsa.gov/shortage-designation/muap-process>9

Mental Health Care Health Professional Shortage Areas (HPSAs), Henry J. Kaiser Fam. Found. (last visited Sept. 15, 2017), <http://kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D> 6, 8

Jeffrey Mervis, *Drop in Foreign Applicants Worries Engineering Schools*, 355 Sci. 676 (2017)..... 37

Lisa Morris, *Engineers, Scientists Participate in International Exchange Program*, U.S. Army (Oct. 22, 2014), <https://www.army.mil/article/136728>..... 15

Nat'l Ctr. for Health Workforce Analysis, U.S. Dep't of Health & Human Servs., *The Future of the Nursing Workforce: National- and State-Level Projections, 2012–2025* (Dec. 2014), <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/nursingprojections.pdf> 7, 8

Nat'l Ctr. for Health Workforce Analysis, U.S. Dep't of Health & Human Servs., *National and Regional Projections of Supply and Demand for Internal Medicine Subspecialty Practitioners: 2013–2025* (Dec. 2016), <https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/research/projections/internal-medicine-subspecialty-report.pdf>..... 7

Nat'l Ctr. for Health Workforce
 Analysis, U.S. Dep't of Health &
 Human Servs., State-Level
 Projections of Supply and Demand
 for Primary Care Practitioners:
 2013–2025 (Nov. 2016),
<https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/research/projections/primary-care-state-projections2013-2025.pdf> 7

Nat'l Resident Matching Prog., Results
 and Data: 2017 Main Residency
 Match (Apr. 2017),
<http://www.nrmp.org/wp-content/uploads/2017/04/Main-Match-Results-and-Data-2017.pdf> 31

Scott Neuman, *Why Ebola Patients Are
 Getting Treatment in Nebraska*, NPR
 (Oct. 6, 2014, 12:40 pm),
<http://www.npr.org/sections/thetwo-way/2014/10/06/354083214/why-ebola-patients-are-getting-treatment-in-nebraska> 18

Ricardo Nuila, *Treating Patients at
 Houston's Largest Emergency
 Shelter, as Hurricane Harvey Rages*,
 New Yorker (Aug. 29, 2017),
<https://www.newyorker.com/news/news-desk/treating-patients-at-houstons-largest-emergency-shelter-as-hurricane-harvey-rages> 18

Michael Ollove, *Changes to Visa Program Put Foreign-Born Doctors in Limbo*, PBS NewsHour: The Rundown (May 23, 2017, 3:46 pm), <http://www.pbs.org/newshour/rundown/changes-visa-program-put-foreign-born-doctors-limbo/>..... 26

Charlotte Oslund, *Which Industries Need Workers? Exploring Differences in Labor Market Activity*, Monthly Lab. Rev., Jan. 2016, <https://www.bls.gov/opub/mlr/2016/article/pdf/which-industries-need-workers-exploring-differences-in-labor-market-activity.pdf>..... 5

Declaration of Marc Overbeck, *Hawai‘i v. Trump*, CV. NO. 17-00050 DKW-KSC, 2017 WL 1167383 (D. Haw. Mar. 29, 2017) (ECF No. 154 Ex. 1 Ex. G)..... 21, 34

P’ship for a New Am. Econ., Patent Pending: How Immigrants Are Reinventing the American Economy (June 2012), <http://www.newamericaneconomy.org/wp-content/uploads/2013/07/patent-pending.pdf>..... 36

Devan Patel, *Foreign Doctors Assist with Iowa’s Physician Shortage*, Globe Gazette (Macon City, Iowa), Mar. 19, 2017, at C1..... 23

Davis G. Patterson et al., *Conrad 30 Waivers for Physicians on J-1 Visas: State Policies, Practices, and Perspectives* (WWAMI Rural Health Ctr. Final Rep. No. 157, Mar. 2016), http://depts.washington.edu/fammed/rhrc/wp-content/uploads/sites/4/2016/03/RHRC_FR157_Patterson.pdf..... 23

Karen M. Pollins & Kristen A. Harris, *Immigration Issues Impacting the Training, Recruitment, and Employment of Foreign Physicians by Academic Medical Centers* (Jan. 2015), <http://harrisvisalaw.com/AHLA.AMC.Member.Briefing.pdf>..... 24

Padmini D. Ranasinghe, *International Medical Graduates in the U.S. Physician Workforce*, 115 J. Am. Osteopathic Ass’n 236 (2015) 11

Sara Reardon, *Court Revives US Travel Ban*, 546 Nature 584 (2017) 38

Residency Program Requirements for International Medical Graduates, Am. Med. Ass’n (last visited Sept. 15, 2017), <https://www.ama-assn.org/life-career/residency-program-requirements-international-medical-graduates>..... 26

- Izzy Rossi, *Virginia Tech Student Returns to Campus After Being Blocked by Travel Ban*, Collegiate Times (Blacksburg, Va.) (June 27, 2017), http://www.collegiatetimes.com/news/virginia-tech-student-returns-to-campus-after-being-blocked-by/article_8eaf75d0-5b69-11e7-b342-6b7504bb0075.html..... 39
- Rural J-1 Visa Waiver*, Rural Health Info. Hub (last updated Feb. 24, 2017), <https://www.ruralhealthinfo.org/topics/j-1-visa-waiver> 21
- Heena P. Santry & Sherry M. Wren, *The Role of Unconscious Bias in Surgical Safety and Outcomes*, 92 *Surgical Clinics North Am.* 137 (2012)..... 19
- Declaration of Eric Scherzer, *Hawai'i v. Trump*, CV. NO. 17-00050 DKW-KSC, 2017 WL 1167383 (D. Haw. Mar. 29, 2017) (ECF No. 154 Ex. 1 Ex. I)..... 18, 30, 34, 35
- Shortage Areas*, Health Res. & Servs. Admin. Data Warehouse (last visited Sept. 15, 2017), <https://datawarehouse.hrsa.gov/topics/shortageAreas.aspx> 7, 23

- Lauren Silverman, *Trump Travel Ban Spotlights U.S. Dependence on Foreign-Born Doctors*, NPR (Feb. 11, 2017, 5:47 am), <http://www.npr.org/sections/health-shots/2017/02/11/514399475/trump-travel-ban-spotlights-u-s-dependence-on-foreign-born-doctors> 11
- Susan Sauer Sloan & Tom Arrison, Nat'l Acad. of Sci., Nat'l Acad. of Med. & Inst. of Med. of the Nat'l Acads., *Examining Core Elements of International Research Collaboration: Summary of a Workshop* (2011)..... 36
- Lena H. Sun, *Ebola Fight Remains a Priority for Obama*, Wash. Post, Dec. 3, 2014, at A1 16
- Teaching Hospitals: Bringing Together Patient Care, Research, and Education*, Assoc. of Am. Med. Colls. (Mar. 14, 2017), <https://news.aamc.org/for-the-media/article/teaching-hospitals/> 17
- Cable from Rex W. Tillerson, U.S. Sec'y of State, to all diplomatic and consular posts (Mar. 17, 2017), *reprinted in* Posting of Cassandra Garrison to live.reuters.com (Mar. 23, 2017, 9:12 am), http://live.reuters.com/Event/Live_US_Politics/791255396 27

- Rebecca Trager, *Science Community Still Wary as Trump's Travel Ban Partially Reinstated*, Chem. World (June 29, 2017), <https://www.chemistryworld.com/news/science-community-still-wary-as-trumps-travel-ban-partially-reinstated/3007643.article> 38
- Trauma Center Levels Explained*, Am. Trauma Soc'y (last visited Sept. 15, 2017), <http://www.amtrauma.org/?page=traumalevels>..... 17
- 2016 Physician Specialty Data Report: Number of People per Active Physician by Specialty, 2015*, Assoc. of Am. Med. Colls. (last visited Sept. 15, 2017), <https://www.aamc.org/data/workforce/reports/458490/1-2-chart.html>..... 32
- Why Teaching Hospitals Are Important to All Americans*, Assoc. of Am. Med. Colls. (Aug. 24, 2017), <https://news.aamc.org/for-the-media/article/teaching-hospitals-important-americans/> 16, 17, 18

Waiver of the Exchange Visitor Two-Year Home-Country Physical Presence Requirement, Bureau of Consular Affairs, U.S. Dep't of State (last visited Sept. 15, 2017), <https://travel.state.gov/content/visas/en/study-exchange/student/residency-waiver.html> 24

Pam Wright, *At Tampa Hospital in Evacuation Zone, 800 Patients and Staff Ride Out Hurricane Irma*, Weather Co. (Sept. 10, 2017, 3:15 pm), <https://weather.com/storms/hurricane/news/hurricane-irma-tampa-hospital-evacuation-zone> 18

Aaron Young et al., *A Census of Actively Licensed Physicians in the United States, 2016*, 103 J. Med. Reg., no. 2, 2017, at 7 10

Amy Yurkanin, *In Alabama, Doctors from Countries on Trump's Banned List Fill Medical Gaps*, AL.com (Feb. 4, 2017, 7:02 am), http://www.al.com/news/index.ssf/2017/02/in_alabama_doctors_from_countries.html 11

INTEREST OF *AMICI CURIAE*¹

Founded in 1876 and based in Washington, D.C., the Association of American Medical Colleges is a not-for-profit association dedicated to transforming healthcare through innovative medical education, cutting-edge patient care, and groundbreaking medical research. Its members comprise all 147 accredited U.S. medical schools; nearly 400 major teaching hospitals and health systems, including 51 U.S. Department of Veterans Affairs medical centers; and more than 80 academic societies. Through these institutions and organizations, the AAMC serves the leaders of America's medical schools and teaching hospitals and their nearly 167,000 full-time faculty members, 88,000 medical students, and 124,000 resident physicians. The AAMC's member teaching hospitals rely heavily on non-U.S. health professionals and, therefore, face acute and widespread workforce and patient-care risks attributable to the abrupt and destabilizing changes announced in Executive Order

¹ All parties have consented to the filing of *amici's* brief. *See* S. Ct. R. 37.3(a). No counsel for a party authored this brief in whole or in part; no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief; and no person other than *amici*, their members, or their counsel made such a monetary contribution. *See id.* R. 37.6.

No. 13,780,² which the Fourth and Ninth Circuits correctly enjoined before it became effective.³

The AAMC is joined in this brief by the **Academic Pediatric Association**; the **Alliance for Academic Internal Medicine**; the **American Academy of Family Physicians**; the **American Academy of Pediatrics**; the **American Association of Colleges of Nursing**; the **American Association of Colleges of Pharmacy**; the **American College of Healthcare Executives**; the **American College of Obstetricians and Gynecologists**; the **American College of Physicians**; the **American Dental Education Association**; the **American Nurses Association**; the **American Pediatric Society**; the **American Psychiatric Association**; the **American Public Health Association**; the **American Society of Hematology**; the **Association of Academic Health Centers**; the **Association of Medical School Pediatric Department Chairs**; the **Association of Schools and Programs of Public Health**; the **Association of Schools of Allied Health Professions**; the **Association of University Programs in Health Administration**; the **Endocrine Society**; the **Greater New York Hospital Association**; **Hispanic-Serving Health Professions Schools, Inc.**; the **Infectious Diseases Society of America**; the **National Medical Associa-**

² 82 Fed. Reg. 13,209 (Mar. 9, 2017) (J.A. 1416), *amended*, Memorandum on the Effective Date in Executive Order 13780, 2017 Daily Comp. Pres. Doc. 401 (June 14, 2017) (J.A. 1441).

³ *Amici* use the adjective “non-U.S.” to refer to individuals born in a country other than the United States.

tion; the National Resident Matching Program; the Physician Assistant Education Association; the Renal Physicians Association; the Society for Pediatric Research; and the Society of General Internal Medicine. Additional information regarding these organizations is provided in the Addendum to this brief.

SUMMARY OF THE ARGUMENT

The United States healthcare workforce relies upon health professionals and scientists from other countries to provide high-quality and accessible patient care. Accordingly, a fair and efficient immigration system strengthens the American healthcare system and advances the nation’s health security.⁴ Executive Order No. 13,780 jeopardizes those goals.

In this case, two district courts enjoined enforcement of key sections of the Executive Order, and the Fourth and Ninth Circuits affirmed those injunctions in relevant part.⁵ This Court has permitted the lower-court injunctions to remain in effect, in part, pending its consideration of the merits, ruling that the suspension-of-entry provisions “may not be enforced against foreign nationals who have a credible claim

⁴ *Amici* use the term “immigration system” to refer to laws and policies governing foreign-born individuals who wish to live permanently or work or study temporarily in the United States.

⁵ *Int’l Refugee Assistance Project v. Trump*, 241 F. Supp. 3d 539, 565–66 (D. Md.) (J.A. 164–66), *aff’d in relevant part en banc*, 857 F.3d 554 (4th Cir. 2017) (J.A. 170); *Hawai’i v. Trump*, CV. No. 17-00050 DKW-KSC, 2017 WL 1167383, at *8 (D. Haw. Mar. 29, 2017) (J.A. 1160–63), *aff’d in part and rev’d in part*, 859 F.3d 741 (9th Cir. 2017) (J.A. 1164).

of a bona fide relationship with a person or entity in the United States.”⁶ *Amici* believe the Fourth and Ninth Circuits have acted correctly in these cases, and *amici* urge the Court to affirm them or, at a minimum, make permanent the result of its June 26, 2017 order.

The United States relies upon a significant number of health professionals and scientists who have entered this country through our immigration system. Health professionals who do not hold U.S. citizenship contribute to the health of our citizens. They care for patients, conduct research that leads to life-saving treatments, and improve the quality of healthcare. Such professionals also address our nation’s health-professional-workforce shortages, especially at Department of Veterans Affairs hospitals and in rural and other underserved communities. In addition, global collaboration among scientists and other biomedical researchers contributes to breakthroughs that benefit the United States and its citizens.

Congress has recognized the importance of non-U.S. professionals to the nation’s healthcare system by establishing programs to attract physicians from other countries. Executive Order No. 13,780 threatens the balance struck by Congress by (1) exacerbating our nation’s health-professional workforce shortages, (2) jeopardizing progress in medical innovation, and (3) inhibiting global research and public-health collaboration. These consequences will, in the judg-

⁶ *Trump v. Int’l Refugee Assistance Project*, 137 S. Ct. 2080, 2088 (2017).

ment of *amici*, undermine the health security of our nation and weaken our ability to avert and respond to health-related national-security threats.

ARGUMENT

I. Non-U.S. Professionals Are Important to America's Healthcare System.

A. Non-U.S. Professionals Fill Critical Shortages in the Nation's Healthcare Community.

1. The United States—Especially in Underserved Communities—Is Experiencing Healthcare Shortages.

The United States faces a growing shortage of health professionals.⁷ For instance, according to the U.S. Bureau of Labor Statistics, the nation's healthcare workforce has a consistently high unmet demand for labor.⁸ The AAMC estimates that the United States currently faces shortages of between 13,900 and 25,900 physicians.⁹ That gap will only

⁷ Charlotte Oslund, *Which Industries Need Workers? Exploring Differences in Labor Market Activity*, Monthly Lab. Rev., Jan. 2016, at 5–6, <https://www.bls.gov/opub/mlr/2016/article/pdf/which-industries-need-workers-exploring-differences-in-labor-market-activity.pdf>.

⁸ *Id.*

⁹ IHS Markit, *The Complexities of Physician Supply and Demand 2017 Update: Projections from 2015 to 2030*, at 50 (Feb. 28, 2017), https://aamc-black.global.ssl.fastly.net/production/media/filer_public/a5/c3/a5c3d565-14ec-48fb-974b-99fafaeeeb00/aamc_projections_update_2017.pdf. To address this physician shortage, U.S. medical schools have increased enrollment by thirty percent, and several new schools have been
(footnote continues on following page)

grow over time. By 2030, the U.S. population aged sixty-five and over is projected to grow by fifty-five percent.¹⁰ As a result of this demographic change and other factors, the AAMC projects a shortfall of between 40,800 and 104,900 physicians by 2030.¹¹ Shortages will be experienced in other health professions as well. The Henry J. Kaiser Family Foundation estimates a nationwide shortage of almost 3,400 mental-health professionals and more than 8,100 dental-health professionals.¹²

These shortages are nationwide. Indeed, most states have hundreds of health-professional shortage areas (“HPSAs”).¹³ Texas, for example, has more than

opened. Approximately ninety-five percent of U.S. medical-school graduates train in residency positions. Still, the AAMC projects physician shortages in all specialties and most notably in primary care.

¹⁰ *Id.* at 16.

¹¹ *Id.* at 38.

¹² *Mental Health Care Health Professional Shortage Areas (HPSAs)*, Henry J. Kaiser Fam. Found. (last visited Sept. 15, 2017), <http://kff.org/other/state-indicator/mental-health-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>; *Dental Care Health Professional Shortage Areas (HPSAs)*, Henry J. Kaiser Fam. Found. (last visited Sept. 15, 2017), <http://www.kff.org/other/state-indicator/dental-care-health-professional-shortage-areas-hpsas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>.

¹³ The Health Resources and Services Administration defines an HPSA as having a shortage of primary-medical-care, dental, or mental-health providers; they may be geographic-, population-, or facility-based. *Health Professional Shortage* (footnote continues on following page)

one thousand.¹⁴ Nationwide, HRSA has identified 4,787 areas with a shortage of mental-health professionals.¹⁵ The National Center for Health Workforce Analysis projects that 37 states will have a shortage of primary-care physicians in 2025.¹⁶ The NCHWA similarly projects inadequate numbers of specialty physicians—cardiologists, gastroenterologists, hematologists, oncologists, and pulmonologists—to meet patient demand by 2025.¹⁷ It also projects annual nursing shortages through 2025 in sixteen states.¹⁸

Areas (HPSAs), Health Res. & Servs. Admin. (last updated Oct. 2016), <https://bhwh.hrsa.gov/shortage-designation/hpsas>.

¹⁴ *Shortage Areas*, Health Res. & Servs. Admin. Data Warehouse (last visited Sept. 15, 2017), <https://datawarehouse.hrsa.gov/topics/shortageAreas.aspx>. HPSAs are but one category of health-professional shortage areas designated by the U.S. Department of Health and Human Services.

¹⁵ *Id.*

¹⁶ Nat'l Ctr. for Health Workforce Analysis, U.S. Dep't of Health & Human Servs., *State-Level Projections of Supply and Demand for Primary Care Practitioners: 2013–2025*, at 5 (Nov. 2016), <https://bhwh.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/research/projections/primary-care-state-projections2013-2025.pdf>.

¹⁷ Nat'l Ctr. for Health Workforce Analysis, U.S. Dep't of Health & Human Servs., *National and Regional Projections of Supply and Demand for Internal Medicine Subspecialty Practitioners: 2013–2025*, at 4 (Dec. 2016), <https://bhwh.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/research/projections/internal-medicine-subspecialty-report.pdf>.

¹⁸ Nat'l Ctr. for Health Workforce Analysis, U.S. Dep't of Health & Human Servs., *The Future of the Nursing Workforce*: (footnote continues on following page)

Finally, based on the Kaiser Foundation’s analysis of the government’s data, as of January 2017, only 44.2% of the need for mental-health treatment is being met.¹⁹

There is a direct connection between health-professional shortages and our nation’s health security. The National Health Security Strategy and Implementation Plan for 2015 through 2018, prepared by the Assistant Secretary of Health and Human Services for Preparedness and Response, calls for a workforce “large enough to meet both routine and surge demands” but finds that “the public health, healthcare, and emergency management workforces are all currently operating under significant constraints, with gaps in coverage in many communities.”²⁰

National- and State-Level Projections, 2012–2025, at 8–9 (Dec. 2014), <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/nursingprojections.pdf>. The sixteen states are Alaska, Arizona, California, Colorado, Georgia, Hawaii, Maine, Maryland, Montana, Nevada, New Mexico, North Carolina, Oregon, Rhode Island, South Carolina, and Washington. *Id.*; see also Rebecca Grant, *The U.S. Is Running out of Nurses*, Atl. (Feb. 3, 2016), <https://www.theatlantic.com/health/archive/2016/02/nursing-shortage/459741/>.

¹⁹ *Mental Health Care HPSAs*, *supra* note 12.

²⁰ Nicole Lurie, U.S. Dep’t of Health & Human Servs., National Health Security Strategy and Implementation Plan: 2015–2018, at 26–27 (n.d.), <https://www.phe.gov/Preparedness/planning/authority/nhss/Documents/nhss-ip.pdf>.

Medically underserved communities,²¹ many of which are in rural areas, will suffer the consequences of the health-professional shortage most severely. Those communities are already experiencing a shortage,²² and restricting the entry of non-U.S. healthcare professionals will only exacerbate it.

2. Non-U.S. Professionals Comprise a Significant Part of the Nation's Healthcare Workforce, Especially in Underserved Areas.

Individuals from outside the United States play a crucial role in the delivery of healthcare in America. As of 2010, more than one in four physicians practicing in the United States was born in another country.²³ Individuals from other countries fill a similar

²¹ HRSA designates medically underserved areas by taking into account the number of providers, the percentage of the population at the federal poverty level, the percentage of the population at age sixty-five and over, and the infant-mortality rate in a given area. *Medically Underserved Area/Population (MUA/P) Application Process*, Health Res. & Servs. Admin. (last updated Oct. 2016), <https://bhw.hrsa.gov/shortage-designation/muap-process>.

²² See, e.g., Darrell G. Kirch & Kate Petelle, Viewpoint, *Addressing the Physician Shortage: The Peril of Ignoring Demography*, 317 JAMA 1947, 1947 (2017).

²³ Kristen McCabe, *Foreign-Born Health Care Workers in the United States*, Migration Info. Source (June 27, 2012), <http://www.migrationpolicy.org/article/foreign-born-health-care-workers-united-states>; see also Anthony P. Carnevale et al., Geo. Univ. Ctr. on Educ. & the Workforce, *Healthcare 102* (June 2012), <https://cew.georgetown.edu/wp-content/uploads/2014/11/Healthcare.FullReport.090712.pdf> (as of 2010, 27.56% of physicians and surgeons were foreign born).

number of positions in other healthcare occupations.²⁴ Non-U.S. health professionals hail from around the world, including from the six countries subject to the Executive Order's suspension of entry. For example, as of 2016, the University of Damascus in Syria ranked seventh among international medical schools with graduates holding active licenses to practice medicine in the United States.²⁵ Economists estimate that more than seven thousand physicians currently working in the United States received training in the six countries,²⁶ and that those doctors collectively provide fourteen million patient visits each year.²⁷

Physicians from outside the United States do more than alleviate the nation's overall physician

²⁴ Carnevale et al., *supra* note 23, at 102 (reporting that, as of 2010, 21.36% of dentists, 20.44% of pharmacists, 15.18% of registered nurses, and 13.74% of physician assistants were foreign born).

²⁵ Aaron Young et al., *A Census of Actively Licensed Physicians in the United States, 2016*, 103 J. Med. Reg., no. 2, 2017, at 7, 12.

²⁶ Matthew Basilio & Michael Stepner, *The Immigration Ban and the Physician Workforce*, Health Aff. Blog (Mar. 6, 2017), <http://healthaffairs.org/blog/2017/03/06/the-immigration-ban-and-the-physician-workforce/>.

²⁷ *Id.* This estimate is conservative, as national survey data estimates the number of patient visits provided annually by specialist physicians at 2,704 and by generalists at 3,521, which would result in a total of between 18.9 and 24.6 million patient visits annually. Esther Hing & Susan M. Schappert, *Generalist and Specialty Physicians: Supply and Access, 2009–2010*, at 2 (NCHS Data Brief No. 105, Sept. 2012), <https://www.cdc.gov/nchs/data/databriefs/db105.pdf>.

shortage. They disproportionately practice primary-care disciplines serving thousands of patients each year, including many Medicare and Medicaid beneficiaries.²⁸ Indeed, they serve “on the front lines of medical need,” including rural and other underserved communities, Native American communities, and VA hospitals.²⁹ In Alabama, for example, “Syria ranks fourth as a source of doctors for medically-needy areas . . . behind India, Pakistan and the Philippines.”³⁰

²⁸ Marcia D. Hohn et al., *Immigrants in Health Care: Keeping Americans Healthy Through Care and Innovation 2* (June 2016), http://immigrationresearch-info.org/system/files/health_care_report_FINAL_20160607.pdf; Padmini D. Ranasinghe, *International Medical Graduates in the U.S. Physician Workforce*, 115 *J. Am. Osteopathic Ass’n* 236, 238 (2015).

²⁹ Basilio & Stepner, *supra* note 26 (reporting on professionals trained in the countries subject to the Executive Order); *see also* Ranasinghe, *supra* note 28, at 238 (reporting that “a higher proportion of [international medical graduates] than other graduates serve socioeconomically disadvantaged populations across the United States” and that they “tend to fill the gaps in workforce demands in rural areas”); Katrina Armstrong et al., *Perspective, International Exchange and American Medicine*, 376 *New Eng. J. Med.* e40(1), e40(2) (2017); Akash Goel, *What Americans Will Lose When They Push Immigrants Away*, *Time* (Apr. 13, 2017, 12:45 pm), <http://time.com/4733567/immigration-doctors-rust-belt/>; Lauren Silverman, *Trump Travel Ban Spotlights U.S. Dependence on Foreign-Born Doctors*, *NPR* (Feb. 11, 2017, 5:47 am), <http://www.npr.org/sections/health-shots/2017/02/11/514399475/trump-travel-ban-spotlights-u-s-dependence-on-foreign-born-doctors>.

³⁰ Amy Yurkanin, *In Alabama, Doctors from Countries on Trump’s Banned List Fill Medical Gaps*, *AL.com* (Feb. 4, 2017, 7:02 am), http://www.al.com/news/index.ssf/2017/02/in_alabama_doctors_from_countr.html.

The Executive Order directly impacts professionals from Iran, Libya, Somalia, Sudan, Syria, and Yemen, but it could also chill interest among professionals from other nations in practicing in the United States, “exacerbate[ing] already strained areas of health care.”³¹

B. Beyond Filling Shortages, Non-U.S. Professionals Play Important Roles in the American Healthcare System.

Health professionals from other countries make significant contributions to the nation’s healthcare system. They facilitate America’s participation in the global enterprise of researching health problems and devising solutions and therapies for patients. Their participation in America’s healthcare community enhances our ability to respond to large-scale public-health threats, including disease-based threats, bioterrorism, and mass casualties resulting from conventional terrorism. And they increase the diversity of the professionals who treat patients, which in turn improves the quality of patient care.

1. Collaboration Between American Health Professionals and Non-U.S. Professionals Maximizes Research Efforts.

Diseases do not respect national borders and, therefore, effective responses must be global. “Collab-

³¹ Aaron Carroll, *Immigration Reform’s Potential Effects on US Health Care*, JAMA Forum (Mar. 8, 2017), <https://newsatjama.jama.com/2017/03/08/jama-forum-immigration-reforms-potential-effects-on-us-health-care/>.

orative international efforts, especially strengthening the capacity of national health systems, are essential to prevent and prepare for an array of threats, from infectious disease pandemics to the silent killers of chronic noncommunicable diseases.”³² Indeed, the American healthcare community includes many individuals from outside the United States who contribute daily to the effort to cure diseases and combat potential pandemics, such as the acquired immunodeficiency and severe acute respiratory syndromes and the Ebola and Zika viruses. Any constraint on the participation of recognized experts in the free exchange of scientific research and collaboration impairs the collective knowledge of our healthcare community and jeopardizes American lives.³³

Medical research in the United States benefits greatly from the contributions of non-U.S. professionals. A recent study found that more than forty percent of the cancer researchers at America’s top cancer

³² Comm. on Global Health and the Future of the U.S., Nat’l Acads. of Scis., Eng’g & Med., *Global Health and the Future Role of the United States*, at ix (prepubl. copy 2017).

³³ See M. Ihsan Kaadan, *I’m a Syrian Doctor Who Treated Patients in Aleppo. I’m in the US To Give Back*, STAT (Feb. 6, 2017), <https://www.statnews.com/2017/02/06/syria-aleppo-doctor-us/> (describing Syrian doctor’s development of “novel ways to respond to the Zika epidemic”); see also Crystal Maynard, *Experts Delve into Issue of Wound Infections After Blast Injuries*, U.S. Army (Dec. 7, 2016), https://www.army.mil/article/179290/experts_delve_into_issue_of_wound_infections_after_blast_injuries (discussing program developed by the U.S. Department of Defense that gathers international expertise in battlefield injuries and infections and develops health solutions).

institutes are immigrants.³⁴ At the University of Texas MD Anderson Cancer Center, sixty-two percent of researchers were born in another country.³⁵ The federal government has recognized the value of working with global partners and provided financial support to U.S.-based institutions engaged in international-healthcare-research collaboration. The National Institutes of Health awarded grants in 2016 to Duke, Tulane, Vanderbilt, and Yale to “partner with West African academic centers to design training programs for their scientists and health researchers” who study “Ebola, Lassa fever, yellow fever and other emerging viral diseases.”³⁶ Although these grants fund work by American professionals abroad, they

³⁴ Stuart Anderson, Nat’l Found. for Am. Policy, *The Contributions of Immigrants to Cancer Research in America* 1 (Feb. 2013), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2226420.

³⁵ *Id.*

³⁶ *Ebola-Affected Countries Receive NIH Support to Strengthen Research Capacity*, Nat’l Insts. of Health (Oct. 26, 2016), <https://www.nih.gov/news-events/news-releases/ebola-affected-countries-receive-nih-support-strengthen-research-capacity>; see also *Joint West Africa Research Group To Foster Biopreparedness Collaborative Initiative To Focus on Expanding Research Capabilities in Region*, U.S. Army Med. Res. & Materiel Command (last updated July 20, 2016), http://mrmc.amedd.army.mil/index.cfm?pageid=media_resources.articles.biopreparedness_collaborative_initiative_in_west_africa (“The West African Ebola outbreak in 2014–15 highlighted gaps in global public health response and a lack of countermeasures. To help address this, the [Defense Department] invested in a strategic initiative called the Joint West Africa Research Group to leverage existing research platforms and relationships to improve biopreparedness in the region.”).

complement programs hosting non-U.S. professionals here,³⁷ and they demonstrate the importance of the cross-border exchange of ideas in healthcare.³⁸ The government has similarly invested one billion dollars in the Global Health Security Agenda, an international, thirty-one-nation “partnership . . . designed to measurably address global vulnerability to . . . public health threats, strengthen systems, and ensure that a trained workforce has the tools needed to prevent, detect, and respond rapidly and effectively to infectious disease threats.”³⁹

Global collaboration among health professionals provides opportunities to share medical knowledge

³⁷ *E.g.*, Lisa Morris, *Engineers, Scientists Participate in International Exchange Program*, U.S. Army (Oct. 22, 2014), <https://www.army.mil/article/136728> (“Currently, seven foreign engineers and scientists work at the USAMRMC through the [Engineer and Scientist Exchange Program] and one U.S. scientist works abroad.”).

³⁸ *See, e.g.*, *Emerging Pandemic Threats Program: EPT-2*, U.S. Agency for Int’l Dev. (last updated Nov. 25, 2014), <https://www.usaid.gov/ept2> (recognizing the importance of global networks to prevent and control pandemic threats); Christopher R. Braden et al., *Progress in Global Surveillance and Response Capacity 10 Years After Severe Acute Respiratory Syndrome*, 19 *Emerging Infectious Diseases* 864, 867 (2013) (“Perhaps the most important legacy of SARS is the recognition of the critical need for a multilateral response, led by [the World Health Organization], in the event of a rapidly moving but ultimately containable global epidemic.”).

³⁹ Global Health Security Agenda, *Advancing the Global Health Security Agenda: Progress and Early Impact from U.S. Investment 1, 2* (n.d.), <https://www.ghsagenda.org/docs/default-source/default-document-library/ghsa-legacy-report.pdf?sfvrsn=12>.

and cross-train the clinical skills necessary to address global medical challenges. The Executive Order's impact on other nations' abilities to collaborate with the United States will likely make such collaboration less robust, slowing advances in medical treatment that would otherwise benefit patients in the United States.

2. Inclusion of Non-U.S. Professionals in the American Healthcare Community Enhances America's Health Security.

The integration of health professionals from outside the United States into the nation's healthcare network improves more than global health security. It strengthens our domestic health security, advancing the express purpose of the Executive Order to protect Americans.

Shortly after the terrorist attacks on September 11, 2001, and the subsequent anthrax attacks, the government recognized the threat infectious disease presents to our national security.⁴⁰ This and other health-security threats persist, as illustrated recently in the rapid spread of the virulent Ebola virus.⁴¹

Teaching hospitals are critical to the health-security infrastructure of the United States.⁴² These

⁴⁰ Gary Cecchine & Melinda Moore, *Infectious Disease and National Security: Strategic Information Needs* 22–23 (2006).

⁴¹ Lena H. Sun, *Ebola Fight Remains a Priority for Obama*, Wash. Post, Dec. 3, 2014, at A3.

⁴² *Why Teaching Hospitals Are Important to All Americans*, Assoc. of Am. Med. Colls. (Aug. 24, 2017), <https://news.aamc.org/> (footnote continues on following page)

hospitals combine three missions—patient care, physician training, and medical research—and train the next generation of doctors, dentists, nurses, and other health professionals. Although they represent only 5% of all hospitals, teaching hospitals provide 95% of the nation’s comprehensive cancer centers,⁴³ 71% of all Level I trauma centers,⁴⁴ 69% of all burn-care-unit-center beds,⁴⁵ 60% of pediatric intensive-care-unit beds,⁴⁶ and 33% of all charity care.⁴⁷ They are often on the front lines when America experiences terrorist attacks and large-scale health threats, as evidenced by the roles they played in the response to the 2013 Boston Marathon bombing,⁴⁸ the treatment of Ebola in teaching hospitals in Nebraska and At-

for-the-media/article/teaching-hospitals-important-americans/
Teaching Hospitals: Bringing Together Patient Care, Research, and Education, Assoc. of Am. Med. Colls. (Mar. 14, 2017), <https://news.aamc.org/for-the-media/article/teaching-hospitals/>.

⁴³ *Why Teaching Hospitals Are Important to All Americans*, *supra* note 42.

⁴⁴ *Id.* Level I trauma centers are “central to the trauma system” and “capable of providing total care for every aspect of injury—from prevention through rehabilitation.” *Trauma Center Levels Explained*, Am. Trauma Soc’y (last visited Sept. 15, 2017), <http://www.amtrauma.org/?page=traumalevels>.

⁴⁵ *Why Teaching Hospitals Are Important to All Americans*, *supra* note 42.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *See, e.g.*, Atul Gawande, *Why Boston’s Hospitals Were Ready*, *New Yorker* (Apr. 17, 2013), <http://www.newyorker.com/news/news-desk/why-bostons-hospitals-were-ready>.

lanta,⁴⁹ the locations of the members of the Global Virus Network's Zika Task Force,⁵⁰ and as recently as Hurricane Harvey in Houston and Hurricane Irma in Florida.⁵¹

For decades, teaching hospitals have benefitted from the diverse training and skills of health professionals from other nations.⁵² The reliance of teaching hospitals on health professionals from outside the

⁴⁹ See Michael J. Connor, Jr., et al., *Successful Delivery of RRT in Ebola Virus Disease*, 26 J. Am. Soc'y Nephrology 31, 31 (2015) (describing treatment of Ebola patient in Atlanta); Scott Neuman, *Why Ebola Patients Are Getting Treatment in Nebraska*, NPR (Oct. 6, 2014, 12:40 pm), <http://www.npr.org/sections/thetwo-way/2014/10/06/354083214/why-ebola-patients-are-getting-treatment-in-nebraska> (reporting treatment of a Liberian man in Nebraska because of a government-commissioned biocontainment facility at a teaching hospital there); see also *Why Teaching Hospitals Are Important to All Americans*, *supra* note 42.

⁵⁰ Global Virus Network, *Zika Task Force Members 1–19* (n.d.), <http://gvn.org/wp-content/uploads/2016/03/GVN-ZTF-Bios.pdf>.

⁵¹ Ricardo Nuila, *Treating Patients at Houston's Largest Emergency Shelter, as Hurricane Harvey Rages*, New Yorker (Aug. 29, 2017), <https://www.newyorker.com/news/news-desk/treating-patients-at-houstons-largest-emergency-shelter-as-hurricane-harvey-rages>; Pam Wright, *At Tampa Hospital in Evacuation Zone, 800 Patients and Staff Ride Out Hurricane Irma*, Weather Co. (Sept. 10, 2017, 3:15 pm), <https://weather.com/storms/hurricane/news/hurricane-irma-tampa-hospital-evacuation-zone>.

⁵² *E.g.*, Declaration of Eric Scherzer ¶ 12, *Hawai'i*, 2017 WL 1011673 (ECF No. 154 Ex. 1 Ex. I) (detailing that of a New York hospital's 91 internal-medicine residents, 43 are on H-1B visas, 12 are on J-1 visas, and 20 have green cards).

United States makes such hospitals acutely vulnerable to disruptions in the immigration system. This includes the prospect of longer waits for veterans seeking healthcare, given the fact that many international health professionals provide care at VA health facilities.

3. Non-U.S. Professionals Contribute Their Diverse Clinical and Cultural Experiences to the American Healthcare Community.

Physicians and other health professionals cannot do their jobs effectively if they cannot relate to the patients that they serve. Health professionals provide better care to their patients if they have a broad cultural competence and understand the social and cultural factors that affect health and treatment.⁵³ Likewise, the highest-quality patient care results from the exchange of diverse perspectives and experiences.⁵⁴

For these reasons, the participation in our education and healthcare systems of students, trainees,

⁵³ See Joseph R. Betancourt et al., *Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care*, 118 *Pub. Health Rep.* 293, 296 (2003) (“Racial/ethnic diversity in the health care workforce has been well correlated with the delivery of quality care to diverse patient populations.”).

⁵⁴ See Heena P. Santry & Sherry M. Wren, *The Role of Unconscious Bias in Surgical Safety and Outcomes*, 92 *Surgical Clinics North Am.* 137, 143 (2012) (“Cultural competence is considered an expected skill of modern physicians and has been described as a requirement for physicians who wish to deliver high-quality care to all patients.”).

and professionals hailing from outside the United States materially improves the care available to patients inside the United States.⁵⁵ Limitations on the participation of students, trainees, and professionals in U.S. programs—which Executive Order No. 13,780 threatens—undercuts these benefits.⁵⁶

II. Congress Has Recognized the Importance of Non-U.S. Professionals to the American Healthcare System.

Recognizing the global nature of our healthcare community, Congress has enacted laws designed to attract physicians from other countries. It has also created legal exceptions to otherwise applicable limits on the eligibility of medical-resident physicians to remain in the United States, provided that the professionals practice in underserved communities. These laws and related waivers—many of which are longstanding—have added thousands of physicians in places that have had difficulties attracting trained medical professionals.

⁵⁵ *Cf.* Betancourt et al., *supra* note 53, at 296.

⁵⁶ *See* Armstrong et al., *supra* note 29, at e40(2) (“[I]mmigration policy that blocks the best from coming to train and work in the United States and blocks our trainees and faculty from safely traveling to other countries is a step backward, one that will harm our patients, colleagues, and America’s position as a world leader in health care and innovation.”).

A. Congress Established Programs To Attract Non-U.S. Professionals To Serve Medically Underserved Communities.

According to the federally funded Rural Health Information Hub, “rural areas often experience difficulties in the recruitment and retention of physicians” and, “[d]ue to these difficulties, many communities turn to the recruitment of non-U.S. citizen international medical graduates . . . who trained on a J-1 visa to fill their physician vacancies.”⁵⁷ Congress has responded to this in part through the longstanding Conrad 30 waiver program, which enjoys broad bipartisan support.⁵⁸

⁵⁷ *Rural J-1 Visa Waiver*, Rural Health Info. Hub (last updated Feb. 24, 2017), <https://www.ruralhealthinfo.org/topics/j-1-visa-waiver>; see also Fred D. Baldwin, *Access to Care: Overcoming the Rural Physician Shortage*, Appalachian Reg'l Comm'n (last visited Sept. 15, 2017), https://www.arc.gov/magazine/articles.asp?ARTICLE_ID=98; Declaration of Marc Overbeck ¶¶ 3, 5, *Hawai'i*, 2017 WL 1011673 (ECF No. 154 Ex. 1 Ex. G) (describing J-1 visa program and its role in ensuring an adequate supply of healthcare providers in rural and other underserved areas).

⁵⁸ Press Release, Darrell Issa & Brad Schneider, Reps. Issa and Schneider Introduce Bipartisan Legislation to Help Address Physician Shortages (Apr. 25, 2017), <https://issa.house.gov/news-room/press-releases/rebs-schneider-and-issa-introduce-bipartisan-legislation-help-address>. The most recent reauthorization of the Conrad 30 waiver program (that was not included within an appropriations measure) passed on unanimous consent in the Senate, 158 Cong. Rec. S6007 (daily ed. Aug. 2, 2012), and a 412–3 vote in the House, *id.* at H5972 (daily ed. Sept. 13, 2012).

The majority of physicians from other countries who serve their medical residencies⁵⁹ in the United States do so as “exchange visitors” under a J-1 visa.⁶⁰ Ordinarily, J-1 visa holders must return to their home countries for at least two years before they can seek certain nonimmigrant visas or permanent-resident status in the United States.⁶¹ The Conrad 30 program, however, allows state health departments to recommend waiver of this requirement for up to thirty physicians per state per year if the physicians agree to be employed full-time for at least three years serving patients in medically underserved communities.⁶²

More than fifteen thousand physicians have participated in the Conrad 30 program since it was first authorized in 1994.⁶³ For example, in the past ten

⁵⁹ Medical residencies are a “vital component of American medical education,” *McKeesport Hosp. v. Accreditation Council for Graduate Med. Educ.*, 24 F.3d 519, 525 (3d Cir. 1994), that provide new physicians “a supervised transition between the pure academics of medical school and the realities of practice,” *Doe v. Mercy Catholic Med. Ctr.*, 850 F.3d 545, 549 (3d Cir. 2017).

⁶⁰ See Sarah E. Brotherton & Sylvia I. Etzel, *Graduate Medical Education, 2015–2016*, 316 JAMA 2291, 2302 (2016).

⁶¹ See Immigration and Nationality Act § 212(c), 8 U.S.C. § 1182(c) (2012).

⁶² See Immigration and Nationality Act § 214(l), 8 U.S.C. § 1184(l) (2012); *Conrad 30 Waiver Program*, U.S. Citizenship & Immigration Servs. (last updated May 5, 2014), <https://www.uscis.gov/working-united-states/students-and-exchange-visitors/conrad-30-waiver-program>.

⁶³ *Conrad 30 Reauthorization Bill Earns Bipartisan Support*, Am. Med. Ass’n (May 18, 2017), <https://wire.ama->
(footnote continues on following page)

years, Iowa has sponsored 292 Conrad 30 participants, utilizing 97% of the state's program allotment.⁶⁴ Iowa's high usage of the Conrad 30 program illustrates the importance of the program to directing medical professionals to areas in the United States that have a significant need for them.

Although the Conrad 30 waiver program is decentralized, many of the program's oversight and approval responsibilities remain with the federal government.⁶⁵ For example, the U.S. Department of State Waiver Review Division must review and recommend each Conrad 30 waiver forwarded by a state health department before the waiver may be considered by the U.S. Citizenship and Immigration Services, an agency within the Department of Homeland Security. In turn, USCIS has exclusive jurisdiction to approve or deny each such waiver. USCIS is also the sole agency responsible for approving petitions for H-1B status, a precondition for employment authoriza-

assn.org/ama-news/conrad-30-reauthorization-bill-earns-bipartisan-support.

⁶⁴ Devan Patel, *Foreign Doctors Assist with Iowa's Physician Shortage*, *Globe Gazette* (Macon City, Iowa), Mar. 19, 2017, at C1. Iowa has over three hundred HPSAs. *Shortage Areas*, *supra* note 14.

⁶⁵ Davis G. Patterson et al., *Conrad 30 Waivers for Physicians on J-1 Visas: State Policies, Practices, and Perspectives 2* (WWAMI Rural Health Ctr. Final Rep. No. 157, Mar. 2016), http://depts.washington.edu/fammed/rhrc/wp-content/uploads/sites/4/2016/03/RHRC_FR157_Patterson.pdf.

tion to fulfill the three-year-service commitment under the Conrad 30 waiver program.⁶⁶

Physicians from other countries may also obtain a waiver of the J-1 visa two-year-return requirement by serving in a program providing care to underserved communities under the purview of federal agencies including the Appalachian Regional Commission, the Delta Regional Authority, and the Departments of Health and Human Services, Defense, and Veterans Affairs.⁶⁷ Since the start of the program, the Appalachian Regional Commission has placed more than a thousand physicians in more than two hundred Appalachian communities.⁶⁸ And the Department of Defense uses the J-1 waiver process to ensure an adequate number of physicians and scientists “in compelling cases to retain persons of unique and outstanding qualifications whose services

⁶⁶ *About ECMFG*, Educ. Comm’n for Foreign Med. Graduates (last updated Apr. 2, 2013), <http://www.ecfm.org/about/>.

⁶⁷ 22 C.F.R. § 41.63(c) (2017); *Waiver of the Exchange Visitor Two-Year Home-Country Physical Presence Requirement*, Bureau of Consular Affairs, U.S. Dep’t of State (last visited Sept. 15, 2017), <https://travel.state.gov/content/visas/en/study-exchange/student/residency-waiver.html>; Karen M. Pollins & Kristen A. Harris, *Immigration Issues Impacting the Training, Recruitment, and Employment of Foreign Physicians by Academic Medical Centers* 7 (Jan. 2015), <http://harrisvisalaw.com/AHLA.AMC.Member.Briefing.pdf>.

⁶⁸ Baldwin, *supra* note 57.

are urgently required for programs of significant official interest to the Department of Defense.”⁶⁹

Some physicians from other countries continue to serve beyond the required three years in a medically underserved area, often in connection with the Physician National Interest Waiver Program. This program provides a path for physicians to obtain lawful permanent-resident status. Under the program, a physician agrees to work full-time for five years in an area designated by HHS as having a physician shortage or at a healthcare facility under the jurisdiction of the Secretary of the Veterans Administration. This increases patient access to care by retaining physicians from other countries in medically underserved U.S. communities and in VA hospitals.⁷⁰

B. Congress Established Programs for Non-U.S. Specialists and Others with Extraordinary Abilities.

Physicians from other countries are also eligible for USCIS-issued H-1B visas for specialty occupations under the sponsorship of a U.S. employer. Such physicians are subject to significant vetting. To provide direct patient-care services, physicians must

⁶⁹ *Department of Defense Responsibility of Review of Waiver Requests*, Office of the Under Sec’y of Def. (Acquisition, Tech. & Logistics), U.S. Dep’t of Defense (last visited Sept. 15, 2017), <http://www.acq.osd.mil/ecs/review-request.html>.

⁷⁰ *Green Card Through a Physician National Interest Waiver (NIW)*, U.S. Citizenship and Immigration Servs. (last updated Feb. 17, 2016), <https://www.uscis.gov/green-card/other-ways-get-green-card/green-card-through-physician-national-interest-waiver-niw>.

have a medical license issued by the state (or states) in which they will practice medicine. Eligibility for a license, in turn, requires passing all steps of the United States Medical Licensing Examination, rigorous screening and formal certification by the Educational Commission for Foreign Medical Graduates (ECFMG), and successful completion of the required number of years in an accredited graduate-medical-education program.⁷¹ In general, a physician from another country may obtain H-1B status for up to six years.⁷² In 2016, the federal government approved certifications for more than ten thousand physicians to work under H-1B visas, including 1,467 in New York, 945 in Michigan, and 826 in Illinois.⁷³

⁷¹ *Certification*, Educ. Comm’n for Foreign Med. Graduates (last updated Sept. 7, 2016), <http://www.ecfm.org/certification/index.html>; *Residency Program Requirements for International Medical Graduates*, Am. Med. Ass’n (last visited Sept. 15, 2017), <https://www.ama-assn.org/life-career/residency-program-requirements-international-medical-graduates>.

⁷² Immigration and Nationality Act § 212(n)(1)(E)–(n)(1)(G), (n)(3), 8 U.S.C. § 1182(n)(1)(E)–(n)(1)(G), (n)(3); 20 C.F.R. §§ 655.736–.739 (2017).

⁷³ Peter A. Kahn & Tova M. Gardin, *Distribution of Physicians with H-1B Visas by State and Sponsoring Employer*, 317 JAMA 2235, 2235 (2017); see also Michael Ollove, *Changes to Visa Program Put Foreign-Born Doctors in Limbo*, PBS NewsHour: The Rundown (May 23, 2017, 3:46 pm), <http://www.pbs.org/newshour/rundown/changes-visa-program-put-foreign-born-doctors-limbo/> (reporting that University of Arkansas for Medical Sciences “had 86 slots for H-1B visa holders in 2016” and “used the visa program to recruit pioneering researchers from around the world”).

In addition, physicians and other health professionals from other countries may submit an immigrant petition on the basis of extraordinary ability reflected by national or international acclaim, or recognition as an outstanding professor or researcher with an offer of tenure or a tenure-track position at a U.S. institution of higher education.⁷⁴

III. The Executive Order Threatens To Disrupt the Nation’s Healthcare Workforce.

The Executive Order threatens to disrupt the carefully balanced immigration processes essential to the delivery of healthcare in the United States and the conduct of vital biomedical research. The changes contemplated by the Executive Order—nationality-based suspension of entry with an ill-defined waiver process and projected system backlogs—put patient care at risk. For example, a consular cable transmitted by the Secretary of State shortly after the Executive Order was issued recognizes that limiting visa interviews in connection with heightened scrutiny and vetting “may cause interview backlogs to rise.”⁷⁵ While this Court appeared to rely on the Executive

⁷⁴ *Employment-Based Immigration: First Preference EB-1*, U.S. Citizenship & Immigration Servs. (last updated Oct. 29, 2015), <https://www.uscis.gov/working-united-states/permanent-workers/employment-based-immigration-first-preference-eb-1>.

⁷⁵ Cable from Rex W. Tillerson, U.S. Sec’y of State, to all diplomatic and consular posts ¶ 13 (Mar. 17, 2017), *reprinted in* Posting of Cassandra Garrison to live.reuters.com (Mar. 23, 2017, 9:12 am), http://live.reuters.com/Event/Live_US_Politics/791255396.

Order's waiver process in adjudicating the federal government's stay applications,⁷⁶ no substantive guidance has been issued by the federal government, undermining the ability of the waiver process to provide predictable processes for *amici* and their members.

After the Court's June 26, 2017 order staying in part the Fourth and Ninth Circuits' decisions, the Department of Homeland Security published "frequently asked questions" on enforcement of the Executive Order. Regarding waivers, DHS directed individuals to the Department of State, which would adjudicate waiver requests "on a case-by-case basis if a foreign national demonstrates that his or her entry into the United States is in the national interest, will not pose a threat to national security, and that denying entry during the suspension period will cause undue hardship."⁷⁷ But that language just repeats the vague standard in the Executive Order and does not further public understanding of how that standard would be applied.⁷⁸ The Department of State—to

⁷⁶ *Trump*, 137 S. Ct. at 2088 ("[The Executive Order] itself distinguishes between foreign nationals who have some connection to this country, and foreign nationals who do not, by establishing a case-by-case waiver system primarily for the benefit of individuals in the former category.").

⁷⁷ *Frequently Asked Questions on Protecting the Nation from Foreign Terrorist Entry into the United States*, U.S. Dep't of Homeland Sec. (last updated July 21, 2017), <https://www.dhs.gov/news/2017/06/29/frequently-asked-questions-protecting-nation-foreign-terrorist-entry-united-states>.

⁷⁸ Exec. Order No. 13,780 § 3(c), 82 Fed. Reg. at 13,214 (J.A. 1429) (allowing waiver "if the foreign national has demonstrated to the officer's satisfaction that denying entry
(footnote continues on following page)

which the DHS FAQs refer readers—provided no additional information on the standard for a waiver and no process-related information except to “disclose during the visa interview any information that might qualify the individual for a waiver.”⁷⁹

Even with the federal government’s public statements about it, key questions relating to the waiver process remain unanswered:

(1) Will signed, mutually binding contractual obligations between physicians and their graduate-medical-education programs and related participation in those programs be considered presumptive grounds for a waiver?

(2) May a physician leave the United States temporarily to visit family members or otherwise tend to personal or professional matters, such as conferences or charity work, without jeopardizing visa issuance, visa renewal, or reentry?

during the suspension period would cause undue hardship, and that his or her entry would not pose a threat to national security and would be in the national interest”).

⁷⁹ *Executive Order on Visas*, Bureau of Consular Affairs, U.S. Dep’t of State (July 14, 2017), <https://travel.state.gov/content/travel/en/news/important-announcement.html> (“[C]onsular officers may issue visas to nationals of countries identified in the E.O. on a case-by-case basis, when they determine: that issuance is in the national interest, the applicant poses no national security threat to the United States, and denial of the visa would cause undue hardship.”).

(3) Will deadlines associated with the U.S. graduate-medical-education postgraduate year (July 1 through June 30), such as residency-position start dates, which are outside the control of the physician, be accommodated through the waiver process?

(4) Will the cognizant agencies confirm the specific documentation from host graduate-medical-education programs, sponsoring employers, and host research organizations that they will deem probative in connection with a waiver application?⁸⁰

In the absence of transparent criteria and timely decision making, *amici* believe there is a risk that highly qualified health professionals from other countries will choose to go elsewhere, to the detriment of our nation's patients.

Sudden changes in immigration processes and widespread backlogs present a significant complication for the "Match," the annual process that matches the preferences of individuals seeking a slot in a U.S. graduate-medical-education program to the preferences of the training program, resulting in assignments of residents and fellows. The 2017 Match had more than 43,000 applicants for graduate-medical-

⁸⁰ See Declaration of Dierdre Heatwole ¶ 12, *Hawai'i*, 2017 WL 1011673 (ECF No. 154 Ex. 1 Ex. C) (stating that Executive Order's waiver process does not meaningfully diminish uncertainty related to approvals needed for entry and continued stay); Declaration of Eric Scherzer, *supra* note 52, ¶ 12 (same).

education training programs, including more than 10,000 non-U.S. citizens.⁸¹

According to Congress, the Match “ha[s] been an integral part of an educational system that has produced the finest physicians and medical researchers in the world.”⁸² Congress also acknowledged the country’s teaching hospitals and medical schools’ “crucial missions of patient care, physician training, and medical research.”⁸³

In 2017, medical-school graduates from countries other than the United States and Canada matched to more than 2,000 of the internal-medicine residencies in the United States.⁸⁴ Graduates from other countries matched to 337 first-year family-medicine-residency positions and 253 first-year pediatrics-residency positions, providing much needed care in the types of practices where physician shortages are growing.⁸⁵

The lower courts’ injunctions reassured American residency programs that international applicants they selected in the Match this year would be able to start their programs on time. Accordingly, the Executive Order did not materially disrupt the 2017

⁸¹ Nat’l Resident Matching Prog., Results and Data: 2017 Main Residency Match 1 (Apr. 2017), <http://www.nrmp.org/wp-content/uploads/2017/04/Main-Match-Results-and-Data-2017.pdf>.

⁸² 15 U.S.C. § 37b(a)(1)(A) (2012).

⁸³ *Id.* § 37b(a)(1)(E).

⁸⁴ Nat’l Resident Matching Prog., *supra* note 81, at 8.

⁸⁵ *Id.* at 7.

Match. However, continued uncertainty about the entry of physicians from other countries may adversely affect the 2018 Match and subsequent iterations if graduate-medical-education programs decline to select highly qualified candidates from the affected countries.

Medical residents comprise roughly twelve percent of all active physicians in the United States.⁸⁶ Of the 120,000 residents and fellows who served in graduate-medical-education programs in 2015, more than 18,000 were neither U.S. citizens nor lawful permanent residents.⁸⁷ In each year from 2011 through 2015, eight to nine percent of resident physicians held temporary visas.⁸⁸ This demonstrates that, despite the recent opening of several new medical schools, there are insufficient graduates of U.S. medi-

⁸⁶ Brotherton & Etzel, *supra* note 60, at 2302; 2016 *Physician Specialty Data Report: Number of People per Active Physician by Specialty, 2015*, Assoc. of Am. Med. Colls. (last visited Sept. 15, 2017), <https://www.aamc.org/data/workforce/reports/458490/1-2-chart.html>.

⁸⁷ See Brotherton & Etzel, *supra* note 60, at 2302.

⁸⁸ *Id.* J-1 or J-2 exchange-visitor visas were held by 6,568 residents; 3,167 residents held H-1, H-1B, H-2, or H-3 temporary-worker visas; and 403 residents held F-1 student visas, and approximately 60 residents held B-1 or B-2 temporary-visitor visas. *Id.*; see also Sarah E. Brotherton & Sylvia I. Etzel, *Graduate Medical Education, 2014–2015*, 314 JAMA 2436, 2446 (2015); Sarah E. Brotherton & Sylvia I. Etzel, *Graduate Medical Education, 2013–2014*, 312 JAMA 2427, 2437 (2014); Sarah E. Brotherton & Sylvia I. Etzel, *Graduate Medical Education, 2012–2013*, 310 JAMA 2328, 2338 (2013); Sarah E. Brotherton & Sylvia I. Etzel, *Graduate Medical Education 2011–2012*, 308 JAMA 2264, 2273 (2012).

cal schools to meet the needs of U.S. medical-residency programs and the nation's overall need for physicians. Professionals from other countries fill these gaps serving as physician-trainees in accredited programs.

Medical residents, which include a significant percentage of non-U.S. physicians, are essential to the delivery by the VA of healthcare to our nation's veterans. In 2014, more than 40,000 medical residents, including those holding temporary visas, completed some or all of their clinical training in VA hospitals and other medical centers.⁸⁹

The Department of State has designated the ECFMG as the visa sponsor for all J-1 exchange-visitor physicians who participate in clinical-training programs in the United States. To participate in graduate-medical-education programs, graduates from medical schools in countries other than the United States and Canada must achieve certification through the ECFMG. Certification involves verification of identity and graduation from a recognized medical school, successful performance on the same professional-knowledge and skills examinations that must be passed by U.S. medical-school graduates, and screening against the U.S. Department of Treasury Office of Foreign Assets Control Specially Designated Nationals List.⁹⁰

⁸⁹ *Medical and Dental Education Program*, U.S. Dep't of Vets. Affairs (last updated Feb. 28, 2017), https://www.va.gov/oaa/gme_default.asp.

⁹⁰ John R. Boulet et al., *The International Medical Graduate Pipeline: Recent Trends in Certification and Residency Training*, (footnote continues on following page)

A destabilized and further backlogged immigration system will interfere with the ability of medical-residency programs to select the applicants deemed best qualified for their programs, patients, and communities, and it will disrupt the staffing of training programs. This harms both the hospitals and the patients they serve by reducing the number of qualified physicians available to provide necessary care to patients throughout the United States. Further, a reduction in the number of qualified medical-school graduates who participate in medical-residency programs will exacerbate the already growing physician-workforce shortage—a shortage felt most acutely in rural and urban underserved communities.⁹¹

Backlogged immigration processes also will disrupt the orderly transition between medical-residency program years, which occurs on or about July 1. If visa-related processing delays prevent a physician from reporting on July 1, even if the delays are short term, the adverse effect on patients will be immediate and potentially irreparable, beginning

25 Health Aff. 469, 473–74 (2006); Educ. Comm’n for Foreign Med. Graduates, ECFMG Fact Sheet for Consular Officials 1–2 (Mar. 30, 2017), <http://www.ecfmg.org/annc/fact-sheet-consular-officials.pdf>.

⁹¹ See Declaration of Marc Overbeck, *supra* note 57, ¶¶ 4, 6 (discussing hardship to state and harm to patients if J-1 visas are not available to doctors from affected countries); Declaration of Eric Scherzer, *supra* note 52, ¶¶ 12–13 (“As a result of the . . . Executive Order, physicians from the affected countries may not pursue entry to the U.S. in J-1 status and will thereby deprive underserved rural communities of the benefit of their service under a J-1 waiver after their training.”).

with strains on coverage in critical care, surgical, and outpatient settings. Covering for a physician whose entry to the United States is in limbo will put unreasonable demands on colleagues in the form of extended duty hours and additional “on call” periods, creating risks associated with quality and safety.

Delays also threaten the viability of the Conrad 30 waiver program and other widely used pathways that rely on timely decisions on petitions for initial approval or changes in immigration status. As a result, highly skilled medical graduates from other countries are likely to pursue residencies outside the United States, in nations such as Canada and the United Kingdom.⁹²

The absence of even one physician can have a significant impact.⁹³ This harm is more than hypothetical. Although the predecessor Executive Order was in effect for only a short period of time, it prevented licensed physicians from entering the United States, where they had responsibilities for patient care.⁹⁴

⁹² Declaration of Eric Scherzer, *supra* note 52, ¶ 10.

⁹³ *Id.* ¶ 14; see also Mike Hixenbaugh, *Trump Issues Revised Travel Ban: Order Could Block Medical Graduates From Rural Areas in Need*, *Hou. Chron.*, Mar. 7, 2017, at A1 (discussing importance of foreign physicians to rural and urban healthcare); *supra* note 27 and accompanying text.

⁹⁴ See, e.g., Fares Alahdab et al., *Syrian Doctors and the American Dream: Practicing Medicine in a New Immigration Landscape*, *Health Aff. Blog* (Feb. 24, 2017), <http://healthaffairs.org/blog/2017/02/24/syrian-doctors-and-the-american-dream-practicing-medicine-in-a-new-immigration-landscape/>.

The Executive Order also has the potential to adversely affect patient care by constraining medical research and innovation.⁹⁵ In 2016, all six American winners of the Nobel Prize in economics and scientific fields were immigrants. Moreover, since 2000, immigrants have been awarded 40%—or 31 of 78—of the Nobel Prizes won by Americans in chemistry, medicine, and physics.⁹⁶ An analysis of the U.S. Patent and Trademark Office’s online database shows that 76% of patents awarded to the top ten patent-producing U.S. universities in 2011 listed at least one inventor who had been born in another country.⁹⁷ During that same period, 56% of all patents were awarded to inventors who were students, postdoctoral fellows, or staff researchers from another country.⁹⁸ In the wake of the Executive Order and its predecessor, engineering schools have reported a sharp

⁹⁵ See Susan Sauer Sloan & Tom Arrison, Nat’l Acad. of Sci., Nat’l Acad. of Med. & Inst. of Med. of the Nat’l Acads., *Examining Core Elements of International Research Collaboration: Summary of a Workshop 1* (2011) (noting that “[t]he globalization of science, engineering, and medical research is proceeding rapidly” as governments recognize that “research and development . . . leads to economic growth, employment, and overall social well-being of their citizens”).

⁹⁶ Stuart Anderson, *Immigrants Flooding America with Nobel Prizes*, *Forbes* (Oct. 16, 2016, 10:48 am), <https://www.forbes.com/sites/stuartanderson/2016/10/16/immigrants-flooding-america-with-nobel-prizes/#57237ef06cb6>.

⁹⁷ P’ship for a New Am. Econ., *Patent Pending: How Immigrants Are Reinventing the American Economy 1* (June 2012), <http://www.newamericaneconomy.org/wp-content/uploads/2013/07/patent-pending.pdf>.

⁹⁸ *Id.*

decline in the number of applications from international students, suggesting heightened fears among such students about the impact of the executive orders.⁹⁹ Because non-U.S. postdoctorate students are increasingly relied upon to counter a decrease in U.S. students pursuing biomedical research in this nation, chilling their participation could adversely affect U.S. biomedical research and our health security.¹⁰⁰

Finally, it is widely recognized in scientific fields that travel and global collaboration are essential incubators of research and innovation. Indeed, Congress has specifically recognized the importance of international collaboration in fields such as biomedical research.¹⁰¹ The Executive Order inhibits such innovation. For example, the probability that some non-U.S. physicians currently working inside the United States will not be able to return if they travel

⁹⁹ Jeffrey Mervis, *Drop in Foreign Applicants Worries Engineering Schools*, 355 *Sci.* 676, 676 (2017).

¹⁰⁰ Howard H. Garrison et al., *Biomedical Science Postdocs: An End to the Era of Expansion*, 30 *FASEB J.* 41, 41, 43 (2016).

¹⁰¹ *E.g.*, 21st Century Cures Act, Pub. L. No. 114-255, § 2072, 130 Stat. 1033, 1083 (2016) (expressing sense of Congress that it should “encourage a global pediatric clinical study network by providing grants, contracts, or cooperative agreements to support new and early stage investigators who participate in the global pediatric clinical study network” and that the Secretary of Health and Human Services “should engage with clinical investigators and appropriate authorities outside of the United States, including authorities in the European Union, during the formation of the global pediatric clinical study network to encourage the participation of such investigator and authorities”).

to a conference abroad could have a chilling effect on this type of collaboration.¹⁰²

The environment created by the Executive Order—even with the Court’s denial in part of the federal government’s motion to stay the lower courts’ orders—presents real uncertainty for *amici* and their members.¹⁰³ As noted, the Executive Order’s waiver

¹⁰² Declaration of Michael F. Collins ¶¶ 5, 10, 13, 15, *Louhghalam v. Trump*, 230 F. Supp. 3d 26 (D. Mass. 2017) (ECF No. 52-2); *see also* Declaration of Dierdre Heatwole, *supra* note 80, ¶ 12 (describing adverse effects on faculty, researchers, post-docs, graduate teaching assistants, and medical residents, including disruption of recruitment schedule; interference with plans to attend conferences, exchange programs, seminars, and symposia in other countries; and the prospect of losing prospective students and faculties to other countries).

¹⁰³ Mike Hixenbaugh, *Doctor Prepares To Resume Lifesaving Work in Iran*, *Hou. Chron.*, June 29, 2017, at A1 (reporting that Iranian doctor’s colleagues would not travel with him to Iran due to concerns stemming from the fact that “Iran has responded to Trump’s policy by threatening to block U.S. residents from entering the country”); Rebecca Trager, *Science Community Still Wary as Trump’s Travel Ban Partially Reinstated*, *Chem. World* (June 29, 2017), <https://www.chemistryworld.com/news/science-community-still-wary-as-trumps-travel-ban-partially-reinstated/3007643.article> (quoting government-relations director for the American Association for the Advancement of Science’s concerns about the bona-fide-relationship standard and the continuing impression that the United States is “unfriendly” to non-U.S. professionals); Sara Reardon, *Court Revives US Travel Ban*, 546 *Nature* 584, 584–85 (2017) (“[M]any researchers worry that uncertainty over US immigration policy, and perceptions that the country is unwelcoming, may have already driven away some international students and scientists.”).

process does not significantly elucidate matters,¹⁰⁴ and at least anecdotal evidence validates *amici*'s concerns about the interview-and-waiver process.¹⁰⁵ Facing this unpredictable immigration landscape, some health professionals have already abandoned their efforts to enter the United States.¹⁰⁶

CONCLUSION

Amici have a long history of collaborating with a diverse and highly skilled workforce of U.S. and non-U.S. health professionals to treat hundreds of millions of patients annually and to conduct groundbreaking research leading to medical breakthroughs. Health professionals and scientific experts from other countries are rigorously screened, must satisfy strict standards of qualification set by our govern-

¹⁰⁴ See *supra* pp. 27–30.

¹⁰⁵ See, e.g., Izzy Rossi, *Virginia Tech Student Returns to Campus After Being Blocked by Travel Ban*, Collegiate Times (Blacksburg, Va.) (June 27, 2017), http://www.collegiatetimes.com/news/virginia-tech-student-returns-to-campus-after-being-blocked-by/article_8eaf75d0-5b69-11e7-b342-6b7504bb0075.html (discussing efforts of student to reenter United States from Iran).

¹⁰⁶ See, e.g., Jennifer McDermott, *Syrian Doctor Caught in Travel Ban Gives Up, Moves to Canada*, Bos. Globe (June 28, 2017), <https://www.bostonglobe.com/news/politics/2017/06/28/syrian-doctor-caught-travel-ban-gives-moves-canada/QqkVo4RNsNAdjyhQspNcpL/story.html> (“Khaled Almilaji said Wednesday there’s too much uncertainty, even though he possibly could get a student visa under the scaled-back version of the ban.”); Susan McCord, *AU Medical Residents in Visa Trouble*, Augusta (Ga.) Chron., July 6, 2017, at 1A (describing hurdles encountered by foreign residents obtaining visas to begin medical-training program).

ment, and are addressing compelling needs in our communities.

Amici believe that their work to ensure our nation's health security—through critically needed patient care and cutting-edge biomedical research—contributes to our national security. In doing so, *amici* rely upon immigration processes to operate fairly and efficiently. *Amici* are deeply concerned that the Executive Order, and similar actions barring or discouraging health professionals and scientists from coming to the United States, will reduce patient access to care, inhibit medical innovation and biomedical research, and set back efforts to prevent pandemics and other public-health threats to Americans.

For the reasons provided above, as well as those presented by Respondents, *amici* urge the Court to affirm the decisions of the Fourth and Ninth Circuits and maintain the injunctions against Executive Order No. 13,780. At a minimum, *amici* urge the Court to maintain the lower courts' injunctions to the extent permitted by its June 26, 2017 order.

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2017

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ADDENDUM

AMICI CURIAE

Association of American Medical Colleges—represents all 147 accredited U.S. medical schools; nearly 400 major teaching hospitals and health systems, including 51 U.S. Department of Veterans Affairs medical centers; and more than 80 academic societies.

Academic Pediatric Association—a professional medical organization for academic pediatricians specializing in primary-care research and healthcare services.

Alliance for Academic Internal Medicine—empowers academic internal-medicine professionals and enhances healthcare through professional development, research, and advocacy. The Alliance includes more than 11,000 faculty and staff in departments of internal medicine at medical schools and teaching hospitals.

American Academy of Family Physicians—represents 129,000 family physicians, family-medicine residents, and medical students from all fifty states, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, and the Uniformed Services of the United States.

American Academy of Pediatrics—a not-for-profit professional organization of 66,000 primary-care pediatricians, pediatric-medical subspecialists, and pediatric-surgical specialists dedicated to the attainment of optimal physical, mental, and social health and well-being for all infants, children, adolescents, and young adults.

American Association of Colleges of Nursing—represents 810 member schools offering baccalaureate and graduate programs in nursing at public and private universities nationwide.

American Association of Colleges of Pharmacy—represents pharmacy education in the United States, advancing pharmacy education, research, scholarship, practice, and service to improve societal health.

American College of Healthcare Executives—an international professional society of 40,000 healthcare executives who lead hospitals, healthcare systems, and other healthcare organizations.

American College of Obstetricians and Gynecologists—is a not-for-profit educational and professional organization with more than 58,000 members dedicated to the healthcare of women.

American College of Physicians—represents 152,000 internal-medicine physicians (internists), related subspecialists, and medical students.

American Dental Education Association—the “Voice of Dental Education,” with members that include all 66 U.S. dental schools, over 800 allied and advanced dental-education programs, 66 corporations, and more than 20,000 individuals.

American Nurses Association—represents the interests of 3.6 million registered nurses, has more than 179,000 members through both state associations and individual membership, and has 35 national organizational affiliates that collectively represent

approximately 420,000 registered nurses in specialty areas.

American Pediatric Society—a pediatric academic society comprised of well-established child-health researchers who are recognized leaders in child health.

American Psychiatric Association—represents more than 37,000 members involved in psychiatric practice, research, and academia representing the diversity of the patients for whom they care. As the leading psychiatric organization in the world, APA now encompasses members practicing in more than 100 countries.

American Public Health Association—champions the health of all people and all communities, strengthens the profession of public health, shares the latest research and information, promotes best practices, and advocates for public-health issues and policies grounded in research.

American Society of Hematology—the world's largest professional society of hematologists, including clinicians and researchers, who are dedicated to furthering the understanding, diagnosis, treatment, and prevention of disorders affecting the blood.

Association of Academic Health Centers—a not-for-profit association dedicated to advancing the nation's health and well-being through the vigorous leadership of academic health centers.

Association of Medical School Pediatric Department Chairs—represents the department chairs of departments of pediatrics at leading academic medical centers.

Association of Schools and Programs of Public Health—represents more than 100 schools and programs accredited by the Council on Education for Public Health.

Association of Schools of Allied Health Professions—a national association comprised of 115 not-for-profit universities focused on issues impacting allied-health education.

Association of University Programs in Health Administration—a global network of colleges, universities, faculty, individuals, and organizations dedicated to the improvement of health and healthcare delivery through excellence in healthcare management and policy education and scholarship, by promoting the value of university-based management education for leadership roles in the health sector.

Endocrine Society—the world's oldest and largest organization of scientists devoted to hormone research and physicians who care for people with hormone-related conditions, with more than 18,000 members, including scientists, physicians, educators, nurses, and students in 122 countries.

Greater New York Hospital Association—represents more than 160 hospitals and health systems located throughout New York, New Jersey, Connecticut, Pennsylvania, and Rhode Island. All of GNYHA's members are either not-for-profit entities, charitable organizations, or publicly sponsored institutions that provide services that range from state-of-the-art, acute tertiary services to basic primary care, and, with their related medical schools, provide

medical education and training and undertake cutting-edge medical research.

Hispanic-Serving Health Professions Schools, Inc.—represents 44 schools of medicine, public health, nursing, pharmacy, and dentistry that strive to strengthen the nation’s capacity to increase the Hispanic health workforce and advance the health of Hispanics.

Infectious Diseases Society of America—represents physicians, scientists, and other healthcare professionals who specialize in infectious diseases to improve the health of individuals, communities, and society by promoting excellence in patient care, education, research, public health, and prevention.

National Medical Association—represents and promotes the interests of physicians and patients of African descent.

National Resident Matching Program—a private, not-for-profit organization established in 1952 to provide an orderly and fair mechanism for matching the preferences of applicants for U.S. residency positions with the preferences of residency-program directors.

Physician Assistant Education Association—represents over 200 physician-assistant programs across the nation.

Renal Physicians Association—a national medical-specialty society representing more than 5,000 nephrology practitioners in their pursuit and delivery of high-quality kidney care.

Society for Pediatric Research—a membership organization for pediatric researchers focused on creating a network of multidisciplinary researchers to improve child health.

Society of General Internal Medicine—represents more than 3,600 of the world's leading academic general internists, who are dedicated to improving access to care for vulnerable populations, eliminating healthcare disparities, and enhancing medical education.