The Federation of American Scientists is a nonpartisan policy institute providing the public and policymakers with evidence-based scientific analysis since 1945.
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MESSAGE FROM THE PRESIDENT

In November 2021, the Federation of American Scientists will mark its 75th anniversary — a milestone that reflects its status as the oldest arms control organization in the United States. While we reflect upon our past, FAS is excited to continue its leadership and develop new initiatives in the years to come. The work of FAS is well-respected, trusted, and appreciated because it is rigorous, objective, non-partisan, and evidence-based. The organization is an indispensable resource for the public and for policymakers looking for facts in a time of disinformation. The FAS website draws millions of visitors each month, our experts are regularly sought after by the media, our network of scientists are regularly called on by members of the US Congress, and while we are the Federation of American Scientists, we are actively involved in multiple international conversations on everything from reducing risks of biological weapons to addressing 21st century nuclear threats. Finally, we are committed to building the next generation of leaders in science, technology, and security policy by providing opportunities for new voices to join FAS, and by providing fellowship opportunities so they can bring new and important perspectives to other impact-oriented organizations.

We hope you enjoy reading this document which is a snapshot of our ongoing projects. We are grateful to all of our donors and supporters for helping us to make the world a safer, more secure, and informed place.

Ali Nouri
The **Federation of American Scientists** (FAS), founded in 1945 by Manhattan Project scientists, is devoted to the belief that scientists, engineers, and other technically-trained people have the ethical obligation to ensure that the technological fruits of science are applied to the benefit of humanity.

FAS shines a spotlight on making government more transparent, and strives to reduce the risks of nuclear weapons, biological weapons, and naturally-occurring infectious diseases like COVID-19. FAS and its network of scientists and experts inform the work of the US Congress and the executive branch on issues related to science and technology policy.

And we use science and evidence to fight disinformation by translating scientific facts for the public and policymakers. Finally, FAS runs a fellowship program to foster the next generation of policy leaders at the interface of science, technology, and public policy.
Lack of a robust response to the COVID-19 pandemic in the United States and numerous other nations has highlighted the deficit in science and technology (S&T) expertise in government as well as the failure of governments to follow science-based advice. FAS is helping to get policymakers the expertise they need. As we have noted, only a very small number of lawmakers have experience in a field even related to S&T. That’s why FAS has established the COVID-19 Rapid Response Task Force to connect federal and state-level policymakers with world-class specialists knowledgeable of all aspects of infectious disease outbreaks.

**Advising policymakers on COVID-19.** In addition to advising Congress, the Task Force is also advising policymakers in the state legislatures of California, Iowa, New Mexico, New York, Ohio, Pennsylvania, and Wisconsin on everything from the ins and outs of monoclonal antibodies to serology tests. The Task Force provides briefings, answers to questions, as well as memos for members of Congress.

**Organizing S&T advisory councils tailored for individual policymakers.** Building on the success of the Task Force, FAS is now working to establish scientific advisory bodies for members of Congress. You can read about it in *Nature Magazine*, or in this *Scientific American* article.

In addition to working with policy makers, our experts regularly contribute thought pieces on the pandemic in a variety of news outlets from *USA Today* to *Slate* to the *Washington Post*. 
Upon recognition of the threat that disinformation poses to the pandemic response, FAS established a **Disinformation Research Group** (DRG) to report on and actively combat disinformation. The unit is composed of biological scientists, communications experts, data scientists, and technologists with the intended purpose of detecting, understanding, and effectively exposing disinformation and false narratives surrounding COVID-19. The DRG uses multiple methods, technologies, and resources to execute the mission.

The DRG continues to use sophisticated tools to monitor social media, and utilizes testing and analysis to better understand the spread and causal factors of disinformation. Key outputs of this work have been the exposure of domestic and foreign sources of disinformation related to vaccines and the efficacy of public health measures. Here are a few examples of our reports:

- **Spanish-language vaccine news stories hosting malware disseminated via URL shorteners**
- **Social Media Conversations in Support of Herd Immunity are Driven by Bots**
- **Most Covid Related Disinformation on Social Media Likely Emanating from Known Influencers and Traditional Media Sources**
- **Global enthusiasm and American trepidation in Russian diplomatic vaccine efforts**

Links to all reports can be found [here](#).
FAS established Ask a Scientist early on during the pandemic. The project is a partnership with the New York University GovLab, the State of New Jersey Office of Innovation, the National Science Policy Network, and Accenture. It crowdsources the expertise of hundreds of scientists and engineers to answer the public’s questions on COVID-19. It includes a web-based platform that automatically answers questions on everything from the state of diagnostic tests to the modes of SARS-CoV-2 transmission. In addition to information contained within the database, our partner scientists constantly craft data-driven, up-to-date, and customized answers to questions that are submitted through the site. Answers are evaluated by a senior editing team and made publicly available.

As news spread around the world, the Ask a Scientist website received millions of hits in the early days of the pandemic. It was featured on the National Governors Association website, and adopted by the state government websites of New Jersey and Alabama. In a press conference, New Jersey Governor Phil Murphy called Ask a Scientist “a truly unique feature.”

Ask a Scientist was featured in Scientific American. It has also been discussed in Foreign Affairs, Bloomberg, Forbes, and other outlets.
FAS COVID-19 TEAM

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The Nuclear Information Project provides the public with the best unclassified information about the status and trends of the world’s nuclear weapons arsenals, and advocates for responsible reductions in the numbers and operations of nuclear weapons to reduce nuclear dangers. The Project has a long and proven record as one of the most widely referenced and reliable sources for providing such information to the news media, lawmakers, scholars, expert institutions and grassroots organizations.

During the past year, the Project not only continued its work informing the public about nuclear weapons issues, but also had to respond to significant changes in the nuclear weapons environment. The return of “Great Power Competition” between the major nuclear powers and the erosion of international constraints and norms – illustrated by the abandonment and undermining of several arms control treaties – have dramatically upended the global nuclear order.

In addition to actions taken by Russia and China, the Trump administration has upended decades of US nuclear policy and created chaos and uncertainty regarding the nature of its own alliance commitments. Throughout this chaos, the Pentagon, along with its allies in Congress and the defense industry, is trying to fast-track the development of several nuclear-related procurement projects – including the Long-Range Standoff Weapon and the Ground-Based Strategic Deterrent – and Congress has authorized a significant budget increase for the National Nuclear Security Administration.

All of these developments are taking place within the context of the ongoing coronavirus pandemic, and a new phase of public recognition that collective safety can be best derived from investments in “Masks, Not Missiles” (a phrase popularized by California Representative Ro Khanna). This reinvigorated interest in rethinking national security means that there is significantly more public interest in how much money is being spent on nuclear weapons, as well as a keen interest in how US nuclear policy might change under a new administration.

The Project was the first to disclose earlier this year that the Trump administration had deployed a new low-yield nuclear warhead on the Navy’s strategic submarines. We continued production of the Nuclear Notebook series published in the Bulletin of the Atomic Scientists, co-authored the World Nuclear Forces overview in the SIPRI Yearbook, and our web-
The Project serves an essential role by providing factual advice and commentary to the news media and is referenced on a weekly basis by major news outlets, including the Washington Post, CNN, Reuters, the Wall Street Journal, Politico, the Guardian, NPR, Newsweek, and many others. Additionally, this past year, both Nuclear Information Project staff members were invited to become contributing authors for Forbes, and have since published over a half-dozen articles on a variety of nuclear-related topics. In addition to articles on the FAS Strategic Security Blog, publications by Project staff have recently appeared in the Bulletin of Atomic Scientists, Inkstick, Defense One, The Nation, and others.

On social media, the Project continued to increase its number of aggregated Twitter followers, which now number more than 25,000 accounts. It is a highly efficient way of disseminating and amplifying information, as well as networking with journalists and media outlets, and several of our Tweets have made it into news stories over the past year.

2020 marks the 75th anniversaries of the first ever nuclear weapon explosion (Trinity), as well as the bombings of Hiroshima and Nagasaki. The Project played a prominent role in the commemoration by placing those events in a modern context, emphasizing the major disturbing trends that continue to obstruct nuclear disarmament efforts today. We were honored to join a coalition of nuclear weapons organizations and survivors in calling for our leaders to take the actions necessary to ensure nuclear weapons are never used again and to negotiate in good faith the global elimination of these most devastating weapons of mass destruction.

We look forward to continuing this work next year, and for many more years to come.
The Project on Government Secrecy works to reduce the scope of national security secrecy and to promote public access to government information. Transparency is not an end in itself, of course. Rather, it is a way to foster government accountability and an informed electorate.

The Project aims not only to challenge improper secrecy but also to publish informative and policy-relevant records that the press and the public can actually use.

When the US Navy ship Bonhomme Richard caught fire last July, the Navy was unwilling to provide much information about the ship. But FAS was able to help fill the gap. The New York Times (July 12) and National Public Radio (July 13) each cited the FAS website as an alternative source for the cost of the ship. That is a small but telling example of the role we have been able to play – if not in reversing government secrecy, then in working around it.

Meanwhile, throughout the year, official documents posted on the FAS website attracted high levels of attention from the news media, government agencies, other non-governmental organizations, and the general public.
In a typical month this year, Google users searched for, discovered and clicked through to information on the FAS website more than 1.3 million times, according to Google analytics.

Throughout the year, the Project worked with executive branch officials as well as congressional staff to advance a vision of reduced secrecy and increased accountability.

In June, the Project director was invited to address a meeting of the Public Interest Declassification Board, a White House advisory body, and to present a critique of the Board’s latest recommendations.

Moreover, the Project contributed to numerous news stories on secrecy policy:

The Pentagon proposed to classify future defense spending. The Project discovered and reported on an internal Pentagon proposal to rescind a requirement for unclassified reporting on future year defense spending. Once exposed, the proposal was abandoned.

Pre-publication review erupts in controversy. The government’s requirement that current and former officials submit their proposed publications to the government for prior review generated renewed controversy in the case of John Bolton’s memoir, as well as Edward Snowden’s book, and other cases. The Project added its voice to those arguing for reform of the process.

Whistleblower rights and protections are inadequate. The importance of whistleblowers in promoting the integrity of government operations was highlighted by the CIA whistleblower who challenged the President’s conduct of relations with Ukraine. In news coverage, the Project noted the vulnerability of such whistleblowers as well as the essential role that they play.

In many respects, secrecy policy has become more erratic and less disciplined than it used to be. In anticipation that a new approach will soon be needed, we are working with like-minded groups and individuals to help develop a new agenda for secrecy reform.
The **Defense Posture Project** (DPP) tracks disruptions to strategic stability in order to provide reliable public information and innovative deterrence concepts. The Project currently consists of Senior Fellow and Director Dr. Adam Mount and Research Associate Mercedes Trent.

The Project has published three reports in the last 12 months.

Dr. Mount published a report examining conventional deterrence of North Korea and, with Eugene Saad, a study of the history and strategic effects of air-launched ballistic missiles.

Ms. Trent published a report examining Chinese intrusions into South Korean and Japanese air defense zones.

In addition, Dr. Mount edited a special colloquium in the leading international security journal *Survival* titled, “How to Deter a Nuclear North Korea.” Concerned that debates about whether North Korea can be deterred detract from an important discussion about how best to maintain deterrence, the colloquium brought together four coauthored articles from leading experts that each presented a different perspective. Dr. Mount’s contribution, with Dr. Mira Rapp-Hooper, argued that stability should be the guiding concept for allied deterrence posture toward North Korea.

The Project is currently engaged in a major research project on conventional deterrence of nuclear powers, which examines the history, practice, and potential of conventional forces for deterrence given rapidly changing technological trends.

DPP staff continue to present policy analysis in op-ed pieces (in CNN and the *Diplomat*), to major media outlets (including the New York Times, Washington Post, and Wall Street Journal), and to governmental and public audiences. Ms. Trent was selected as a CSIS Project on Nuclear Issues scholar and a Pacific Forum Young Leader.

A colloquium organized by the Defense Posture Project headlines the February issue of *Survival*.


Dr. Adam Mount participates remotely in the Korea Global Forum for Peace, held in Seoul, September, 2020.
As the US and the world struggle through the COVID-19 pandemic, the need for enhancing Legislative Branch science and technology (S&T) capabilities has become even more stark. But the vast majority of legislators and their staffs are generalists, not specialists, and they have limited bandwidth for engaging with S&T. The Congressional Science Policy Initiative (CSPI) meets this challenge by enriching Congressional hearings with nonpartisan, “shovel-ready” contributions from the science community and by connecting researchers with legislative initiatives to help enable evidence-based policymaking, improve Congress’ oversight of the Executive Branch, and bolster US public policy.

**Enriching Congressional hearings with contributions from the science community.** Senate and House Committee hearings are forums where Members of Congress (MOCs) question witnesses, conduct oversight of the Executive Branch, learn about S&T, and develop policy ideas. The CSPI team tracks Legislative Branch activity, and when key hearings are announced, the team solicits the CSPI community for questions and ideas that MOCs could raise during hearings. This data-driven information is then communicated to Congress for use in the hearings, promoting a rich discussion of the issues. The team also posts this information on the web, along with other evidence-based resources, for public use.
So far in 2020, CSPI has engaged on nearly 30 Congressional hearings, contributing just under 500 evidence-based questions to Republican and Democratic staffers working for MOCs on Committees and in Congressional offices. A large portion of these questions are raised, in one form or another, by MOCs during the hearings. The questions are sourced from a network that is now 851 individuals strong (over 700 of whom are experts), and countless others who interface with our action alerts on social media platforms like Twitter and Facebook.

To both keep the CSPI community engaged and the public informed, the Initiative composes regular email newsletters that recap and analyze major issues raised during Congressional hearings, as well as science policy roundups highlighting key policy developments, which reach tens of thousands of people.

**Connecting researchers with legislative initiatives.** Due to CSPI’s sustained engagement with Congressional hearings, the Initiative has fostered trusted relationships with legislative offices and staffs, and when they are developing legislation and invite CSPI to provide feedback, CSPI crowdsources evidence-based technical assistance from the community and communicates the feedback to Congress. For example, CSPI provided technical assistance on a bill encouraging Americans to wear face coverings to protect themselves and others from COVID-19. The incorporation of data-driven solutions into Legislative Branch bills strengthens US public policy.

**Moving forward.** The CSPI team, coordinating with partners such as the Day One Project, National Science Policy Network, Research-to-Policy Collaboration, and professional science societies, will continue to build the community of scientists and engineers engaging with the policymaking process, innovate in the S&T policy space, and promote evidence-based oversight and policymaking.

**Partners include:** National Science Policy Network, NASEM New Voices, the New York University GovLab, Princeton University, Research2Policy, SynBioBeta, the Governments of New Jersey and Alabama, and Accenture.

> A CSPI CASE STUDY

>> Science policy in action

Just one of many examples of CSPI impacting policy was during the Senate Appropriations Subcommittee on Labor, Health and Human Services, Education, and Related Agencies hearing examining Operation Warp Speed (OWS), the Administration’s program to accelerate the development, manufacturing, and distribution of COVID-19 vaccines, therapeutics, and diagnostics.

A CSPI question regarding OWS investments in vaccine-making companies and their technical approaches to vaccine candidates was asked by Senator Tammy Baldwin, and when acting director of the Biomedical Advanced Research and Development Authority Gary Disbrow, PhD, withheld the bulk of the identities of the companies, the Senator pressed him on the issue.

This exchange generated media buzz and helped to amplify the need for stringent oversight of the federal programs the US is implementing to respond to the COVID-19 pandemic.
DOUG RAND, DIRECTOR

LINDSAY MILLIKEN, RESEARCH ASSISTANT

The Technology and Innovation Initiative (TII) focuses primarily on the intersection of immigration policy and emerging technologies in advancing the nation’s national security and economic growth.

Talent is one of the scarcest resources in the global race to lead in artificial intelligence (AI) and other technologies, yet the US risks squandering this advantage. Despite the high proportion of foreign-born students and professors in US science and engineering departments, the vast majority of whom wish to stay in the US, much of the nation’s resident technology talent does not have a clear path to US citizenship. This FAS initiative brings a data-driven approach to immigration policy, relevant to the current shifting landscape of executive actions as well as longer-term reform options.

Over the past year, TII has turned its attention to several important immigration and economic issues, including the announcement by US Citizenship and Immigration Services (USCIS) that it could run out of money by the end of the fiscal year and furlough 70% of its workforce; the crisis of delayed naturalizations ahead of the 2020 presidential election; the importance of attracting AI talent and other high-skill immigration policy imperatives; and recommendations for cultivating a supportive environment for innovative startups in clean energy and other “hard tech” industries.

When USCIS announced its looming insolvency and a plan for mass furloughs, allegedly due to a reduction in applications stemming from the COVID-19 pandemic, FAS experts Doug Rand and Lindsay Milliken dove into the agency’s regulatory and bud-
get data. Their research, published in the New York University Journal of Legislation and Public Policy, demonstrated that the USCIS fiscal crisis was actually the result of agency mismanagement and deliberate policy choices that predated the pandemic. This research was featured during a House Judiciary Committee hearing where Mr. Rand testified, and was covered by numerous media outlets, including Forbes, Roll Call, and the Washington Post. Mr. Rand also provided a review of policies impeding naturalization for a virtual event with the Niskanen Center, a Roll Call article, and an NPR story, a Business Forward briefing on the economic impact of the “public charge” rule, insight into the gaps in the CARES Act for mixed-status families in a New York Review of Books story, and a critical analysis of the administration’s expanded Muslim ban in Just Security.

TII has also focused on developing thoughtful immigration policies that would help the US attract scarce global talent in AI and other cutting-edge technology fields. Immediately after the Trump administration imposed entry restrictions on a wide range of temporary work visas, FAS released a research brief estimating the number of people who would likely be affected, and educated journalists about the economic and strategic consequences (for example, see this National Journal story). Mr. Rand has advised Georgetown University’s Center for Security and Emerging Technology (CSET) on its research papers focusing on retaining global AI talent and AI-relevant immigration policy, and the Center for a New American Security (CNAS) on its AI blueprint for action. TII has also provided technical assistance on the bipartisan National Security Innovation Pathway Act. The Initiative will soon be publishing new immigration policy analyses and recommendations, as well.

In the wake of the COVID-19 pandemic and economic crisis, TII has also explored policy options for sustaining clean energy technology startups. Mr. Rand co-authored a paper with Third Way—Rescue, Rebuild, and Reinvest: How to Save Clean Energy Startups—and participated in an event featuring Senator Chris Coons on the economic, climate, and job creation benefits of these federal policy recommendations.
Since its launch in January 2020, the Day One Project has engaged with hundreds of academics, policymakers, current and former government officials, and students to build a portfolio of innovative and actionable ideas across science, technology, and innovation policy to inform the priorities of the next Administration. In the coming months, the non-partisan Project aims to build on this work and respond to pressing challenges including battling the coronavirus pandemic, improving equity and inclusion in science and technology, rebuilding institutional capacity of Federal institutions tasked with science and technology work, as well as elevating the role of science and technology in the policymaking process, promoting innovation, and addressing climate change.

Policy accelerators. The Project launched four policy accelerators sourcing new ideas in science and technology policy that are ready for action, receiving proposals from over 150 diverse contributors including academics, researchers, students, community and nonprofit leaders, and other stakeholders from the science and technology community. Through the accelerator process, the Day One Project works with participants to develop initial ideas into actionable policy proposals. The Project has published 26 actionable proposals to date on a number of issues including creating a DARPA for health, restoring leadership in US manufacturing, making computer science education available to every student,
addressing political disinformation, and digitizing biodiversity, and has more than 50 unique policy proposals under development from a broad range of contributors – expert and new voices alike.

**Ideation workshops.** The Project has hosted ten workshops to date focused on the FCC, USAID, the Departments of Education, State, Transportation, as well as on domains such as regenerative agriculture and space. The Project also has co-hosted three workshops with the Back to Work Project, New America, and the LISTEN Network focused, respectively, on the future of work, public interest technology, and science engagement. These workshops brought more than 200 scholars, academics, policymakers, and present and former government officials together to generate over 175 key S&T policy ideas for action along with implementation insights to inform the agenda of the next presidential term.

**Day One conversations.** In July, the Day One Project launched “Day One Conversations,” a series of virtual conversations to release and showcase actionable policy proposals. The Conversations are joined by science and technology policymakers who provide live feedback on proposed ideas, and are open to the public and the media. We invite you to learn more about past and upcoming conversations: [https://www.dayoneproject.org/conversations](https://www.dayoneproject.org/conversations)

**Talent.** The Day One Project is developing a list of the key leadership roles across the Federal Government where scientific and technical expertise is most critical, and finding unique, diverse individuals capable of filling these positions. The Project is driven by the value of diversity and the belief that the need for deep scientific and technical expertise in government is crucial, while recognizing that many Federal positions where scientists and technical experts can have the greatest impact are often overlooked and not recruited for.

### WHAT WE’RE WORKING ON

Here are just a few of the policy proposals we’re working on, from health, to national security, to innovation and so much more:

- A National Initiative to Revitalize American Farming and Advance Regenerative Agriculture
- Establishing a National Water Technology Pipeline
- Preventing Catastrophic Wildfire Under Climate Change
- Transforming Infant Nutrition to Give Every Baby a Strong, Healthy Foundation
- An Initiative to Build the National Climate Bank
- Open Access to Federally Funded Research Data
The Nonproliferation Law and Policy Project (NPLP) is managed by FAS Senior Fellow Christopher A. Bidwell. He continues to work on issues related to the Joint Comprehensive Plan of Action (the Iran nuclear deal). Another component of Bidwell’s efforts include a track 1.5 diplomacy effort with nations in the Middle East toward arms reductions. The project has been featured in both popular news outlets like Time Magazine, as well academic publications. Bidwell is also involved with a project as part a US CENTCOM outreach to the academic and think tank communities on regional security dynamics. Finally, he is working on a project aimed at developing economic leverage points (i.e. insurance, banking, taxation) to strengthen nuclear security and reduce the risk of catastrophic accidents from the US nuclear plant fleet.
This year, FAS launched the **Impact Fellowship** in partnership with Schmidt Futures and Coding it Forward to support development and placement of young technical talent on projects that can drive significant social good. FAS launched this program for a few reasons:

- For those working on a range of social good challenges – from famine to criminal justice to climate – recruiting top technical talent can be a bottleneck;

- Students’ and recent graduates’ interest in career paths that allow them to tackle society’s toughest challenges outside of purely commercial endeavors is growing; and

- The market for connecting this surge in talent to the world’s hardest problems remains broken.

FAS was founded in 1945 on the idea that scientists, engineers, and other technically trained people have the ethical obligation to ensure that the technological fruits of their intellect and labor are applied to the benefit of humankind. This new fellowship program builds upon that vision for today’s digital age by supporting young, entrepreneurial software engineers, product managers, and designers who will each spend a year with an organization addressing a pressing social problem.
The Program’s first Impact Fellows have been matched to the following organizations:

**John Whitmer** is a Senior Fellow with a placement in the [US Institute for Education, Statistics](https://www2.ed.gov/privacy/confidentiality/) (IES), the largest federal education research agency in the United States. In this position, he collaborates with IES stakeholders to implement data science into operations programs, expand access and usability of IES data, and support creation of an ongoing data science fellowship program.

**Andrew Choi** is a Senior Fellow with a placement in the [World Bank](https://www.worldbank.org) where he is using data science to support the Famine Action Mechanism (FAM) to better predict global crises and provide aid faster and more efficiently.

**Amita Shukla** will go to [Code for America](https://codeforamerica.org) as a product manager to work on their integrated benefits program that upgrades state social services, particularly for low-income families trying to apply for services like the Supplemental Nutrition Assistance Program, Medicaid, and Temporary Assistance for Needy Families.

**Jonathan Mak** will go to [UN Global Pulse](https://www.un.org/), as an engineer and product manager. He will be working on PulseSatellite and Qatalog, projects aimed at improving investigative capabilities in humanitarian efforts ranging from global health to humanitarian response.

**Paola Martinez** will be working at [Enveritas](https://enveritas.org) as a product manager. Enveritas is a nonprofit, focused on ending poverty in coffee farming by providing more scalable verification that farms are using sustainable labor and eco-friendly practices. To do this, Enveritas leverages geospatial analysis, on-ground country partners, and large surveys.

**Spencer Yen** is going to the [MIT Media Lab - Social Machines](https://socialmachines.mit.edu) group (Cambridge, MA) where he’ll work on countering health disinformation, doing full stack engineering work, and product work.

**Christopher Lee** and **Mayuka Sarukkai** will both be working at [Recidiviz](https://recidiviz.org). Chris will be working as a product manager and Mayuka as a data scientist. Recidiviz is a nonprofit focused on leveraging data for criminal justice interventions in several states across the US.

### SCOVILLE FELLOWSHIP

FAS is also proud to announce its partnership with the [Herbert Scoville Jr. Peace Fellowship](https://www.fas.org/programs/peace/). Our Scoville Fellow, **Ishan Sharma**, is pursuing a project on Emerging Technologies and International Security to help ensure that surveillance technology is used in an ethical manner, globally. The Project is convening experts in industry, government law, enforcement, civil society, and academia to produce a set of recommendations for a responsible system of digital surveillance.

**Ishan Sharma**, Scoville Fellow
In cooperation with the National Academy of Sciences New Voices and the InterAcademy Partnership, FAS is conducting a project on an International Science Advisory Process (SAP) for the Biological Weapons Convention (BWC). The BWC is the first agreement to prohibit an entire class of weapons. It aims to ensure that the life sciences and biotechnology are not used for offensive military purposes. The BWC has played an important role in preventing the use of biological weapons. However, dramatic new advances in technology, rapid exchange of information, and increased activity from non-state actors pose proliferation and security risks that could impact the long-term viability of the BWC.

The objective of this project is to plan an SAP for the BWC that can provide science-based and politically reliable analyses of developments in science and emerging biotechnologies. FAS and NAS New Voices are planning two two-day workshops, in March and the summer of 2021, to spur progress on an SAP through research and discussions with the international community. FAS will use the results and outputs from the first workshop, along with their research, a number of BWC meetings and consultations with delegates and subject matter experts to craft a draft document to be presented at the Preparatory Committee for the BWC Review Conference in April 2021.
The Organs Initiative focuses on applying innovation and data-driven solutions to the organ donation shortage, including accountability standards for the nation’s network of organ procurement organizations (OPOs). OPOs are the government monopoly contractors responsible for coordinating organ donation, and following reforms finalized by the Department of Health and Human Services (HHS) in November 2020, for the first time in 40 years, OPOs will be held accountable based on objective data for whether they honor the wishes of potential organ donors.

These bipartisan reforms have been welcomed by politicians on both sides of the aisle (see Senator Wyden and Senator Grassley) as well as advocacy groups including Families USA and FreedomWorks. HHS projects these reforms will lead to more than 7,000 lives saved each year, and experts estimate this will also save Medicare more than $1B annually through avoided dialysis. Research supported by Schmidt Futures and Arnold Ventures highlights how important these reforms are for healthcare equity, given how the system disadvantages patients of color at every stage of the process, and parallel research supported by this project from the Bridgespan Group presents a roadmap for HHS’s seamless implementation of these reforms. Organs Initiative research has been cited in bipartisan Congressional investigations into OPO failures from the Senate Finance Committee and the House Committee on Oversight and Reform. These reforms and oversight are especially urgent given patients with organ failure are at added risk of COVID-19.
In times of crisis, subject matter experts are often called upon to provide crucial insights into the most effective ways to coordinate and run local, national and international response and recovery strategies. This is particularly true of experts in social, behavioral, and economic (SBE) sciences because their expertise is relevant for virtually all public crises including responding to the current COVID-19 pandemic. However, unlike our capacity to bring together and receive rapid evidence-based opinions from thought leaders in areas like medicine and nuclear physics, we do not have the capacity to effectively pull together the expertise of the nation’s SBE experts. Therefore, to address some of the urgent needs for responding to the current COVID-19 pandemic, we worked with the National Academies of Sciences, Engineering, and Medicine to establish the Societal Experts Action Network (SEAN), a network of SBE subject matter experts ready and willing to engage in the development of evidence-based recommendations to support local, national, international, and private sector responses and policies.
In 2019, Matt Korda and Abigail Stowe-Thurston were awarded one of Ploughshares Fund’s inaugural “Women’s Initiative” grants—a new initiative which seeks to amplify and expand the range of perspectives addressing our world’s greatest nuclear challenges. Recognizing that foreign policy and domestic policy are inherently intertwined—but are too often considered separately—Matt and Abigail created Foreign Policy Generation, a group of young people working to develop a more humane, justice-oriented foreign policy for the United States.

Over the spring and summer of 2019, the group spent many hours identifying the values that they would like to see reflected in US foreign policy. Our conversations encompassed a wide range of topics, but one overarching theme guided our discussions: that foreign and domestic policy are inherently connected. Examining any particular issue in a vacuum fails to account for the unintended and cascading effects that the solutions will necessarily have in other policy areas.

To that end, the group successfully developed, published, and disseminated a policy platform highlighting the connections between US domestic and foreign policy, and outlining priorities to move US foreign policy in a progressive direction. The complete policy platform was published on our website—fpgen.org—at the beginning of 2020, along with several op-eds written by group members, covering a wide range of issues. To date, the website has received over 2,500 unique visitors from 60 countries (most commonly the United States, Canada, the United Kingdom, Germany, France, India, the Netherlands, and China).

Due to the COVID-19 pandemic, the initial plan to host an in-person launch event this spring was unfortunately interrupted. However, the group managed to adjust and meet this challenge by instead having more targeted, one-on-one conversations with specific congressional offices. Doing this allowed the
group to build relationships with several receptive offices and presidential campaigns, many of whom engaged with the platform personally and extensively.

Foreign Policy Generation additionally promoted the project widely on social media, primarily on Twitter and Facebook. In response, the project received hundreds of messages – largely from young people – asking how they could get involved in the project. To bring all of these people together, Matt created an international Slack channel, which has grown to over 250 participants, including activists, policy advocates, wonks, academics, presidential campaign advisors, and sitting politicians. This network serves as a forum for continued coordination around progressive foreign policy ideas. Several Slack members who have never met in person have even teamed up to collaborate on their own op-eds.

At the outset of this project the group aimed to reach a broad audience, but we could not have predicted how much or how widely it would resonate. The project is confident that initiatives like this constitute a unique and necessary contribution to the broader discourse on progressive foreign policy, and hope that it sparks similar youth-led initiatives in the future – especially given the fact that Millennials and Generation Z now constitute the largest voting bloc in the United States.
This year, FAS enhanced its social media messaging strategy. Providing accurate information for the public on COVID-19 was a top priority of our social media presence. With disinformation becoming a greater concern in digital communications, we had to ask: what is the best way to communicate science when bad actors are leading the conversation with false narratives and lies?

FAS has been mentioned in the press 30,000 times, from citations in local stories on regional nuclear history, to COVID-19, to breaking news revelations on government secrecy and surveillance.

We adopted several experimental digital communication tactics, from placing COVID-19 public service announcements on Facebook, to utilizing Twitter’s powerful influencer algorithm for quick bursts of information. On COVID-19 alone, FAS experts have a disproportionately large presence on social media and have become among social media influencers on this topic. Our goal is to make sound, science-based information go viral. Our twitter campaigns have highlighted the importance of wearing masks, the importance of recognizing airborne transmission of the virus, and were even critical to forcing television networks to not air conspiracy theory shows on the origins of the pandemic. On the following page is just a few examples of our “viral” tweets.
Matt Korda • @mattkorda • Jan 13, 2020

Our 2020 US Nuclear Notebook is out today!

6,600 warheads total (2,000 awaiting dismantlement):
- 1,750 deployed warheads:
  - 400 on ICBMs
  - 400 as bomber bases (500 in Europe)
  - 900 on sub-launched missiles

P.S. The US spends $100,000/minute on its nuclear forces!

Dr. Ali Nouri • @AliNouriPhD • Dec 19, 2020

1/ 💪 The UK #SARS-CoV-2 variant reported to be 70% more transmissible harbors a set of mutations in the Spike protein—the part of the virus that touches the human ACE2 receptor and allows the virus entry into our cells. One mutation, N501Y, allows Spike to bind ACE2 more tightly.

Eric Feigl-Ding • @DrEricDing • Aug 2, 2020

2) Repeat after me. The Coronavirus is Airborne. Say it again. Then read this article why. (HT @mykfish of @FAScientists). #COVID19

Doug Rand • @doug.rand • Sep 24, 2020

Today DHS unveiled a regulatory plan to severely restrict international students & exchange visitors, by making it difficult for them to stay in the US for their full duration of study.

Let’s dive into this latest thicket of useless red tape...

Eric Feigl-Ding • @DrEricDing • Dec 26, 2020

BREAKING—95% new data from Oxford/AstraZeneca vaccine shows 95% efficacy & is “100% effective” in preventing severe illness, says AZ CEO. That’s on par w/ Moderna & Pfizer. No official data yet, but UK said to likely approve in days. HUGE!!! #COVID19

theatlantic.com/article/covid-...
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