

# CONGRESSIONAL TESTIMONY

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**Prepared Statement**

**by**

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Chairman Ryan and Ranking Member Herrera Beutler, and distinguished Members of the Committee, thank you for the opportunity to testify. The views I express in this testimony are my own and should not be construed as representing any official position of the Belfer Center, Harvard Kennedy School, or Harvard University.

My name is Laura Manley and I'm the Director of the Technology and Public Purpose Project at the Harvard Kennedy School's Belfer Center for Science and International Affairs. We conduct **research on how to integrate societal considerations** (like privacy, safety, security, transparency, and inclusion) at each step of a new technology's **development and management**.

The pace of technological change only seems to increase; emerging technologies are moving from research labs to store shelves faster than we've ever seen. In the past decade, social media, smartphones, cloud computing, genetic editing, and other technologies have changed how humans live, work, eat, and interact with one another. These technologies hold tremendous promise but often come with downsides that can, and should, be mitigated. Society can, and should, benefit from these emerging technologies while being protected against their potential harms.

Because of the United States of America's position as a global innovation leader--with, among other things, eight of the ten largest tech companies in the world based here--the U.S. Congress,

more than any other institution in the world, has the power to craft breakthrough legislation that help shape how our global society is impacted by emerging technologies.

From appropriating funding for basic and applied research--about \$155 billion in FY2017, the most recent figure available<sup>1</sup>--to crafting smart regulations that promote fair competition and safe use, Congress plays a vital role in promoting and managing emerging technologies. Congress also acts as a key fail safe in responding to emerging technologies that were ineffectively managed, and therefore pose societal risks. **In creating societal guardrails for technologies that have already become pervasive in society, Congress can promote public purpose in ways that other organizations cannot.**

Unfortunately, in recent years, Congress has missed opportunities to set the guiding principles and norms for many emerging technologies, ceding opportunities to other countries, states, or governments. For example, rather than make the U.S. a global leader in protecting user data privacy, the European Union set the standard with its General Data Protection Regulations (GDPR), with California's Consumer Privacy Act (CCPA) to soon follow. Congress has ceded the opportunity to set the norms and guidelines on emerging technologies like facial recognition, leaving it up to individual states and localities to create a patchwork of data privacy and protection regulations--sometimes making it more difficult for consumers to understand how their data is used or secured.<sup>2</sup> While you represent your constituents and this country, your decisions **also have the power to affect billions** of people around the world **impacted by emerging technologies.**

Aside from managing the societal impacts of emerging technologies, Congress plays an important role in increasing American economic competitiveness. As Undersecretary of Commerce for Standards and Technology and NIST Director Walter G. Copan put it, "Removing roadblocks, enabling entrepreneurs, attracting private investment and getting inventions from the laboratory into the marketplace faster are essential to unleash American innovation and to strengthen U.S. economic competitiveness and national security."<sup>3</sup> Congress plays a role at each step.

But without access to, and understanding of, leading science and technology expertise, Congress cannot be effective at leveraging new technologies for American innovation and prosperity or protecting its citizens from their unintended and sometimes insidious uses.

In 2018 and 2019, our project conducted research to identify the science and technology-relevant

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<sup>1</sup> Ibid.

<sup>2</sup> "A Facial Recognition Ban is Coming to the US, says AI Policy Advisor." MIT Tech Review. September 2019. <https://www.technologyreview.com/s/614362/a-facial-recognition-ban-is-coming-to-the-us-says-ai-policy-advisor/>

<sup>3</sup> "NIST Releases Findings on Increasing the Innovation Impacts of Federally Funded R&D." National Institute of Standards and Technology, Department of Commerce. April 24th, 2019. <https://www.nist.gov/news-events/news/2019/04/nist-releases-findings-increasing-innovation-impacts-federally-funded-rd>

needs of **congressional personal offices and committees**. After consulting with **over 140** current and former members of Congress, staffers, support agency leaders, lobbyists, civil society experts, and academics, we developed actionable steps that Congress can take to improve congressional science and technology expertise.

Today, I want to highlight three steps that this subcommittee can take:

1) Refund the OTA to rebuild objective institutional capacity on S&T issues

All members of Congress share an interest in solving problems posed by emerging technologies, like countering misinformation online and promoting the ethical use of genetic editing tools.

To this end, Congress should have a support agency that is focused on science and technology issues. The agency should jealously guard a bicameral and bipartisan structure; offer policy, not solutions; consider all opinions and ideas from a broad spectrum of diverse stakeholders; be comprised of independent experts; and should be responsive to the diverse needs of all members, rather than senior leaders alone. Thanks to the hard work and dedication of this subcommittee and to many members of Congress, there is already substantial momentum to build such an agency. In 2019, this subcommittee drafted an appropriations bill that allocated \$6 million to the Office of Technology Assessment. Separately, a bipartisan, bicameral group of members introduced the Office of Technology Assessment Improvement and Enhancement Act, which seeks to re-fund and revitalize the Office of Technology Assessment for the 21st century.<sup>4</sup>

Our research led me to conclude that a newly reconstituted OTA offers the best opportunity to provide members with objective, responsive science and technology expertise. While the Government Accountability Office's Science, Technology Assessment and Analytics group has the potential to fill some of Congress's science and technology expertise gap, we heard reservations from several stakeholders about its ability to shift an auditing-focused institutional culture to a substantive resource for forward-looking, on-demand, science and technology expertise. Revitalizing and modernizing the OTA offers a better opportunity to build a science and technology center of excellence in the legislative branch.

2) Create a "STEM Staffing Fund"

Currently, there are several ways that a STEM professional can serve the public on Capitol Hill. For example, prestigious fellowships from organizations like the American

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<sup>4</sup> "Reps. Takano and Foster, Sens. Hirono and Tillis Introduce the Office of Technology Assessment Improvement and Enhancement Act." September 19th, 2019. <https://takano.house.gov/newsroom/press-releases/rebs-takano-and-foster-sens-hirono-and-tillis-introduce-the-office-of-technology-assessment-improvement-and-enhancement-act>

Association for the Advancement of Science and TechCongress place technical talent in personal offices and on committees, and executive branch details offer technical expertise as well.

However, in the legislative branch, there is more demand for STEM talent in congressional offices and on committees than external funders can currently support. To take just one example: in the last fellowship cycle, there was demand for 100 American Association for the Advancement of Science fellows to be placed in personal offices and committees, but enough funding to support only 33 fellows.<sup>5</sup>

Congress can look to the executive branch for inspiration, as it has created myriad ways that STEM professionals enter public service. For example, government programs like the Presidential Innovation Fellows, the GSA's 18F, and the United States Digital Service offer innovative onramps to service for STEM professionals; externally, organizations like Coding it Forward are training the next generation of civic technology leaders by matching them with executive agencies with projects that need tech talent.

This subcommittee should create a "STEM Staffing Fund" that supports offices and committees in recruiting and retaining STEM talent. A new fund would stimulate demand for science and technology expertise within Congress, and would serve as a signal to STEM talent that it is welcomed and valued in the policy advising process on Capitol Hill. With a modest investment, this subcommittee can play an outsize role in encouraging personal offices and committees to hire STEM talent.

### 3) Address workforce salary concerns to attract and retain STEM talent

The legislative branch is underfunded, comprising just **0.7%** of the non-defense discretionary spending.<sup>6</sup> The Fiscal Year 2020 Members' Representational Allowance is 15% lower than a decade ago, adjusted for inflation--even as the average number of constituents served by members continues to increase.<sup>7</sup>

As a result, representatives are tasked with doing more with less, whether by hiring fewer staff or by paying existing staff less. In 2018, if the typical House rep hired the maximum number of staff and spent the typical 75% of their budget on personnel, they would be able to offer \$57,000 per year per employee--making it difficult to recruit and retain top talent. Overworked and underpaid staff don't have the time to develop expertise on S&T issues they're responsible for covering.

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<sup>5</sup> Interview with AAAS Representative. February 2020.

<sup>6</sup> Schuman, Daniel. "The Undermining of Congress." Demand Progress. February 2020. [https://s3.amazonaws.com/demandprogress/reports/2020-02\\_The\\_Undermining\\_of\\_Congress.pdf](https://s3.amazonaws.com/demandprogress/reports/2020-02_The_Undermining_of_Congress.pdf)

<sup>7</sup> Schuman, Daniel. "The Undermining of Congress." Demand Progress. February 2020. [https://s3.amazonaws.com/demandprogress/reports/2020-02\\_The\\_Undermining\\_of\\_Congress.pdf](https://s3.amazonaws.com/demandprogress/reports/2020-02_The_Undermining_of_Congress.pdf)

House committees have been starved of resources, too. According to the Brookings Institution, between 1979 and 2015, staffing on committees and support agencies have been cut by about 40% each.

Unsurprisingly, the hollowing out of committee and support agency staff, coupled with the lack of issue area expertise in personal offices, harms Congress's capacity: In a 2016 survey, the Congressional Management Foundation found that only 15% of senior congressional staff members were very satisfied with their chamber's staff knowledge, skills, and abilities.

These statistics tell a story that you know all too well. Subcommittee member Representative Katherine Clark put it best:

“We have allowed ourselves to be reduced to an inferior, even occasionally subordinate, branch to the executive. This is because for decades Congress has slowly but surely eroded our capacity to serve as a co-equal branch of government... Simply put, we don't have enough staff to do our jobs, and the staff we do have are underpaid and don't stay very long.”<sup>8</sup>

Congress should increase committee budgets to allow them to hire additional staff members and pay a more competitive salary, which will help them retain the staff they already have. Specific to the House, Congress should raise members' personal office budgets, remove the cap on office personnel, and increase the staff pay ceiling.

Chairman Ryan and Ranking Member Herrera Butler, you are already internal champions of increasing congressional capacity, as are many others who serve on the subcommittee. You now have an opportunity to lay the foundation necessary to increase Congress's science and technology expertise for the years ahead.

To build support for these necessary changes, I recommend that you establish and fund a bipartisan, bicameral working group to investigate these issues and propose actionable changes that Congress can make to increase its internal capacity. In concert with this working group, I recommend that you hold hearings over the course of 2020 to bring attention to how the underfunding of Congress makes it more difficult to effectively carry out its constitutional responsibilities.

Thank you again for the opportunity to testify today. I look forward to your questions.

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<sup>8</sup> Clark, Katherine. Testimony Before the Select Committee for the Modernization of Congress (2019). <https://docs.house.gov/meetings/MH/MH00/20190312/109102/HHRG-116-MH00-Wstate-C001101-20190312.pdf>.