



## Insight

# Should Congress Revive the Office of Technology Assessment?

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### *Executive Summary*

- Congress appears to be considering a revitalization of the Office of Technology Assessment (OTA), a congressional agency defunded in 1996 that provided reports and expertise to Congress on technology matters.
- While some have noted a lack of expertise on tech matters in Congress, the problem appears to exist outside of the relevant committees, which have produced thoughtful legislation recently.
- Instead of reviving the OTA, Congress should consider other options for increasing its internal expertise, including: hiring more staff with relevant expertise, reforming their staffing processes to encourage stability and reduce turnover, and reforming the Government Accountability Office to give it more resources and better direction as it assesses technology-related issues for Congress.

### *Introduction*

Following the Senate and the House hearings with Facebook CEO Mark Zuckerberg, several members of Congress were criticized for their apparent lack of knowledge about the Internet. As one commenter [wrote](#) after the hearings, “I have little faith that Congress can write a bill that protects users and their data, much less agree on one.” This lack of expertise extends beyond the Internet over a range of tech issues, and legislators have been criticized for [misunderstanding encryption](#) and [the principles of computing](#) in the past. The lack of technical expertise in Congress will likely be exacerbated as the Internet of Things, 5G deployment, autonomous vehicles, and gene editing become more prominent.

Some have suggested that reviving the Office of Technology Assessment (OTA), a congressional agency tasked with providing legislators with technical information and analysis, would help the present situation. Congress defunded the agency in 1996, and even though a recent measure to reinstate the agency failed to pass in the House with a 195-217 vote, [the latest appropriations bill](#) hints at a potential revival. Proponents of the OTA contend that Congress isn’t equipped with the right tools and capacity to properly legislate on tech, and the OTA would fill in those gaps.

Before Congress acts to revive this office in the name of increased expertise, policymakers should understand the nature of the problem and the range of possible solutions. Reviving the OTA is unlikely to solve the current perceived problems. Instead, targeted reforms within Congress and the Government Accountability Office (GAO) could achieve the same goals more directly.

### *A Brief History of the OTA*

Congress created the OTA in 1972, and it existed for 24 years before Congress defunded it in 1996. At its peak in early 1995, [the OTA had](#) a \$35 million budget (in 2018 dollars) and employed about 200 staffers. It [produced](#) around 750 total background papers, technical memoranda, and other reports, but specialized in long-form assessments that were handed to Congress. [These reports](#) focused on a wide variety of issues from aging and alternative fuels, to the metals industry, telecommunications, space policy, and waste management. Part of their appeal was to dispel lofty promises and help Congress understand the limits of emergent tech trends.

The chairman and the ranking member of a congressional committee typically would request a report, which reviewed the existing literature on a subject, conducted original analysis, and took one to two years to complete. Before OTA began any report, the Technology Assessment Board (TAB) had to approve all proposals. The board governed the OTA and featured the OTA director, who was a non-voting member, and 12 legislators, six senators and six representatives, with equal party representation. The TAB also reviewed major reports before their final publication.

If Congress were to revive it, the OTA could be restructured, or it could be simply funded and use the same structure since the 1972 enabling act has never been stricken from the books. Still, presumably its mission would be the same: To provide expertise on scientific and technical matters to Congress. This mission implies that Congress lacks this expertise.

### *Does Congress Have a Knowledge Problem?*

Some are [interested in reviving the OTA](#) to help bolster Congress' capacity to properly regulate technology. Yet, Congress isn't a monolithic bloc. Not every legislator needs to know about every single policy area; the committee system creates a division of labor. So, a more important question might be, do the relevant committees and members of Congress have the expertise necessary to legislate well?

On one hand, members within the relevant committees have been praised for their expertise in technology policy. For example, Senators John Thune and Bill Nelson, the chair and ranking member of the Senate Commerce, Science, and Transportation Committee, have continuously produced well-respected and bipartisan legislation. Some examples include the [AV START Act](#), which would help deployment of autonomous vehicles; the [MOBILE NOW Act](#), which would promote deployment of next generation cellular technology, and [the Spoofing Prevention Act of 2017](#), which would prohibit misleading or inaccurate caller identification information.

On the other hand, most of the bills that have been criticized for lack of context or expertise have originated from committees that aren't dedicated to tech issues. Scholars Zach Graves and Kevin Kosar [highlight](#) a number of bills that they claim to have been lacking in tech expertise, including the PROTECT IP Act, the Stop Online Piracy Act, and the Compliance with Court Orders Act of 2016, which were reported out from the Senate Judiciary, House Judiciary, and the Senate Intelligence committees, respectively. The problem thus seems to be not simply a lack of tech knowledge in Congress writ large, but a lack of sensitivity to tech issues on specific and powerful (yet not specifically tech-focused) committees. If this is the problem, then committee reform may be needed, not necessarily a new outside adviser.

In calling for the revival of the office, Graves and Kosar note how structural issues work against committees and members of Congress without a tech-specific focus: "Given their limited resources and fast-paced legislative calendar, congressional offices do not always have the capacity to understand and tackle technological and scientific issues on their own, and therefore must seek outside expertise." As they also note, roughly 40 percent

of staffers are under 24 years of age and turnover is high, both of which slow the development of expertise. And the overall number of staff has declined since the 1970s.

### *How Would the OTA Affect Bill Passage?*

Jon Peha, a former Assistant Director of the White House’s Office of Science and Technology Policy, [noted a tension](#) in the procedures of Congress versus those of scientists: “Congress relies primarily on adversarial procedures that are honed for equitably setting priorities, in contrast with the very different forums of scientists, which are honed for advancing knowledge.”

One implication of the different work style of scientists, such as the staff of the OTA, is that their work is often deliberate and slow, and reaches towards consensus. The office’s bread and butter were long-form reports that served as explainers on issues and took one to two years to produce. Indeed, the pace of production was one among many reasons [cited for the agency’s defunding](#).

The OTA largely existed in the age before the information explosion and easily accessible reports. Back then, it was plausible that it played a critical role in the lawmaking process by providing important information that was much harder to compile, and it makes sense that it would take a long time to produce these reports. Yet with an expansion of government agency research, think tanks, investment research groups, and industry trade associations, that dearth of information has turned to a flood that can be accessed much more easily and quickly by staff. If revived, the OTA’s job might shift towards summarizing the current literature—already one of the goals of the Congressional Research Service (CRS).

Even if the OTA were to take on this job, it is not abundantly clear that it would better prepare legislators for the bill-making process. As former Congressman Rush Holt [explained](#), “Most members of Congress don’t know enough about science and technology to know what questions to ask, and so they don’t know what answers they’re missing.” The impact of the OTA could skew lawmaking in either way. It might make them better at asking the right questions or it might lull them into a [false sense of confidence](#), leading Congress to make detrimental laws.

As [AAF has noted before](#), the American tech community benefits from the current legal regime in privacy. This regime permits flexibility and discretion in implementation but gives the Federal Trade Commission (FTC) policing powers if companies step out of bounds. The result is productive ambiguity. Companies are on the hook for privacy violations but are not subject to onerous and proscriptive regulations. In this sense, congressional inaction is not innately bad, since any new laws would narrow the range of acceptable behavior. And if a revived OTA led Congress to act in this area, innovation could suffer.

### *What Could be Done Instead?*

Because the enabling legislation is still on the books, many see OTA funding as an easy path toward better tech regulation by Congress. Still, there are other paths.

Congress itself probably needs staff reform. For one, little is known about staff workplace opinion since Congress isn’t subjected to the [Federal Employee Viewpoint Survey](#) like executive agencies. By conducting a similar survey for congressional staff, staff leadership could gain insight into areas where workplace improvements are needed. One result that is likely to come out of such a survey is the feeling by staff that they are spread too thin on different issue sets. According to data from LegBranch.com, many committees have staff

levels that are at near 20-year lows. Boosting either the number of staff working on policy full time or further encouraging the use of expert fellows with specific expertise could help with tech regulatory capacity.

As others have [pointed out](#), however, congressional capacity isn't solely limited to technical and scientific issues. Congress needs help on all kinds of policy areas. Reducing staff turnover might be a good first step for all legislation, not just specific to technology. Perhaps more committee staff should be dedicated to tech issues to ensure there is more specialization. Further, Congress might need to take steps to [improve turnover](#). Indeed, if it is the case that Congress needs capacity, then a greater emphasis should be placed on getting that kind of talent into the legislative branch on a more permanent basis.

Another method to help tech capacity in Congress would be to expand the [TechCongress Fellowship](#). This program places tech savvy individuals within congressional offices to “bridge the divide of knowledge and experience between DC and Silicon Valley for better outcomes for both,” and could be extended to more offices.

Still, Congress isn't without technology assessment assistance. Currently, GAO's [Technology Assessment Program](#) (TAP) produces research on technology-related issues. The program began in 2002, has an approximately \$2.5 million [budget](#), and produces about two or three reports a year. Since 2016, it has produced reports on [artificial intelligence](#), [broadband competition](#), and [data analytics and innovation](#).

GAO can accept report requests directly from congressional committees and subcommittees—a stark difference from the OTA, which had an elaborate process that included approval by a majority of its board members. GAO also houses other departments that produce reports and perform analyses on a variety of different issues helpful to both TAP and tech-focused staffers.

Much like GAO as a whole, TAP can be improved. The reports don't feature a lot of policy options, unlike the OTA's reports. Moreover, GAO's outside advisors aren't heavily involved in writing reports, so it can be hard for GAO to reach the level of expertise boasted by the OTA. These are areas where GAO can improve if Congress were to invest more direction and resources into TAP. Congress can start by appointing a director to TAP, which is currently located in the larger Center for Science, Technology, and Engineering (CSTE) office. Separating out TAP in this way would put the office on a positive growth trajectory and allow it to start building its own culture and to reach for the rigor of OTA reports.

The consultancy services of GAO itself need reform, too, and these consultancy services are arguably the most important part of any technology assessment program, given the fast pace of technology policy. GAO [lacks the kind of in-house](#) expertise that OTA had, which limits its ability to counsel members of Congress informally. The OTA also had a wider range of inputs, such as formal advisory panels, public workshops, peer reviewers, and experts, whereas GAO uses panels of outside experts and then compiles comments. Greater funding for GAO, instead of reviving the OTA, might provide a broader benefit for Congress as a whole, since GAO already [requested](#) more money in their budget proposal to expand the tech assessment program and reforms there could improve the rest of their products on non-tech issues.

One other option would be to expand executive agency liaison offices with a particular emphasis on the research components of agencies. Executive branch agencies like the Federal Communications Commission, the Federal Trade Commission, and the National Telecommunications and Information Administration house offices whose central mission is to work closely with Congressional Offices and Committees.<sup>[1]</sup> The offices provide information on the respective agency's regulatory decisions, answer policy questions, respond to inquiries, and most important, assist in the legislative process. Moreover, these agencies also have offices that perform policy

analysis,<sup>[2]</sup> which could provide the long-term help that Congress might need to write bills. Although these offices mainly provide in-house analyses to the agencies, their analyses on topical issues could also be useful to Congress, and the liaison offices could facilitate the flow of this information.

### *Conclusion*

While parts of Congress might need more technological expertise, there are a number of ways to accomplish this goal. Reviving the OTA might be overkill. Although Congress as a whole has been slow to act on issues such as autonomous vehicles and 5G, various committees have managed to pass substantive bills. As a result, the best reforms to increase tech expertise within Congress would build on existing capabilities. Congress could strengthen its tech expertise with its in-house staff, and it could also stand to strengthen the tech assessment capabilities of the GAO, which already has a program dedicated to this mission. Targeted reforms are a better way forward than reviving a slow and outdated office.

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<sup>[1]</sup> See [FCC's](#) Office of Legislative Affairs, [NTIA's](#) Office of Congressional Affairs, and the [FTC's](#) Office of Congressional Affairs

<sup>[2]</sup> See [FCC's](#) Office of Strategic Planning and Policy Analysis, [NTIA's](#) Office of Policy Analysis and Development, and the [FTC's](#) Office of Policy Planning