Federal Appropriations Are Increasingly Delayed, Impeding Scientific Research

The National Institutes of Health (NIH), National Science Foundation (NSF), and other federal science agencies support cutting-edge research in every state across the country, and receive funding through the annual appropriations process. Congress establishes the budgets of discretionary programs, including NIH and NSF, through 12 appropriations bills. Providing funding for just one fiscal year at a time, new bills must be approved annually to continue these programs and keep agencies open.

However, Congress has repeatedly failed to pass appropriations bills on time. The average delay for NIH and NSF was more than 130 days over the last decade (see Table 1).

**By returning to regular order and passing appropriations bills before the fiscal year starts, Congress can maximize the national investment in science and help stabilize the research enterprise.**

### Findings

**Two decades of delays**
In each of the last 21 years, the appropriations bills funding NIH and NSF were approved by Congress after the start of the federal fiscal year (October 1). The last time Congress achieved regular order — passing all 12 appropriations bills on time — was in 1996, which set funding levels for fiscal year 1997. During this period, the appropriations process has also taken longer and longer to complete (see Figure 1).

Between the start of the fiscal year and passage of appropriations bills, Congress employed a series of continuing resolutions (CRs) to avoid government shut-downs. A CR transiently fills in an appropriations gap, but only guarantees funding levels for a short time period (typically a few days or months). However, as described below, a CR is not a substitute for a regular appropriation.

**Increasing uncertainty**
The past decade has seen more extreme delays and greater year-to-year variation in how long agencies operate without a final budget. Congress passed bills funding NIH an average of 135 days late, ranging from 77 to 217 days (Table 1). In two of those ten years, the appropriations bill was passed more than halfway through the fiscal year, which is unprecedented in appropriations history.

Due to the increased reliance on omnibus packages (rather than 12 individual bills) in recent years, other science agency budgets have experienced nearly identical delays (see Table 1). For example, Congress passed NSF appropriations on average 132 days late during this same period.

Should this pattern continue over the next several years, the linear model (see Figure 1) suggests that NIH appropriations — as well as those of other science agencies — will continue to be passed nearly halfway through the fiscal year.

**Impact**
When Congress delays passing appropriations bills, NIH, NSF, and other science agencies have to operate for a portion of the year without knowing their total spending authority. This not only affects the

### Table 1: Appropriations delays in the past decade by science agency

<table>
<thead>
<tr>
<th>Science Agency</th>
<th>Average Delay</th>
<th>Longest Delay</th>
<th>Shortest Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Institutes of Health (NIH)</td>
<td>135 days</td>
<td>217 days (FY 2017)</td>
<td>77 days (FY 2010)</td>
</tr>
<tr>
<td>National Science Foundation (NSF)</td>
<td>132 days</td>
<td>217 days (FY 2017)</td>
<td>49 days (FY 2012)</td>
</tr>
<tr>
<td>US Department of Agriculture (USDA)</td>
<td>126 days</td>
<td>217 days (FY 2017)</td>
<td>21 days (FY 2010)</td>
</tr>
<tr>
<td>US Department of Energy (DOE)</td>
<td>130 days</td>
<td>217 days (FY 2017)</td>
<td>28 days (FY 2010)</td>
</tr>
</tbody>
</table>

Note: Data corresponds to fiscal year (FY) 2009 through FY 2018 appropriations bills.
agencies, it negatively impacts scientists and their research institutions:

(1) Without an appropriation from Congress, agencies are prohibited from initiating new programs or awarding new grants. This can delay investigators from undertaking new research projects.

(2) Due to budgetary uncertainty, agencies postpone many spending decisions until their budgets are established. This protects agencies from obligating funds beyond what they will ultimately receive.

Therefore, scientists must wait longer to hear whether their research proposals will be supported, producing more and longer gaps in research funding. (The beginning of the fiscal year coincides with one of NIH’s three major review cycles, resulting in particularly long delays for these grant applicants.) During funding gaps, laboratories may lose key research personnel and may even close.

(3) To further mitigate risks stemming from budgetary uncertainty, NIH and several other research agencies temporarily reduce the size of existing grants until a final budget is passed. These transient cuts and award restorations generate further administrative costs for both the funding agencies and the recipient research institutions.

(4) Finally, uncertainty drives annual cycles of diminished and then expedited spending. This can result in missed opportunities and create inefficiencies in the use of federal resources.

Late appropriations slow scientific discovery and impede efficient management of research funds. By returning to regular order and passing appropriations bills before the fiscal year starts, Congress can maximize the national investment in science and help stabilize the research enterprise.

In addition to timely appropriations, FASEB previously recommended that Congress provide two-year or “available until expended” appropriations for scientific budgets. At present, funds not expended within the appropriated period must be returned to the Treasury. The Department of Veteran Affairs Medical and Prosthetic Research program operates with such extended authority and, reportedly, forfeits a much smaller fraction of its budget (~0.02 percent) than agencies with single-year appropriations.

Methods
Appropriations bills corresponding to each research agency were identified on the Senate’s appropriations history page. Bill passage history was collected on the Congress.gov system. In years Congress passed a full-year CR, the date it was signed was used instead.

References
5 FASEB. Sustaining Discovery in Biological and Medical Sciences, page 63. January 2015.
6 Ibid., page 32.

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