When America’s leading research universities shut down due to the COVID pandemic in spring 2020, the White House Office of Management and Budget issued guidance to protect the grant-funded salaries of the research workforce (which is 80% students, post-doctoral trainees and professional staff) when much of the scientific work was suspended. While that protected more than 90% of research jobs, it also created a “Salary Gap” for federal grants that are being spent down on salaries while the pandemic slows or pauses active research work.

If this gap is not addressed, federal funding agencies will be forced to choose between finishing these projects and funding new science. This tradeoff would harm America’s standing as a global research leader, and diminish our ability to develop a competitive STEM workforce.

Funds contained in the Research Investment to Spark the Economy (RISE) Act would help plug the COVID Salary Gap and allow already funded projects and ongoing scientific training to be completed.

According to estimates from the Institute for Research on Innovation and Science (IRIS), based on data from 40,000 grants at 10 major universities, the 2019 federal HERD survey, and federal budget numbers provided by AAAS:

- Addressing the salary gap at universities alone will require around $8 billion to keep research universities working at 2019 levels
- Across the entire defense and non-defense federal R&D portfolio, it will take about $38 billion to keep the U.S. at 2019 spending levels
- To accommodate the level of growth appropriators have set for the federal R&D portfolio over the last 5 years, universities will need about $39 billion to make up for the decreased activity due to COVID.

These numbers only account for the COVID Salary Gap on federal grants. They do not include the very real and significant costs of quickly shutting down and safely restarting research work.

The RISE Act is necessary to keep the federal R&D portfolio healthy and to avoid forcing agencies to make destructive tradeoffs in their portfolios. But it is probably substantially less than is required to allow the U.S. research enterprise to recover to the levels we would have expected in a normal 2020.
Using IRIS data, we estimate that all American universities used research funds to pay more than 560,000 people on campuses across the country:

- More than 300,000 (53%) are students or trainees
- Fewer than 1 in 5 (17%) are faculty members

University research pays more people across the country than (according to BLS 2018 statistics):

- Aerospace manufacturing (509,400)
- Utilities (554,600)
- Airlines (501,300)
- Motion Pictures (436,300)

In 44 states, a research university is one of the 5 largest employers.
In 24 states, a research university is the largest employer.
In 30 states, multiple research universities are among the 10 largest employers.