

## Commentary

# UCI relies heavily on federal science funding threatened by Trump



UC Irvine could lose millions in federal funding if President Trump's proposed cuts to science and medical funding are approved. (Mark Boster / Los Angeles Times)

**Steven D. Allison**

Despite longstanding bipartisan support in Congress, the [Trump](#) administration proposes to slash federal science programs [by at least 18%](#) with the deepest cuts targeting environmental research. Taxpayers may be wondering, what's at stake here? It could be tempting for Orange County conservatives to rally around these cuts in the name of small government.

But that sentiment would be misguided. The U.S. environmental research budget is already tiny compared to Social Security, Medicare and military spending, so further cuts won't help with tax relief or deficit reduction.

More important, federal research dollars are a great investment for Orange County. [UC Irvine](#) is the county's second-largest employer, and last year the university brought in nearly \$400 million worth of grants and contracts. Over the past decade, my research

team has received almost \$9 million in federal grants for environmental research. About 75% of this funding pays the salaries of graduate students, postdoctoral scholars and undergraduates who get career training to enter our modern, highly educated workforce.

In my experience, every million dollars in grant funding creates about 10 high-quality jobs. My projects also boost the local economy through purchases of scientific equipment and services. Grant overhead supports the infrastructure and human capital that world-class research relies on, including jobs in accounting, facilities maintenance and legal compliance.

Aside from jobs, federal dollars bolster public-private partnerships. UC Irvine is working with the Irvine Ranch Conservancy, a local nonprofit that manages 57,000 acres of open space in Orange County. The Irvine Co. donated this land and then, through the Bren Foundation, contributed \$1 million to establish a research partnership with UC Irvine.

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Using funds from the National Science Foundation and Department of Energy's program in Biological and Environmental Research, we are helping conservancy managers identify cost-effective strategies to reduce property damage from invasive species, drought and wildfire. That is federal money well spent — California burns up to half a billion dollars each year fighting wildfires and \$80 million combatting invasive species.

By applying sound science to solve problems, federal funding can even help avoid burdensome litigation and regulation. Nearly a dozen Orange County cities, including Newport Beach, are re-envisioning urban development through an innovative habitat conservation plan endorsed by landowners and biologists in 1996. The plan allows development to proceed while employing scientific evidence to minimize impacts on endangered species and the environment.

One of my students recently joined a consortium of water agencies to more accurately measure pollution impacts on stream habitat. Current methods are crude, making it hard to know which streams are most vulnerable. Our research applies cutting-edge

tools in molecular biology to study the problem and propose solutions before resorting to new regulations.

Like many of my neighbors, my family and I enjoy living in Orange County because of the safe, beautiful environment and great job opportunities. This winning combination drives up property values and profits for businesses. Everything we appreciate here — environmental stewardship, a vibrant economy and a world-class research university — depends on millions of dollars in federal research funding.

Given this value, environmental science should not be a hard sell. Yet in the current political climate, scientists and citizens need to make their case. My colleagues and I have met with our local members of Congress — [Mimi Walters](#), Lou Correa, Dana Rohrabacher and Ken Calvert — to explain how their constituents benefit from federal research. On April 22, we will join thousands of fellow citizens in the Los Angeles March for Science to reinforce the message.

When the time comes to make tough calls about budget priorities, we urge Orange County taxpayers and politicians to defend our national commitment to environmental research. The Republican Congress has the budgetary authority to overrule President Trump's damaging cuts to science. Our landscape, water resources and economy are worth the investment.

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