TRUMP CUTS SENDING SCIENTISTS TO STREETS

The Trump administration's proposed slashing of federal support for science is sending scientists to the streets in protest.

This is shocking because scientists are generally averse to political street theater, believing instead that policy decisions should be based on measured evidence and calculated logic. But, on April 22 - Earth Day - a throng of U.S. scientists from 170 organizations is expected to march in Washington and in hundreds of cities across America.

Though I won't be joining them, I strongly support the protesters. Alas, we've learned that size matters. Aerial photos of crowd size matter more in today's media-saturated, online democracy than all the logic in the world.

Flash back to the close of World War II, when the issue wasn't the fate of the planet but the material prosperity of the United States. On July 25, 1945, the brilliant electrical engineer turned masterful science administrator, Vannevar Bush, published one of the most under-appreciated books in U.S. history, "Science: the Endless Frontier." I read it decades ago to help instill enthusiasm and hope into my scientific career.

Bush was President Franklin Delano Roosevelt's science adviser. Eight months earlier on Nov. 17, 1944, Roosevelt asked Bush to design a plan for postwar scientists using "the same vision, boldness, and drive with which we have waged this war." The goal was to create "a fuller and more fruitful employment and a fuller and more fruitful life" for all Americans. In a letter, Bush wrote, "Scientific progress is one essential key to our security as a nation, to our better health, to more jobs, to a higher standard of living and to our cultural progress."

The result of this honest, public dialogue between president and science adviser was a post-war dream come true for baby boomers like me and our families. Their vision produced a cornucopia of great jobs and the birth of federal agencies that enriched our lives and extended our influence abroad: the Atomic Energy Commission (1946), which kept energy development safe; the National Institute of Health (1948), which extended our lives; the National Aeronautics and Space Administration (1948), which gave us the moon, and now Mars; the National Science Foundation (1950), which stimulated basic research in graduate schools; and the Defense Advanced Research Project Agency (1958), which protects us from our enemies in ways you don't even know about.

Unfortunately, the tide has turned. Despite abysmal approval ratings, the heavy gravity of the executive branch is dragging our nation's investments in science and technology downward. Meanwhile, in China the more federalized government is bringing investments in science and technology up onto its shores to accomplish what Roosevelt and Bush set out to do 75 years ago. I worry about this imbalance.

Within two weeks of Trump's election on Nov. 23, the leaders of our most prestigious scientific, engineering and academic organizations sent him a letter echoing the 75-year-old science policy. They reminded him that solutions to the challenges he will face as president - "protecting national and energy security, to ensuring U.S. economic competitiveness, curing diseases, and responding to natural disasters" - will come from evidence-based science. They said that "approximately half of U.S. economic growth over the last 50 years" resulted from investments in science, technology and innovation. They emphasized that to "maintain America's global leadership" requires building "on our strong history of federal support for innovation, entrepreneurship and science and technology." If
Trump read this letter, it certainly did not dissuade him from gutting nonmilitary federal science programs.

Connecticut's UConn Technology Park, now under construction, is a perfect example of collaboration between government support, academic training and private investment. The result will be jobs for residents, cash for our state treasury and pride for doing something right. Earlier this year, I had the pleasure of watching UConn's then-Provost Mun Choi, local government representatives and the business community celebrate this symbol of hope.

Slashing federal support for scientific research is economic suicide. Let's not go there.