

Modern society depends on publicly supported science **FREE**

William S. Kessler



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LETTERS

# Modern society depends on publicly supported science

As a researcher who depends on grants for all of my work, I am alert to new funding sources. Therefore, I read "Foundations play a supporting role in basic science" (PHYSICS TODAY, June 2018, page 26) with interest. I was disappointed to find only positive anecdotes without any discussion of the potential downsides of privately supported science. Those downsides should be part of any examination of the topic.

It will not serve us well to depend on the whims of those who, using talents largely unrelated to scientific challenges, have accumulated the billions of dollars that allow them to make large donations. Those whims often tend toward the photogenic, the engaging, and the easily explained. Philanthropic choices happen


almost by chance, depending on whom a donor met at an event, which news story caught her eye, or what appealed to his personal interest. The scientific judgment of billionaires is unlikely to coincide with the real needs of research progress.

Publicly supported science, in contrast, is an admittedly imperfect system of rational decision making about research investments. It recognizes that much necessary science is unglamorous and even routine. That is certainly the case in my field of climate science. Much of the real work consists of ongoing monitoring of field conditions; those measurements are essential for discerning slow and complex variations in an environment filled with chaotic day-to-day

events. By definition, if you are looking for a signal that manifests over decades, you must be prepared for many years of careful observation without near-term reward. A philanthropist is not likely to support that task, especially since any "discovery" will make sense only in the context of a much broader research enterprise. It requires long-term public investment that is now sadly shrinking.

Other fields of science have their own examples, but we are long past the day when individual donors can direct the research that modern society depends on. That responsibility is inherently a public one in a physically and economically interdependent world, and the work is fundamentally communal and long-term. Increased taxes on great wealth could strengthen public science and produce a better result.

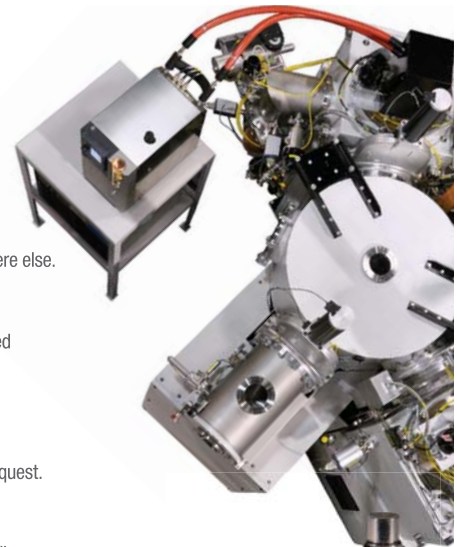
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