

Health researchers far behind industry using automation, leaves critical research unfunded

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The National Institutes of Health, the largest funder of science research, has experienced funding cuts even as the number of scientists has grown significantly. University laboratories are closing, faculty positions are being cut, and less life- saving research is being conducted. Perhaps even more damaging, researchers are spending considerably more time writing grants, and much less time actually doing research. A paper by Peter Muennig, MD, MPH, associate professor of Health Policy and Management at Columbia University's Mailman School of Public Health, notes that more efficient means of conducting research will be needed if scientific progress is to continue. Findings will be published online in the *American Journal of Public Health*.

"Research protocols have changed very little even as the economy as a whole has realized large gains in productivity through automation," said Dr. Muennig. "Many techniques for automating [public health](#) research already exist - they just are not used in the same way that they are in private industry." As a proof of concept, Dr. Muennig totally automated a research project, completing the project for under \$300,000, that otherwise might have been budgeted at \$1.2 million.

All phases of the project were automated, including enrolling the participants, administering the intervention, and collecting the data. The experiment relied heavily on the participants' own computers and on big data sources, including insurance billing data, for the collection of the results.

"The literature on research efficiency and management is sparse, so hopefully our results will serve as a call for researchers to think more about ways in which they can reduce their budget footprint with the National Institutes of Health, facilitate reform of grant-making processes, and pave the way for a rethinking of institutional review board protocols such that the use of automated systems can be more readily accommodated," said Dr. Muennig. "There is a market failure in the research industrial complex, and government needs to step in to provide incentives to researchers to take risks and do things in new and innovative ways."

Provided by Columbia University's Mailman School of Public Health

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