

# Restrictions on research grant applications cause chaos

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Mathematicians at the University of Kent, with input from the University of Sheffield, have established that current restrictions on academics applying for research grants are causing major problems, harming smaller institutions and minorities in the process.

To reduce the time and money spent evaluating [applications](#), many funding bodies responded by restricting the number they receive. For example, the Natural Environment Research Council (NERC) now caps the [number](#) of applications an [institution](#) can submit based on the success rates of that institution in previous years.

However, mathematical models used by Dr. Daniel Bearup of the University of Kent's School of Mathematics, Statistics and Actuarial Science (SMSAS) show that these restrictions could induce chaotic cycles in total application numbers, increasing uncertainty in the process.

The effort put into grant applications that fail to obtain funding is considerable and largely wasted. A natural way to address this inefficiency is to restrict applications from applicants with low success rates. However, Dr. Bearup's research shows that this approach does not necessarily achieve consistently lower application rates.

In addition, it has significant unintended consequences, in particular disadvantaging smaller institutions and, potentially, minorities within academia. He notes that reducing pressure on funding by eliminating deadlines has achieved a reduction in applications in the USA.

Given the inherent limitations of attempting to restrict application numbers he suggests that funders should consider more permissive, rather than restrictive, approaches to application management.

**More information:** Daniel J. Bearup et al. Funder Restrictions on Application Numbers Lead to Chaos, *Trends in Ecology & Evolution* (2018). [DOI: 10.1016/j.tree.2018.06.001](https://doi.org/10.1016/j.tree.2018.06.001)

Provided by University of Kent

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