

Professor Andrew Francis *FAustMS*
Deputy Dean
School of Computer, Data and Mathematical Sciences
Western Sydney University.



Senate submission on the Australian Research Council Amendment (Ensuring Research Independence) Bill 2018

I welcome the establishment of this Inquiry and thank the Senate for the invitation to make a submission. I will argue that decisions about the award of funding for individual research projects should be made by the ARC through its processes, and that the possibility of Ministerial veto should be removed in legislation.

To argue this case:

- I will describe the process used by the ARC to assess grants.
- I will make the observation that the level of scrutiny applied to each project, relative to the amount of funding allocated, far exceeds that for other government funding decisions.
- I will briefly describe approaches taken in other countries, using the so-called Haldane Principle.
- I will address some other questions that might come up in the minds of Senators, such as matters of national security or whether the suggestions I am making might be considered elitist.

First, I will introduce myself.

I am one of the members of the ARC's College of Experts who resigned in response to the Minister's veto of six grants in December 2021. I had been a member of the College for nearly four years, 2018-2021.

I have also served in other roles for the ARC, including as a member of Research Evaluation Committees during the Excellence in Research for Australia (ERA) exercises in 2015 and 2018. These are processes that assess the quality of research produced by Australian universities. I continue to serve in several roles. In addition, I have assessed grants for numerous schemes in other countries, for example the UK, Germany, Israel, the Netherlands, and New Zealand.

My regular position is as a Professor of Mathematics at Western Sydney University, where I have worked since 2000. I am the Deputy Dean of the School of Computer, Data and Mathematical Sciences. Prior to joining Western Sydney, I studied at the University of Sydney and University of NSW, and worked in the US for two years at the University of Virginia.

The ARC process of allocating funding to research projects.

Proposals for funding from the ARC are ranked by a panel¹ made up of members of the College. There are several schemes run by the ARC but most (including the Discovery

¹These panels are called Selection Advisory Committees (SACs), because they advise the ARC on a ranking of the proposals that the ARC has received.

Projects, which were the ones vetoed in 2021) run as follows. Two or three members of the panel handle each proposal (depending on the scheme). Generally, panel members will have expertise in a related area to the proposal, and have an overview of the broad field. They choose experts from around the country, and sometimes overseas, who have more specific knowledge of the field of the proposal, and who will be able to provide detailed assessment of the proposal. These assessments address the novelty, significance, feasibility, and benefit of the proposal.

These assessments are made by experts who volunteer their time and experience for the benefit of the judicious allocation of limited funds. They are not paid, but do this because they know it is important to get a difficult task done as well as is possible. Without contributing their expertise, it would not be possible to assess a proposal that is pushing the boundaries of knowledge in its field.

Applicants are given an opportunity to respond to the anonymised expert assessments, and members of the panel take this into account, together with their own reading of the proposal, to rank all applications received. The top proposals are then recommended for funding. The number funded is usually just under 20% of the applications received, although many more are excellent and simply do not fit into the funding envelope.

Scrutiny and rigour.

The process that scrutinises each proposal for research funding is quite possibly the most rigorous and detailed, per dollar, of any government funding.

Consider that each proposal for an amount that is usually about \$450,000 over three years, will receive approximately a full day's analysis from each of four Expert Assessors chosen by the panel, plus the time that members of the panel take reading and discussing the proposal. Every single proposal receives this attention, and 80% are not able to be funded. The vast majority of most funding received is spent on hiring a junior researcher to work on the project, making the schemes an integral component of Australia's researcher development pipeline.

Contrast this with the level of scrutiny applied to the awarding of tens of millions of dollars of government funds for sporting facilities, car parks, or community grants.

The projects that *are* supported through this process have had the nation's best capacity brought to bear to judge the originality, significance, feasibility, and benefit, in an exhaustive process. It is an affront to that expert capacity to then have recommendations rejected.

The use of expertise.

Assessing the merits of research proposals is inherently difficult. The ARC, and by extension, the country, invests in research whose outcomes cannot be predicted. There is an obligation to be careful in selecting those that have the best chances of making a valuable contribution to their field, and perhaps beyond. But how to make such judgements? I can read a proposal in, for example, sociology, and perhaps have the impression I understand what it aims to achieve, and maybe even its methods. But it is quite likely that my understanding will be very shallow, and perhaps quite wrong. I simply will not know whether the proposal is duplicating some very well understood work, or is founded on

theories that have been shown to be incorrect, or is claiming to have an impact that it cannot plausibly actually have.

So how am I to judge a project in sociology? Or climate research? Or physics, philosophy, paramedicine, or psychology? Well, Australia is very fortunate that we have excellence in research across a vast spectrum of knowledge. We have evaluated this with great care over more than a decade of Excellence in Research for Australia (ERA) exercises. We are in the fortunate position to be able to reap the rewards of consistent government public investment over our lifetimes, and draw on the wisdom of those who know these fields deeply.

That is precisely what our processes do: we ask the experts to contribute their years, even decades, of training and investigation, to advise us. The ARC processes, approved by the Minister, are designed to do exactly that, and make those very difficult judgements about how to allocate the precious resources that we have available, to do the best for the country. And people (the experts), generously provide those inputs because they know how important it is to make the best judgements possible.

This is in fact familiar to all of us: we know how to value expertise. When I want to re-wire my house, I do not do it myself, despite having a rudimentary understanding of electricity. I also do not ask my friend, who is a plumber, to do it. I ask an expert. When I have the view of an expert electrician, or maybe two, I do not then show those opinions to another friend, who is a lawyer, for their opinion.

The Haldane Principle

The model of decision-making for research proposals should follow the Haldane Principle, widely used across the world, but most particularly in the UK where it was established in 1918. The principle is that Ministers should set the parameters for funding, and approve processes and rules for funding allocation, but leave decisions about individual projects to the research agencies to determine with the advice of researchers.

This is the principle that we should apply in Australia. Otherwise, we as a nation will be the poorer, as Ministerial intervention does not come without cost.

The cost of Ministerial intervention.

There are two very important costs to a system in which the Minister can over-rule the extensive process that the ARC uses.

The first is that we will certainly lose experts who are willing to assess grants. Remember, these people are asked to provide their expertise, and they do so *without payment*. They do it because they respect the process, and know how important it is that proposals are assessed by those who know the edge of knowledge in the area. I have been told by several people that they will be declining requests to assess in protest at the Ministerial veto. Australian academic excellence will be the loser.

The second is that researchers will self-censor to avoid the risk of a Ministerial veto. Any veto applied by a Minister sends a message about what research areas will not be supported, regardless of the case for originality, significance, feasibility, and benefit, that the applicants have made out. Consider the mentality of researchers in such fields. They

will need to consider the way they frame their proposals, to stay on the right side of the winds of political sensibility. Does this sound like an Australian democratic system? It rings with echoes of rather more sinister states.

Just in case Senators may think this thought-policing sounds far-fetched, I can attest that researchers after previous vetoes told me personally that they were wary of using words such as “environment” in their proposals, because they worried they would be flagged by political considerations. Australian research should not be hamstrung by the winds of taste of a particular political landscape, whatever its orientation.

Some responses to potential queries

There are at least three angles by which calls like the one I am making have been criticised, and I would like to respond to those briefly, to help your discussions.

“It’s public money, surely the Minister has to sign off”

. The Minister needs to set the overall funding envelope, approve the rules for the process of allocating funding, and the schemes by which it is administered. To intervene on particular projects is to interfere with a detailed, carefully managed, and extremely rigorous process, designed to get the best outcome from a difficult task. It is not good governance.

“This all sounds very elitist”

As described above, there are many types of expertise, and we do not question that we need an expert when it comes to numerous common events in life. The argument here is not that the ARC College of Experts and the Assessors we use are somehow “better” than anyone else. The argument is that to judge specific proposals at the cutting edge is something that does require expertise, and we all need the humility to respect that. I am a mathematician, but even in mathematics there are lots of proposals that I can’t make a detailed judgement on: I send them to the people who can. Politicians are no different: they have particular expertise, suiting them for their roles in public office, acquired through years of experience.

“What about national security”

Note that national security has not been grounds for any veto to date, that we know of. National security is definitely an important issue but one that is separate from the current questions. If there are national security concerns about a proposal they should be reviewed through a careful process that also involves people who understand the details of the proposal, so would require a very different process to a simple Ministerial veto on the basis of a short summary text.

I wish the Senate all the best in its deliberations. If I can be of any more assistance please contact me.

Professor Andrew Francis
ARC College of Experts 2018-2021