



Science & Technology AUSTRALIA

Review of the Australian Public Service

12 July 18

To the Australian Public Service Review Panel,

Thank you for the opportunity to respond to the Review of the Australian Public Service.

Science & Technology Australia (STA) is the peak representative body for more than 70,000+ scientists and technologists in Australia through our member organisations, including associations and societies, research institutes, and research strategy bodies such as councils of deans. Our mission is to connect science and technology with governments, business, and the community, to enhance the role, reputation and impact of science.

STA appreciates the opportunity to provide feedback on the future development of the Australian Public Service. Considering the value of evidence-informed policy, it is essential that the Australian Public Service has both the capacity to incorporate research in to its policy making process and the ability to perform its own research. This would be further enhanced by seamless integration of data between departments, and well-managed control for researchers.

Furthermore, a network of STEM skilled employees spread throughout the broader Australian Public Service will aid in the development, implementation and evaluation of robust and future-proof public policy. It will also ensure that the Australian Public Service is innovative and able to support the private sector to prepare for the advent of new technologies, discoveries and the digital economy.

In considering these issues, STA recommends that the APS:

1. Increases research capacity within all departments through hiring research-trained staff.
2. Places an emphasis on STEM skills for APS staff in policy and decision-making roles.
3. Updates and commits to continued implementation of the Public-Sector Data Management Project to align with changes in the Australian Public Service, and to empower researchers to contribute more meaningfully to policy.

Please find our specific feedback below: thank you for considering our submission.



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Introduction

The Australian Public Service (APS) is one of the largest employers of Australians in the country, and a gateway between the Federal Government decision making and the Australian people.

While the APS¹ must maintain clear values, it is increasingly important that it is also capable of adopting values that will prepare it for the changing economic and social environment in Australia. A successful APS will need to ensure that it is flexible enough to capitalise on new technological advancements (such as making programs and services digitally accessible for all Australians) and that it is innovative in its adoption of new policy informed by the best evidence available.

Increasing the capacity of the APS to undertake research and policy development

One of the most important functions of the APS is the research and development of public policy. This process includes the implementation of decisions made by the Federal Government, while incorporating aspects of expertise and opinion from the broader Australian community.

The importance of evidence-informed policy is recognised around the world. Although using evidence and research to inform decision-making and policy may seem self-evident, concerns remain about the capacity of the APS to create evidence-informed policy when compared to its international counterparts².

Surveys of Australian public servants indicate that while 60.7% have written one or more documents that draw on academic research, only 30% believe these resources provide information useful to policy making³.

This contrasts with a speech by the 2009 Productivity Commission Chairman, which emphasised the importance of evidence-based policy, especially in regard to long-term and complex policy ideas. Instances such as the Higher-Education Contribution Scheme and the shift to inflation targeting monetary policy are just two examples of long-term policy being developed from a strong evidence base⁴.

To improve the capacity for the APS to undertake research and develop evidence-based policy, research capacity within the departments should be consciously improved. Less than 40% of employees surveyed indicated that they had a postgraduate qualification, which indicates a lack of exposure to formal research training among the majority of public servants⁵.

¹ [“Public Service Act 1999”](#) Federal Register of Legislation, 1999

² [“Benchmarking Australian Government administration performance”](#) KPMG, 2009

³ [“Policy capacity and evidence-based policy in the public service”](#) J Nerman et. Al, 2017

⁴ [“Evidence-based policy-making: What is it? How do we get it?”](#) Gary Banks, The productivity Commission, 2009

⁵ [“Policy capacity and evidence-based policy in the public service”](#) J Nerman et. Al, 2017

Compounding this was the APS staffing freeze in 2013, which saw 17,300 public servants leave the APS in the first 2 years⁶.

To increase its capacity to undertake research and develop evidence-based policy, the APS must be able to hire research trained individuals. This cannot be achieved if staff numbers are being regularly reduced.

STA recommends the APS increases research capacity within all departments through hiring research-trained staff.

The importance of STEM training in the modern APS

In an era of big data and digital delivery of government services, there is an increasing need for STEM qualified employees within the APS.

As outlined above, the importance of a STEM trained workforce does not end with data and digital delivery, as STEM qualifications also improve the overall quality of policy-making through the application of evidence and research.

However, STEM is not the only skillset vital for a thriving and effective APS.

According to the most recent State of the Service Report, Agencies that are directly related to science, such as Geoscience Australia and the Bureau of Meteorology, have a high level of technically trained workers. Outside of these Agencies, arts, social sciences and business-related graduates are more common⁷. This illustrates a separation of these groups.

It is STA's view that by providing non-STEM employees with training and support to develop STEM-related skills (and vice-versa), a more diverse APS workforce will result. Teams that are more diverse have been shown to be more effective in policymaking and reflect a greater diversity of views within the broader community⁸.

For example, there would be great benefits for all departments if it were a policy to employ or train one team member in every departmental policy group to analyse statistics, understand the applications of big data, and provide insights to access and utilise the best research and evidence.

Effective and robust policy also needs to have a whole-of-government approach. Policy developed by the Australian Government has suffered from the effects of a siloed system. This silo effect leads to policy and legislation having unintended consequences such as the inadvertent effects of the 2017 visa changes on the higher education sector⁹.

⁶ ["Australian Public Service staffing and efficiencies"](#) Philip Hamilton, 2015

⁷ ["State of the Service Report 2016-17"](#) Australian Public Service Commission, 2017

⁸ ["How diversity makes us smarter"](#) Scientific American, 2014

⁹ ["Universities fear 457 visa changes will harm ability to attract academic talent"](#) The Guardian, 2017

Additional to supporting the development of STEM skills for APS staff in policy and decision-making roles, there should also be a focus on facilitating inter-departmental collaboration between staff.

Increasing the number of STEM trained staff, who bring both subject matter expertise and expertise in the scientific method and the rigour of research, will help with the following goals of the APS:

- Drive innovation and productivity in the economy;
- Deliver high quality policy advice, regulatory oversight, programs and services;
- Tackle complex challenges in collaboration with the community, business and citizens; and
- Acquire and maintain the necessary skills and expertise to fulfil its responsibilities.

STA recommends an emphasis on recruiting for and supporting the development of STEM skills for APS staff in policy and decision-making roles.

Developing a centralised data access plan across departments

Inconsistency of data management between departments poses serious obstacles to best-practice within the APS. This is demonstrated in the significant variation between departmental websites and databases, and the availability of data and publications for each of these departments.

The release of the Public-Sector Data Management Project¹⁰ in 2015 was a catalyst for addressing the issues of inconsistency of data management between departments, as well as access to data for research purposes by outside entities.

However, since the Implementation Report¹¹ was released in 2016, there has been little reported progress in this area of the APS.

Centralised data access across governmental departments also improves the digital delivery of public facing services. Integration of centralised data and access is already being achieved in some areas via the MyGov website¹² which integrates data from the Australian Tax Office and Department of Human Services.

The pinnacle of digital delivery by government is still considered to be Estonia, where voting, tax returns and even prescription collection can be handled online, using a single identifier¹³

¹⁰ "[Public Sector Data Management](#)" Department of the Prime Minister and Cabinet, 2015

¹¹ "[Public Sector Data Management implementation report](#)" Department of the Prime Minister and Cabinet, 2016

¹² "[MyGov Services](#)" Australian Department of Human Services, 2018

¹³ "[What Australia can learn about e-government from Estonia](#)" Matthew Sorell, The Conversation, 2015

With integrated, uniform data collection, the APS can provide pathways between departmental databases, empower researchers to discover ways to improve the delivery of programs and services, and achieve greater efficiencies.

STA recommends an update and continued implementation of the Public-Sector Data Management Project to align with changes in the Australian Public Service, and to empower researchers to contribute more meaningfully to policy.