

Data science for performance audit and parliamentary reporting

VAGO's data science team supports the Victorian community by applying data analytics techniques to our performance audits and parliamentary reports.

Our data science principles

A key objective of both our Strategic Plan and our Parliamentary Reports and Services division is to improve the way we use financial and non-financial data to support public service delivery.

We have established a dedicated performance audit data science team to give us the knowledge and expertise to realise this objective.

As data use grows across the public sector, this specialist team enhances our ability to assess the effectiveness, economy, efficiency and compliance of government activities.

Our public dashboards improve public sector transparency and accountability by presenting public data in a format that parliament and the public can more easily absorb.

Data sources, collection and handling

Our data sources include operational, financial and performance data ranging across all government sectors.

The data we handle can be very sensitive, so we have a rigorous approach to data security, including a comprehensive policy. For more information see our [Information Protection and Cybersecurity fact sheet](#).

We collect, analyse and use data to support the quality and evidence basis of our performance engagements, as the following table outlines.

We collect ...	in order to ...	For example ...
performance and operational data	evaluate the effectiveness of public sector agencies using data they generate and collect.	we used student performance and demographic data to evaluate the effectiveness of the Tutor Learning Initiative .
service delivery data	analyse the quality, accessibility, and equity of public services to identify areas for improvement.	we used hospital emergency department data to assess access to emergency healthcare for patients from vulnerable cohorts.
compliance records	ensure adherence to relevant legislation and policies by public sector entities.	we analysed the quality of child protection data to understand compliance with relevant standards.
financial statements	assess the fair presentation of financial positions, cash flow and operational results in accordance with relevant frameworks and standards.	we provided transparency on Victoria's finances with the dashboard we published to support the Auditor-General's Report on the Annual Financial Report of the State of Victoria .
survey data	collect missing data when existing sources do not provide sufficient information for audit findings.	we conducted surveys to understand staff experiences of sexual harassment in the local government sector for the first time.
geospatial data	map and analyse spatial information to assess service accessibility, infrastructure planning and regional impact.	we used satellite and land-use data to evaluate how effectively Victoria offsets native vegetation loss on private land .

Driving better outcomes

Performance audit data science is an evolving set of practices driven by emerging tools, techniques and technologies.

Supported by our information technology team, our data scientists are continuously improving our approach to maximise the benefits to the Victorian public.

As well as directly providing insights into public sector performance, we aim to lead government agencies by showing what is possible with their own data.

If you want to learn more about VAGO's work, please see our annual plan or contact enquiries@audit.vic.gov.au for more information on how our data science capability can assist you.