



Australian Government

APS Data Profession

Guidance – Data Personas
for the APS



June 2024

Executive Summary

A view of the Australian Public Service (APS) data workforce, including personas that identify the skills, attributes, core activities and linked capabilities is a fundamental component of the APS Data Profession.


Background

With a strong foundation provided by the APSC Job Family Framework, and a number of leading agencies already working towards how we describe data personas, this project will focus on harnessing what has already been defined, including industry recognised frameworks.

It will build upon this existing content to provide the next iteration of how we describe data personas in the APS.

Overview

- This work forms a part of the APS Data Profession, working to develop a universal understanding of data personas, capabilities and alignment within the APS.
- The APS Data Profession is designed to source, grow and mobilise data expertise across the APS.
- A key priority of the profession is to develop consistent language for data personas, that are clear, contemporary and scalable.
- We are aiming to deliver a suite of data personas that will provide the building blocks for identifying data capability requirements and career pathways for the data profession.



Data Analyst

Data Analysts lead the design, analysis and delivery of relevant, trusted and objective statistics and data-related insights.

Data Analysts analyse data to discover relationships between datasets by using a variety of methodologies and coding/computer languages. They transform data to derive insights and develop business rules or statistical models to quantify risks, behaviours and/or benefits.

Guided by their judgement, domain knowledge and shared understanding of the business problem with stakeholders, Data Analysts work with other data professionals to manage the collection, description and preparation of data for various purposes, especially descriptive and diagnostic analytics. They then tell the story behind the data in an engaging and meaningful way for technical and non-technical audiences using reports, visualisations, or other communication methods.

Data Analysts understand and apply appropriate data governance controls and frameworks to ensure compliance with relevant legislation, regulation and policy. They document their analytic solutions, use version control software, and automation tools to produce repeatable and re-usable insights.

They may also assist in designing and testing applications, systems, and other data collection methods to ensure the data specification and solutions are fit for purpose and assure data quality.

Standards & Technologies	Potential Domain Interactions	Data Lifecycle
Enterprise databases & platforms Coding / Computer Languages	Data modelling Data analytics tools	Information Technology / Digital Data Architecture Data Management

Green ticks indicate where this persona may have key interactions across the data lifecycle.



"Data is more important than ever, and maintaining the public's trust is a critical enabler in ensuring that quality information is available for informed decision making and service delivery. We have an opportunity to work together to support innovative ways to collect, share and use data responsibly to meet the needs of the day."

- Dr David Gruen AO

Data Job Role Personas – Scope of Work

The skills, knowledge and attributes required for data users and producers across the APS will be determined and incorporated into a suite of high-level Data Job Role Personas that will support the desired outcomes and potential future work.

Desired Outcomes



Establish a common understanding of baseline data skills, competencies and behaviours of data personas



Define, record and communicate data personas in a contemporary way, that is aligned with industry recognised terminology and is clear for users



Develop job persona information which is consistent, clear, contemporary and scalable



Determine connection points with other work programs across the APS



Ensure data personas can be used to inform future work and underpin a number of enabling processes



Utilise existing capability frameworks to link core desired capabilities to each data persona

In-Scope

- 1 Data Job Role Personas for use across the APS Data Profession
- 2 Linking of relevant skills, attributes, core activities and capabilities
- 3 Articulated uses and connections between personas

Out-Scope

- 1 Capability definitions
- 2 Learning solutions
- 3 Systems
- 4 Job Family Framework (Job Family Architecture) structure
- 5 Mobility and recruitment
- 6 Career Pathways

Looking to the future

Future work to develop specialised, niche, and hybrid data personas is recommended.

This work will also support future identified activities:

- Learning pathway development
- Mobility process creation
- Cross-agency recruitment
- Systems linkages and preferences
- Capacity and workload processes
- Job Profile documentation creation

Please note: the full suite of opportunities listed above may not exist within all APS agencies.

How to understand the Data Job Role Personas

The personas that have been included in this suite were selected based on consultation with other APS agencies.

There are twelve Data Job Role Personas that have been developed.

Six were created in 2022, with an additional six introduced in 2024.



2022

Data Analyst

Data Manager

Data Scientist

Data Engineer

Geospatial Analyst

Statistician

2024

Metadata Specialist

Data Steward

Data Translator

Data Project Manager

Data Governance Officer

Data Architect

Each persona highlights key descriptors, providing common language in addition to outlining keywords at a glance, industry standards, key technologies, potential domain interactions, and connections across the data lifecycle.



At a glance

Key terms to help identify the main topics, themes and content

Standards and Key Technologies

Identification of core standards and technologies this persona may be required to comply with

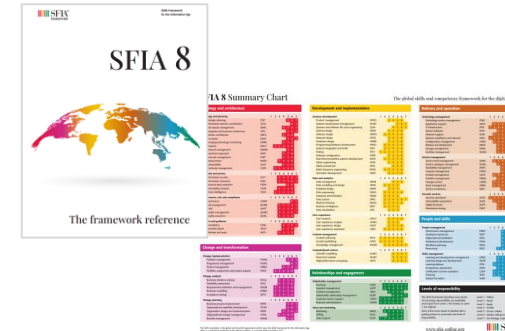
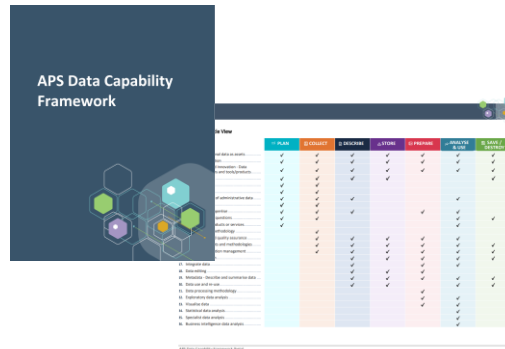
Potential Domain Interactions

Interactions or engagements with specific fields that this persona may experience

Data Lifecycle

View of which data lifecycle components this persona may interact with

The second page of each persona further explores the core personas activities and linked capabilities and proficiency levels required to carry out those activities. Capability are referenced from both the APS Data Capability Framework (DCF) and Skills for the Information Age (SFIA 8).



How to use the Data Job Role Personas

You can use the data personas to:

Learn about what different data personas do in the APS

Understand what capabilities are needed by professionals assuming particular personas

Identify linked capabilities required to undertake particular activities, informing career progression

Assess capabilities in preparation for performance reviews

Create consistency across different APS agencies in relation to personas

Carry out human resources and workforce planning

Example of use

APS Employee

I've recently moved from working in content design to data analysis. Although I have 8 years' experience in the APS, in data analysis work I am a beginner. The data personas have helped me to understand the skills, technologies and potential domain interactions needed for the role. What I have learned from using these is that many of the skills I used for research are similar to those needed for data analysis. I can consider the gaps in my capabilities by reviewing the mapping of the APS Data Capability Framework (APS DCF) and Skills for the Information Age (SFIA 8). This will help me to assess which capabilities I need to develop and to ensure my skills are up to date.

Example of use

APS Manager (Workforce Planning)

As an EL2 in the APS, I lead a program of Workforce Planning and Strategic HR initiatives in my agency. This includes a review of our agency's approach to workforce segmentation and a refresh of agency specific Data Job Roles and the Data Job Family. This work supports strategic initiatives to address capability gaps, better understand critical roles and to support talent development and retention strategies. Understanding how my agency's Data Job Roles can be linked to other taxonomies such as the APSC Job Family Framework and ANZSCO is critical to the success of this work. The Data personas and APS Data Capability Framework published by the Data Profession are important tools in this work. They will be used to promote consistent terminology when describing roles, skills and capabilities.

Finding Your Fit

With data requirements becoming more prevalent and specialised within the APS, there can be differences in data workforces across agencies

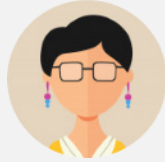
Data Job Role Personas

The core basis of a data persona will be captured in the published personas, however we understand that there are differences across APS agencies, particularly with different application of domain knowledge, processes and deliverables.

The data personas will not provide a completely holistic view of any singular role – rather they are intended to identify the fundamental requirements for someone assuming that persona at its highest level (unless otherwise specified).

We recognise that people are often more capable than what is formally required for their role or assumed personas and encourage data professionals to tailor their use of the data personas to inform their own circumstances.

Can't find your fit? What about these:



Hybrid Data Job Role Personas

For smaller APS agencies or those with a broader data focus, there may be data professionals doing work that aligns with 2 or more identified data personas.

Data professionals who identify with multiple personas can use the information supplied to recognise the different components of their roles and how they align with each other.



Niche / Specialised Data Job Role Personas

There will be a number of data professionals that identify with personas that have not currently been created.

Data professionals in these roles should be able to align themselves to the existing data personas at a high level to understand the base elements of their role.

Common Capabilities

There are a number of common capabilities that were identified as required for all personas. These capabilities are listed below and have not been included in the specific personas.

	Level 1 Foundation	Level 2 Intermediate	Level 3 Advanced
Provide Advice	Maintain general knowledge and provide information to support data and analytics activities	Review research, published materials and reports to maintain industry knowledge, and provide information and advice to support the development of data and analytics activities and initiatives	Contribute to research, published materials and reports, and provide expert information and advice on data and analytics initiatives and strategic objectives
Build Capability	Develop individual and team capability	Coach and train less experienced data professionals at whole of agency level	Coach and train other data professionals, and contribute at whole of agency/APS level to developing data capabilities
Stakeholder Engagement	Collaborate with other data professionals to provide information and support process improvements	Collaborate with other data professionals and business stakeholders to identify process improvements, recommend system modifications, and apply relevant frameworks, policies, and governance.	Collaborate with other data professionals, policy owners, business stakeholders, and IT specialists to drive system and process changes that enable delivery of significant operational outcomes and strategic goals
Communication	Communicate with stakeholders across a range of matters, including data policies and organisational best practice	Communicate with stakeholders and provide insights, training, and advice across a range of matters including data policies and industry best practice, ensuring that stakeholders understand their responsibilities.	Communicate with stakeholders and provide insights, training, guidance, and advice across a range of matters including data policies and industry best practice, ensuring that stakeholders understand their responsibilities
Problem Solving	Recognise issues and their implications, and contribute to a resolution plan	Recognise issues, analyse alternative courses of action and their implications, and develop a resolution plan	Recognise issues, analyse alternative courses of action and their implications, and develop advice, strategies, and a resolution plan

Core Technologies

Microsoft Office suite

Data visualisation tools (e.g. Power BI, etc)

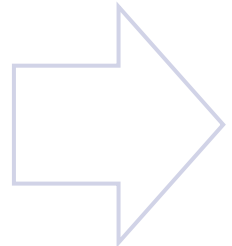
Online data sharing tools and platforms (e.g. share point, GovTeams, etc)

Supporting Tools & Artefacts

Core underpinning documentation that was used to inform this work

Link: [APS Data Capability Framework](#)

The Data Lifecycle View	PLAN	COLLECT	DESCRIBE	STORE	PREPARE	ANALYSE & USE	PRESERVE / DESTROY
1. Value organisational data as assets	✓	✓	✓	✓	✓	✓	✓
2. Data governance	✓	✓	✓	✓	✓	✓	✓
3. Engagement and innovation - Data products, systems and tools/products	✓	✓	✓	✓	✓	✓	✓
4. Data governance	✓	✓	✓	✓	✓	✓	✓
5. Data availability	✓	✓	✓	✓	✓	✓	✓
6. Data access	✓	✓	✓	✓	✓	✓	✓
7. Sourcing and use of administrative data	✓	✓	✓	✓	✓	✓	✓
8. Data collection	✓	✓	✓	✓	✓	✓	✓
9. Subject matter expertise	✓	✓	✓	✓	✓	✓	✓
10. Metadata capture and quality	✓	✓	✓	✓	✓	✓	✓
11. Data methods, methods or services	✓	✓	✓	✓	✓	✓	✓
12. Data collection methodology	✓	✓	✓	✓	✓	✓	✓
13. Data integrity and quality assurance	✓	✓	✓	✓	✓	✓	✓
14. Statistics concepts and methodologies	✓	✓	✓	✓	✓	✓	✓
15. Data and information management	✓	✓	✓	✓	✓	✓	✓
16. Data identification	✓	✓	✓	✓	✓	✓	✓
17. Integrate data	✓	✓	✓	✓	✓	✓	✓
18. Data setting	✓	✓	✓	✓	✓	✓	✓
19. Metadata - Describe and summarize data	✓	✓	✓	✓	✓	✓	✓
20. Data use and re-use	✓	✓	✓	✓	✓	✓	✓
21. Data processing methodology	✓	✓	✓	✓	✓	✓	✓
22. Exploratory data analysis	✓	✓	✓	✓	✓	✓	✓
23. Visualize data	✓	✓	✓	✓	✓	✓	✓
24. Statistical data analysis	✓	✓	✓	✓	✓	✓	✓
25. Specialised data analysis	✓	✓	✓	✓	✓	✓	✓
26. Business intelligence data analysis	✓	✓	✓	✓	✓	✓	✓



Please Note: The APS Data Profession – Data Capability Framework has a view of the data lifecycle components.

For consistency, this is the data lifecycle that has been referenced throughout this work.



Link: [SFIA 8](#)

Additional Links

- APS Digital and Data [Member Community Platform](#)
- APS [Data Profession](#)
- Delivering for Tomorrow: [APS Workforce Strategy 2025](#)
- The [APS Work Level Standards](#)
- The [Integrated Leadership System](#)
- APS [Job Family Framework](#)
- [Australian and New Zealand Standard Classification of Occupations](#)

Contributing Agencies

We thank a number of contributing agencies who were consulted throughout this work

2024 Lead Agency

Australian Taxation Office

Anne Foss and Rosalinda Wren

2022 Lead Agency

Australian Taxation Office

Rosalinda Wren and Susan Nixon

APS Data Profession

Project Working Group

Australian Taxation Office

Australian Bureau of Statistics

Department of Climate Change, Energy, the Environment and Water

Department of Defence

Department of Health

Department of Home Affairs

Department of Social Services

Additional contributors to the initial development:

*Australian Institute of Health and Welfare | Australian Public Service Commission |
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