



Australian Government

APS Data Professional Stream

**Data skills for informed
evidence and insights:**

*Australia's experience in
building a Data Profession*

Central Statistics Office

7 October 2022



Australian Public Service (APS) Data Profession



Source: Department of Prime Minister and Cabinet

Data Professional Stream



Launched September 2020



One of three APS professional streams: Data, Digital, HR



Purpose: uplift data capability across the APS



A wide range of initiatives being undertaken



The Data Professional Stream Work Program



Establishing the professional stream

Set up the professional stream

Establish a Senior Reference Group

Identify the Head of Profession

Develop a Professional Stream Strategy

Collaborate and network

Establish professional network



Getting it right from the start

Attract the right skills to APS roles

Streamline recruitment across the APS

Develop an APS profile

Build inclusion into the professional stream

Ensure appropriate entry level qualifications

Collaborate with the education sector to uplift entry level qualifications



Developing sophisticated and specialist capabilities

Enhance capabilities

Design job role profiles

Identify and develop capabilities

Identify and promote structured learning opportunities

Encourage learning by immersion



Embedding a professional workforce

Retain and grow workforce for the whole APS

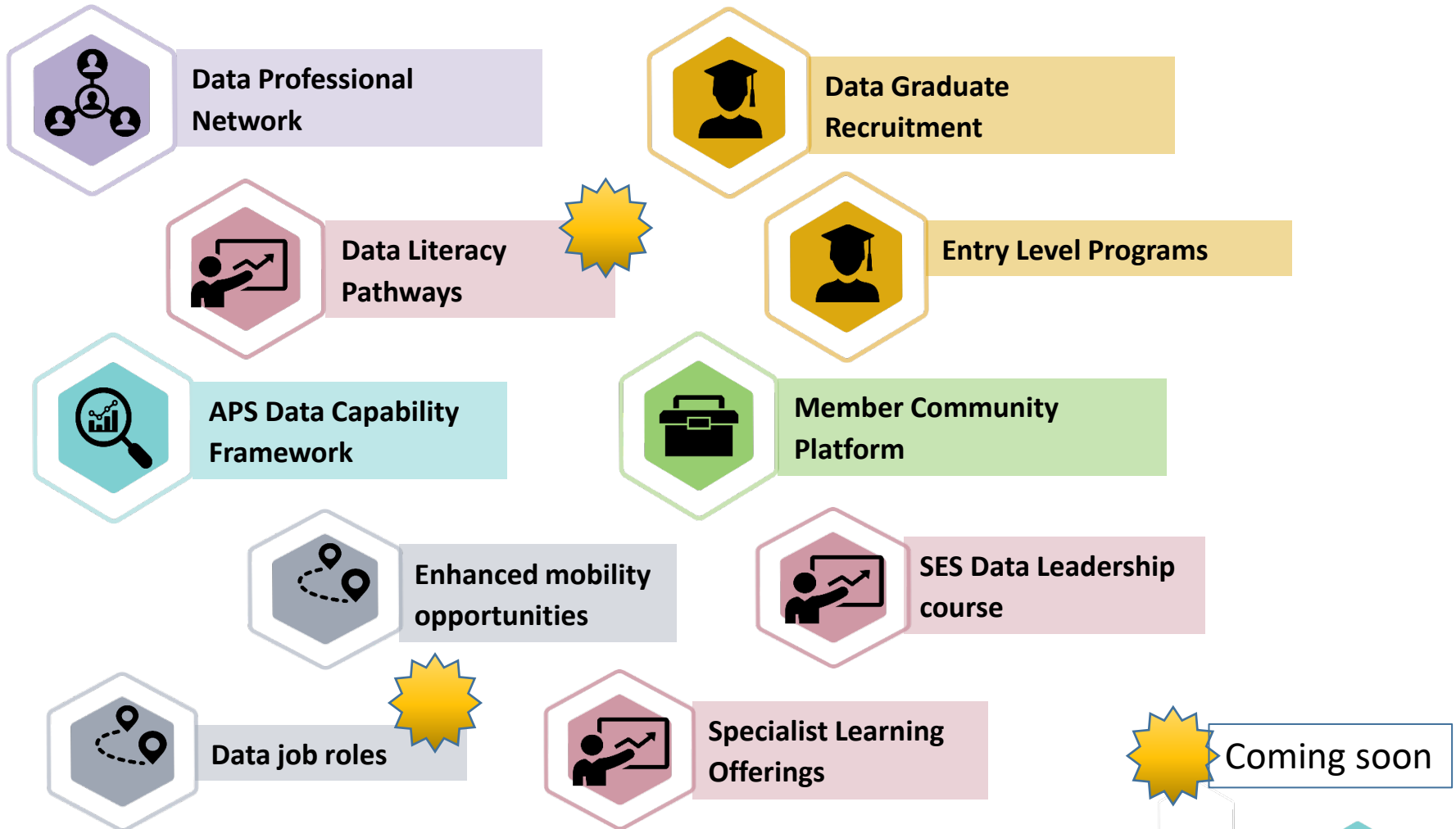
Define and promote career pathways

Support professional communities

Identify professional standards



What has been achieved?



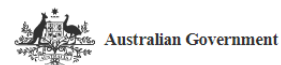
APS Data Professional Network

- By July 2022, 2100 members from across the APS and externally
- A LinkedIn group also allowed APS data professionals to network
- From August 2022, the network moved to the Data Profession Members' Community Platform.



Data Profession Members' Community Platform

- Co-hosted on the same platform as the APS Digital Profession

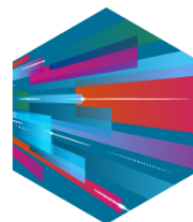


Data and Digital Professions members' community



Welcome to Data and Digital Professions

The Data and Digital Professions are now together on this members' community platform. You can join one or both Professions to access communities, resources, member profiles, job opportunities and Profession-specific events and training. [Sign up to join the Data and Digital Professions today.](#)



The MCP is a space for Data Professionals to connect and collaborate.

Key features:

- Communities of Practice
- Resource libraries
- Events
- Discussion threads and blogs
- Member directory
- Members can choose to receive emails summarising activity (either daily or weekly)



Welcome to the Data Profession members' community

As members of the Data Profession you are uniquely placed to use your skills to improve outcomes for the Australian people. With the increase in digitalisation, data is playing an increasingly important role in evidence-based policy development, regulation, and security outcomes for all Australians. And as data professionals, we also have a role to play in ensuring our colleagues are also appropriately up-skilled.

This members' community is your space to connect with other data professionals through communities of practice, or informally via the discussion boards; access mobility opportunities; register for events; and more. Just like the data profession itself, the overarching goal of this platform is to raise the data capability of the public service for better outcomes.

I encourage you to engage with this community to further your own skills, and those of your colleagues and to keep in touch with developments across the data landscape!

Sincerely,
Dr David Gruen AO
Australian Statistician and Head of the Data Profession

[#DataProfession](#)



Head of the Data Profession, Dr David Gruen AO, Australian Bureau of Statistics

Upcoming Events

Sep 8 ATO Data and Analytics Expo: To thrive in the data profession Sep 8, 12:30 PM - 01:30 PM (AEST) Register	Sep 9 ATO Data and Analytics Expo: Digital Government: The impact of bias on service delivery livestream Sep 9, 11:00 AM - 12:00 PM (AEST) Register	Sep 30 MasterCraft Series: Data and Technology in State Regulatory Practice Sep 30, 10:00 AM - 12:00 PM (AEST) Register	Sep 30 Fraud Analytics Detection COP Kick-Off Sep 30, 03:00 PM - 04:00 PM (AEST) RSVP
--	---	---	---

[More events](#)

Quick Links

 Check New Announcements Don't miss out on new announcements posted on your communities. ▶	 See Upcoming Events Join us at our upcoming events and training sessions. ▶	 Find Learning Resources Check our list of learning resources to grow your data skills. ▶
 Read Blogs Read new blogs from the Data Profession. ▶	 Join Data Communities Join communities to connect and share ideas with your peers. ▶	 Explore the Library Find shared guides, toolkits, and recordings from our events and training. ▶

Australian Public Service Data Graduate Recruitment

- We have recruited graduates for three data streams:
 - Data Analysts
 - Data Scientists
 - Statistical Methodologists
- 2021
 - 216 job offers
 - 140 graduates placed in agencies
- 2022
 - > 300 data graduates across the APS



Entry Level Programs

- Working with the Australian Public Service Commission (APSC) to establish new entry level programs
- Targeting undergraduates in data related fields
- Participants in this new data cadet program will be based in selected regional university campuses
- As well as undertaking paid work while still studying, data cadets will be provided additional training and networking opportunities



Career
Pathways

APS Academy Campuses

DATA AND DIGITAL PROGRAMS



APS Data Capability Framework

Provides the foundation to building data capability
and supporting data career paths



DEFINES

The **data** skills,
knowledge & behaviours
required in the APS



ONE LANGUAGE

Equips the APS with a
clear and consistent
language to use for data
capabilities



GUIDES

APS employees,
managers & HR to build
data capability and
expertise



Navigating the framework...

	PLAN	COLLECT	DESCRIBE	STORE	PREPARE	ANALYSE & USE	SAVE / DESTROY
1. Value organisational data as assets	✓	✓					
2. Data communication.....	✓	✓					
3. Improvement and Innovation - Data processes/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. Identify research questions.....	✓	✓					
11. Data outputs, products or services	✓						
12. Data collection methodology.....		✓					
13. Data integrity and quality assurance		✓					
14. Statistical concepts and methodologies		✓					
15. Data and information management		✓					
16. Data classification							
17. Integrate data							
18. Data editing.....							
19. Metadata - Describe and summarise data							
20. Data use and re-use							
21. Data processing methodology							
22. Exploratory data analysis							
23. Visualise data							
24. Statistical data analysis							
25. Specialist data analysis.....							
26. Business intelligence data analysis							

2. Data Communication

Effectively communicating with data or about data with a range of audiences.

Advanced

- Can develop and deliver advanced level narrative to communicate insights drawn from complex data sources and outputs.
- Maintains understanding of new trends and innovations relating to data communication (including Artificial Intelligence-based technologies) and develops skills in these where relevant.
- Understands the importance of translating technical concepts into non-technical language and can adapt communication effectively for a range of audiences.
- Can use innovative approaches to improve the process of summarising data into meaningful narratives.
- Uses high quality analytics and visualisation to communicate insights from data.
- Can effectively listen to technical and business stakeholders and understand and interpret their data needs.


Intermediate

- Can develop and deliver effective narrative to communicate insights drawn from a range of data sources and outputs.
- Can comfortably question data and results they are presented, and answer technical questions relating to their data, relevant to the audience.
- Can communicate effectively between technical and non-technical experts across data production, management, or use, including clients, managers and data professionals.
- Can effectively communicate the relationship between the data and the context in which it is used.

Foundation

- Can develop and deliver a simple narrative to communicate insights related to their data.
- Can ask and answer a range of questions relating to their data, relevant to the audience.
- Can communicate effectively with a range of stakeholders during data production, management, or use.

Associated Categories [Back to top](#)





Enhanced Mobility opportunities



Developing data skills through immersive learning:

- Aimed to uplift data capability
- Typically 3 – 6 months in duration
- Evaluated what worked well, and areas for improvement



Data Job Roles Overview

There are four core data roles that have been included in this suite of Data Roles.



Data Analyst

Data Manager

Data Scientist

Data Engineer

In addition there are two specialisation roles that have been included in this suite.



Geospatial Analyst

Statistician

Each persona highlights key descriptors of the role, providing common language in addition to outlining key technologies, specialisations and relationships

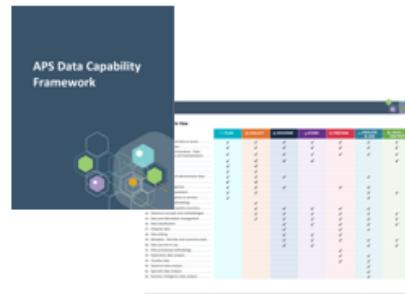


Key Technologies

Specialisation Roles

Key Relationships

The second page of each persona maps to the capabilities and proficiency levels of the APS Data Capability Framework (DCF) and Skills for the Information Age (SFIA 8).



Senior Executive Service Data Leadership Course

Uplifting data capability for Senior Executive Service (SES) officers to build a data-driven culture across the APS.

- Administered by the APS Academy



- Course content mainly delivered by ANU teaching staff.



Australian
National
University

CENTRE FOR SOCIAL RESEARCH &
METHODS
ANU College of Arts & Social Sciences



SES Data Leadership Course Modules

Masterclass: Why data matters and how to get value from it

Agency data governance and SES roles and responsibilities

Data analytics fundamentals

Influencing with Data

Managing Data

Data Quality

Emerging Data techniques



Data Literacy Pathways

- Five learning clusters are in the pathway
 - 2 are essential
 - 3 are recommended

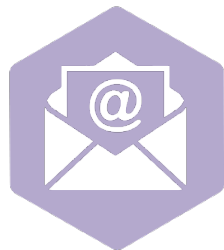


Contact the Data Profession



Registration Form

Join the network to receive newsletters from the Data Profession
<https://www.apsc.gov.au/initiatives-and-programs/aps-professional-streams/aps-data-profession>



Email

Contact the Data Professional Stream team directly
by emailing data.profession@abs.gov.au





Australian Government

APS Data Professional Stream

