



EMPOWERING THE APS

Digital Workforce Insights

Executive Version

ABOUT THE REPORT

This is the first Australian Public Service (APS) Digital Workforce Insights Report (The Report), commissioned as an action of the APS Data, Digital and Cyber Workforce Plan, which was published in March 2025.

The Report is intended to provide the APS (particularly digital leadership, workforce planners and recruiters) with insights into the challenges and opportunities presenting to the digital workforce. Given the rapid pace at which the digital landscape is evolving, it is intended that this report will be refreshed annually.

The Report acknowledges the difference in challenges faced by agencies dependent on size and role. Each area of potential focus includes some small changes that can be made within agencies, if not already taken. There are also suggestions for potential larger actions which would require broader collaboration across key agencies or a whole-of-APS approach. In most cases, it is the APS-wide approach that is most likely to shift the dial on potential outcomes for the service. This will also help to fulfil the requirements of agencies that don't have the means to undergo these changes on their own.

To note:

- Projections assume that the 7% annual growth of the digital workforce in the APS will
 continue over the next 5 years. There is, however, some speculation across industry that
 this will increase further.
- It is acknowledged that remuneration in the digital sector is a point of interest and challenge for many agencies. This report doesn't explore this in great depth as it will be considered in the Remuneration Benchmarking Report, which is currently being scoped as part of the Horizon One initiatives.
- Digital literacy across the APS remains a priority. This report is focused on technical capability rather than broad upskilling of the workforce, although exploration around Priority 1, detailed on page 6, may reveal opportunities for success in this area.
- It is anticipated that the shape of the digital workforce will change as artificial intelligence shifts the way work is done. The APS is yet to establish how this might look, but it will need to be monitored and considered as part of future insights reports.

Emerging Influences

Changes to the Enterprise Resource Planning (ERP) System

In the next 5 years, over 75% of Non-corporate Commonwealth entities must upgrade their ERPs as vendor support ends.² This will shift capability requirements along with potential reskilling opportunities. Many agencies will use 'software as a service', where a 'clean core' minimises reliance on technical capability. Implementation relies less on developers or deep technical expertise, and more on configuration, integration and data migration capability during setup, followed by ongoing business capability that leans towards optimisation rather than development.

Legacy Systems

The digital landscape within government is 'legacy-heavy', with over 40% of systems surveyed by the DTA self-identified as needing significant investment, at either 'approaching legacy' or 'at legacy' stage.³

Workforce risks are one of the key risks, as 20% of systems are already experiencing workforce resourcing challenges.⁴ It will be important for the APS to identify these capabilities to consider requirements for alternative development.

SUMMARY OF FINDINGS

The Challenge

The Australian Public Service is facing a potential digital talent shortfall of more than 8,000 people in the next 5 years.

A continuing digital transformation agenda and the evolution of emerging technology is placing even greater demand for digital roles than previously seen. If continued annual growth of 7% is assumed (although predictions by the Australian Technology Council and Australian Computing Society predict a higher rate), the APS will have some work to do in attracting, building and developing the workforce required in the future.

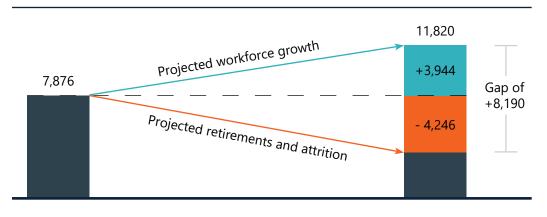
With the added challenge of nearly 1 in 5 digital professionals expected to retire by 2030,⁵ the APS will likely to need to fill more than 8,000 additional digital roles in the next five years.⁶

Additionally, the Future Skills Organisation is predicting a shortfall of more than 61,000 digital roles nationally by 2030.⁷ The APS won't be able to rely on the market to secure its digital workforce requirements for the digital future.

Much of this uplift may be found through redistribution of the existing APS workforce, particularly as emerging technology changes the nature of work. It is not anticipated that this increase in numbers would increase overall APS ASL, but rather leverage the changing face of the workforce.

The approach to digital capability will need to change going forward. What got us to this stage will not get us where we need to go. A clear and structured understanding of workforce needs will be critical to success.

THE APS MUST DOUBLE ITS DIGITAL WORKFORCE BY 2030 – ADDING 1 NEW DIGITAL WORKER FOR EVERY 1 CURRENTLY EMPLOYED



2024 2030

Emerging Priorities



1. Reconsider Educational Requirements

The APS can no longer rely on university qualifications to fill talent requirements.



2. Reskill for Success

The APS will need to look at reskilling at scale to ensure capability is available.



3. Diversify Location Strategy

The APS is currently fuelling an internal war for talent through its focus on ACT-based hires.



4. Build Pathways for Growth

The APS is demanding capability at midcareer, but graduates are dropping off before they get there.



5. Clarify Foundational Roles

The APS will need to identify which digital skills are the most pressing for development in-house.

3

CURRENT STATE PROFILE

Digital Workforce

A Year in Numbers

When looking at the digital workforce in the APS...

HEADCOUNT

WHAT IS THE CURRENT WORKFORCE HEADCOUNT?

7,876 current ICT and digital employees



23% are employed by a single agency

32.5% are women

AGE

WHAT IS THE AGE BREAKDOWN OF THE WORKFORCE?

40-44 is the median age group



9.13% are 60+

20.8% will reach median retirement age (61-62) by 2030

EDUCATION

WHAT IS THE EDUCATION PROFILE OF THE WORKFORCE?

70.8% have a Bachelor or higher



17.2% have a VET qualification as their highest qualification

COMPOSITION

WHERE DOES THE WORKFORCE SIT WITHIN THE APS?

63% fall into either APS6 or EL1



56.8% of new hires are APS5 or below

8.9% overall rate of promotion

LOCATION

HOW MUCH OF THE WORKFORCE IS ACT-BASED?

58.3%Of the APS ICT and Digital workforce is in the ACT



87% of vacancies include ACT as a location

40% of vacancies are advertised with 'ACT' as the only location

DIVERSITY

WHAT IS THE DIVERSITY PROFILE OF THE WORKFORCE?

1.7%
Aboriginal and Torres
Strait Islander



6.1%Disability

Neurodivergent

31.6%Culturally and Linguistically
Diverse

ATTITUDE

WHERE DOES THE APS SIT WITH THE WORKFORCE?

57.9% felt fairly remunerated



11% of those 'who have a desire

to leave' are driven by a desire for higher pay

CAPABILITY

WHAT IS THE CURRENT CAPABILITY OUTLOOK?

71% of agencies identified critical digital and ICT skill shortages



80%

identified Individual Flexibility Arrangements (IFA) as the key method to address critical skill shortages

APS Employment Database, June 2024 APS Employee Census data, 2024 State of the Service Report 2023-24, 2024 APSjobs vacancies 23/24FY, 2024

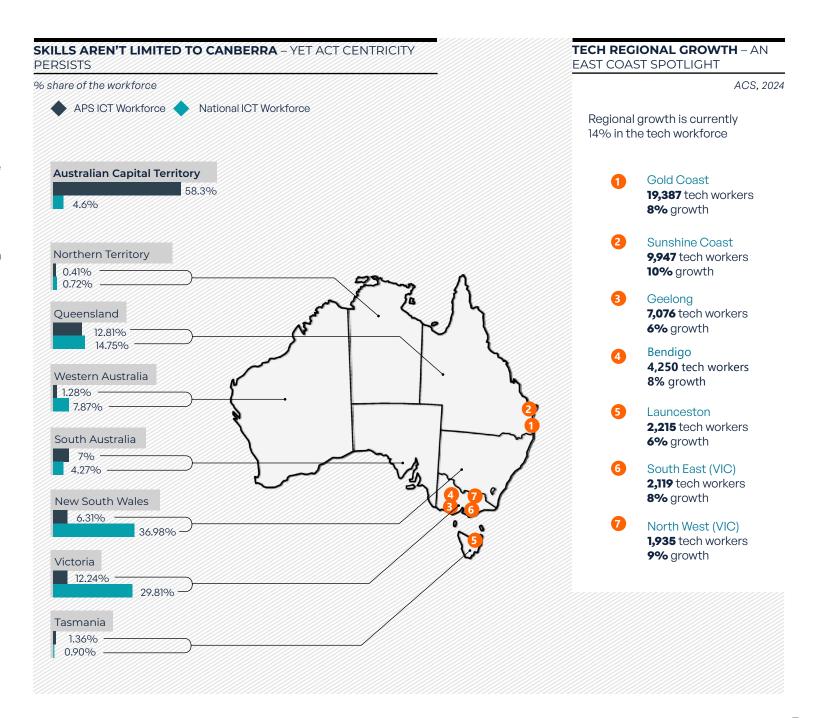
Distribution and Location

Geographic Distribution

Although 58.3% of the APS digital workforce is situated in the ACT, this is drawing from 4.6% of the national ICT workforce.

A shift to regional working is having a high impact on the distribution of the technology workforce, with 14% regional national growth in 2024.

At the current pace, it will take 132 years to balance the APS workforce between the ACT and the rest of Australia.⁸



Reconsider Educational Requirements

University graduates alone won't fill the capability gap

The APS will need to broaden education pathways to fill digital skills gaps.

The APS has long relied on graduate programs to source digital talent, primarily targeting university graduates with bachelor's degrees or higher. With 74% of new digital and ICT hires holding a bachelor's degree or above, this approach heavily shapes the talent pool. 9

To close the growing digital skills gap over the next five years, the APS will need to broaden its recruitment strategy and tap into more diverse education pathways.

The talent pool of degree-qualified candidates is shallow and fiercely competitive: only 38% of course completions come from domestic students, 10 and international graduates are ineligible for APS roles unless they hold citizenship. Meanwhile, just 14% of new APS digital and ICT hires hold VET-level qualifications. 11

This represents an opportunity to develop more strategic partnerships with the sector, ensuring the APS can leverage offerings to build the capability required by the service.

EDUCATION AS A SUPPLY OF CAPABILITY

Department of Education 2023, NCVER 2024

ICT University Completions: 27,876

62%International: 17,395

Domestic: 10.481

ICT VET Completions: 13,485



The opportunity

VET pathways offer flexible, practical upskilling and can boost workforce diversity through lower entry barriers and shorter study times. Although many employers say graduates need extra training to be job-ready, 12 the APS could benefit from strategic partnerships with VET providers to align training with specific capability requirements.

Micro-credentials are rapid, targeted skill development courses and are increasingly offered by tertiary education providers. Micro-credentials can help the APS quickly build, upskill or reskill its digital workforce to meet evolving needs.

Questions for agency consideration:

- Do roles require university degree qualification, or are they capabilitybased?
- What VET providers are offering quality education pathways aligned to required capabilities?
- How can capability requirements be fulfilled through alternative pathways?
- How can micro-credentials support rapid upskilling at critical points in time?

Exploring whole-of-APS opportunities:

 How can industry bodies, like the Australian Computer Society, assist with the quality control of VET offerings in line with APS requirements?

To further explore how this work is being put into action, see **Case Study 1** on **Page 12** to read about how NSW Government is innovating in this space.

Reskill for Success

Talent needs to be reskilled and upskilled internally

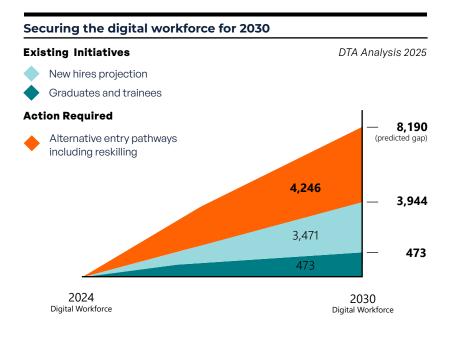
The ability to reskill and upskill the existing workforce at scale will be critical to filling digital requirements.

To meet the drastic increase in the demand for technical capability in the next 5 years, the APS will need to consider reskilling (in terms of specific capability) at scale in a more strategic and whole-of-service way. According to the 2023 ACS Digital Pulse, 206,000 tech workers were reskilled over the 5-year period to meet 2021 tech worker demand.¹³

Currently, the APS digital workforce relies heavily on contractors — with ICT roles being the second most outsourced — primarily due to persistent talent shortages. However, continued reliance on contractors is not sustainable.

At a continued growth rate of 7%, the APS digital workforce is projected to grow by nearly 4,000 over the next 5 years. ¹⁴ During this period, 500 people will enter through digital graduate programs and traineeships. However, approximately 1,800 members of the digital workforce are projected to retire over the same period.

This leaves a predicted shortfall of over 8,000 people required to enter APS digital and ICT roles in the next 5 years.



Reskilling and upskilling to fill critical capability shortages

Capability shortages are a high risk for many digital projects in the APS. 71% of agencies reported critical digital workforce gaps in the Agency Survey,¹⁵ and 74% of agencies identified resourcing as a key risk in the Approved Programs collection.¹⁶

To meet future demands, the APS must consider building required talent in-house and at scale. Reskilling may leverage available VET offerings, and potential strategic partnerships with the sector, as suggested in Emerging Priority 1.

Questions for agency consideration:

- What roles are being impacted by automation? How can affected employees be reskilled?
- What offerings might contribute to reskilling diverse cohorts?
- What on-the-job experiences contribute to quality capabilities?
- What existing skills and behaviours align with reskilling into a digital career?

Exploring whole-of-APS opportunities:

 How might a whole-of-service approach impact the quality and breadth of learning for those reskilling?

To further explore how this work is being put into action, see **Case Study 2** on **Page 12** to read about how the Commonwealth Bank of Australia is responding to growing challenges.

Diversify Location Strategy

Most of the national digital talent is not in Canberra

Canberra-centric hiring is driving up digital talent costs.

The APS is creating an internal talent war, increasing competition and cost. Nearly 60% of the digital talent in the APS is Canberra- based, 17 whereas only 4.8% of national talent is in Canberra. 18 This significant imbalance drives up costs and limits workforce availability, necessitating a strategic shift to ensure the APS remains competitive and capable of attracting toptier talent, while not overpaying by national standards.

APS continues to miss out on a wider pool of talent

Limited local supply forces the APS to compete fiercely for a small pool of professionals. A cyber security analyst in Canberra typically earns \$140k, 9 whereas an APS cyber security analyst salary is typically just over \$100k.20 Contractor rates are generally higher within the ACT, which offers an opportunity for the APS to leverage savings by looking outside the ACT.

REMUNERATION DISPARITY – APS vs. ACT vs. Australian Median ACT Median (Australia) Hays 23/24 Salary Guide, APS Remuneration Data 33% 25% 23% 20% Senior Test Analyst Engineer 17% 11% Software E 8% 7% Systems Analyst % Test Manager % Engineer Security Architect Threat Analyst Senior Software Engineer ation Tester APS remuneration falls below the Australian median E 12% 12% in all but two roles. although ACT remuneration is 23% higher for all roles

Breaking the Canberra bottleneck requires a digital location strategy

To address these challenges, the APS will need to exploit regional salary differences and embrace contemporary work arrangements like remote work. Despite many roles being location-flexible, 40% of APS job ads remain ACT-exclusive. ²¹ By diversifying job advertisements and promoting remote work, the APS can enhance its Employee Value Proposition and attract talent from across Australia.

A digital-focused location strategy, aligned with the APS Location Framework Principles, could guide when to offer remote work versus cluster talent. Clustering has proved effective both globally (Silicon Valley) and locally in foster digital expertise, driving innovation, and address high-security role challenges.

Questions for agency consideration:

- What roles must remain in Canberra due to security or infrastructure purposes? For those with location constraints, are there components of the work that can be done outside of a protected or upwards network?
- Can virtual panels be leveraged to ensure inclusivity of diverse locations?
- How can the Employee Value Proposition for remote staff be refined?

Exploring whole-of-APS opportunities:

Where are the opportunities to create hubs in key locations that bring digital staff together for problem solving, development and collaboration, to build a digital cohort and improve retention?

To further explore how this work is being put into action, see **Case Studies 3** and **6** on **Pages 12-13** to read about how the APSC and the ABS are tapping into regional talent.

Build Pathways for Growth

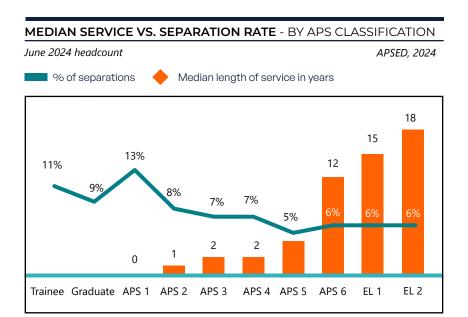
Trained, hired, gone

The pathway from career entry to APS6 needs to be clearer.

The APS digital workforce is known for its stability. Once people are in, they tend to stay — the typical person who leaves the service has been with us for a decade or more. APS early attrition is a growing concern. Almost 1 in 5 ongoing employees leave within their first two years and 1 in 4 are under 30 years old. 22 That's a significant early-career drop-off, particularly when considering the resources that go into recruiting and onboarding new talent.

Among trainees, the trend is even more striking. While they make up less than 1% of the digital workforce, trainees account for more than 1 in 50 separations, ²³ a small but telling signal that entry-level pathways may not be setting people up for long-term success. Around 1 in 3 entry-level staff who are considering leaving say it's to further skills in a different area. ²⁴ In contrast, the primary driver for mid-level staff to leave is pursuit of promotion. If opportunities are not provided to grow and broaden experience internally, mid-career employees are likely to look elsewhere.

To further explore how this work is being put into action, see **Case Studies 4** and **5** on **Page 13** to read about how the Digital Profession and the Future Skills Organisation are rethinking career pathways.



Support transition from entry-level roles into middle management

Most new hires enter at APS5 or below, but without clear and supported pathways, the APS risks losing those who have had the greatest developmental investment as graduates and trainees.

Stakeholders across the APS consistently express a preference for mid-career professionals: those who can combine technical expertise with leadership capability and hit the ground running. This creates a bottleneck, with the APS not growing enough of this talent from within, while sourcing it externally is becoming more difficult.

Consider the opportunities for retiring experts

With 20% of the current APS digital workforce due to hit the average age of retirement in the next 5 years, it will be critical for the service to establish pathways that facilitate the continuation of corporate contribution and availability of organisational knowledge.

Policies and processes that facilitate endurance of organisational knowledge will be key, including the encouragement of part-time work, allowing for meaningful contributions, mentoring junior staff, and alignment to positions on relevant governance committees.

Questions for agency consideration:

- What areas of transition could prove difficult for employees and how can they be better understood and/or supported?
- Are entry-level employees reaching mid-level roles as would be anticipated?
- What experiences do entry-level employees require to perform well at middle levels?

Exploring whole-of-APS opportunities:

- How could the DLC take on a talent development role for entry-level employees post-intensive development, to ensure they are moving into the best possible roles and fulfilling their potential?
- What enticements or rewards could be offered to encourage the ongoing contribution of retiring digital experts?

Clarify Foundational Roles

Clarify the capability required to keep the lights on!

Identify the capability that needs to be built in-house compared to what is sought from the market.

Reducing reliance on contractors and external labour hires is core to the government's agenda for efficient and effective delivery of public services. To ensure the APS can deliver both current service requirements and the government's digital transformation priorities, it is essential to identify which digital capabilities are critical to these roles.

By understanding which capabilities need to be developed in-house versus those best sourced from the market, the APS can take a more strategic and deliberate approach to capability development and outsourcing. This includes clarifying what roles are:

Foundational: essential to maintain operations and service continuity.

Niche and Specialist: enabling innovation, digital uplift, and future-readiness. Often specialised, rapidly evolving, and central to delivering on reform and transformation.

The Strategic Commissioning Framework, a government commitment to reduce outsourcing of core public service work, offers APS agencies an opportunity to clarify core work for digital roles.

TOP IN-DEMAND APS ROLES

June 2025

Agency Survey 2024, Digital Marketplace 2025

MOST DIFFICULT SKILLS TO FIND

Agency Survey

- Cyber Security Specialist
- Enterprise/Technology Architect
- ICT/Digital Project Management
- ◆ IT Systems Architect
- ICT Project Specialist

MOST IN-DEMAND CONTRACTORS

Digital Marketplace

- Software Engineer
- Infrastructure Engineer
- IT Architect
- Test Analyst/Performance Tester
- ICT Project Specialist

TOP IN-DEMAND SKILLS IN THE ICT INDUSTRY - AN EVOLUTION

Ranked across 3-year increments

Computerworld 2011-2015, IT Career Finder 2022-2023, Skillaroo 2024, and Latitude IT 2025

Pre-Industry 4.0

GenAl Emerges

2012	2015	2021	2024	2025
Programming & Application Development	Programming & Application Development	Cybersecurity	Al / Machine Learning	Al / Machine Learning
Project Management	Project Management	Big Data and Internet of Things	Cloud Computing	Cloud Computing
Help Desk / Technical Support	Help Desk / Technical Support	Al / Machine Learning	IT Systems and Support	Cybersecurity
Networking	Security / Compliance Governance	Cloud Computing	Full-Stack Development	Data Science and Analytics
Business Intelligence	Web Development	Software Development	Data Science and Analytics	Software Development

Questions for agency consideration:

- What roles are required to keep core services running?
- What roles are critical to deliver transformation?
- What are the capabilities most difficult to secure from the market?

Exploring whole-of-APS opportunities:

 How could centralised identification of critical digital roles assist in broader APS digital workforce planning and strategic capability building to impact agencies of all sizes?

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Case Studies

CASE STUDY 1:

NSW 20% Alternative Pathways Pledge

The NSW Government has committed to sourcing 20% of digital entry-level hires from alternative pathways by 2030. This includes non-university routes into the sector, including VET courses, traineeships, micro-credentials and earn-while-you-learn models of capability building.

Not only does this deepen talent pools, but also drives cultural change to provide greater opportunity for underrepresented cohorts such as women, people with disability and First Nations employees.

In 2024, 22 Compact Partners signed onto this commitment, including from state government, multinationals, industry bodies and education providers. CASE STUDY 2:

Commonwealth Bank of Australia (CBA)

Australia's largest bank employing 49,000 people has needed to think outside of the box to ensure they have the digital workforce for now and the future. They have several reskilling programs on offer:

CloudUp for Her: a learning program to become an AWS Cloud practitioner.

Career Transition Program: a pathway for people wanting to reskill into tech.

Technology Associates Program: an alternative entry pathway to a technology career.

CBA is embracing a non-programmatic approach to reskilling, focusing on upskilling/reskilling on the job with key points of formal learning to drive skills upward, then practicing in the flow of work. Reskilling is viewed as a key strategy for talent retention and is deployed to ensure those impacted by automation can transition and continue adding value to the business.

CASE STUDY 3:

APS Academy Campus

The APS Academy Campuses are a pilot program, established by the Australian Public Service Commission (APSC) in partnership with regional universities. The APS Academy Campus program aims to increase data and digital professionals within the APS by leveraging talent and capability in regional Australia. They enable students or career changers in regional areas to develop skills across in-demand data and digital fields without having to leave their community, achieved through academic and on the job APS experience. The program is currently being implemented in partnership with two regional universities:

- The University of Newcastle located in Newcastle, NSW
- James Cook University located in Townsville, QLD

15 agencies have employed 60 data and digital participants since the Campuses opened in 2023, recording high satisfaction from participants and supervisors. Campuses are attracting untapped talent in regional locations, with 41% of participants saying they would not have considered an APS career without the campuses. There are high completion rates, and 24 of 27 participants who have finished remain employed with the APS in data and digital roles.

Case Studies

CASE STUDY 4:

APS Career Pathfinder

The APS Career Pathfinder stands out as a strategic, service-wide tool designed to empower both agencies and employees in navigating career development across the APS.

APS Career Pathfinder supports employee-driven planning by mapping career pathways, particularly between APS3 and APS6 levels, while also enhancing workforce planning at the agency level.

Positioned as an initiative under the APS Data, Digital & Cyber Workforce Plan, the APS Careerfinder will be enhanced to include mobile accessibility, Al-powered skills verification, and integration with APS Jobs to improve role visibility and matching. APS Career Pathfinder is backed by agency adoption guidance, capability frameworks, and behavioural insights to support upskilling and reskilling.

CASE STUDY 5:

FSO Entry Level Pathways Project (to be completed Q4 2026)

The Future Skills Organisation (FSO) is currently running a project to define up to 10 entry-level pathways in the technology sector, outlining the knowledge, skills, and attributes required for each. By validating these pathways with industry, the project will establish a shared understanding of digital skills needs to guide the vocational education and training system. Insights will inform the design of qualifications, starting with the ICT Training Package, and deliver a data-driven framework for employers, clear direction for training providers, and support for diverse learners in accessing meaningful tech careers. This champions a 'skills-first' approach to recruitment and training, improving workforce readiness and strengthening industry engagement.

CASE STUDY 6:

Australian Bureau of Statistics Location Strategy

The Australian Bureau of Statistics (ABS) demonstrates what can happen when an agency embraces flexibility in location. Over the last 10 years, the ABS has focussed on tapping into the technical talent pool outside of Canberra to ensure location is not a barrier to attracting ICT staff. This has resulted in substantial technical workforces based in jurisdictional offices. Today, the ABS operates with 70% of their digital workforce outside Canberra and have a general expectation that people will be in an office 40% of the time, encouraging them to be located within commuting distance of an office.

Each jurisdictional office generally manages a primary area of focus, such as economic household statistics, but the ABS works to a general rule of seeking the right person for a role, independent of location.