

# Modernization Processes in National Statistical Offices - Transforming the Australian Bureau of Statistics

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## Abstract

The Australian Bureau of Statistics (ABS) has commenced one of the most significant change processes in its 100 year history. In order to harness new opportunities, meet changing community expectations and ensure its ability to continue to provide trusted statistics that shape decision making, the ABS Transformation will encompass activity across six dimensions – environment, strategy, governance, people, culture and infrastructure.

This paper explores the drivers and goals guiding the ABS Transformation, as well as the actions underway across each of these six goal areas and how we will measure our progress over the coming years. It posits that the success of the transformation will be driven not only by the ABS's ability to implement a new set of statistical business infrastructure and processes, but by the way in which our people work, with new skills and a transformed culture.

## Key Words

Transformation, Environment, Strategy, Governance, People, Culture, Infrastructure, Statistical Business, Stakeholders, Data Integration, Risk, Change.

## 1. Introduction

For over 100 years, the ABS has contributed to the wellbeing of Australians and to the effective functioning of Australia's democracy by providing high quality statistical information to governments, researchers and the community to influence important decisions.

Over this period, the ABS has evolved alongside Australian society. As technological advancement accelerates globally, community expectations and the ABS's operating environment are rapidly changing. The ABS has needed to take stock of its systems, processes and work practices in order to best position itself to continue to provide trusted official statistics that will help enable a brighter future for the Australian community.

The ABS has a proud history of producing independent statistics and maintaining the highest standards of privacy and confidentiality. The ABS consistently rates as one of Australia's most trusted institutions. In 2015, a Trust in ABS and ABS Statistics survey revealed institutional trust in the ABS was high amongst general community respondents, with 81 per cent indicating that they either tend to trust or greatly trust the ABS (ABS, Trust in the ABS and ABS Statistics, 2015).

However, the ABS recognises the need to significantly transform across all aspects of the organisation if we are to realise our vision of unleashing the power of statistics for a better Australia.

## 2. Drivers for transformation

The ABS operates in a dynamic environment. New opportunities for accessing and interrogating a vast amount of administrative, transactional and other data are becoming available, increasing the potential to provide new insights into matters of importance to Australians.

The statistical landscape is becoming more complex, expectations of decision makers are growing, and we are being challenged to deliver the best possible statistics in more efficient and innovative ways.

In this more complex, volatile and interconnected environment, meeting growing stakeholder expectations and measuring real world changes has become significantly more challenging. People now want real time access to data that can be queried online twenty-four hours a day, seven days a week. They expect to be able to query ABS data and merge it with data from other sources to answer the complex policy and research questions of the day.

This broader social context sits alongside major reform agendas at a whole of government level. Agendas such as innovation, digital transformation and public data management reform are not only reflective of our changing global context, but require the ABS to help drive change across the public sector. At the same time, the commitment of successive governments to efficiency, smaller government and red tape reduction shapes the way in which we must tackle our challenges. In transforming, we must not only achieve advances in what we deliver and how we deliver it, but we must make long term cost savings. The ABS has exhausted its capacity to find efficiencies within our current systems and processes to generate

periodically mandated productivity savings, meaning that reductions to the ABS's work program will be necessitated unless we embrace more comprehensive change.

The ABS has technological infrastructure and associated statistical processes and tools that were largely built in the 1990s. This ageing infrastructure is siloed, fragile, inflexible and increasingly costly to maintain. The ABS's dissemination tools lack the modern capabilities that could enable more extensive analysis of statistics at geospatial, aggregate and microdata levels. Data is primarily acquired through survey responses and the use of large numbers of field staff to collect information. The ABS's processing functions are largely manual, which restricts our ability to provide timely statistics. These stresses have been evident for several years with significant operational challenges arising in the production of key economic indicators and statistics about our population. Without change, this has the potential to risk public confidence in the ABS as Australia's trusted provider of official statistics.

The Australian Government undertook a Capability Review (APSC 2013) of the ABS in December 2013. This review found that many external stakeholders felt that the ABS was insular, inflexible and unreceptive to feedback. These stakeholders indicated that they would welcome greater collaboration and willingness from the ABS to find ways to meet their needs, rather than it citing concerns regarding confidentiality and independence as reasons to remain disconnected from its broader environment. It was noted that the traditional ABS approach to managing stakeholder interests within Australia was not keeping pace with changing expectations in a complex, networked environment.

The Capability Review also recommended a focus on governance and decision making processes, performance management, workforce diversity, and increasing political acumen, noting that cultural change would be pivotal to the ABS becoming more outcome focused.

The confluence of these factors has made it clear that, for the ABS to continue to play a key role in shaping Australia into the future, it must undergo a holistic transformation across its systems, processes, capabilities and behaviours.

### 3. ABS Transformation – six dimensions

From May 2015, the ABS is implementing a wide reaching transformation program, supported by a new structure and governance arrangements, and substantial Government investment in modernising our infrastructure. The ABS Transformation will enable the ABS to collaborate better with partners, develop more responsive solutions, make the best use of technologies, and be a high performing organisation. The goals of the transformation are described against six areas of organisational focus:

1. **Environment** - We will collaborate with stakeholders to understand and respond to the current and future external environment;
2. **Strategy** - Our strategies will enable rigorous statistics, strong partnerships, and effective use of resources;
3. **Governance** - Our governance will support responsive decision making, prioritisation and management of enterprise risk;
4. **People** - We will have a diverse, expert, motivated and agile workforce;

5. **Culture** - We will be high performing, aligned, engaged, innovative and accountable; and
6. **Infrastructure** - Our infrastructure will be effective, efficient and adaptable.

The broader ABS Transformation is underpinned by the Statistical Business Transformation Program (SBT Program), which will transform the way we collect, manage and deliver information and statistics, enabling the ABS to continue to fund our existing work program and respond effectively to the changing needs of our users.

In May 2015, the Australian Government agreed to fund the SBT Program at a cost of \$250m (AUD) over five years (ABS, Government Investment in the ABS, 2015). Through this work, the ABS has committed to:

- reduce the risk of statistical failure;
- reduce the future cost of ABS operations by 10 per cent after 1 July 2020;
- achieve a more responsive turnaround for our clients;
- through the above, grow the business; and
- reduce red tape.

#### 4. How we will achieve transformation

##### *Transformation governance*

To ensure close alignment between our transformation activities and our business as usual work, the governance of the ABS Transformation is integrated into broader ABS governance structures. Weekly meetings of our senior leadership include standing items to discuss transformation, and all ABS management and staff are encouraged to consider all activity through a transformation lens.

Given the specific Government processes that apply to the SBT Program, including regular 'Gateway' reviews by external reviewers, it has its own governance structure, but this is aligned to the ABS's broader governance structure and the philosophy underpinning the ABS Transformation. A fortnightly Program Delivery Board comprises leaders within the SBT Program and key enabling areas across the ABS, and is chaired by the Deputy Australian Statistician, Statistical Business Transformation Group. This committee reports to a Program Executive Board, chaired by the Australian Statistician, which includes all of the ABS' Deputy Statisticians as well as external members from elsewhere within the Australian Public Service and private sector.

##### *Articulating our agenda*

At a high level, the ABS Corporate Plan (ABS, Corporate Plan, 2015) articulates our transformation agenda, tied to our vision of 'Unleashing the power of statistics for a better Australia'. It outlines three key objectives:

- Informed decisions – decisions on important matters are informed by quality official statistics and value-added statistical solutions;
- Trust and Support – Government, business and the community trust the ABS and have confidence in ABS statistics; and

- Dynamic statistical system – The ABS is a collaborative partner in building a responsive statistical system that meets current and future requirements.

To achieve these key objectives a set of strategies have been developed across each of our six goal areas.

### *Environment*

In this goal area, we will focus on the recommendations of the Capability Review, and seek to be more open and responsive to meeting stakeholder needs and expectations. The ABS will work with governments and the community to increase support and appetite for maximising the value of public data through data sharing, re-use, and integration. During transformation, we will carefully manage impacts and risks for our statistical outputs and engage with a wide range of stakeholders on the changes. We will collaborate with experts on key methodological and technical elements.

This work will build on the ABS' first Statement of Expectations (Australian Government, 2015) and resulting Statement of Intent (ABS, Statement of Intent, 2015), which committed the ABS to be 'more open in its engagement with stakeholders' and to 'respond to new information requirements in a timely manner'.

The implementation of the ABS Engagement Strategy will ensure we are a connected and responsive partner in government, open to meeting the needs and expectations of our stakeholders. The strategy is based on three principles which guide our engagement and facilitate a shared vision, shared benefit and shared solutions with our partners: understand, nurture and collaborate. A corresponding Relationship Management Plan provides a clear focus for embedding relationship management as a core part of our business.

Biennial assessments of the health of our relationships will allow the ABS to track its performance over time and, refine its engagement activities, and update the Relationship Management Plan with new and emerging partnerships.

### *Strategy*

In this goal area, the ABS will significantly enhance our ability to deliver statistical solutions which effectively inform matters of importance to Australia. This work, guided by clear priorities expressed in our Forward Work Program, will transform the ABS statistical program, enabling us to exploit new opportunities and better meet the evolving needs of users. Enhancing our statistical capability involves major redesign of our statistical collections, methods, products and services in order to deliver a more sustainable statistical program that extracts greater value from all available data.

A key area of focus will be increased data integration, bringing together existing data sources or collections efficiently and safely, to create richer solutions for statistical, policy and research purposes. As Australia's national statistical agency, the ABS is well placed to play a pivotal role in leading public sector data integration activities and access. We will work in partnership with data custodians and users to build on the range of data integration projects currently undertaken. Through investment in infrastructure and expertise, the ABS is well placed to undertake high risk integration projects, including those involving the linkage of sensitive data.

By maximising the use of multiple data sources, statistical methods and flexible access to data, we aim to:

- produce higher value (timely, relevant, accurate, coherent, interpretable and accessible) statistics that meet current and emerging policy and research requirements;
- provide new and enhanced options for creating responsive and cost effective statistical solutions (data integration, modelling, and increased use of administrative and transactional data); and
- achieve better measurement of outcomes for industry and population groups of interest, including key life cycle transitions and pathways.

The cost of ABS traditional survey collection methods has been increasing over time. We need to seek new ways of gathering data which are less intrusive and less costly for households and businesses. We will transform our current survey program to be more responsive and flexible to meet current and emerging information needs through the consolidation and integration of household and business surveys.

By transforming our survey program, we aim to:

- meet increasing information requirements at lower cost;
- provide greater opportunities for links between Census data, business and household survey data, and administrative datasets, to enrich the range of variables, enable longitudinal analysis, and enable modelling of data for small areas and populations;
- provide more frequent statistics or regional estimates for population groups and industries ;
- achieve better measurement of outcomes for regional Australia, including the diversity and sustainability of regional economies;
- improve collection methods to reduce respondent burden (such as online, machine to machine, and single reporting to government); and
- use alternative data sources (such as administrative data, transactional data, and earth observations) to replace direct collection methods where possible, while ensuring the continued quality of our statistics.

## **Governance**

Achieving the transformation will require the ABS to simplify and streamline organisational governance to enable transparent and responsive decision making, flexible resource allocation, and efficient risk management. We will review policies and legislation to ensure that they are enabling and fit-for-purpose, and look to deliver maximum value in our use of public money through robust prioritisation, informed through consultation with key stakeholders.

A key guiding instrument is the ABS's updated Risk Management Framework. The framework ensures there is a mechanism in place for monitoring and identifying shifts in risk exposure and the emergence of new risks. It also articulates risk tolerances and actions required when risks reach certain levels.

We recognise that we are operating in an environment of increased statistical risk, due to reliance on aging infrastructure and the pressures created by our transformation agenda operating in parallel with our existing statistical program. Ensuring there is minimal disruption to the statistics we produce throughout our

transformation period, especially to key economic statistics, will be a high risk management priority. Statistical risk management plans will be produced for each statistical output during transformation, and reviewed on a regular basis.

## *People*

This goal area has three key points of focus: building and investing in a high performing workforce able to meet future capability needs; embracing diversity of skills, thinking and experiences amongst our people; and motivating and challenging our people while providing a working environment that supports productive and flexible ways of working.

The ABS Workforce Strategy 2015-19 provides a four year outlook to help us undertake our workforce transformation. Through this strategy we will reshape our workforce capability to ensure we have the right people with the right skills to transform while continuing to deliver high quality official statistics, and that we use our skills effectively and efficiently.

We will align our staffing profile and structure to our Forward Work Program to ensure: our staffing profile and structure are affordable and enable an agile, productive, and innovative workforce; and that we capitalise on contemporary ways of working and our geographic diversity (as we have offices in every state of Australia). We will build a high performing culture, improve our diversity to ensure our workforce is representative of Australian society, and make health and wellbeing and organisational priority. We will improve our leadership to drive a high performing culture, ensuring our leaders are exemplars of the values and behaviours that will drive achievement.

The ABS Workforce Strategy also links to a series of well-established people plans and strategies including the Statistical Capability Plan, and diversity plans that aim to attract, retain and further develop a diverse and high performing workforce. It will be implemented through annual People and Culture Action Plans.

## *Culture*

Transforming our culture is fundamental to success across the other dimensions of the transformation. The ABS's focus in this area is on providing leadership which sets clear expectations and accountabilities, empowers our people, values and capitalises on diversity, encourages collaboration and manages for high performance. We will seek to embed this approach through effective communication with staff and stakeholders to build commitment and facilitate their contributions.

An emphasis on culture is embedded across the key strategies and plans for each of the transformation goals, with an emphasis on behaviours consistent with the Australian Public Service values of impartiality, commitment to service, accountability, respect, and ethics.

The ABS Change Management Strategy and the ABS Transformation Internal Communication and Engagement Strategy guide our activities to generate support for transformation amongst the ABS's people, and seek their input and feedback to ensure that cultural change keeps pace with the system and process changes they will encounter. Activities such as quarterly Transformation Showcase events highlight achievements and the benefits of transformation for staff, stakeholders and the

organisation, while highlighting the behaviours – collaboration, responsiveness, innovation and adaptability – that will underpin our success.

### ***Infrastructure***

In this goal, we will deliver on government expectations in developing contemporary, efficient and sustainable infrastructure, re-engineer end-to-end business processes and deliver agile, flexible infrastructure to support responsive statistical solutions, and expand digital initiatives to meet changing user, provider and producer needs and expectations.

The SBT Program is the key enabler for the infrastructure transformation and its key components are articulated in a Five Year Program Plan and High Level Schedule. This work will in part enable the cultural change required by staff to operate in the new environment but will also be underpinned by the principles of developing a culture of leadership, trust, innovation and high performance.

The establishment of fully automated and modern design techniques for the ABS information technology environment has provided a platform for quickly implementing transformation projects. The new infrastructure provides more agile and efficient delivery of business systems, and improved security compliance.

Shifting from systems and process silos to a capability-based delivery model will ensure more cost-effective acquisition, processing, analysis and dissemination of administrative, survey and census data. Reengineering will facilitate the streamlining of processes, systems and applications across collections; irrespective of stream (household, business, population or economic) where synergies are either already known or will be identified.

A single, logical data management environment – comprising a set of business and technical services, associated processes, documentation, standards, and systems – supports metadata-enabled statistical production. The solution provides data which is discoverable, intuitively re-useable and fit for purpose. A Statistical Workflow Management System environment is being developed to automatically execute statistical business processes and assemble new business processes from a library of re-useable, robust and tested components. This system empowers the ABS to effectively manage work allocations, staffing resources and training requirements, producing a more streamlined, responsive and agile workforce.

In addition to the statistical infrastructure solutions of the SBT Program, the ABS is undertaking transformation in terms of its enabling technology and working environment, moving to more flexible working arrangements enabled by updated personal computing solutions that allow people to work from any location at any time. This will achieve a reduction in our property footprint while encouraging greater collaboration.

## **5. Measuring our progress**

### ***Target Operating Model***

The ABS is currently in the process of developing a new Target Operating Model (TOM), which will provide a view of how all the elements of the organisation are structured, operated, and managed together to help deliver on our strategic priorities:

- Delivering high quality statistics;
- Strengthening our partnerships; and
- Driving high performance.

The TOM will assist the ABS to build a consistent and co-ordinated view of its business, and how it will be configured across in terms of people, processes, technology and information. It will leverage the work undertaken across the transformation goal areas and, in turn, test for gaps in our transformation agenda.

### *Formal reviews and assurance*

Progress in terms of the SBT Program will be measured through a range of assurance processes including recurring external Australian Government ‘Gateway’ reviews to establish progress, and assess the program’s execution and maximisation of benefits. These are staged throughout the life of the program, with the exact timing depending on the outcomes of the previous review and coinciding with key decision points. The SBT Program is also expected to be subject to review by the Australian National Audit Office toward the end of the program lifecycle.

An external provider undertakes ongoing assurance for the SBT Program, providing independent advice to challenge the ABS’s thinking and inform critical decision making, including assurance over program management processes and controls, communications and benefits management.

### *Stakeholder consultation*

In May 2016, the ABS commissioned an independent assessment of the health of its key stakeholder relationships to provide high level advice on stakeholders’ priorities and perceived concerns in their dealings with the ABS, as well as their suggestions for how the ABS can improve its relationships with stakeholders. The ABS is also undertaking periodic bilateral consultations with key strategic partners. The ABS will use the feedback received through these processes to guide further implementation of the ABS Engagement Strategy.

### *Transformation surveys*

To track the experiences and sentiments of ABS staff, and accordingly adjust our strategy and approach, we will run twice yearly online Transformation Surveys, and consider the results alongside responses to the annual State of the Service survey run across the Australian Public Service.

The first of these surveys was run in February 2016 and was completed by more than 1000 ABS staff (around 30 per cent of all staff), with strong response rates across all staff levels and physical locations. The survey provided highly useful information about people’s understanding and perspectives on the ABS Transformation at this early stage in our journey. This baseline survey was encouraging because significant proportions of our people indicated that they are motivated by the ABS Transformation vision. Almost half of staff had seen improvements and believed things were on track for a successful transformation, which was significant at such an early stage.

A small but significant group of people was either undecided or remained unconvinced about the transformation, particularly since the detail of the changes required have not yet been fully scoped and therefore communicated. Further work is

needed to communicate how the transformation will unfold and its likely granular and specific impact on teams. These findings are driving the updating and implementation of our change management, communication and engagement strategies.

## 6. Conclusion

The ABS is at an early stage in our transformation process, but it is already apparent that this change will not be restricted to changing what we do, or the systems and processes by which we do it. Over the coming years, we will fundamentally reshape our organisation, requiring new skills from our people and a cultural shift in the way we think about our role in delivering greater public value by enabling informed decision making. Our success in embedding a new culture – of greater innovation, collaboration, responsiveness and adaptability – will be as crucial in sustaining the ABS's success as a national statistical agency as will our ability to modernise our outputs.

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