



ABS SUBMISSION

PRODUCTIVITY INQUIRY 2022

October 21, 2022



The ABS welcomes the continuation of the five yearly inquiries into Australia's productivity performance, given the important role productivity plays in economic growth and living standards.

The ABS understands the scope of the current inquiry is, in many cases, much broader than can be analysed using current ABS statistics.

The Productivity Commission (PC) interim reports that accompanied the call for submissions outline many of the ongoing and emerging challenges for the compilation of economic and productivity statistics. These include the changing nature of economies (such as the increasing use of digital technologies), adjusting prices for changes in quality and measuring output in the non-market sector. Note that this submission covers all interim reports released by the PC as part of this inquiry.

This submission has been prepared to provide an overview of ABS productivity measures and recent developments impacting productivity measurement. Also included is research and exploratory work currently underway at the ABS, which may in the future, result in the production of data relevant to the scope of this inquiry.

This submission also notes the work the ABS is leading for the Data Professional stream to uplift data capability across the APS.

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1. INTRODUCTION

1. The Australian Bureau of Statistics (ABS) made a submission to the Productivity Commission's Five-Year Productivity Review (Shifting the Dial) in 2017. It welcomes the opportunity to contribute to the second review of this series, announced in 2022.
2. The ABS is Australia's official national statistical agency. The role of the ABS is to inform Australia's important decisions by delivering relevant, trusted and objective data, statistics and insights.
3. This submission focuses on three main areas: the current suite of ABS productivity statistics, recent developments made in the measurement of productivity, and the ABS forward work program, including the APS data profession and future developments in productivity measurement.
4. There are three key messages from this ABS submission.
5. First, the ABS has made significant progress in improving its productivity statistics and bridging the gaps in productivity measurement since the first Five Year Productivity Review in 2017.
6. Second, despite the progress, there remain many measurement issues and challenges when compiling economic statistics, including productivity.
7. Third, the ABS is committed to continuing to improve and develop its suite of productivity statistics as well as additional products to assist our users in better understanding productivity.

2. CURRENT PRODUCTIVITY MEASURES

8. Measuring productivity forms an important part of the work program for statistical agencies. The OECD has produced handbooks and manuals for 'best practice' in productivity measurement. ABS productivity statistics are compiled based on the standard growth accounting framework, which is widely adopted by leading statistical agencies and is recommended by the OECD.
9. Since 2021, the detailed framework underlying the ABS productivity measures has been made available online as part of the *Australian System of National Accounts: Concepts, Sources and Methods* (CSM) in Chapter 19: Productivity Measures (ABS, 2021a). The online version of the CSM will be updated regularly to ensure that users are informed of any changes in the productivity measurement methodology. The online format also provides an enhanced experience for users through improved navigation and searchability compared to the previous pdf format.

Data availability

10. Quarterly estimates of labour productivity for the market sector and the whole economy are published in the *Australian National Accounts: National Income, Expenditure and Product* (ABS, 2022a).
11. Annual indexes of labour productivity, capital productivity and multifactor productivity (MFP) for the market sector are available in the *Australian System of National Accounts* (ABS, 2021b). Data are available on both an hours worked basis, and a quality adjusted hours worked basis. Labour productivity indexes for individual industries are also available.
12. The ABS produces industry level productivity-related measures for sixteen market sector industries annually in the *Estimates of Industry Multifactor Productivity* (ABS, 2021c) publication. Experimental estimates of the contribution of industries to market sector labour productivity and state-level productivity are also released in this publication.
13. Industry level KLEMS (capital (K), labour (L), energy (E), materials (M) and services (S)) MFP for the sixteen market sector industries are released in the *Estimates of Industry level KLEMS Multifactor Productivity* (ABS, 2021d) publication. The KLEMS MFP estimates facilitate a more disaggregated analysis of the origins of aggregate productivity growth by industry, taking into account the impact of intermediate inputs (energy, materials and services) on output growth and productivity. The estimates of KLEMS MFP changed from experimental to official statistics from the 2018-19 reference period.

Assumptions and limitations

14. As outlined in the *ABS Submission to the 2017 Productivity Commission inquiry, Shifting the dial* (ABS, 2017a), there are a number of challenges that remain with respect to productivity measurement. Some of the challenges mentioned by the ABS in 2017 that have been addressed between reviews are outlined in Section 3: Recent Improvements to Productivity Statistics.

15. Productivity measures are best suited to conduct long-term analysis such as long run trends in productivity growth and material living standards. In the short to medium term, productivity estimates are subject to variations in capacity utilisation and other factors (such as the weather). Because of this, productivity estimates are most useful when viewed as average growth rates between growth-cycle peaks or in the long run.

3. RECENT IMPROVEMENTS TO PRODUCTIVITY STATISTICS

16. The ABS continues to consult broadly with key stakeholders through the annual Productivity Measurement Reference Group. The forum is critical for the ABS to understand pressing issues and user priorities for productivity measurement which helps to shape the ABS's forward work program. In addition, it provides members the opportunity to present on their use, development and improvements in productivity statistics.
17. Given that MFP estimates are calculated using many data sources, improvements in the measurement of output or inputs to productivity statistics will enhance their quality. Since the 2017 review, one input area that has undergone significant development relevant to productivity statistics is the Consumer Price Index (CPI).
18. A long standing issue faced by statistical agencies is reducing bias in price indexes. These biases include unidentified quality change, new products, outlet bias, and substitution bias. The ABS has long collaborated with other statistical agencies and price experts to reduce these biases. Prior to 2018, the ABS re-weighted the CPI approximately every six years following the release of the Household Expenditure Survey. Since 2018, the ABS has utilised Household Final Consumption Expenditure data to re-weight the CPI on an annual basis. While substitution bias in the CPI has not been re-estimated since the introduction of the 17th series Australian Consumer Price Index in 2017 (ABS, 2017), it is expected that the annual reweight has significantly reduced upper level substitution bias.
19. In December 2017, multilateral index methods used in conjunction with scanner data were introduced to the Australian CPI. Multilateral index methods utilise expenditure information available in scanner data to re-weight at the lower level each period, resulting in reduced substitution bias below the expenditure class level.
20. Since the 2017 PC review, significant progress has been made in compiling productivity estimates for the non-market sector of the economy, representing those industries that fall outside of the 16 market sector industries. Non-market output occurs when goods and services are provided free of charge or at prices not economically significant. Units are classified to non-market using the Standard Institutional Sector Classification of Australia (SISCA). While most industries in Australia contain only a small proportion of non-market production, the industries of Education and Training, Health Care and Social Assistance and Public Administration and Safety contain significant amounts of non-market output. The ABS article, *Non-market output measures in the Australian National Accounts: a conceptual framework for enhancements* (ABS, 2020a) outlines the challenges involved in capturing non-market activity. Note that for practical

compilation reasons, the market/non-market industry split used in ABS productivity statistics is not equivalent to the market/non-market definition specified by national and international standards (such as SISCA). There are no plans for ABS productivity statistics to reflect these standards.

21. Collectively, the three non-market industries contributed around 18% to gross domestic product in Australia in 2021. The onset of Covid-19 highlighted the significance of these industries, as hospitals and the delivery of social assistance became frontline industries managing the pandemic response. While non-market activity is currently excluded from ABS MFP measures, there is user demand for the inclusion of these industries in the future.
22. In 2019 the ABS established a non-market research team to develop improved estimates for the non-market sector. The end goal of this work was to improve the quality of the national accounts. The research team developed improved output measures and experimental rental prices for the health care and education industries. This enabled the construction of experimental estimates of labour productivity, capital productivity and MFP for components of these industries. In 2021, the ABS released experimental productivity estimates for the following components of the Education and Training and Health Care and Social Assistance divisions:
 - *Experimental school education multifactor productivity estimates* (ABS, 2021e)
 - *Experimental higher education multifactor productivity estimates* (ABS, 2021f)
 - *Experimental hospital multifactor productivity estimates* (ABS, 2021g)
23. In 2017, the ABS first published the Australian Labour Account as an experimental release. The concepts and definitions underlying the Australian Labour Account are built on International Labour Organisation fundamentals and have been expanded to ensure consistency with the System of National Accounts (SNA08). The result provides a set of core macro-economic labour market variables conceptually aligned with the Australian System of National Accounts, which facilitates improved macro-economic analysis and forecasting.
24. In September 2019, the Australian Labour Account changed from experimental to official statistics status following extensive consultation with stakeholders. Full implementation across the Australian national accounts and productivity statistics occurred in 2021. The article *Improved estimates of hours worked in Productivity: Implementation of hours worked from the Labour Account* (ABS, 2021h) was released along with the annual *Estimates of Industry Multifactor Productivity* publication in December 2021. The article highlights to users the significant industry productivity revisions resulting from the improved source data.
25. Within the past five years, the ABS has undertaken a significant transformation to parts of its business processes and technical infrastructure. A process that experienced a large amount of transformation was the Supply-Use balancing process where much of the process has been automated through the use of constrained optimisation (CO). The article *Use of constrained optimisation in the production of supply-use tables* (ABS, 2020b) published in 2020 outlines the benefits of the constrained optimisation approach. The improvements in compilation and balancing through the use of CO facilitated the *Estimates of industry level KLEMS Multifactor*

Productivity publication changing from experimental to official status from the 2018-19 reference period.

26. The Covid-19 pandemic presented unparalleled challenges for government and policy making. In response to the need for timely statistics for decision making, the ABS rapidly produced new indicators to capture the impacts of the pandemic. The acquisition of Single Touch Payroll data from the Australian Tax Office, was particularly useful for confrontation during compensation of employees estimates compilation, as well as being a timely standalone indicator for decision makers.
27. The policy response from the Australian government was unprecedented and the conceptual treatment of these policies within the economic accounts presented new challenges for the ABS. A series of articles were released informing users of how government initiatives such as JobKeeper and Boosting Cashflow for Employers would be treated in the accounts. The classification of these government initiatives had a flow on impact to productivity statistics. The ABS published a series of articles outlining this:
 - *Economic measurement during COVID-19: Selected issues in the Economic Accounts* (ABS, 2020c)
 - *Productivity measurement in the time of a pandemic* (ABS, 2020d)
 - *Variations in the Utilisation of Productivity Inputs* (ABS, 2020e)
28. In 2018 the ABS released an additional product to its suite of productivity statistics: Experimental estimates of state-level productivity for the 2016-17 reference period. This additional information assists analysts to drill down into the sources of growth in output and productivity. Measures of state level output and capital stock are taken from the *Australian National Accounts: State Accounts* (ABS, 2021i) publication while hours worked estimates are sourced from the Labour Force Survey. With the implementation of the Labour Accounts in productivity statistics, state-level hours worked has been modelled based on a combination of Labour Accounts and Labour Force Survey data.
29. The methodology and source data used to compile state estimates of productivity continue to evolve and improve, but at this stage the data is still considered to be experimental. The ABS plans to continue to develop the quality of these state-level estimates and to consult with key productivity and state data users on its progress.

4. FORWARD WORK PROGRAM

30. The ABS has a broad forward program of work across economic statistics, data integration and social statistics that have a potential impact on ABS productivity statistics or could be used by stakeholders to assist in their understanding of productivity. Some of the key areas of work are outlined below.

The digital economy

31. The rapid rise of digital activities in recent years has made them an important contributor to economic growth. The measurement of digital activities in official statistics is challenging due to definitional, measurement and classification issues. However, there has been increased demand for statistical insights into digital activities in Australia for analytical and policy purposes.
32. The ABS responded to this increased demand through the production of experimental estimates of digital activity in Australia using selected, separately identifiable digital products from the ABS supply-use tables (*Measuring Digital Activities in the Australian Economy* (ABS, 2019a)).
33. The challenging nature of measuring the digital economy has led some to speculate that the recent slowdown in productivity globally could be due to the mismeasurement of the digital economy in the national accounts. In 2020, the ABS investigated this hypothesis, modelling potentially unmeasured output related to digital activities within the national accounts (Burnell and Elnasri (2020)). The investigation confirmed that unrecorded digital activities were of insufficient magnitude to explain the productivity slowdown in Australia.
34. Increased digitalisation and use of data can contribute to boosting productivity for businesses. The use of digital technology enabled and facilitated a rapid growth in the collection, storage, processing and analysis of data. Despite the growing use and importance of data, data still has little visibility in the modern national accounting framework (Statistics Canada, 2019a).
35. Global work commenced in early 2020 to update a range of international standards and classifications. This includes expanding the asset boundary in the System of National Accounts (SNA) framework to include data as an asset. The ABS has been an active participant in shaping the discussion on recording data in the national accounts. Following the pioneering work from Statistics Canada (Statistics Canada, 2019b), the ABS used the sum-of-costs approach to derive experimental estimates for data investment and net capital stock of data (Smedes, Nguyen and Tenburren, 2022). The ABS is currently participating in an experimentation and testing phase to value data in the national accounts. This work forms part of international efforts by statistical offices to better inform the digital economy in the lead-up to the SNA revision in 2025. It is expected that this change to the asset boundary will facilitate improved measures of performance and productivity.
36. The ABS is currently undertaking a review of the Australian New Zealand Standard Classification of Occupations (ANZSCO). The review covers both the skills included in the classification as well as a maintenance strategy to ensure the classification reflects the contemporary labour market and better meets stakeholder needs. In terms of occupation information related to “digital and data”, the proposed ANZSCO Customised Views project will enable users to re-arrange occupations to suit their analytical need. The customised views project is not guaranteed at this stage but it’s status can be reviewed if there is a genuine user need.
37. Related to the growing the “digital and data” part of the economy, is the need for accurate measurement of intangible assets, which has a flow on impact on productivity statistics. SNA08

recommends the capitalisation of research and development (R&D) expenditure. The ABS captures several intangible assets under the heading of Intellectual Property Products: R&D, mineral and petroleum exploration, computer software and databases, and artistic originals. While it is challenging to measure these assets in official statistics, a recent ABS' internal review suggested several considerations/improvements to estimates of R&D, computer software and artistic originals. Measurement improvements in this space will continue to be an area of development for many national statistical agencies, the ABS included.

Non-market output and productivity

38. Improving the measurement of non-market activity and productivity is a priority area for the ABS. As mentioned in Section 3, in 2019 the ABS established the non-market research team to undertake research and development into non-market statistics. To date, the ABS has delivered two distinct phases of work in relation to producing productivity estimates for the non-market sector.
39. The first phase of the project focused on the design of new experimental output measures for key areas of non-market activity. Outputs of this phase were published in 2019 and 2020 in the following research articles:
 - *Non-market output measures in the Australian National Accounts: a conceptual framework for enhancements* (ABS, 2020a)
 - *Enhancing measures of non-market output in economic statistics: A roadmap* (ABS, 2019b)
 - *Enhancing measures of non-market output in economic statistics: Progress paper* (ABS, 2019c)
40. The second phase of the project focussed on compiling enhanced input measures for non-market industries and deriving experimental measures of productivity growth. As outlined in Section 3, experimental productivity estimates for hospitals, schools and higher education were published in 2021.
41. The final phase of this project aims to produce robust measures of productivity for the entire Education and Training, Health Care and Social Assistance industries, including any market-based activity, using the same methodology as used for market sector industries. This body of work is ongoing, with a planned research agenda to address this gap in productivity statistics in the coming years.
42. At this stage, the ABS has no plans to review the measurement of non-market activity for the Public Administration and Safety industry. Measuring output for this industry remains complex and with specific challenges. The challenges are not specific to Australia and globally, national statistical offices face the same issues. We remain committed to responding to the needs of stakeholders, and welcome discussion with users in these areas.

Measures of labour inputs

43. The ABS produces productivity estimates on both an hours worked and quality-adjusted hours worked basis. The quality-adjusted basis recognises the improvements to human capital as a result of the changes in the education and experience of the workforce.
44. The labour composition component of the quality-adjusted labour input captures changes in quality of the workforce and will be updated with 2021 Census data for the 2021-22 reference period productivity releases. The census data brings in detailed information on education, age, gender and income of workers by industry of employment, facilitating estimates of the contribution of human capital to economic growth.
45. Census data is a critical data source to compile changes in workforce labour composition and is only conducted every five years. Estimates of labour composition change are interpolated for inter-census periods and extrapolated for periods past the latest census year. Therefore, care needs to be taken when interpreting year on year changes in labour composition. To obtain more timely indicators of the change in labour composition, the ABS is examining more frequent data sources and methodological improvements to compile the measures of quality-adjusted labour input.
46. Final updates stemming from the 2021 Census data will be incorporated into Estimated Resident Population in June 2023 (see *Methodology used in rebased population estimates* (ABS, 2022b)). These updated data will flow through to the Labour Force Survey, Labour Accounts and ultimately to productivity statistics through updates in hours worked data.

Education data

47. Recent developments in data availability and integration at the record unit level offers the potential to substantially increase the understanding of human capital formed through formal education pathways.
48. The ABS has been collaborating with Jobs and Skills Australia (previously the National Skills Commission) and the Dept of Education to build enduring national data assets to enable policy makers and researchers to analyse student outcomes (employment, income etc) by education or training institute and by type of degree, certificate etc.
49. Taking the next step and placing these data assets within a human capital framework would, over time, enable the development of a more complete picture of the human capital formed via the formal education sector. This would include: human capital formation flows; the current stock of human capital; and insights into the destruction of human capital (through obsolescence of skills/qualifications). The nature of the integrated data assets means that this analysis could be undertaken for population groups and demographic breakdowns of policy interest.

50. The ABS has been involved in the development of a number of integrated data assets on education. This includes the Education, Skills and Employment National Data Asset (ESEENDA) and the Vocational Education and Training National Data Asset (VNDA).
- The ESEENDA project will create an evidence-base to support Australia's economic prosperity and social well-being by identifying opportunities to drive better outcomes for people, through education, skills and employment pathways. Priority research areas include early childhood education, school education, tertiary education, and employment services policies and programs.
 - The VNDA provides data on the employment, income and further study outcomes of vocational education and training (VET) graduates, helping students, training providers, industry and government make better decisions about what courses to study, offer, promote and subsidise.
51. There is data available that provide insights into a variety of education and human capital discussions. These include:
- VET National Data Asset: can be used to measure public and private returns to training, identify courses that are undertaken for leisure or yield poor employment outcomes, and assess outcomes from micro-credentials.
 - Multi-Agency Data Integration Project (MADIP): VET student loans information is available via the Income Tax module in MADIP. There is also the potential of a future linkage of VET student loans to MADIP.
 - ABS Work-Related Training and Adult Learning Survey: information about the barriers to formal study and non-formal learning.

Broader measures of wellbeing

52. In addition to the traditional productivity and income measures, there has been substantial interest in developing a suite of welfare indicators. Digital innovation has significantly shifted the boundary between production and household activity. In this space, time use surveys can be used by analysts, to augment official productivity statistics, particularly within the non-market sector, providing a more complete picture of economic activity, prosperity and productivity.
53. The ABS conducted the most recent Time Use Survey in 2020-21, which was released in October 2022. The next survey will be conducted in 2023 and on an annual basis thereafter. Prior to the 2020-21 collection, the ABS last ran a Time Use Survey in 2006. The survey highlights the way people use their time on multiple activities and how activities are spread within households.
54. Internationally, time use data has been used to better understand policies around service delivery, transport, labour force participation, household productivity, gender equality and how people engage in productive activities during non-work time. For example, the Time Use Survey collects information about how much time is spent on at home childcare activities in a day, which can be used to understand the demand for childcare services associated with higher labour force participation from women.

55. In addition to the Time Use Survey, the *General Social Survey (GSS)* (ABS, 2020f) provides useful dimensions to welfare indicators. The General Social Survey which ran in 2002, 2006, 2010, 2014, 2019 and 2020, provides data on social characteristics, wellbeing and social experiences of people in Australia. The survey asks respondents to rank their overall life satisfaction, which can then be assessed against their income, wealth, financial position and occupation.

Data integration and data sharing

56. Australia has recognised the potential gains related to increasing digitalisation and data access. Increased access to administrative data is crucial for a better understanding of factors driving performance, competitiveness, and productivity. This in turn, can provide new insights into how businesses can reap the benefits in an increasingly digitalised world. Data integration and data sharing across government is valuable for the development and evaluation of productivity-enhancing policies, programs, and services. The ABS has a significant role to play in this space and has/is developing several initiatives that support improved data availability, sharing and access.
57. The [Business Longitudinal Analysis Data Environment \(BLADE\)](#) combines tax, trade and intellectual property data with information from ABS surveys. The development in BLADE since the PC's Review in 2017 ('Shifting the Dial') has allowed for increased access and scope and improved detail compared to previously. BLADE is used by a number of Commonwealth, State and Territory governments and academic institutions to complete a range of economic research.
58. The [Linked Employer-Employee Dataset \(LEED\)](#) brings together employer and employee information and has been instrumental in allowing analysts to address complex questions about the labour market, both at a point in time or longitudinally. LEED enables insights into topics such as job creation and destruction and the productivity impact of new and exiting businesses.
59. Secure data sharing across government agencies has increased over the past five years. One example of this is the [Multi-Agency Data Integration Project \(MADIP\)](#). MADIP was first established in 2015 in response to a review of the Commonwealth arrangements for data integration and then further developed between 2017-2020 through the [Data Integration Partnership for Australia \(DIPA\)](#). MADIP aims to break down barriers to sharing government data and is expected to contribute to new opportunities for analysis in productivity.
60. The recent Data Availability and Transparency Act 2022 (DAT Act) will assist in facilitating data sharing across departments (noting that the DAT Act does not override the Privacy Act 1988 and data will still be shared under its privacy laws). Under the current DAT Act, industry and private sector are not allowed to participate in the data sharing scheme. This reflects the consideration for a balance between increased data access alongside privacy and data security concerns. The ABS acknowledges the role of greater access to data in lifting productivity performance, while stressing the importance of safe and secure access to data.
61. Over the last few years, the ABS has formed data sharing relationships with several private sector organisations that are beyond the standard survey response model used across our

economic survey program. In 2011 the ABS began acquiring point of sale information from supermarkets for use in the compilation of the Consumer Price Index. This same scanner data will also be used in the compilation of the Food category of Household Final Consumption Expenditure in the National Accounts from the September 2022 release. The ABS has also secured a data sharing arrangement with a number of Australian banking and financial institutions to provide aggregated de-identified data on a timely basis which is used to produce the *Monthly Household Spending Indicator* (ABS, 2022c). The indicator was first released in February 2022 and then monthly. The ABS will continue to work with the private sector to identify data sharing opportunities that will improve the quality and/or timeliness of ABS statistics to assist informed decision making.

62. Similar to the United Kingdom and United States, the ABS uses a DataLab to share data and facilitate analysis. The demand for this type of service has grown strongly in recent years. The DataLab provides many opportunities for productivity analysis through the large number of datasets available.
63. As Australia has become more digitalised, the demand for data integration and data sharing to support productivity and productivity analysis will undoubtedly increase. Going hand in hand with the increased demand is the higher risk for cyber security. The ABS, as an Accredited Data Service Provider under the DAT Act Scheme, has a key role to play in building and maintaining trust. The ABS can share experiences on the importance of improving privacy management and considering social licence as part of determining appropriate uses of data.

Building data capability through the APS Data Profession

64. In September 2020, to address a key gap in data capability and as part of the APS reform agenda, the Australian Public Service Commission (APSC) appointed Dr David Gruen AO, Australian Statistician, as the inaugural Head of Data Profession and launched the Data Professional Stream. The Data Professional Stream aims to ensure the APS workforce has the capabilities required to make better use of data and analytics to generate deeper insights, provide better advice to inform government decisions, and enable more effective service delivery and regulation to improve social and economic outcomes for Australians.
65. The Data Profession has completed a review of its second year, with foundational priority projects nearing completion. As of 30 September 2022, 2,123 people have joined the Data Profession. The Data Profession program works collaboratively across the APS, drawing upon work already underway in agencies to achieve capability uplift at scale and develop frameworks and foundations to create a sustainable profession.
66. Key priority initiatives include:
 - **APS data graduate recruitment** - the ABS leads a recruitment program for highly capable data graduates. This is one of the largest specialised graduate programs run as part of the Australian Government Career Pathways initiative for data analyst, data scientist, and statistical methodologist roles across the APS.

- **Growing data talent pipelines** - the ABS is partnering with the APSC under the *Growing Regional Data and Digital Talent Pipeline* initiative, to create data and digital training and employment opportunities within the APS, with a focus on growing talent outside Canberra and major capital cities.
- **Data Capability Framework** – this Framework outlines 26 data-specific capability areas associated with working with data in the APS. Each has capability indicators that span across three proficiency levels: Foundational, Intermediate and Advanced. Currently in Beta version, the final product will be released in November 2022.
- **Data Job Roles** - the ATO has led a data job roles project to develop a universal understanding of data profession roles and capabilities, and to promote alignment across the APS. For release in November 2022.
- **Data literacy learning pathways** - Services Australia has developed data literacy pathways to help ensure all APS employees have foundational data skills. Each pathway outlines suggested learning options and offerings across five learning clusters: Using data in the APS; Foundations in Data Research and Analytics; Communicating Data Insights; Simplifying Statistics; and Data Trust and Ethics. For release in November 2022.
- **Data Profession Members Community Platform** - the Data Profession has collaborated with the Digital Profession to offer an online Member Community Platform. Launched in August 2022, the platform offers members a space to connect with other data professionals through communities of practice, or informally via discussion boards. Information on mobility opportunities, events and learning resources are available through the platform.

5. CONCLUSION

67. The ABS is committed to advancing work in economic statistics generally and specifically in the area of productivity measurement. While the ABS has made significant progress towards refining its productivity statistics in recent years, many challenges still remain. A range of enhancements to ABS productivity statistics are either planned or are already underway.
68. The ABS looks forward to the findings of the five yearly inquiry into Australia's productivity performance.

Australian Bureau of Statistics

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