Meeting of Group of Experts on Business Registers Online, 26-29 September 2022

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Australian Bureau of Statistics (ABS)

Session: Using the SBR to produce business statistics

Development of ABS Business Demography Statistics

Introduction

The ABS Business Demography Statistics, the Counts of Australian Businesses, including Entries and Exits (CABEE) is published annually and contains information regarding actively trading businesses of goods and services, in the Australian economy, for the preceding four years.

The publication, first published in 2007, contains rates of entry and exit, and rates of business survival, on a range of business demography including geography, industry, sector, type of legal organisation and size ranges (employment and turnover).

The data from CABEE is used in policy development, analysis, and costing by all levels of government. It is also used to validate and shape policies particularly in the small business space and further by academics, consultants, and industry bodies for research publications.

New data sources and methods were used in the compilation of a research paper, *Quarterly Counts of Australian Businesses, Experimental Estimates* in order to provide further insights into the business landscape during COVID-19. The paper presented insights into business entries and exits by employment size, industry, states and territories and types of legal organisations. It also provided seasonally adjusted data to assist in distinguishing between short-term trends and seasonal patterns for total business counts, entries and exits.

Data in the paper were produced in a similar way to the annual CABEE publication but were also experimental as some new data sources and methods were used. These included:

- Inclusion of seasonally adjusted total counts, entries and exits.
- a new employment measure based on more timely employment estimates
- point in time data variables (annual CABEE uses the most recent characteristics of business in all previous periods regardless of changes); and
- types of business entries and exits (or business deaths).

There is a lot of scope to improve the current publications, and early in 2021, user feedback was sought on the value of the new data and methods presented in the research paper to help focus future development of the annual *CABEE* publication. Feedback from key internal and external users of the CABEE products was sought as part of the review. The key output from this project was a CABEE Roadmap articulating key priority areas for development over 5 years.

This paper will outline (1) publication changes introduced in 2020-21 (2) the client consultation process and outcomes; and (3) the environment that enabled the ABS to publish Business Demographic Statistics on a quarterly basis.

Client Consultation Process and outcomes

During February and March 2021, the CABEE publication was reviewed to identify priority areas for development and future focus in consideration of stakeholder needs.

The intent of the consultation was to explore the current user experience with the CABEE publications and identify the areas that are meeting user needs, as well as opportunities for improvement or innovation. This feedback has enabled the identification of the areas of highest importance to users, and the needs, pain points and opportunities to help inform the future design.

A key focus of the review was to gather feedback on the Annual CABEE publication, but also discuss the value of the new data sources and representations provided in the Quarterly CABEE Experimental Estimates research paper that was released in October 2020.

Throughout this process, the goal was to ensure that the publication continues to be a reliable, timely and easily accessible source of information about businesses actively operating in Australia.

The key output from this project is a CABEE Roadmap articulating key priority areas for development over the next 5 years. A key consideration in developing the roadmap has been to ensure the proposed changes are resource neutral - all changes will need to work within the current resourcing envelope.

Feedback was sought from government agencies and private sector organisations who are users of the annual CABEE publication, the Quarterly CABEE Experimental Estimates, or associated customised data.

Targeted users were categorised into three tiers:

- Tier 1: Key Commonwealth Government Departments, international stakeholders, and internal stakeholders (16 users approached)
- Tier 2: Other Federal Government Agencies, State Government Departments, and universities (8 users approached)
- Tier 3: Private sector and customised data users (9 users approached)

Tier 1 users provided verbal responses to questions via a skype video session. Tier 2 & 3 users provided written responses to questions. There was also a public call-out included in the most recent releases of CABEE, inviting users to provide general feedback on the publication.

General questions were posed to participants about how they use CABEE data, as well as more specific questions about proposed changes to the methods and contents of the publication.

The review found that users valued both the quarterly and annual data releases for different purposes. Broadly speaking, the quarterly release provided timely economic data that was of high value for rapid response work. While the annual data provides the finer detail, particularly in ANZSIC and geography, required for in-depth analysis that was more typical in users' day-to-day work.

The aspects of each release that were the highest value, and biggest pain points, are aggregated below. The themes below represent the key common areas identified by participants.

	Quarterly experimental estimates	Annual CABEE publication		
	Timeliness and relevance of release	Comprehensiveness, in particular granular level of industry and location data		
en	New employment indicator to capture COVID	Timeseries published in data		
Highest value	Seasonally adjusted data to understand trends	End of financial year view of businesses		
Hig	Entries and exits breakdown	Custom data request capabilities		
	Lack of granular data for in-depth analysis	Significant lag in publication		
points	Data not published – some users were not aware they could access it	Format of data resulting in extensive manipulation by users		
	Users not aware of its publication who would have otherwise used it	Lack of long time series, particularly at granular level, due to backcasting/changes		
Pain	Short timeseries for most data items	Frequency of data		

Based on the feedback provided during the review, there was a clear desire for CABEE to continue to release more timely and regular data to stay relevant. Users highlighted that more timely and regular releases of data would enable them to conduct more relevant analysis and enable the CABEE publication to be more competitive as the source of truth.

To achieve the optimal balance between user demand for more frequent data within the existing resourcing envelope the recommended approach was to retain the annual CABEE publication with the inclusion of a high-level quarterly dataset.

The release strategy updated and now includes:

- The main CABEE release was brought forward to August each year. This release
 includes high level annual timeseries data for (excluding turnover) and high-level
 quarterly data. The data contains the aggregate counts for each CABEE variable.
- The more detailed annual datasets are released in December, including the detailed data, turnover data, and the interactive maps.
- The quarterly datasets are updated in the main release 8 weeks after the reference period once Single Touch Payroll (STP) data is available (e.g., November, March, May)

The underlying microdata will be made available on the ABS website in 2022/23 to allow users to build their own tables by selecting data items of their choice for cross-tabulation. Several changes to content and methods have been proposed to be implemented over the next 5 years. These have been separated into short, medium, and long-term changes.

Recent Changes to the publication

In addition to the improvements to the release schedule and the ongoing release of high level quarterly CABEE experimental data, a number of recommendations as articulated in the roadmap have been implemented into the publication.

Removal of superfunds

From the 2021 CABEE publication onwards, superannuation funds have been removed from scope. This change is in alignment with international guidelines. It has improved the quality of the publication and serves as a more accurate representation of actively trading businesses in the Australian economy.

In business demography, only statistical units that engage in production activity should be included, and the scope of CABEE is specifically the market sector. Super funds provide retirement benefits to specific groups of people through the ownership and transaction of assets and liabilities. Super funds are therefore asset vehicles that conduct investment activity rather than being trading businesses.

The change in scope has resulted in a decrease to CABEE business counts across the time series (see table below). The difference is approximately 4.5% of the previously published total business counts in any given year.

Count of Australian Businesses

	2017	2018	2019	2020
Total businesses - CABEE 2020	2,238,299	2,313,291	2,375,753	2,422,404
Total businesses - CABEE 2021	2,137,796	2,208,447	2,268,998	2,314,448
Difference Super Funds	100,503	104,844	106,755	107,956

Further splits of entries and exits

Further splits of entries and exits were introduced into the annual data for 2021. They are included in the relevant tables in the high-level aggregated data. There is no plan to include these splits as part of the remaining data sets at this stage.

Business Entries have been split into 'Business Births' and 'Other Entries'. Business Births include:

 new Australian Business Number (ABN) registrations which include a Goods and Service tax (GST) role (equivalent to VAT reporting); and

Other Entries include:

- businesses that were previously cancelled and have re-activated their ABN (resurrections).
- businesses that were previously non-active and have become active again; and
- businesses that were previously out-of-scope of CABEE, such as those in the non-market sector, that have now become in-scope due to an Industry reclassification, or existing businesses that have registered for a GST tax role for the first time.

Business Exits have been split into 'Business Cancellations' and 'Other Exits'.

Business Cancellations include:

businesses that have cancelled their ABN;

Other Exits include:

- an inactive business who has not lodged data to the tax office for 5 quarters (a small minority of annual remitters that haven't remitted for 3 years); and
- businesses that were previously in-scope of CABEE that have become out-of-scope, such as those moving to a non-market sector or industry classification.

Australian Australi	an Bı	ıreau	ı of S	Stati	stics							
Statistics Statistics Burney Statistics			4-1	F. H.		000						
8165.0 Counts of Australian Bus		cluding En	itries and	Exits, Ju	ine 2018 to	June 202	2					
Released at 11.30 am (Canberra time) 25	August 2022											
Table 1 Businesses by Industry Division	n, June 2018 –	June 2022										
	Operating at start of financial year	Entries - Births	Entries - Other	Entries - Total	Exits - Cancellation	Exits -	Exits - Total	Operating at end of financial year	Change	Percentage change	Entry rate	Exit rate
	no.	no.	no.	no.	no.	no.	no.	no.	no.	%	%	9
					2021-22							
Agriculture, Forestry and Fishing	172,949	10,778	5,017	15,795	10,218	3,193	13,411	175,333	2,384	1.4	9.1	7.8
Mining	8,032	855	365	1,220	649	194	843	8,409	377	4.7	15.2	10.5
Manufacturing	86,411	10,482	3,569	14,051	7,502	1,806	9,308	91,154	4,743	5.5	16.3	10.8
Electricity, Gas, Water and Waste Services	8,014	1,103	333	1,436	710	243	953	8,497	483	6.0	17.9	11.9
Construction	411,801	60,936	28,193	89,129	42,429	13,248	55,677	445,253	33,452	8.1	21.6	13.5
Wholesale Trade	81,630	9,680	3,170	12,850	8,759	1,633	10,392	84,088	2,458	3.0	15.7	12.7
Retail Trade	146,346	23,194	6,548	29,742	16,072	3,251	19,323	156,765	10,419	7.1	20.3	13.2
Accommodation and Food Services	105,752	16,165	4,380	20,545	12,496	2,892	15,388	110,909	5,157	4.9	19.4	14.6
Transport, Postal and Warehousing	195,803	40,764	17,449	58,213	34,546	7,137	41,683	212,333	16,530	8.4	29.7	21.3
Information Media and Telecommunications	23,710	3,241	1,358	4,599	2,705	625	3,330	24,979	1,269	5.4	19.4	14.0
Financial and Insurance Services	113,236	15,259	5,366	20,625	11,376	2,201	13,577	120,284	7,048	6.2	18.2	12.0
Rental, Hiring and Real Estate Services	272,146	29,097	9,487	38,584	21,476	2,937	24,413	286,317	14,171	5.2	14.2	9.0
Professional, Scientific and Technical Services	315,323	39,006	17,648	56,654	31,514	8,545	40,059	331,918	16,595	5.3	18.0	12.7
Administrative and Support Services	106,659	24,878	8,254	33,132	14,055	3,392	17,447	122,344	15,685	14.7	31.1	16.4
Public Administration and Safety	6,963	1,192	530	1,722	944	211	1,155	7,530	567	8.1	24.7	16.6
Education and Training	36,839	5,120	2,972	8,092	3,738	981	4,719	40,212	3,373	9.2	22.0	12.8
Health Care and Social Assistance	159,481	20,293	8,790	29,083	9,815	4,623	14,438	174,126	14,645	9.2	18.2	9.1
Arts and Recreation Services	33,696	4,991	2,771	7,762	3,311	1,069	4,380	37,078	3,382	10.0	23.0	13.0
Other Services	114,271	21,280	7,579	28,859	10,651	3,430	14,081	129,049	14,778	12.9	25.3	12.3
Currently Unknown	3,192	366	272	638	417	91	508	3,322	130	•	•	•
All Industries	2,402,254	338,680	134,051	472,731	243,383	61,702	305,085	2,569,900	167,646	7.0	19.7	12.7
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Experimental employment data

The employment data typically published in CABEE is an annualised indicator of each business's employment. This indicator is derived from businesses payment summaries, which are typically lodged after the end of the financial year and income tax cycle. This annualised indicator provides a good representation of the number of employees a business had during the past financial year, and captures workers, such as seasonal employees, who may not be employed throughout the full year. The primary limitation of the annualised indicator is that it does not readily capture short-term fluctuations in the number of employees a business has. This means that for most businesses the 2019-20 data does not reflect impact changes to a business's employment, as a result of COVID-19.

To assist users in understanding the impacts of COVID-19 on businesses, an experimental point-in-time employment indicator has been published alongside the annualised employment indicator. This experimental point-in-time indicator includes Single Touch Payroll information and is derived monthly from the highest number of payroll jobs during the calendar month. The primary limitation of the experimental indicator is that it may not capture seasonal workers when presented in an annual context, and therefore may not provide good coverage of industries with highly seasonal workforces, such as Agriculture, Forestry and Fishing. Further development of this experimental data to a production level is undertaken.

The Enabling Environment

COVID increased demand for more timely statistics and the ABS's willingness to produce them despite reduced quality. There has always been demand for more timely statistics with higher frequencies.

What has historically prevented us from producing more timely and higher frequency business demographic statistics has been the underlying administrative data environment. It didn't adequately reflect real world economic changes accurately on any frequency less than annual.

The ABS was fortunate that there had been one key development, Single Touch Payroll (STP), that enabled access to administrative employment data that was timely and of a high enough frequency allowing the production of quarterly business demographic statistics.

New Data Source

Single Touch Payroll (STP) is a government initiative administered by the Australian Taxation Office (ATO) to streamline business reporting obligations to Government. It was legislated in 2016 and was about having ATO systems and Payroll accounting software (like XERO, Quickbooks, etc) interact and automatically report for all employees at every payment cycle. This means the same time employees are being paid the ATO is informed. As of 2022 97% of Australian employees are covered though 883k employing businesses and there are over 300 platforms / payroll accounting software that meet the reporting standards.

For STP, the most common reporting frequency is fortnightly, and the lowest frequency reporting period is monthly. Thanks to STP the ABS now knows, from the ATO data, ow many people are employed and how much every individual was paid for every reporting business just over a month from the reporting period. This was the piece of the puzzle that made quarterly business demographic statistics possible. Previously, our input data source was effectively annual and was available a few months after the end of the financial year. A quarterly publication based on that source would have had 90% of all businesses reporting a change employment in the same quarter each year and these changes would have possibly occurred a year prior in the real world.

Other Data Sources

Australian Business Register (ABR); is where all Australian businesses must register and maintain their details. The registration process was designed in collaboration with the ABS and many other government agencies. It is the source for the location data, type of industry, type of legal entity and unique identifier. Registration is free, quick, and easy and is possible to complete in less than 10 minutes.

Business Activity Statement (BAS); is a minimum quarterly reporting obligation for businesses who are registered for GST. It provides estimates of quarterly turnover and quarterly wages. If businesses are registered but not reporting their BAS we use this to

"cancel" or "death" the businesses. This is necessary as there is often a significant lag between economic activity ceasing and people cancelling the relevant legal entities.

Current Limitations with Australia's Business Demographic Statistics

While the current administrative data environment has enabled us to produce a quarterly business demographic publication there are still some issues with the administrative data that are not ideal.

When a business is registered the registrant, through a Point of Contact Coder, selects an ANZSIC (Australia's industry classification similar to an ISIC) based on a type of business activity description. For 99%+ of registered businesses this code will never change and for the ones that do, the change is highly unlikely to occur at the same of similar time that the underlying activity changed. As such the publication is not suitable or does not accurately track changes in ongoing businesses type of industry.

The use of the BAS reporting or lack of reporting to "death" businesses that have not reported for a period of time is sufficiently timely for an annual publication. However, it is problematic for a quarterly publication. As we would be deathing a business at least a few quarters after it genuinely stopped economic activity. This is problematic as the proportion of total deaths from this process has ranged from 35 to 60% of total business deaths. In other words, some quarters half the reported deaths actually occurred a few quarters ago. If there was a big systematic shock causing many business deaths it would most likely be reported a few quarters after the event.

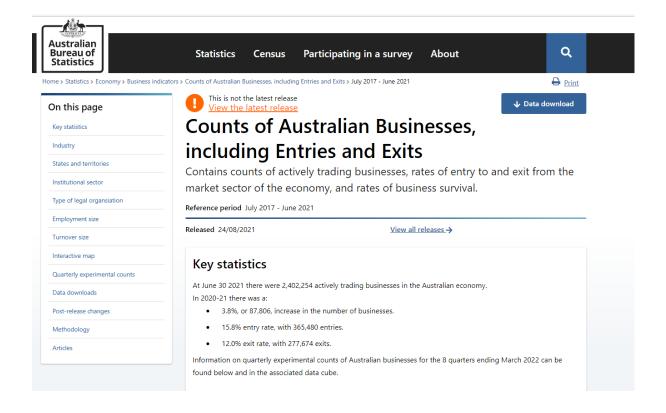
With this delay in identifying business deaths and a very quick and easy registration processes we know there is a bias in the publication for overestimating the number of active businesses. This bias would be more substantial in times of higher turnover or higher volatility in business change; this is a concern given that we've seen the highest net growth in business counts in over 20 years in the last year of the CABEE publication.

Australia does not have a national address register and as such we do not have an administrative data set that links all businesses to their locations. We only have one business location address per entity provided by the business to the ABR /ATO. However, for businesses with many locations the ABS do not always know all locations. In the cases where we do have that information, we do not have detailed breakdowns of type of activity or even estimates of business size at those locations. Consequently, for lower-level geographies we can have bias depending on the nature of the ownership structure of the businesses in the area. For example, we have two large national supermarket firms – in the publication all their employment is at two locations (their national headquarters). These firms compete with many smaller firms including a large co-operative whose stores are individually owned by local owners. Depending on which store is in which town you can lose the largest employer in some towns.

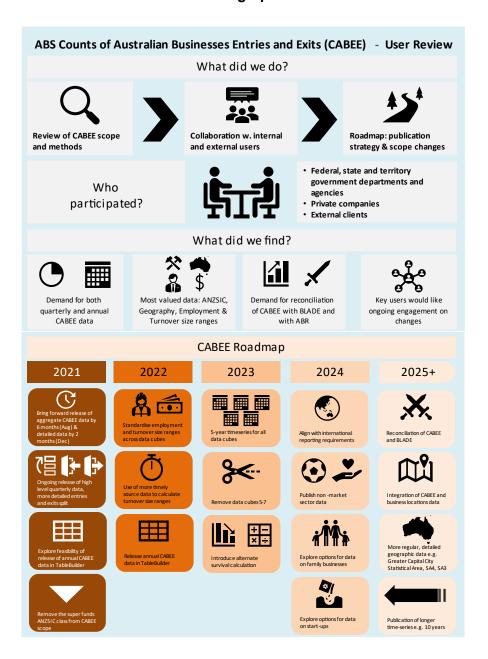
These issues are known but are not considered substantial enough to be misleading for the type of analysis conducted using these data sets.

The ABS will continue to investigate these issues and as new sources or methodologies becomes available, ABS will determine the benefits gained from implementing the improvement developments.

Attachment 1: Snapshot of publication



Attachment 2: User Review Infographic



Glossary of terms

Tablebuilder: is a flexible way to access detailed data where you can build your own tables based on underlying microdata and select the data items of your choice for cross-tabulation.

BLADE: Business Longitudinal Analysis Data Environment (BLADE) combines business tax data information from ABS surveys and other administrative data over time to provide a better understanding of Australian businesses and the economy.

Non-market sector: An entity which produces goods and services but does not have the primary goal of making profit, increasing market share or influencing market prices or market behaviour. The costs of its economic activities are generally covered by the receipt of material financial support in the form of transfers such as grants and donations.

Attachment 3: Strategic Roadmap

Counts of Australian Businesses, Entries and Exits: STRATEGIC ROADMAP 2025

2021	2022	2023	2024	2025
FORMAT				
- Standard employment and turnover ranges - Quarterly datacube alligned with DC1 format	Review datacube format with TableBuilder, implement new format more accessible for code	consistent across		- Integration of CABEE and BLADE
SCOPE				
Remove Superfunds Remove administrative movement between populations from entries and exits	- Publish longer time- series on same methodology	- Publish non-market sector data	Explore additional business characteristics including start-ups, family, business owners	- Integration of CABEE and BLADE
METHODS				
- Use experimental BAS - Add GCCSA table - Entries and exits splits	- Alternate survival calculation (business age) - Aggregated totals of employment and turnover data	Further entries and exits split including mergers and acquisitions Remove datacubes 5-7	- Explore OECD variables: high-growth, gazelles, movement due to growth/decline	- Integration of CABEE and BLADE data
DISSEMINATION				
- Annual release with DC1 and quarterly in Aug, remaining in Dec - Release all 5 years of data on TableBuilder	- Additional (higher) geographies included in interactive maps			- More regular detailed ANZSIC and geographical data