

# **Freedom of Information Publication Coversheet**

The following information is provided pursuant to section 28 of the *Freedom of Information Act 2016*.

# FOI Reference: CMTEDDFOI 2022-235

Information to be published	Status			
1. Access application	Published			
2. Decision notice	Published			
3. Documents and schedule	Published			
4. Additional information identified	No			
5. Fees	N/A			
6. Processing time (in working days)	35			
7. Decision made by Ombudsman	N/A			
8. Additional information identified by Ombudsman	N/A			
9. Decision made by ACAT	N/A			
10. Additional information identified by ACAT	N/A			

From:	no-reply@act.gov.au
То:	CMTEDD FOI
Subject:	CMTEDDFOI 2022-235 - Freedom of Information request
Date:	Tuesday, 2 August 2022 11:49:43 PM

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe. Learn why this is important

Please find online enquiry details below. Please ensure this enquiry is responded to within fourteen working days.

# Your details

All fields are optional, however an email address OR full postal address must be provided for us to process your request. An email address and telephone contact number will assist us to contact you quickly if we need to discuss your request.

Title:	
First Name:	
Last Name:	
Business/Organisation:	
Address:	
Suburb:	
Postcode:	
State/Territory:	
Phone/mobile:	
Email address:	

# **Request for information**

(Please provide as much detail as possible, for example subject matter and relevant dates, and also provide details of documents that you are not interested in.)

Under the Freedom of Documents describing the model used to create the population Information Act 2016 I forecasts in Figure 2.2.10 (Population growth by component, ACT) of the 2022-23 Budget Outlook, and any internal reports following document/s or correspondence that explain the choice of population growth rate in the forecasts.

I do not want to access the following documents in relation to my request::

want to access the

(\*required field):

Thank you. Freedom of Information Coordinator

#### Our ref: CMTEDDFOI 2022-235





# FREEDOM OF INFORMATION REQUEST

I refer to your application under section 30 of the *Freedom of Information Act 2016* (the Act), received by the Chief Minister, Treasury and Economic Development Directorate (CMTEDD) on 2 August 2022.

Specifically, you are seeking: "Documents describing the model used to create the population forecasts in Figure 2.2.10 (Population growth by component, ACT) of the 2022-23 Budget Outlook, and any internal reports or correspondence that explain the choice of population growth rate in the forecasts."

# Authority

I am an Information Officer appointed by the Director-General under section 18 of the Act to deal with access applications made under Part 5 of the Act.

# Timeframes

In accordance with section 40 of the Act, CMTEDD is required to provide a decision on your access application by 20 September 2022.

# Decision on access

Searches were completed for relevant documents and six documents were identified that fall within the scope of your request.

I have included as **Attachment A** to this decision the schedule of relevant documents. This provides a description of each document that falls within the scope of your request and the access decision for each of those documents.

I have decided to grant access in full to five documents relevant to your request. I have decided to refuse access to one document as I consider it to be contrary to the public interest information under schedule.

My access decisions are detailed further in the following statement of reasons and the documents released to you are provided as **Attachment B** to this letter.

In accordance with section 54(2) of the Act a statement of reasons outlining my decisions is below.

# **Statement of Reasons**

In reaching my access decisions, I have taken the following into account:

- the Act;
- the content of the documents that fall within the scope of your request;
- the Human Rights Act 2004.

# **Exemption claimed**

My reasons for deciding not to grant access to the identified documents and components of these documents are as follows:

# <u>Contrary to the public interest information under schedule 1 of the Act – Cabinet</u> <u>Information</u>

Folio six of the identified documents is composed of information that is considered to be contrary to the public interest under schedule 1 of the Act.

Folio six has been identified as being partially within the scope of your request. It is composed of 19 pages that are out of scope and the page within scope has information that is considered to be contrary to the public interest information under section 1.6 of Schedule 1 of the Act, Cabinet information. Under this provision, Cabinet information is exempt from release. The purpose of this exemption is to maintain the confidentiality of the Cabinet process and to uphold the principle of collective ministerial responsibility. This exemption was discussed in *The Commonwealth v Northern Land Council* [1993] HCA 24; (1993) 176 CLR 604 (21 April 1993). Paragraph 6 of the decision, states that:

... it has never been doubted that it is in the public interest that the deliberations of Cabinet should remain confidential in order that the members of Cabinet may exchange differing views and at the same time maintain the principle of collective responsibility for any decision which may be made.

The Cabinet document falls within section 1.6 of the Act as it is information which has been commissioned by the Cabinet to guide it in its decision making and to assist it in its deliberations. The document is therefore exempt from release under the Act.

# Information that would, on balance, be contrary to the public interest to disclose under the test set out in section 17 of the Act

# Public Interest

The Act has a presumption in favour of disclosure. As a decision maker I am required to decide where, on balance, public interest lies. As part of this process I must consider factors favouring disclosure and non-disclosure.

In *Hogan v Hinch* (2011) 243 CLR 506, [31] French CJ stated that when 'used in a statute, the term [public interest] derives its content from "the subject matter and the scope and purpose" of the enactment in which it [public interest] appears'. Section 17(1) of the Act sets out the test, to be applied to determine whether disclosure of information would be contrary to the public interest. These factors are found in subsection 17(2) and Schedule 2 of the Act.

Taking into consideration the information contained in the documents found to be within the scope of your request, I have identified that the following public interest factors are relevant to determine if release of the information contained within these documents is within the 'public interest'.

# Factors favouring disclosure in the public interest under schedule 2.1:

(a) disclosure of the information could reasonably be expected to do any of the following:
 (ii) contribute to positive and informed debate on important issues or matters of

(ii) contribute to positive and informed debate on important issues or matters of public interest.

I consider that disclosing the contents of the information sought could contribute to open discussion and informed debate on the matters contained in the information. I am satisfied there may be a public interest in population forecasts and weigh this factor significantly.

# Factors favouring nondisclosure in the public interest:

(a) disclosure of the information could reasonably be expected to do any of the following:

(ii) prejudice the protection of an individual's right to privacy or any other right under the Human Rights Act 2004.

Having reviewed the documents, I consider that the protection of an individual's right to privacy, especially in the course of dealing with the ACT Government is a significant factor. Parties involved have provided their personal information for the purposes of working with the ACT Government and this, in my opinion, outweighs the benefit which may be derived from releasing the personal information of the individual's involved.

Individuals are entitled to expect that the personal information they have supplied as part of this process will be dealt with in a manner that protects their privacy. Considering the type of information to be withheld from release, I am satisfied that the factors in favour of release can still be met while protecting the personal information of the individuals involved. I therefore weight the factor for nondisclosure more highly than the factor in favour of release in this instance. As a result, I have decided that release of this information (mobile phone number) could prejudice their right to privacy under the *Human Rights Act 2004*.

Having applied the test outlined in section 17 of the Act and deciding that release of personal information contained in the documents is not in the public interest to release, I have chosen to redact this specific information in accordance with section 50(2). Noting the pro-disclosure intent of the Act, I am satisfied that redacting only the information that I believe is not in the public interest to release will ensure that the intent of the Act is met and will provide you with access to the majority of the information held by CMTEDD within the scope of your request.

# Charges

Processing charges are not applicable for this request because less than 50 pages are being released to you.

# **Online publishing – Disclosure Log**

Under section 28 of the Act, CMTEDD maintains an online record of access applications called a disclosure log. Your original access application, my decision and documents released to you in response to your access application will be published in the CMTEDD disclosure log after 3 days after the date of my decision. Your personal contact details will not be published.

You may view CMTEDD disclosure log at <u>https://www.cmtedd.act.gov.au/functions/foi</u>.

## **Ombudsman Review**

My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek Ombudsman review of this outcome under section 73 of the Act within 20 working days from the date of my decision, or a longer period allowed by the Ombudsman.

We recommend using this form *Applying for an Ombudsman Review* to ensure you provide all of the required information. Alternatively, you may write to the Ombudsman at:

The ACT Ombudsman GPO Box 442 CANBERRA ACT 2601

Via email: actfoi@ombudsman.gov.au

# ACT Civil and Administrative Tribunal (ACAT) Review

Under section 84 of the Act, if a decision is made under section 82(1) on an Ombudsman review, you may apply to the ACAT for review of the Ombudsman decision. Further information may be obtained from the ACAT at:

ACT Civil and Administrative Tribunal Level 4, 1 Moore St GPO Box 370 Canberra City ACT 2601 Telephone: (02) 6207 1740 http://www.acat.act.gov.au/

Should you have any queries in relation to your request please contact me by telephone on 6207 7754 or email <u>CMTEDDFOI@act.gov.au</u>.

Yours sincerely

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Katharine Stuart Information Officer Chief Minister, Treasury and Economic Development Directorate

20 September 2022



# FREEDOM OF INFORMATION REQUEST SCHEDULE

WHAT ARE THE PARAMETERS OF THE REQUEST	Reference NO.
Documents describing the model used to create the population forecasts in Figure 2.2.10 (Population growth by component, ACT) of the 2022-23 Budget	CMTEDDF0I 2022-235
Outlook, and any internal reports or correspondence that explain the choice of population growth rate in the forecasts.	

Ref No	Page number	Description	Date	Status	Reason for Exemption	Online Release Status
1	1-2	Document – Short-term population forecast	Undated	Partial release	Out of scope	Yes
2	3	Email – Re CPOP	29 Jun 2022	Partial release	Sch 2 s2.2 (a)(ii)	Yes
3	4-12	Population Statistics and Forecasts	5 Jul 2022	Full release	N/A	Yes
4	13-16	Centre for population	28 June 2022	Full release	N/A	Yes
5	17-19	Assumptions for 2022-23 ACT Budget	Undated	Full release	N/A	Yes
6		Fully exempt Cabinet document		Exempt	Sch 1 1.6	No
Total No of Docs						
6						

# Out of scope

# a. Short-term population forecast

- Normally a 4-year forecast done during the Budget and Budget Review process. The forecast is done using the components of population growth on a quarterly basis natural increase, net overseas migration and net interstate migration.
- Each component is forecasted separately, and partial indicators and methodology can differ depending on the situation at the time of forecasting. The most recent data from the ABS is taken into consideration and partial indicators are analysed to assess future trend.
- <u>Natural increase</u> is normally based on a 5-year quarterly average growth, however, for the most recent year, the births and deaths data from the ACT Registrar of Births, Deaths and Marriages is taken into consideration.
  - This data is from Access Canberra; Contact: Rachelle Blanch (620 58756) and Luke Madden (620 59619).
  - Note we pay for this service.
  - Births and Deaths data from the ABS is also analysed. See ABS Cat. No. 3301.0 and 3302.0.
- <u>Net Overseas Migration</u> forecast is also based on 5-year average trend, however data on Overseas Arrivals and Departures (ABS Cat. No. 3401.0) and Migration Australia data (ABS Cat. No. 3412.0) is also analysed to form judgement.
  - Migration Australia data contains NOM by visa type information.
  - Data.gov.au can also be used to get data in international students.

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- Note NOM is based on a 12/16 rule. More information available in ABS Cat. No. 3101.0 in explanatory notes.
- <u>Net Interstate Migration</u> is very volatile series and fluctuates a lot, normally depending on the strength of the ACT economy and Commonwealth Government policy on hiring. This is a very small component of ACT's population growth so 5-years quarterly average and some judgement is applied to forecast this component.

# Out of scope

From:	"Banerjee, Atreya" <atreya.banerjee@act.gov.au></atreya.banerjee@act.gov.au>
Sent:	29/06/2022 2:57 AM
То:	"Roberts, ChrisB" <chrisb.roberts@act.gov.au></chrisb.roberts@act.gov.au>
Cc:	"Hocking, Stuart" <stuart.hocking@act.gov.au></stuart.hocking@act.gov.au>
Subject:	RE: CPOP

## OFFICIAL

Sure Chris.

Hi Stuart,

Please see below for a comparison of CPop's projections for Australia and the ACT. Source is the **2022-23 Commonwealth Budget**. Please note all population estimates and forecasts below are as at 30 June (e.g. 30 June 2021 for 2020-21).

Description	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
ACT population levels (persons)	432,300	435,100	439,000	443,300	449,900	456,400
ACT population growth rates (%)	-	0.6	0.9	1.0	1.5	1.4
Australia population levels (persons)	25,739,300	25,913,10 0	26,223,20 0	26,565,10 0	26,928,00 0	27,289,10 0
Australia population growth rates (%)	-	0.7	1.2	1.3	1.4	1.3

Best Regards, Atreya

Atreya Banerjee

Assistant Director, Macroeconomics, Modelling and Federal Financial Relations Economic and Financial Group | Chief Minister, Treasury and Economic Development Directorate | ACT Government Ph: 02 6205 4659 | Mobile: Sch 2.2(a)(ii) | Email: <u>atreya.banerjee@act.gov.au</u> Level 1, 220 London Circuit | GPO Box 158 Canberra ACT 2601 | <u>www.act.gov.au</u>

From: Roberts, ChrisB <ChrisB.Roberts@act.gov.au> Sent: Wednesday, 29 June 2022 12:31 PM To: Banerjee, Atreya <Atreya.Banerjee@act.gov.au> Cc: Hocking, Stuart <Stuart.Hocking@act.gov.au> Subject: CPOP

# OFFICIAL

Hi Atreya – could you please provide Stuart with a comparison of CPOPs projections for Aust and the ACT. Their latest ones please.

**Chris Roberts** | Executive Branch Manager, Macroeconomics, Modelling and Federal Financial Relations Economic and Financial Group | Chief Minister, Treasury and Economic Development Directorate | ACT Government Level 1 220 London Circuit | GPO Box 158 Canberra ACT 2601 | <u>www.act.gov.au</u> Mobile: +61 412 800 874 | Office: 02 6207 4081 | Email: <u>chrisb.roberts@act.gov.au</u>



# **Population Statistics and Forecasts**

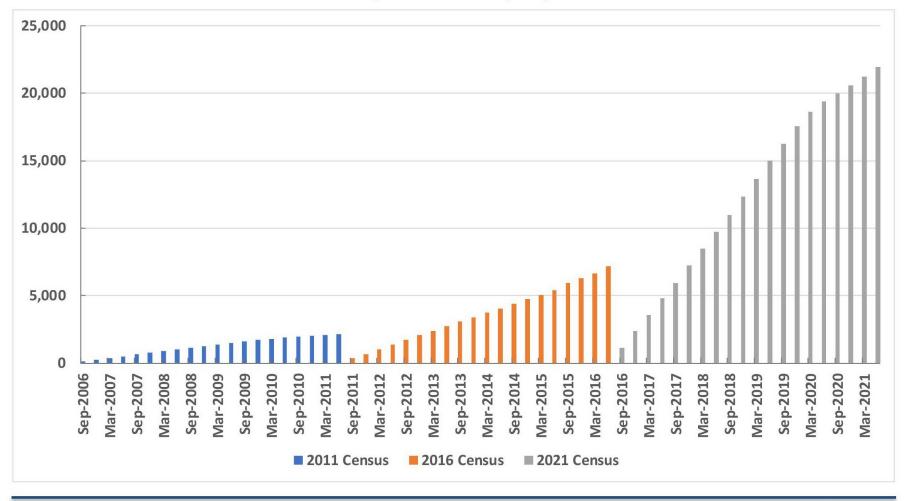
**Discussion material** 5 July 2022

**Branch**: Macroeconomics, Modelling and Federal Financial Relations **Team**: Macroeconomics

# **ERP - Intercensal rebasing: ACT**

# +ve = ERP underestimation / -ve = ERP overestimation

(Cumulative impact)

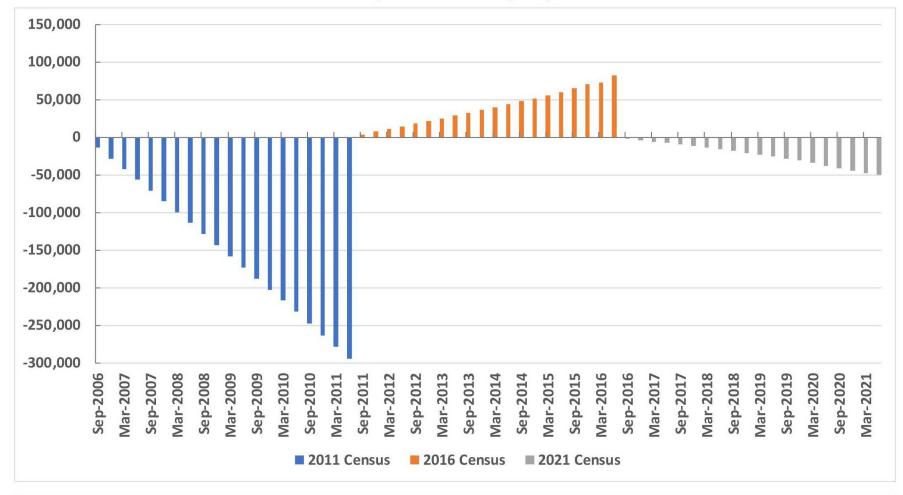




# **ERP - Intercensal rebasing: Australia**

+ve = ERP underestimation / -ve = ERP overestimation

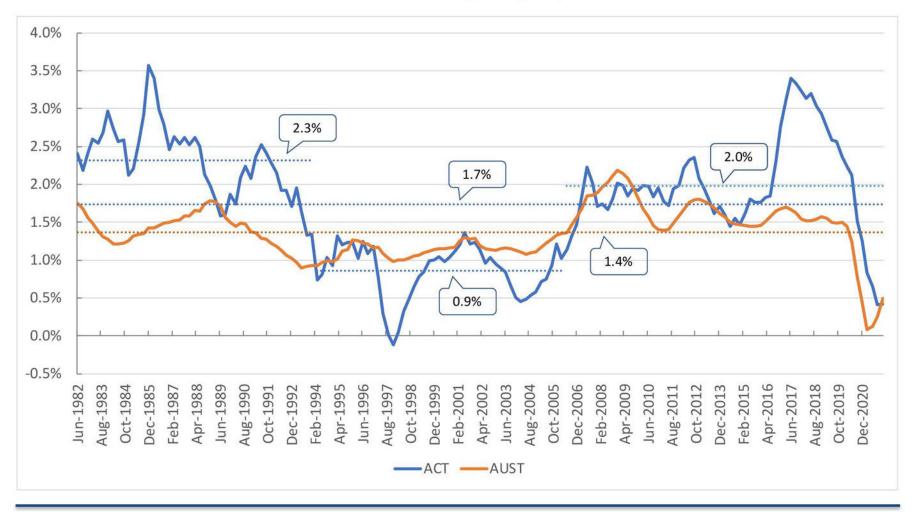
(Cumulative impact)





# **Population Statistics**

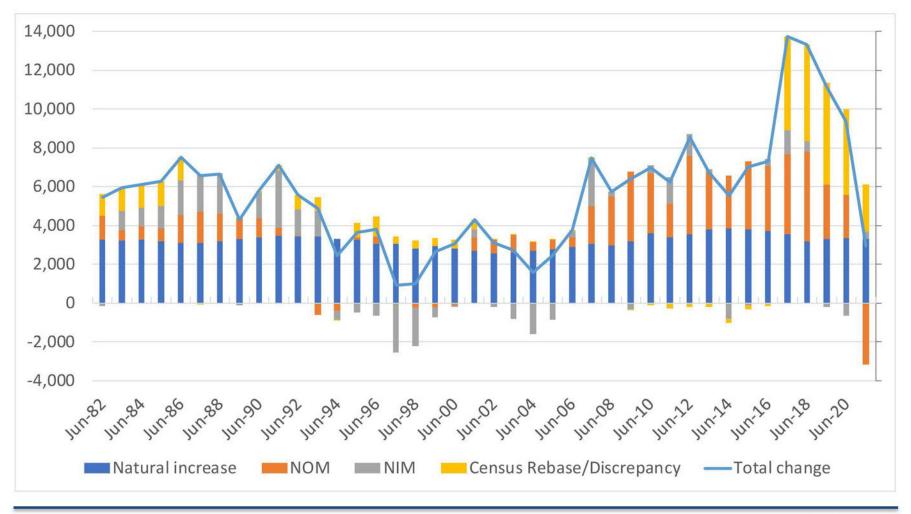
# Short-run and long-run perspective





# **ACT Population: Components of Growth**

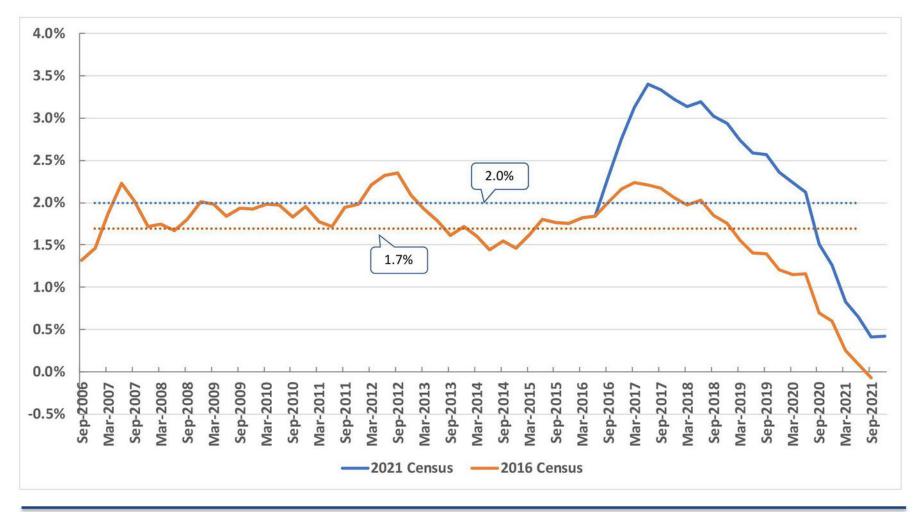
"unrebased" NIM and NOM





# **ACT Population: Difference in Growth rates**

# 2021 census rebased v 2016 based ERP





# **Net Overseas Migration**

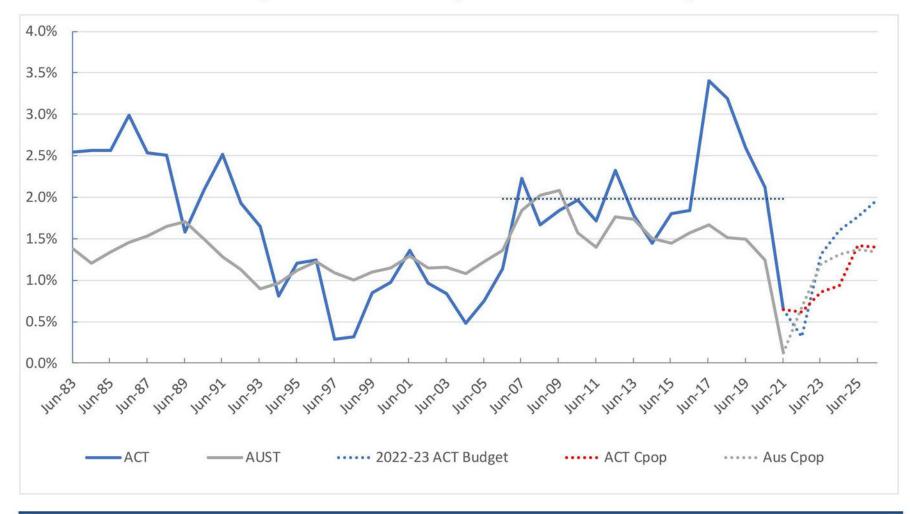
# ACT NOM: AUST NOM Ratio ("unrebased")





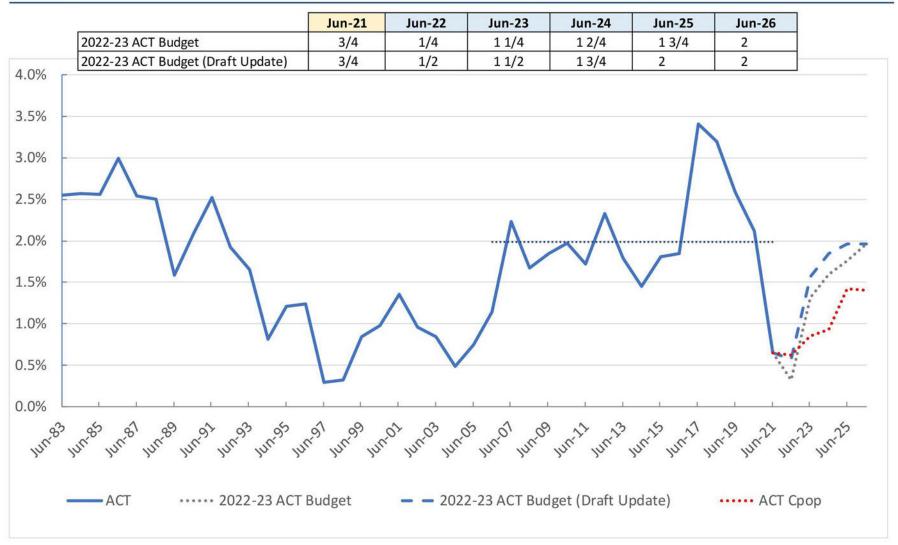
# **Population Forecasts: Short-run**

# ACT Budget Estimate revised up to recent rebased trend growth





# **Population Forecasts: Short-run (draft update)**





Australian Government



# Rebasing of Australia's population estimates using the 2021 Census

The Australian Bureau of Statistics (ABS) have used data from the 2021 Census of Population and Housing to rebase Australia's estimated resident population (ERP) from September 2016 to June 2021.

Australia's ERP at 30 June 2021 was 25,688,000, a downward revision of 50,000 (0.2 per cent).

There were significant revisions to state population estimates. The populations of New South Wales and Victoria were revised down, Queensland was largely unchanged, while other states and territories saw upwards revisions.

The ACT and Tasmania were the two fastest growing jurisdictions between 2016 and 2021 (the intercensal period), having grown much faster than previously estimated.

The Census was collected in August during an outbreak of the Delta variant of COVID-19 and lockdowns in most Eastern jurisdictions. Despite this, early indicators suggest that the Census was of high quality, with the lowest net undercount recorded, and a response rate of 96.1 per cent.

On 28 June 2022, the ABS released the first stage of data from the 2021 Census of Population and Housing (2021 Census). After each Census, the ABS uses new information to update ERP for Australia and its states and territories. This note presents the preliminary rebased estimates of Australia's population. For analysis of the latest quarterly population statistics please see *National, state and territory population, December 2021 at* population.gov.au. More information on the 2021 Census can be found at abs.gov.au/census.

## Population rebasing

Australia's ERP includes all people who usually reside in Australia (regardless of nationality, citizenship or visa status). To calculate ERP between Censuses, the ABS uses administrative data to estimate flows of population change (births, deaths, and migration) which it adds to the stock population estimate (the base).

**Rebasing** is the revision of ERP based on the latest Census. The ABS have rebased the ERP at 30 June 2021 to provide a more accurate base from which to estimate population. In addition, the ABS has also revised all previously published quarterly ERP estimates from 30 September 2016 to 30 June 2021.

The difference between the rebased ERP and previously published quarterly estimates is referred to as the *intercensal difference*. The intercensal difference cannot be attributed to any particular component of population change and is assumed to accumulate evenly over the intercensal period (between 30 September 2016 and 30 June 2021). The intercensal difference may result from error in the start population estimate, the end population estimate, and quarterly estimates of the components of growth.

## Revisions to the June 2021 population estimates

The preliminary rebased ERP for Australia, at 30 June 2021, was 25,688,000, a downward revision of 50,000 (or 0.2 per cent) from the 2016 Census based estimate of 25,738,000.

Compared to the national level, revisions to state and territory population estimates were much more significant (see Table 1). Victoria's population was revised down by 1.5 per cent (101,000) and New South Wales' by 1.2 per cent (95,000). Queensland's population was largely unchanged (down 0.1 per cent, or 4,000 people).

The populations of the smaller states and territories were revised up, with some of the largest rebasing revisions recorded in 30 years. The largest revisions were to the ACT (5.1 per cent) and Tasmania (4.9 per cent). Western Australia (2.5 per cent), South Australia (1.7 per cent) and the Northern Territory (1.3 per cent) were also revised upwards.

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Aust
2016 based ERP ('000)	8,189	6,649	5,221	1,773	2,682	541	246	432	25,738
2021 based ERP ('000)	8,094	6,548	5,218	1,803	2,750	568	249	454	25,688
Intercensal Difference ('000)	-95	-101	-4	30	68	27	3	22	-50
Difference (per cent)	-1.2	-1.5	-0.1	1.7	2.5	4.9	1.3	5.1	-0.2

#### Table 1. 2021 REBASING OF 30 JUNE 2021 ERP, IMPACT ON JURISDICTIONS

Note: Positive difference reflects an upward revision to population; negative difference represents a downgrade.

#### Revised growth between 2016 and 2021

Revision to ERP for June 2021 necessitated revision to estimates of quarterly population growth over the intercensal period (30 September 2016 to 30 June 2021).<sup>1</sup> At the national level, the small size of revisions mean that estimates of quarterly growth are unchanged from what was previously published. However, population growth at the state and territory level has been significantly revised (see Table 2).

Prior to rebasing, Victoria's and Queensland's growth had been estimated to be the fastest during the intercensal period, with an average annual growth rate of 1.5 per cent. Following the revisions, the ACT and Tasmania were the fastest growing jurisdictions over the intercensal period, with growth rates revised up by a percentage point.

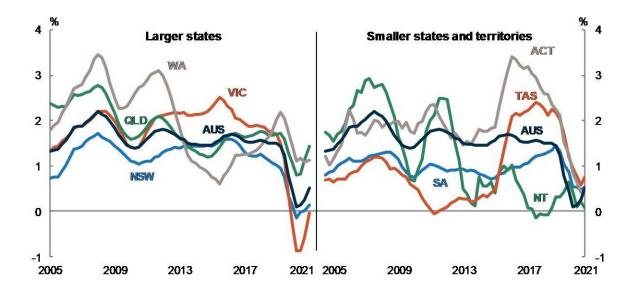
#### Table 2. Change in Average Annual Population Growth over the Intercensal Period

	NSW	VIC	QLD	SA	WA	TAS	NT	АСТ	Aust
2016 based growth (per cent)	1.2	1.5	1.5	0.7	1	0.9	0	1.4	1.2
2021 based growth (per cent)	0.9	1.2	1.5	1	1.5	1.9	0.3	2.4	1.2
Difference	-0.2	-0.3	0	0.3	0.5	1	0.3	1	0

These revisions have resulted in estimates of growth in the ACT (from the March quarter 2017 to the September quarter 2018) surpassing 3 per cent annually, comparable to levels seen in Western Australia during the 2000's mining boom. Tasmania has moved from the slowest growing state in the decade prior to 2016 to the second fastest growing state between 2016 and 2021 (see Chart 1). Western Australia grew as quickly as Queensland, and South Australia experienced slightly higher growth than New South Wales.

#### Chart 1. ANNUAL POPULATION GROWTH TO 30 JUNE 2021

<sup>&</sup>lt;sup>1</sup>Quarterly population estimates are revised by assuming intercensal difference is accumulated evenly across the five-year period, except for Tasmania and the Australian Capital Territory where more intercensal difference was allocated to quarters before June 2020. An error in allocation of migration estimates contributed to the relatively large intercensal difference in these two states.



#### Quality of the 2021 Census

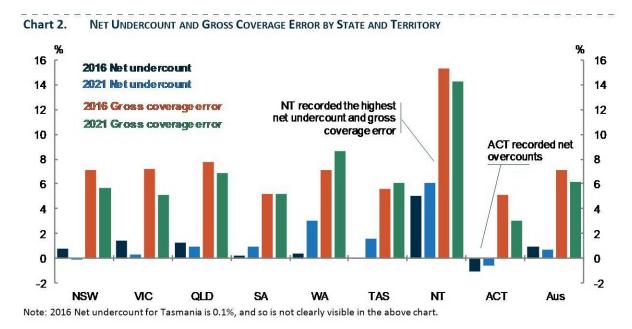
Shortly after each Census, the ABS run a Post Enumeration Survey (PES) to measure how well the Census counted people on Census night. The PES estimated a *net undercount* of 0.7 per cent, the lowest on record for an Australian census (see Table 3).<sup>2</sup>

Table 3.	HISTORICAL	CENSUS		NDERCO	DUNTS					-00		
		1971	1976	1981	1986	1991	1996	2001	2006	2011	2016	2021
Net Underco	unt (per cent)	1.4	2.7	1.9	1.9	1.8	1.6	1.8	2.7	1.7	1.0	0.7

The *gross coverage error* is the difference between the PES population estimate and the number of people from which Census received a response, providing an estimate of the response rate for the Census. The gross coverage error decreased from 7.1 per cent in 2016 to 6.1 per cent in 2021, indicating a higher proportion of the population completed the 2021 Census.

At the state and territory level, the net undercount and gross coverage error decreased between 2016 and 2021 in New South Wales and Victoria, representing fewer people missed and higher census coverage (see Chart 2). These jurisdictions were subject to COVID-19 related restrictions at the time of the Census and PES, limiting people's movement and potentially contributing to the lower gross coverage error. The Northern Territory recorded the highest net undercount rate of all state and territories, potentially driven by COVID-19 restrictions limiting access to some remote Indigenous communities.

<sup>&</sup>lt;sup>2</sup> Net undercount is the difference between the estimate of how many people should have been counted in the Census as determined by PES and the actual Census count.



## Notes

The Census data can be found at abs.gov.au/census and can be accessed through a variety of Census data tools, including community profiles which provide detailed tables for most Census variables.

The ABS will release the 2021 Census data in a staged approach. The second phase of the release will be available in October 2022 and will include other key Census topics, including employment and location-based variables (i.e., occupation and industry of employment, internal migration and method of travel to work). The third phase of the Census release will be available early to mid-2023 and will include topics such as distance to work and socio-economic indexes for areas (SEIFA).

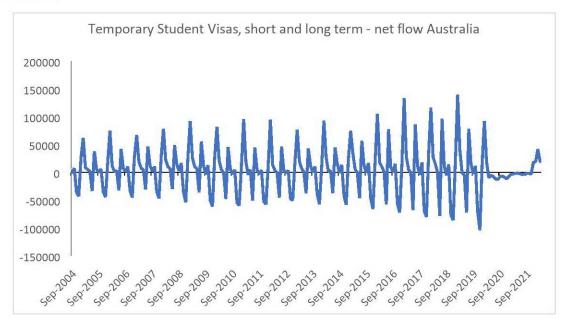
Final population estimates will be available in June 2023, following final revisions to components of population growth for the 2016 to 2021 period.

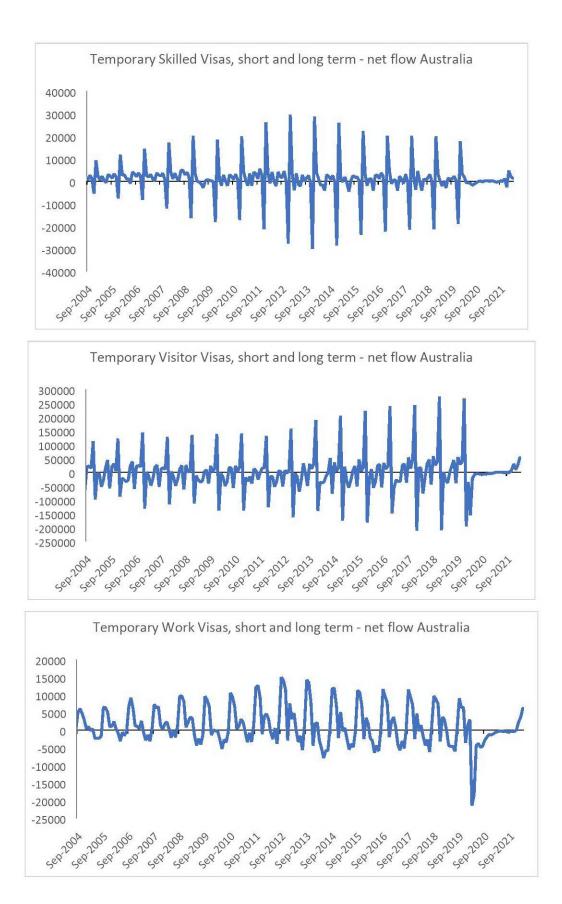
The preliminary rebased population estimates for the latest quarter are available from the ABS in *National, state and territory population, December 2021.* 

## Assumptions for the 2022-23 ACT Budget

- 1. The economic impacts of the Russia-Ukraine war are assumed to last until the end of calendar 2022.
  - a. Higher fuel prices for the rest of the year, dependent on rest of OPEC's response and what Iran decides to do.
  - b. Similarly, commodity and food prices (wheat, grains) prices are expected to remain elevated until the end of calendar 2022.
- 2. Retain NOM assumption from the ACT population projections, i.e. longer term migration returns to pre-COVID levels from 2026-27.
  - a. Could be sooner depending on how current data on university students and visa applicants are trending.
    - i. Next Step: Atreya to check with Economic Development directorate.
- 3. All lockdowns in China will end by calendar 2022.
  - a. Supply chain constraints are expected to ease by MQ 2023.
- 4. COVID-19 assumptions adopted from the 2022-23 Commonwealth Budget.
  - a. A further Omicron wave is assumed to occur over winter 2022, which may again see elevated rates of absenteeism and pressure on supply chains.
  - b. Beyond winter, it is assumed that ACT will continue to experience intermittent, localised waves of Omicron, or other new COVID-19 variants. However, it is assumed that high vaccination rates and improved medical treatments, together with continued community adaptation to COVID-19, will see the economic impact of future outbreaks continue to moderate.
  - c. It is assumed that public health measures such as physical distancing and density restrictions are phased out, but reimposed in a targeted way in response to future COVID-19 outbreaks. These public health measures are not expected to materially affect the economic forecasts.

# **Charts from ABS Overseas Arrivals and Departures data for Australia** (including provisional data for March 2022)





## Extracts from the 2022-23 Commonwealth Budget

1. The economic forecasts assume that the global oil price subsides from the recent spike but remains above pre-invasion levels at around US\$100 per barrel (Chart 2.22). This is consistent with a scenario in which ongoing uncertainty keeps prices elevated but there is minimal disruption to Russian oil supplies.





Source: Bloomberg and Treasury.

- 2. Community transmission of COVID-19 will continue to occur.
  - a. A further Omicron wave is assumed to occur over winter 2022, which may again see elevated rates of absenteeism and pressure on supply chains.
  - b. Beyond winter, it is assumed that Australia will continue to experience intermittent, localised waves of Omicron, or other new COVID-19 variants. However, it is assumed that high vaccination rates and improved medical treatments, together with continued community adaptation to COVID-19, will see the economic impact of future outbreaks continue to moderate.
  - It is assumed that public health measures such as physical distancing and density c. restrictions are phased down, but reimposed in a targeted way in response to future COVID-19 outbreaks. These public health measures are not expected to materially affect the economic forecasts.
  - d. Australia's international borders are assumed to be open to migrants and fully vaccinated tourists.
- 3. Russia Ukraine war
  - a. It is estimated that the conflict will cause a ¾ of a percentage point drag on global growth and increase global inflation by around 1½ percentage points. The economic impacts of the conflict are highly uncertain and will depend on the extent of the disruption to global commodity and energy supply. If the conflict has a larger-thanexpected impact on global energy supply, such as a cessation of gas supplies to Europe, this would weigh more heavily on global growth and inflation.