



Australian Government

Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts

BUREAU OF INFRASTRUCTURE AND TRANSPORT RESEARCH ECONOMICS  
STATISTICAL REPORT



Road

# Motor Vehicles, Australia January 2022 (First Issue)

October 2022



Bureau of Infrastructure and Transport  
Research Economics

**Motor Vehicles, Australia**  
January 2022 (First issue)

Department of Infrastructure, Transport, Regional  
Development, Communications and the Arts

© Commonwealth of Australia 2022  
ISSN: 2205-4235  
October 2022

Cover photograph: Getty Images, AaronMcAuleyPhotography.

### **Ownership of intellectual property rights in this publication**

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia (referred to below as the Commonwealth).

### **Disclaimer**

The material contained in this publication is made available on the understanding that the Commonwealth is not providing professional advice, and that users exercise their own skill and care with respect to its use, and seek independent advice if necessary.

The Commonwealth makes no representations or warranties as to the contents or accuracy of the information contained in this publication. To the extent permitted by law, the Commonwealth disclaims liability to any person or organisation in respect of anything done, or omitted to be done, in reliance upon information contained in this publication.

### **Creative Commons licence**

With the exception of (a) the Coat of Arms; and (b) the Department of Infrastructure's photos and graphics, copyright in this publication is licensed under a Creative Commons Attribution 3.0 Australia Licence.

Creative Commons Attribution 3.0 Australia Licence is a standard form licence agreement that allows you to copy, communicate and adapt this publication provided that you attribute the work to the Commonwealth and abide by the other licence terms. A summary of the licence terms is available from <http://creativecommons.org/licenses/by/3.0/au/deed.en>. The full licence terms are available from <http://creativecommons.org/licenses/by/3.0/au/legalcode>.

### **Use of the Coat of Arms**

The Department of the Prime Minister and Cabinet sets the terms under which the Coat of Arms is used. Please refer to the Department's Commonwealth Coat of Arms and Government branding web page <http://www.dpmc.gov.au/guidelines/index.cfm#brand> and, in particular, the Guidelines on the use of the Commonwealth Coat of Arms publication.

### **An appropriate citation for this report is:**

Bureau of Infrastructure and Transport Research Economics (BITRE) 2022, *Motor Vehicles, Australia, January 2022 (First Issue)*, BITRE, Canberra, Australia.

### **Contact us**

This publication is available in PDF format. All other rights are reserved, including in relation to any Departmental logos or trademarks which may exist. For enquiries regarding the licence and any use of this publication, please contact:

Bureau of Infrastructure and Transport Research Economics (BITRE)  
Department of Infrastructure, Transport, Regional Development, Communications and the Arts  
GPO Box 501, Canberra ACT 2601, Australia  
Telephone: (international) +61 2 6274 7210  
Email: [bitre@infrastructure.gov.au](mailto:bitre@infrastructure.gov.au)  
Website: [www.bitre.gov.au](http://www.bitre.gov.au)

# Foreword

This report presents aggregate estimates of all motor vehicles registered for road use in Australia as at 31 January 2022. The estimates have been derived from state and territory vehicle registry data as recorded on the National Exchange of Vehicle and Driver Information System (NEVDIS), as at 31 January 2022.

This is the first issue of a planned annual statistical release, and is intended as a replacement to the Australian Bureau of Statistics' (ABS) Motor Vehicle Census (MVC), which was discontinued in 2021. More detailed estimates, by make-model, registered postcode, year of manufacture and other available vehicle characteristics, will also be made available to users via the BITRE website (or for more detailed data needs, by request).

Production of these estimates has involved development of new data processing infrastructure that mirrors the processes and methods previously used by the ABS to produce its Motor Vehicle Census. The report also includes ABS' 2021 MVC and BITRE estimates for 2021, to enable users to understand the difference between the ABS and BITRE estimates.

This report was prepared by David Mitchell and Weihua Chen, with support from Joe O'Sullivan, Jordan Lorenzatto and Joseph Mosaad. BITRE gratefully acknowledges the assistance of the following current and former Austroads staff in arranging and providing the raw NEVDIS data: Geoff Allen (CEO), Tim Matthews, Dave Sayer and Babar Khan.

Shona Rosengren  
Head of Bureau  
Bureau of Infrastructure and Transport Research Economics  
October 2022

# Contents

Foreword .....	iii
Summary .....	I
Introduction .....	2
Comparison with previous ABS estimates .....	3
Registered vehicles by state and territory .....	4
Registered vehicles by vehicle type .....	6
Registered vehicles per capita .....	7
Average vehicle age by state/territory and vehicle type.....	9
Registered vehicles by fuel type .....	11
Top passenger vehicle makes.....	13
Top electric vehicle makes.....	13
Explanatory notes.....	17
Glossary .....	19
References .....	22

## Summary

- There were 20.7 million registered motor vehicles as at 31 January 2022 - an increase of approximately 2 per cent between January 2021 and January 2022.
- There are a further 4.5 million trailers, caravans, campers and plant and equipment (e.g. agricultural tractors, all-terrain vehicles, forklifts, golf buggies) not included in total registered motor vehicles.
- Toyota remained the largest passenger vehicle make for the 17th consecutive year, with 3.0 million registrations.
- The number of registered vehicles increased across every state and territory. Tasmania, Queensland and Western Australia reported the largest proportionate increases in vehicle registrations, 2.9 per cent, 2.7 per cent and 2.5 per cent, respectively.
- New South Wales, Victoria and Queensland have the highest number of vehicle registrations, and together account for over 76 per cent of all registered motor vehicles.
- Petrol-powered vehicles comprised around 70.1 per cent of the fleet at end January 2022, down from 71.3 per cent in 2021. Diesel-powered vehicles accounted for 27.2 per cent of the fleet in 2022, up from 26.4 per cent in 2021.
- The report separately enumerates battery electric vehicles (BEV) and hybrid-electric vehicles (HEV). There were approximately 40,000 registered BEVs as at 31 January 2022, an increase of approximately 100 per cent over 2021, including 34,200 passenger cars, an increase of 118 per cent over 2021. There were approximately 277,000 registered HEVs in 2022, an increase of 35 per cent over 2021.
- The average age of vehicles across Australia increased from 10.8 years in 2021 to 11.0 years in 2022.

# Introduction

This is the first issue of the Bureau of Infrastructure and Transport Research Economics' (BITRE) estimates of the total number of registered motor vehicles in Australia as at 31 January 2022. It is the first issue of a planned annual BITRE statistical release, and is intended as a replacement for the Australian Bureau of Statistics' (ABS) Motor Vehicle Census (MVC), discontinued in 2021.

This report provides aggregate estimates of the number of vehicles on register by state and territory, vehicle type, fuel type and make, for the top 30 passenger vehicle makes. The report also includes estimates of electric vehicles in the fleet.

In addition to this report, aggregate estimates of the number of vehicles on register are available in spreadsheet files, similar in format to the previous ABS MVC Data Cubes (ABS 2021), on the BITRE website. More detailed estimates, for example by make-model, postcode, vehicle year of manufacture and other vehicle characteristics, will also be made available to users either via the BITRE website or on request (for more detailed data enquiries).

BITRE's estimates include the full range of vehicle attributes previously available in the ABS MVC:

- State/territory of registration
- Postcode of registration
- Vehicle type
- Make-model
- Year of manufacture
- Fuel type
- Number of cylinders
- Engine capacity
- Seating capacity
- Tare weight
- Gross vehicle mass/gross combination mass
- National Heavy Vehicle charge code

In addition to these attributes, BITRE can also make data available by:

- State/territory of garaging
- Postcode of garaging
- Industry (ANZSIC Sub-division, for company-registered vehicles)



## Comparison with previous ABS estimates

Production of these estimates has required a completely new build of data processes and methods than previously used by the ABS to produce its MVC estimates.

Raw motor vehicle registry data requires significant cleaning, translation and standardisation to produce nationally consistent estimates. The variation in registration categories used across different jurisdictions, inconsistent allocation of vehicles to registration categories within jurisdictions, and the size of the registered vehicle fleet (approximately 25 million vehicles, including trailers, caravans, campers, and plant and equipment) greatly complicates the process of consistently and accurately identifying and categorising vehicles. Consequently, it was expected that the new estimates would differ from previous ABS estimates.

BITRE has made all reasonable efforts to ensure these estimates are both as accurate and coherent as possible with the previous ABS MVC estimates. At the national vehicle level, there is a high degree of coherence between the ABS MVC and BITRE 2021 estimates – the difference between the BITRE and ABS estimated number of registered motor vehicles is approximately 0.6 per cent (118,000 vehicles).

However, the differences are more significant at sub-national level and across different vehicle types. For example, the BITRE estimates approximately 13,000 more passenger vehicles in 2021 but around 142,000 more light commercial vehicles (LCVs). Differences are more significant for vehicle types with smaller vehicles numbers (campervans, light rigid trucks, and buses).

In order to enable users to understand the impact of the new methodology on the new vehicle estimates, the report also includes both BITRE and ABS MVC registered vehicles estimates as at 31 January 2021.

The data provided to and used by BITRE to produce the estimates for any year may be revised or corrected in later years. BITRE will continue to refine and improve its data cleaning and standardisation processes, which may also result in estimates for any year being revised or corrected in later years. Where corrections are made to original data they will be identified.

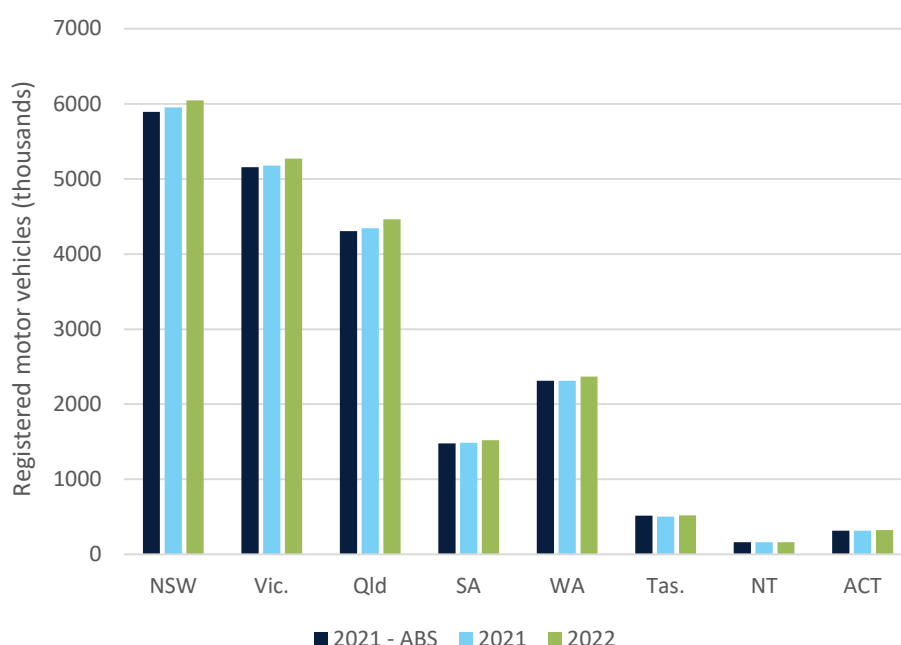
Further information about the scope, definition and data quality are provided in the Explanatory notes.

## Registered vehicles by state and territory

Figure 1 shows total motor vehicle registrations by state and territory of registration, at 31 January 2022 and 31 January 2021, and ABS MVC estimates for 2021. Table 1 shows total motor vehicle registrations by state and territory of registration and by vehicle type.

- There were 20.7 million registered motor vehicles as at 31 January 2022 - an increase of approximately 2 per cent between January 2021 and January 2022.
- The number of registered vehicles increased across every state and territory between 2021 and 2022.
  - Tasmania, Queensland and Western Australia reported the largest proportionate increases in vehicle registrations, 2.9 per cent, 2.7 per cent and 2.5 per cent, respectively.
  - The Northern Territory vehicle fleet grew slowest, by 0.6 per cent between 2021 and 2022.
- New South Wales, Victoria and Queensland have the highest number of vehicle registrations, and account for over 76 per cent of the fleet in 2022.
- There are a further 4.5 million trailers, caravans, campers and plant and equipment (e.g. agricultural tractors and equipment, construction equipment, all-terrain vehicles, forklifts, golf buggies) not included in total registered motor vehicles.

Figure 1 Total vehicles on register, by state/territory, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 1 Total vehicles on register, by vehicle type and state/territory of registration, 2021 and 2022

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
(vehicles)									
<b>Passenger vehicles</b>									
2021 - ABS	4,404,673	3,970,844	2,975,229	1,131,199	1,653,342	349,959	100,676	264,753	14,850,675
2021	4,448,265	3,959,797	2,990,579	1,126,228	1,639,679	338,263	98,398	262,970	14,864,179
2022	4,485,364	4,004,555	3,055,816	1,145,972	1,672,517	346,563	98,503	266,966	15,076,256
<b>Campervans</b>									
2021 - ABS	20,699	15,155	18,608	5,452	8,405	5,283	211	511	74,324
2021	20,982	15,063	19,511	1,467 <sup>a</sup>	595 <sup>a</sup>	5,235	10 <sup>a</sup>	511	63,374
2022	22,050	15,619	20,433	1,627 <sup>a</sup>	562 <sup>a</sup>	5,437	6 <sup>a</sup>	557	66,291
<b>Light commercial vehicles</b>									
2021 - ABS	975,509	774,389	917,546	235,666	417,115	118,901	45,502	34,829	3,519,457
2021	1,001,580	820,225	950,441	246,286	440,705	122,731	48,895	30,282	3,661,145
2022	1,042,072	856,412	990,560	257,800	460,031	127,999	49,686	31,524	3,816,084
<b>Light rigid trucks</b>									
2021 - ABS	62,567	43,883	45,628	8,267	19,987	4,543	799	1,655	187,329
2021	51,742	35,982	42,147	9,120	13,956	3,666	1,689	7,934	166,236
2022	54,295	37,846	44,578	9,841	14,630	3,849	1,699	8,303	175,041
<b>Heavy rigid trucks</b>									
2021 - ABS	103,743	89,747	77,569	22,874	54,718	10,042	4,647	1,649	364,989
2021	100,567	89,398	76,108	24,891	56,409	10,031	4,897	1,655	363,956
2022	102,979	91,700	78,686	25,399	57,615	10,353	4,978	1,716	373,426
<b>Articulated trucks</b>									
2021 - ABS	25,358	31,254	23,541	9,021	17,086	2,245	1,221	201	109,927
2021	25,558	31,265	23,879	9,514	16,699	2,183	1,201	207	110,506
2022	26,767	32,557	25,017	9,792	17,670	2,203	1,285	190	115,481
<b>Non-freight carrying vehicles</b>									
2021 - ABS	3,591	7,734	5,476	1,888	5,100	1,064	379	146	25,378
2021	7,681	6,386	5,542	3,091	5,157	824	178	158	29,017
2022	7,611	7,012	5,600	3,268	5,162	860	178	154	29,845
<b>Buses</b>									
2021 - ABS	26,548	20,849	21,196	6,008	15,042	3,042	3,328	1,047	97,060
2021	24,133	18,174	11,271	4,062	13,056	2,524	2,039	622	75,881
2022	24,287	18,328	11,579	4,199	13,538	2,627	2,176	624	77,358
<b>Motorcycles</b>									
2021 - ABS	269,518	203,317	218,920	57,524	123,917	21,372	5,878	13,357	913,803
2021	272,624	203,161	224,840	61,421	124,746	20,101	6,165	13,657	926,715
2022	281,603	208,929	230,887	62,582	126,100	20,509	5,992	13,768	950,370
<b>Total motor vehicles</b>									
2021 - ABS	5,892,206	5,157,172	4,303,713	1,477,899	2,314,712	516,451	162,641	318,148	20,142,942
2021	5,953,132	5,179,451	4,344,318	1,486,080	2,311,002	505,558	163,472	317,996	20,261,009
2022	6,047,028	5,272,958	4,463,156	1,520,480	2,367,825	520,400	164,503	323,802	20,680,152

a. Campervans were not explicitly categorised in Western Australia, South Australia and the Northern Territory, and hence may be under-enumerated here. These vehicles will be enumerated across other vehicles types for these jurisdictions.

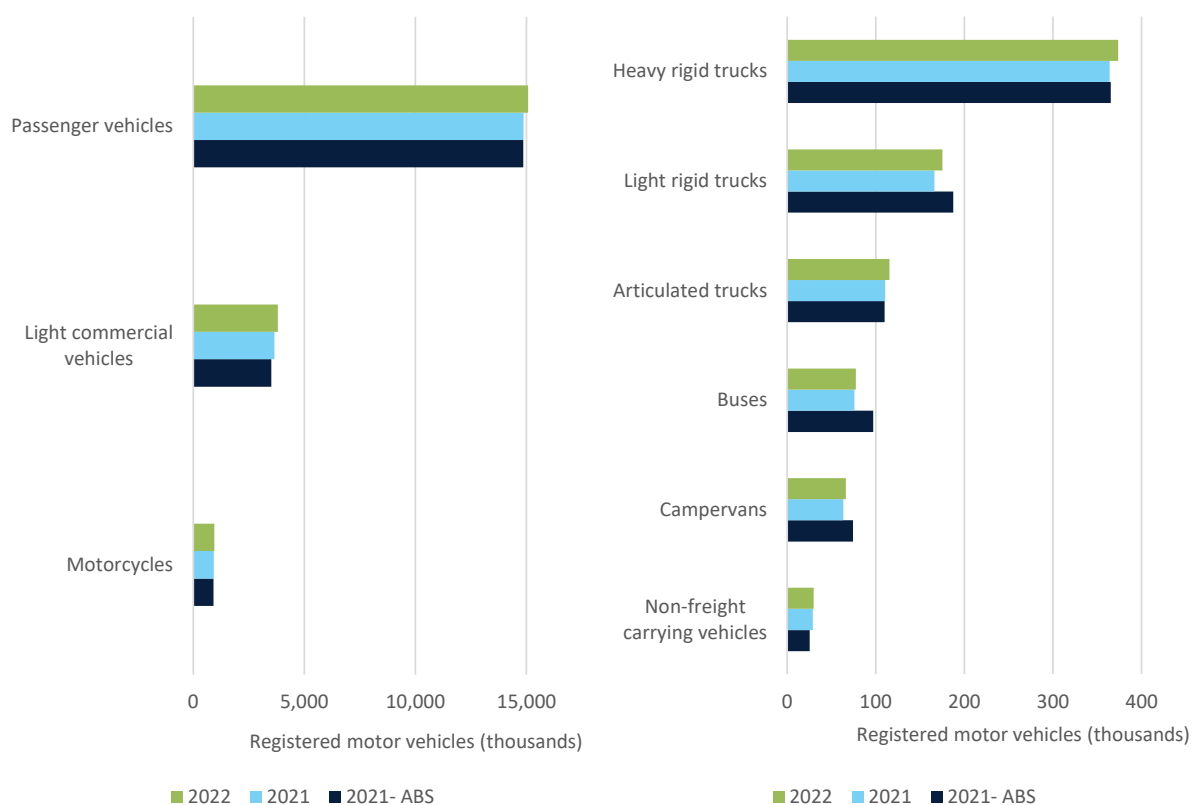
Sources: ABS (2021) and BITRE estimates.

## Registered vehicles by vehicle type

Figure 2 shows total motor vehicle registrations by vehicle type, at 31 January 2022 and 31 January 2021, and ABS MVC estimates as at 31 January 2021.

- Passenger vehicles remain the largest vehicle type on register, with 15.1 million registered vehicles at 31 January 2022, an increase of 1.4 per cent over the number of registered passenger vehicles as at 31 January 2021.
- Passenger vehicles comprised 72.9 per cent of all registered motor vehicles at 31 January 2022, down from 73.4 per cent in 2021.
- Light commercial vehicles comprise the second-largest vehicle type on register, with 3.8 million vehicles (18.4 per cent of the fleet) at 31 January 2022, up 4.2 per cent over January 2021.

Figure 2 Total vehicles on register, by vehicle type, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

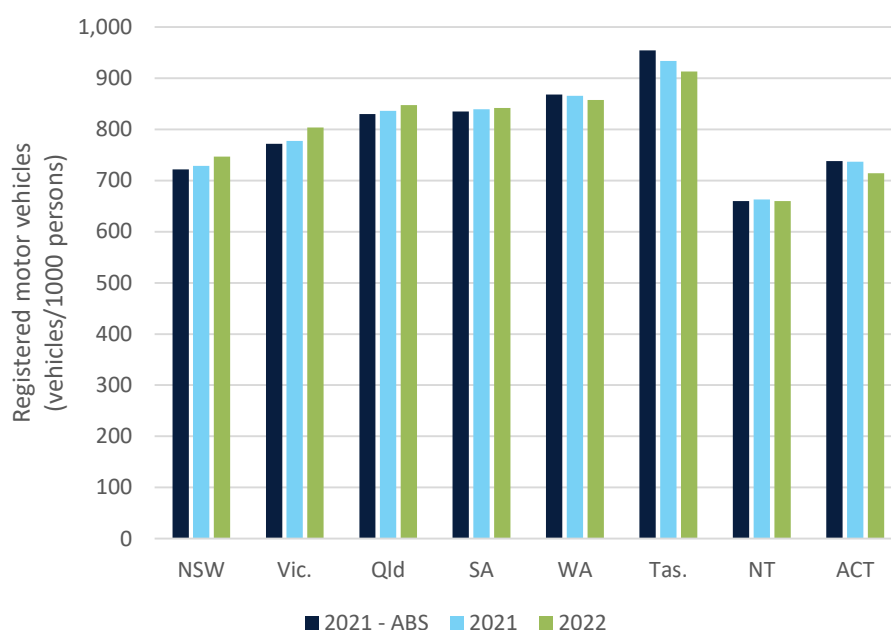
## Registered vehicles per capita

Figure 3 shows total motor vehicle registrations per 1000 persons, by state and territory of registration, at 31 January 2022 and 31 January 2021, and ABS MVC estimates for 2021.

Table 2 shows total motor vehicle registrations per 1000 persons, by state and territory of registration and by vehicle type.

- Between 31 January 2021 and 31 January 2022, the number of registered passenger vehicles per capita increased across the whole of Australia from 579 to 585 registered passenger vehicles per 1000 persons.
- Victoria experienced the largest increase in per capita passenger vehicle registrations, between 2021 and 2022, increasing from 594 to 611 registered passenger vehicles per 1000 persons.
- Tasmania experienced the largest drop in per capita passenger vehicle registrations between 2021 and 2022, falling from 625 to 608 registered passenger vehicles per 1000 persons.

Figure 3 Total vehicles on register per 1000 persons, by state/territory of registration, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 2 Total vehicles per capita, by vehicle type and state/territory of registration, 2021 and 2022

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
(vehicles per 1000 persons)									
<b>Passenger vehicles</b>									
2021 - ABS	539	594	574	639	620	647	408	614	578
2021	544	594	576	636	614	625	399	609	579
2022	554	611	580	634	606	608	395	589	585
<b>Campervans</b>									
2021 - ABS	3	2	4	3	3	10	1	1	3
2021	3	2	4	1	0	10	0	1	3
2022	3	2	4	1	0	10	0	1	3
<b>Light commercial vehicles</b>									
2021 - ABS	119	116	177	133	156	220	185	81	137
2021	123	123	183	139	165	227	198	70	143
2022	129	131	188	143	167	225	199	70	148
<b>Light rigid trucks</b>									
2021 - ABS	8	7	9	5	7	8	3	4	7
2021	6	5	8	5	5	7	7	18	7
2022	7	6	9	5	5	7	7	18	7
<b>Heavy rigid trucks</b>									
2021 - ABS	13	13	15	13	21	19	19	4	14
2021	12	13	15	14	21	19	20	4	14
2022	13	14	15	14	21	18	20	4	15
<b>Articulated trucks</b>									
2021 - ABS	3	5	5	5	6	4	5	0	4
2021	3	5	5	5	6	4	5	1	4
2022	3	5	5	5	6	4	5	0	5
<b>Non-freight carrying vehicles</b>									
2021 - ABS	0	1	1	1	2	2	2	0	1
2021	1	1	1	2	2	2	1	0	1
2022	1	1	1	2	2	2	1	0	1
<b>Buses</b>									
2021 - ABS	3	3	4	3	6	6	14	2	4
2021	3	3	2	2	5	5	8	1	3
2022	3	3	2	2	5	5	9	1	3
<b>Motorcycles</b>									
2021 - ABS	33	30	42	32	46	39	24	31	36
2021	33	31	43	35	47	37	25	32	36
2022	35	32	44	35	46	36	24	30	37
<b>Total motor vehicles</b>									
2021 - ABS	722	772	830	835	868	954	660	738	784
2021	728	778	836	839	866	934	663	737	789
2022	747	804	848	842	857	913	660	714	803

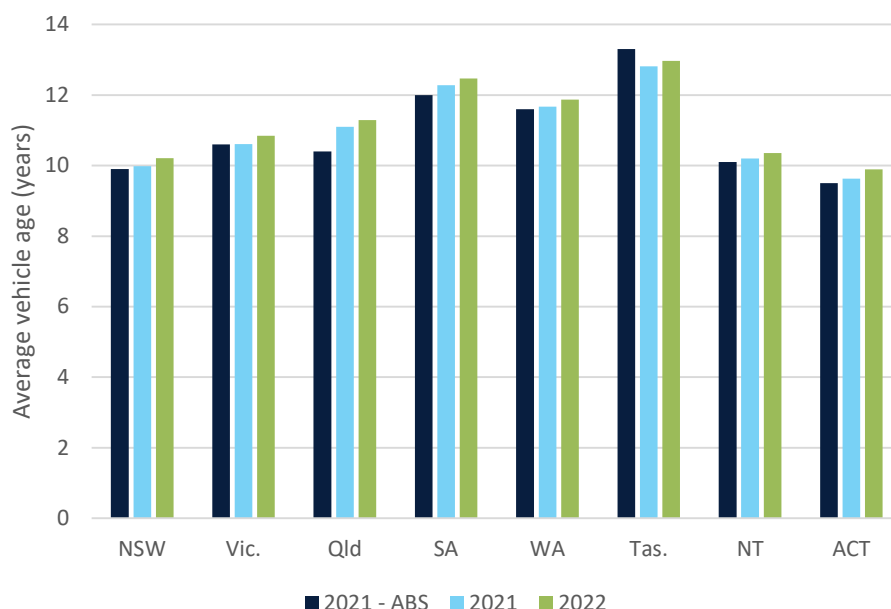
Sources: ABS (2021 and 2022) and BITRE estimates.

## Average vehicle age by state/territory and vehicle type

Figure 4 shows average vehicle age of the fleet, by state and territory of registration, at 31 January 2022 and 31 January 2021, and ABS MVC estimates as at 31 January 2021. Table 3 shows the average vehicle age, by state and territory of registration and by vehicle type.

- The average age of vehicles across Australia has increased from around 10.8 years in 2021 to around 11.0 years in 2022.
- The average age of vehicles increased across all jurisdictions between 2021 and 2022.
- The Tasmanian-registered vehicle fleet is the oldest at just under 13.0 years.
- The Australian Capital Territory registered vehicle fleet is newest at 9.9 years.

Figure 4 Average vehicle age, by state/territory of registration, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 3 Average vehicle age, by vehicle type and state/territory of registration, 2021 and 2022

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
(years)									
<b>Passenger vehicles</b>									
2021 - ABS	9.70	10.30	10.10	11.90	11.20	12.90	9.90	9.40	10.40
2021	9.77	10.31	10.79	12.15	11.19	12.26	9.98	9.52	10.51
2022	10.03	10.58	11.00	12.38	11.42	12.43	10.13	9.80	10.76
<b>Campervans</b>									
2021 - ABS	15.60	16.40	14.70	21.30	22.90	22.80	20.00	18.10	17.30
2021	15.71	16.16	16.87	17.96	35.23	22.69	27.38	18.21	17.01
2022	15.67	16.12	16.93	17.73	35.95	22.74	23.58	18.03	16.98
<b>Light commercial vehicles</b>									
2021 - ABS	10.10	10.90	10.70	11.50	11.60	13.70	10.00	9.40	10.80
2021	10.17	11.04	11.22	11.97	11.73	13.49	10.13	7.95	11.04
2022	10.29	11.12	11.36	12.05	11.77	13.57	10.27	8.30	11.14
<b>Light rigid trucks</b>									
2021 - ABS	10.10	10.60	11.30	12.30	11.80	14.60	13.20	9.30	10.90
2021	10.73	9.99	12.35	11.77	12.50	13.75	12.86	15.48	11.50
2022	10.72	10.13	12.24	11.67	12.57	13.73	12.90	15.08	11.48
<b>Heavy rigid trucks</b>									
2021 - ABS	14.70	16.40	15.10	16.10	18.20	18.30	14.30	11.40	15.90
2021	14.75	16.51	15.29	18.84	18.33	18.24	14.39	11.59	16.21
2022	14.89	16.51	15.35	18.68	18.51	18.40	14.59	11.60	16.28
<b>Articulated trucks</b>									
2021 - ABS	11.90	12.50	11.70	11.70	13.70	11.70	13.40	11.30	12.30
2021	11.82	12.40	11.99	12.73	13.43	11.69	13.27	11.25	12.36
2022	11.97	12.46	12.12	12.95	13.49	12.01	13.32	11.69	12.47
<b>Non-freight carrying vehicles</b>									
2021 - ABS	13.00	15.30	12.20	15.20	15.20	16.90	13.80	9.60	14.30
2021	11.53	12.03	12.48	12.36	15.27	14.61	10.44	11.33	12.66
2022	12.08	11.81	12.75	12.04	15.51	14.92	11.17	11.84	12.81
<b>Buses</b>									
2021 - ABS	11.70	12.40	11.80	11.80	11.60	14.90	10.60	10.10	11.90
2021	10.89	11.24	10.59	12.12	11.00	14.35	9.58	10.09	11.09
2022	11.10	11.48	10.93	12.39	11.04	14.40	9.42	10.63	11.29
<b>Motorcycles</b>									
2021 - ABS	10.10	11.20	11.20	12.70	14.10	14.30	9.20	10.80	11.40
2021	10.12	11.52	12.35	13.16	14.29	12.49	9.82	11.55	11.80
2022	10.27	11.70	12.60	13.39	14.73	12.74	10.01	11.57	12.02
<b>Total motor vehicles</b>									
2021 - ABS	9.90	10.60	10.40	12.00	11.60	13.30	10.10	9.50	10.60
2021	9.98	10.61	11.10	12.28	11.67	12.81	10.20	9.63	10.81
2022	10.21	10.84	11.29	12.47	11.87	12.97	10.35	9.89	11.03

a. Campervans were not explicitly categorised in Western Australia, South Australia and the Northern Territory, hence the significant difference between ABS and BITRE 2021 estimates, impacting the average age estimates for these vehicles.

Sources: ABS (2021) and BITRE estimates.

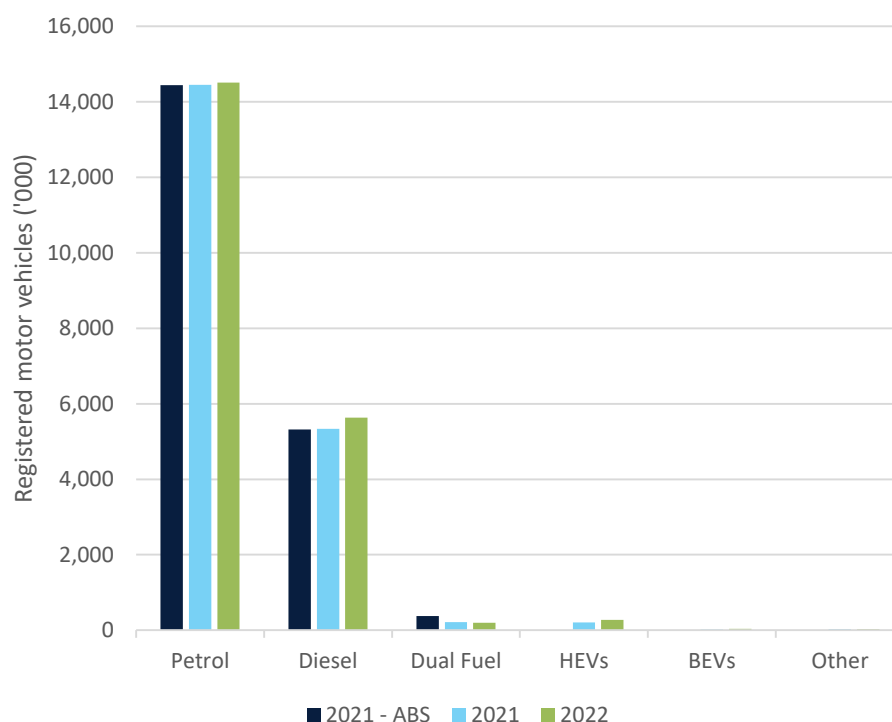


## Registered vehicles by fuel type

Figure 5 and Table 4 show the number of vehicles on register by fuel type, at 31 January 2022 and 31 January 2021, and ABS MVC estimates for 31 January 2021.

- There were approximately 14.5 million registered petrol-fuelled motor vehicles at 31 January 2022, up 0.3 per cent on 2021. Petrol-fuelled motor vehicles comprised around 70.1 per cent of the fleet at end January 2022, down from 71.3 per cent in January 2021.
- Diesel-fuelled vehicles on register numbered approximately 5.6 million at 31 January 2022, an increase of 5 per cent over 2021. Diesel-fuelled motor vehicles accounted for 27.2 per cent of the fleet as at 31 January 2022, up from 26.4 per cent in 2021.
- Hybrid electric vehicles numbered approximately 277,000 at 31 January 2022, an increase of around 35 per cent over 2021.
- Battery electric vehicles on register increased from approximately 19,800 at 31 January 2021 to approximately 40,000 at 31 January 2022, an increase of approximately 100 per cent.

Figure 5 Total vehicles on register, by fuel type, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 4 Registered motor vehicles, by fuel type and vehicle type, 2021 and 2022

Year	Petrol	Diesel	Dual Fuel	HEV	BEV	Other and unknown	Total
(vehicles)							
<b>Passenger vehicles</b>							
2021 - ABS	12,524,596	2,036,876		289,203 <sup>a</sup>			14,850,675
2021	12,481,227	2,009,736	134,910	205,283	15,681	17,342	14,864,179
2022	12,538,391	2,086,454	122,349	276,582	34,199	18,281	15,076,256
<b>Campervans</b>							
2021 - ABS	20,659	52,305		1,360 <sup>a</sup>			74,324
2021	17,134	44,941	1,031	5	2	261	63,374
2022	16,948	48,084	998	6	3	252	66,291
<b>Light commercial vehicles</b>							
2021 - ABS	953,253	2,488,835		77,369 <sup>a</sup>			3,519,457
2021	1,001,552	2,581,922	74,472	91	264	2,844	3,661,145
2022	976,576	2,766,376	69,596	272	337	2,927	3,816,084
<b>Light rigid trucks</b>							
2021 - ABS	6,758	179,028		1,543 <sup>a</sup>			187,329
2021	13,558	151,671	798	16	16	177	166,236
2022	13,031	161,033	763	25	17	172	175,041
<b>Heavy rigid trucks</b>							
2021 - ABS	9,275	354,213		1,501 <sup>a</sup>			364,989
2021	10,046	351,861	875	66	32	1,076	363,956
2022	9,538	361,832	840	71	51	1,094	373,426
<b>Articulated trucks</b>							
2021 - ABS	820	108,829		278 <sup>a</sup>			109,927
2021	846	109,349	156	2	1	152	110,506
2022	801	114,372	150	2	3	153	115,481
<b>Non-freight carrying vehicles</b>							
2021 - ABS	2,187	22,942		249 <sup>a</sup>			25,378
2021	2,257	26,254	354	14	42	96	29,017
2022	2,347	26,662	643	15	76	102	29,845
<b>Buses</b>							
2021 - ABS	15,308	78,775		2,977 <sup>a</sup>			97,060
2021	10,278	63,246	1,374	8	39	936	75,881
2022	9,897	65,186	1,308	13	120	834	77,358
<b>Motorcycles</b>							
2021 - ABS	911,052	44		2,707 <sup>a</sup>			913,803
2021	917,475	1,169	711	132	3,743	3,485	926,715
2022	940,054	1,137	637	125	4,991	3,426	950,370
<b>Total motor vehicles</b>							
2021 - ABS	14,443,908	5,321,847		377,187 <sup>a</sup>			20,142,942
2021	14,454,373	5,340,149	214,681	205,617	19,820	26,369	20,261,009
2022	14,507,583	5,631,136	197,284	277,111	39,797	27,240	20,680,152

a. ABS (2021) combined estimate of dual fuel, electric and other fuel type registered vehicles.

Notes: HEV – Hybrid electric vehicles, BEV – Battery electric vehicles.

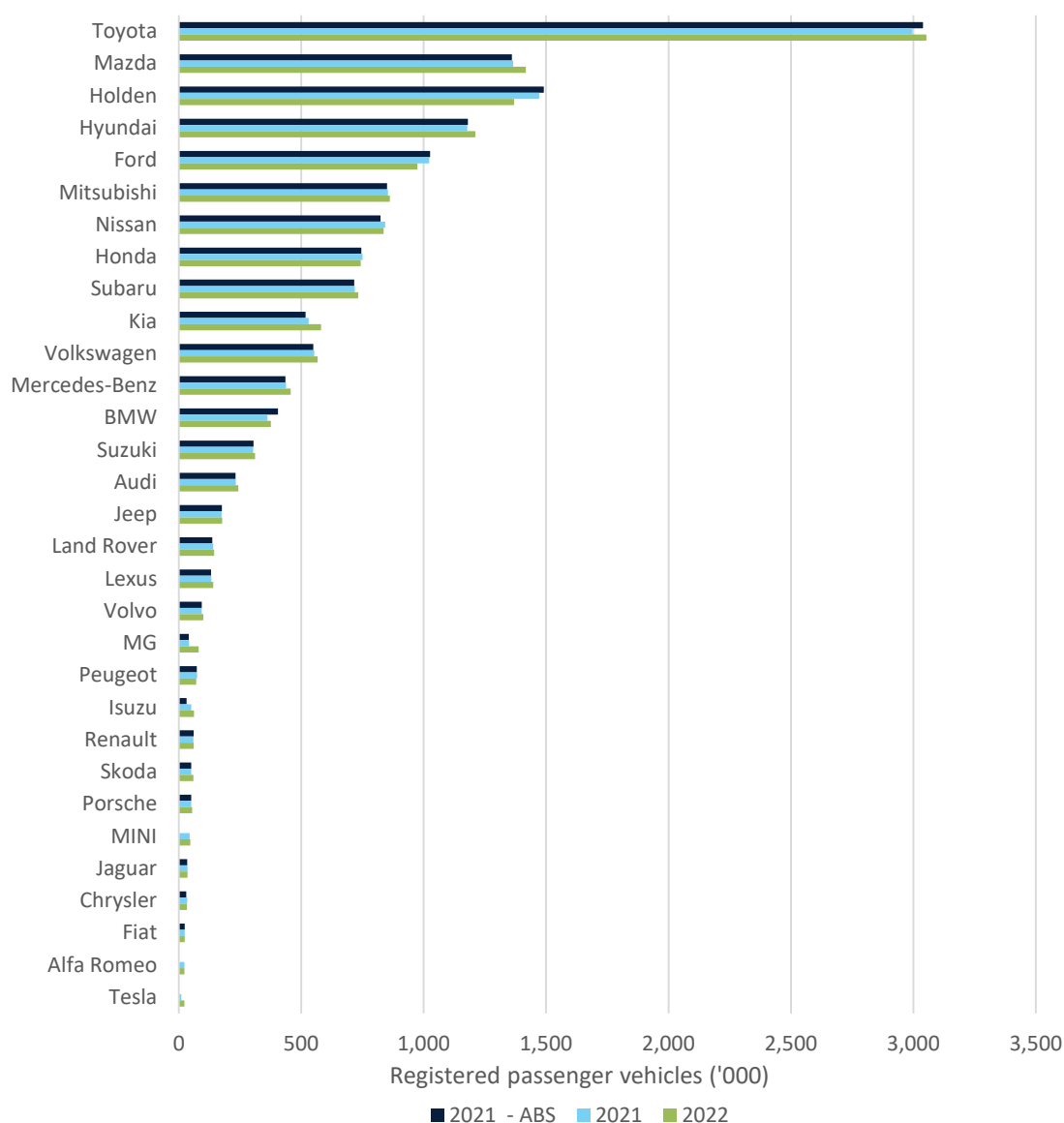
Sources: ABS (2021) and BITRE estimates.

## Top passenger vehicle makes

Figure 6 shows the total number of passenger vehicles by vehicle make, for the top 30 registered vehicle makes as at 31 January 2022, and comparison with the number of registered passenger vehicles as at 31 January 2021 and ABS estimates for 31 January 2021. Table 5 lists the total number of passenger vehicles by make.

- Toyota remained the largest passenger vehicle make for the 17th consecutive year, with 3.0 million registrations.
- MG vehicles experienced the largest proportionate increase among the top 30 makes, with almost 40,000 additional passenger vehicles on register in the 12 months between January 2021 and January 2022, almost doubling the number of MG vehicles on register.

Figure 6 Registered passenger vehicles by make, top 30 makes, 2021 and 2022



Note: Tesla ranked 31<sup>st</sup> amongst all passenger vehicle makes in 2022, and is included with top 30 makes here for reference.  
Sources: ABS (2021) and BITRE estimates.

Table 5 Registered passenger vehicles by vehicle make, top 30 makes, 2021 and 2022

Make	Position change	2021 - ABS	2021	2022
(vehicles)				
Toyota		3,038,983	2,995,898	3,054,054
Mazda	↑	1,360,109	1,365,978	1,417,136
Holden	↓	1,491,233	1,471,246	1,369,264
Hyundai		1,180,576	1,177,834	1,210,500
Ford		1,025,919	1,022,478	974,880
Mitsubishi		850,639	854,271	862,268
Nissan		823,823	842,829	835,820
Honda		745,898	750,019	742,687
Subaru		716,086	718,165	732,596
Kia	↑	516,940	530,100	580,301
Volkswagen	↓	549,003	552,337	567,058
Mercedes-Benz		435,171	438,031	456,337
BMW		405,338	361,745	375,239
Suzuki		304,843	303,534	310,871
Audi		231,522	232,393	242,340
Jeep		176,091	175,075	177,100
Land Rover <sup>a</sup>		137,065	140,675	143,833
Lexus		131,499	132,994	139,898
Volvo		93,093	93,713	99,488
MG	↑	40,649	41,082	80,960
Peugeot	↓	73,324	74,065	71,040
Isuzu	↑	31,296	50,989	61,702
Renault	↓	60,516	59,485	60,798
Skoda	↓	50,959	51,040	58,987
Porsche	↓	50,762	50,806	54,700
MINI <sup>b</sup>	↓	na	44,536	47,328
Jaguar		34,657	35,115	35,593
Chrysler		30,287	33,726	32,281
Fiat		23,493	23,385	23,691
Alfa Romeo <sup>b</sup>		na	23,314	22,945
Tesla <sup>c</sup>	↑	na	10,125	22,259
Other		240,901	207,196	212,302
Total		14,850,675	14,864,179	15,076,256

- a. ABS (2021) previously reported Range Rovers as a separate vehicle make. Range Rovers are currently produced by Jaguar Land Rover, and previously Land Rover (British Leyland). BITRE has included all Range Rovers as a model under the Land Rover vehicle make.
- b. ABS (2021) did not previously enumerate MINI as a separate vehicle make. Alfa Romeo not within ABS (2021) top 30 makes.
- c. Tesla ranked 31<sup>st</sup> amongst all passenger vehicle makes in 2022, and is included with top 30 makes here for reference.
- na not available.

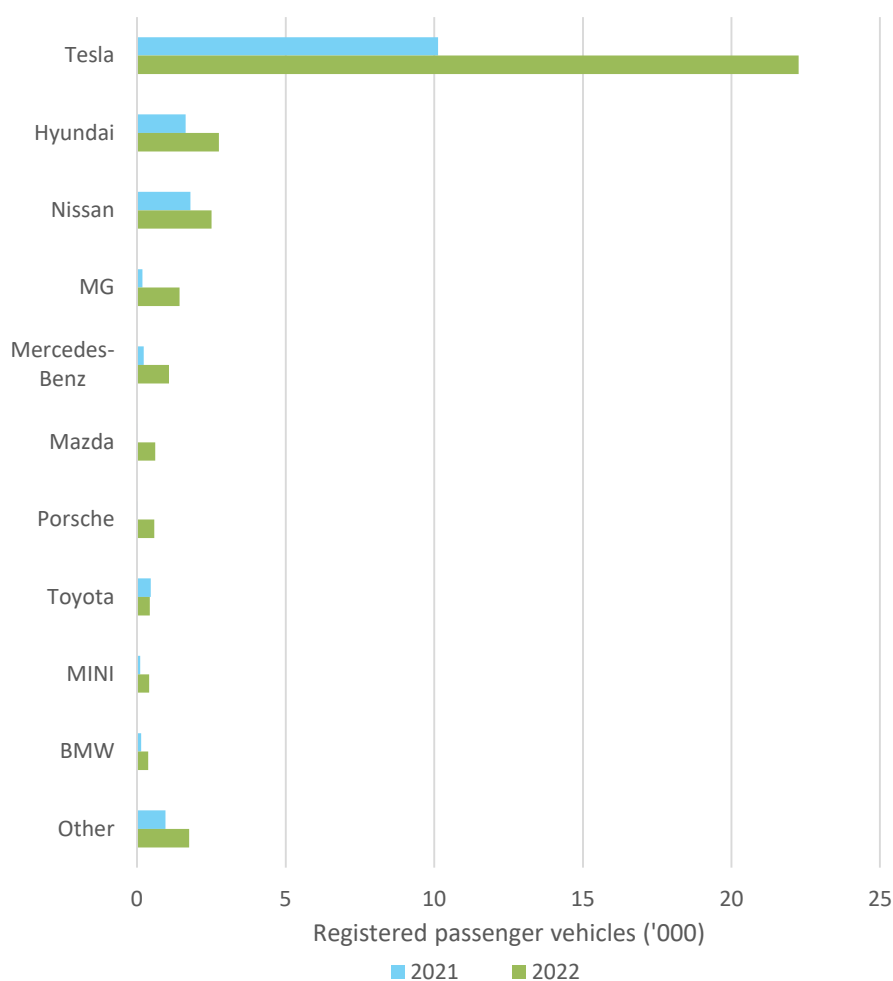
Sources: ABS (2021) and BITRE estimates.

## Electric vehicle makes

This report, and accompanying estimates, separately enumerate the number of registered battery electric vehicles (BEV) and hybrid electric vehicles (HEV). Figure 7 shows, and Table 6 lists, the number of registered battery electric vehicles on register by make, for the top 10 vehicle makes, as at 31 January 2022 and 31 January 2021.

- There were approximately 34,000 battery electric passenger vehicles on register as at 31 January 2022, a 118 per cent increase over the number of registered electric vehicles on register in January 2021.
- Tesla is the most popular electric vehicle with approximately 22,260 vehicles on register as at 31 January 2022, up from 10,125 vehicles on 31 January 2021.
- Hyundai is the second largest electric vehicle make, with approximately 2750 registered vehicles as at 31 January 2022.
- In addition to these vehicles, there were also 46 fuel cell electric vehicles (FCEV) on register as at 31 January 2022 (primarily Hyundai Nexo and Toyota Mirai), up from 4 vehicles as at 31 January 2021.

Figure 7 Registered battery electric vehicles by make, top 10 makes, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 6 Battery electric passenger vehicles on register by make, top 10 makes, 2021 and 2022

Make	Rank change	2021 – ABS <sup>a</sup>	2021	2022
(vehicles)				
Tesla			10,125	22,259
Hyundai	↑		1,638	2,753
Nissan	↓		1,800	2,508
MG	↑		184	1,435
Mercedes-Benz	↑		221	1,077
Mazda	↑		11	609
Porsche	↑		35	583
Toyota	↓		462	433
MINI	↑		102	407
BMW	↓		141	378
Other			962	1,757
Total			15,681	34,199

a. ABS (2021) did not separately enumerate electric vehicles.

Sources: ABS (2021) and BITRE estimates.

## Explanatory notes

This section provides more details about the scope, coverage and quality of the registered motor vehicle data. Many of these details are very similar to those reported by ABS (2021), but there are some minor differences in sources and methods.

The estimates presented here include all motor vehicles that are registered with an Australian state or territory motor vehicle registry (MVR) for unrestricted use on public roads and reported by jurisdictions to the National Exchange of Vehicle and Driver Information System (NEVDIS), as at the 31 January 2022.

The scope of the estimates have been defined to accord as closely as possible with the previous ABS MVC motor vehicles estimates, and hence exclude:

- recreational vehicles such as trail bikes, quad bikes, and sand dune buggies intended for off-road use
- veteran and vintage vehicles registered for restricted use only
- consular vehicles, and
- vehicles registered by the defence forces.

In particular, veteran and vintage vehicles registered for restricted use do not appear to be present in NEVDIS for most jurisdictions and are therefore not included. Consular and defence force vehicles also do not appear to be present in the NEVDIS data. Recreational vehicles are excluded via make and model, however, some trail bikes and quad bikes may still be present in the estimates.

NEVDIS data also includes road-registered caravans, trailers, tractors, golf buggies, plant and equipment. These particular vehicle types are not within scope of registered motor vehicles, and hence are not included in the estimates in this report. Records for these vehicles are included in the unpublished unit record data and can be made available on request.

BITRE has followed the ABS MVC registration cut-off, deeming all vehicles whose registration lapsed up to 30 days prior to the MVC snapshot date (i.e. after 31 December of the preceding year) to be in scope.

## Data quality

The number of registered vehicles fleet (over 25 million vehicles) dictates that quality assurance of each record is not possible. For data made available at a detailed level, BITRE is unable to guarantee that it is necessarily sufficient for all purposes for which it may be used. There is also some variation in the reporting from different state and territory MVRs and care should be taken when comparing data across jurisdictions.

The data provided to and used by BITRE to produce estimates of registered vehicles for any year may be revised or corrected in later years. Where corrections are made to original data they will be identified.

## Methodological changes

### Year of manufacture

Vehicle year of manufacture is based on the NEVDIS-recorded year of manufacture for registered vehicles in all jurisdictions other than New South Wales. Year of manufacture for New South Wales' registered vehicles is based on the year of the vehicle compliance plate. (New South Wales provides compliance plate date (month) to NEVDIS, all other jurisdictions provide vehicle year of manufacture to NEVDIS.)

Based on records where both vehicle year of manufacture and compliance plate date are present, there appeared to be a high degree of consistency between the two fields. Note that New South Wales accounts for over 6 million registered motor vehicles, hence this change may impact a significant number of vehicle records.

### Vehicle makes

There are significant changes to the range of vehicle makes reported here from that previously reported by ABS (2021). Range Rover vehicles, previously reported by ABS as a separate make, are now reported as make Land Rover and model Range Rover. MINI branded vehicles are enumerated separately here. These changes affect the results presented in Table 6.



## Glossary

The following definitions are general explanations only. The precise definitions vary across the organisations that provide the source data. These differences may result in minor inconsistencies between jurisdictions for some fields. Again, the majority of these definitions are identical to ABS (2021). Note the fuel type definition has changes and the following new fuel types introduced: battery electric and hybrid electric fuel type.

*Articulated trucks* Motor vehicles constructed primarily for load carrying, consisting of a prime mover having no significant load carrying area, but with a turntable device which can be linked to one or more trailers.

*Average age of vehicle* The estimated average age of registered motor vehicles in Australia. The age of a vehicle is defined as the number of years since it was first manufactured. This is calculated using the formulae below, which allow for the census having been conducted in different months over time. Although the MVC has been taken on different dates over time, it has always been taken on the last day of the month. These formulae assume that vehicles are manufactured at a constant rate over the year, or one-month period for the current year.

For vehicles manufactured in the current year:

Vehicle age = (snapshot month)/24

For vehicles manufactured in previous years:

Vehicle age = (snapshot year) – (Year of manufacture) +  
(snapshot month - 6)/12

The average age is then calculated as the sum of all vehicle ages divided by the total number of vehicles. Vehicles that have an unknown year of manufacture are excluded from calculations of average age.

*Battery electric fuel type vehicles* Battery electric fuel type vehicles are based on vehicles reported by the registering authority as having a single power source which is electricity.

*Buses* Motor vehicles constructed for the carriage of passengers. This category includes all motor vehicles with 10 or more seats, including the driver's seat.

*Campervans* Self-propelled motor vehicles containing an area primarily used for accommodation. This includes motor homes and powered caravans.

*Estimated Resident Population (ERP)* The official measure of the population of Australia is based on the concept of residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. It includes usual residents who are overseas for less than 12 months. It excludes overseas visitors who are in Australia less than 12 months. The ERP used to calculate average vehicle ownership is as at 31 December of the calendar prior to the date of the Motor Vehicle Census.

<i>Fuel type</i>	Vehicle fuel type is based on that reported by the registering authority. Principal fuel types (power source) include petrol, diesel, LPG, CNG and electricity and other (which includes hydrogen). Dual fuel vehicles and hybrid electric vehicles are based on vehicles reported by the registering authority as having more than one power source or vehicle model information, where that information identifies the vehicle motive power source(s).
<i>Gross Combination Mass (GCM)</i>	Tare weight (i.e. unladen weight) of the motor vehicle and attached trailers, plus its maximum carrying and towing capacity. GCM is the weight measurement used for vehicles such as articulated trucks used for towing trailers.
<i>Gross Vehicle Mass (GVM)</i>	Tare weight (i.e. unladen weight) of the motor vehicle, plus its maximum carrying capacity excluding trailers.
<i>Heavy Rigid Trucks</i>	Rigid trucks of GVM greater than 4.5 tonnes.
<i>Hybrid electric fuel type vehicles</i>	Hybrid electric fuel type vehicles are based on vehicles reported by the registering authority as having more than one power source, one of which is electricity.
<i>Light Commercial Vehicles</i>	Vehicles primarily constructed for the carriage of goods, and which are less than or equal to 3.5 tonnes GVM. This includes utilities, panel vans, cab-chassis and forward-control load carrying vehicles (whether four-wheel drive or not).
<i>Light Rigid Trucks</i>	Rigid trucks of GVM greater than 3.5 tonnes and less than or equal to 4.5 tonnes.
<i>Make</i>	The manufacturer of the motor vehicle (e.g. Ford, Holden, Mitsubishi, Toyota).
<i>Motorcycles</i>	Two and three wheeled motor vehicles constructed primarily for the carriage of one or two persons. This category includes two and three wheeled mopeds, scooters, motor tricycles and motorcycles with sidecars.
<i>Non-Freight Carrying Vehicles</i>	Specialist motor vehicles or motor vehicles fitted with special purpose equipment, and having little or no-load carrying capacity (e.g. ambulances, cherry pickers, fire trucks and tow trucks).
<i>Passenger Vehicles</i>	Motor vehicles constructed primarily for the carriage of persons and containing up to nine seats (including the driver's seat). This category includes cars, station wagons, four-wheel drive passenger vehicles and forward-control passenger vehicles. Campervans are excluded.
<i>Rigid Trucks</i>	<p>Motor vehicles of GVM greater than 3.5 tonnes, constructed with a load carrying area. This includes trucks with a tow bar, draw bar or other non-articulated coupling on the rear of the vehicle.</p> <p>Rigid trucks are divided into two categories:</p> <ul style="list-style-type: none"> <li>• Light rigid trucks of GVM greater than 3.5 tonnes and less than or equal to 4.5 tonnes.</li> <li>• Heavy rigid trucks of GVM greater than 4.5 tonnes.</li> </ul>

## References

Australian Bureau of Statistics (ABS) 2021, *Motor Vehicle Census, Australia*, ABS.

URL: [www.abs.gov.au/statistics/industry/tourism-and-transport/motor-vehicle-census-australia/latest-release](http://www.abs.gov.au/statistics/industry/tourism-and-transport/motor-vehicle-census-australia/latest-release).

ABS 2022, *National, state and territory population*, ABS.

URL: [www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release](http://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release).