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

BUREAU OF INFRASTRUCTURE AND TRANSPORT RESEARCH ECONOMICS  
STATISTICAL REPORT



Road

# Road Vehicles, Australia January 2022 (Re-issue)

August 2024

Bureau of Infrastructure and Transport  
Research Economics

**Road Vehicles, Australia**  
January 2022 (Re-issue)

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

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# Foreword

This report presents aggregate estimates of all road 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 a re-issue of 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, are also available to users.

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 re-issue features revisions to original estimates arising from further development and improvements to BITRE's data processing methods. 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.

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## 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 caravans, trailers and plant and equipment (e.g. agricultural tractors, all-terrain vehicles, forklifts, golf buggies, etc.) not included in total registered motor vehicles.
- Toyota remained the largest passenger vehicle make for the 17th consecutive year, with approximately 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 70.0 per cent of the fleet at end January 2022, down from 71.2 per cent in 2021. Diesel-powered vehicles accounted for 27.5 per cent of the fleet in 2022, up from 26.6 per cent in 2021.
- The report separately enumerates battery and fuel-cell electric vehicles (BEV & FCEV) and hybrid-electric vehicles (HEV). There were approximately 38,750 registered BEVs as at 31 January 2022, an increase of approximately 100 per cent over 2021, including approximately 33,800 passenger cars, an increase of 115 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 a re-issue of Bureau of Infrastructure and Transport Research Economics' (BITRE) first issue of estimates of the total number of registered motor vehicles in Australia as at 31 January 2022. It 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, vehicle make and vehicle age. 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 available to users.

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:

- Postcode of vehicle 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 and standardisation to produce nationally-consistent estimates. 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 caravans, trailers, 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. 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.

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 (125,000 vehicles).

However, the differences are more significant for different vehicle types and at sub-national level. For example, the BITRE estimates approximately 7,000 fewer passenger vehicles in 2021 but around 133,000 more light commercial vehicles (LCVs). Differences appear more significant for vehicle types with smaller registered vehicle numbers (e.g. light rigid trucks and campervans).

BITRE's revised processes has identified more campervans and buses than provided in the initial release, and reduced the apparent discrepancy between ABS (2021) and BITRE national estimates. However, at sub-national levels there remains significant differences in registered campervan numbers. Processes to identify light rigid truck have also been revised, resulting in slightly fewer light rigid truck vehicles in this revised edition. BITRE's processes have also identified approximately 60,000 additional diesel-powered vehicles (predominantly passenger cars and LCVs), previously categorised as petrol-powered vehicles.

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.

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

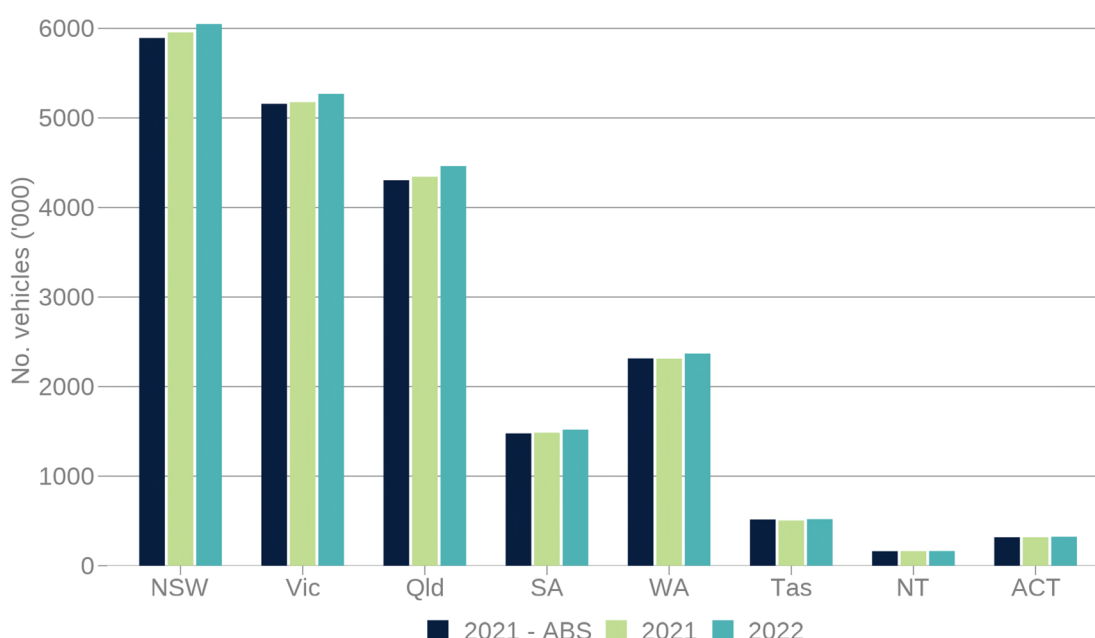


## Registered vehicles by state and territory

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 registered motor vehicles, by state/territory, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 1 Total registered motor vehicles, 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
	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. 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	4,442,998	3,956,393	2,979,754	1,123,683	1,638,795	338,396	98,072	262,873	14,840,964
2022	4,479,340	4,000,138	3,044,416	1,143,377	1,671,564	346,638	98,214	266,841	15,050,528
<b>Campervans</b>									
2021 - ABS	20,699	15,155	18,608	5,452	8,405	5,283	211	511	74,324
2021	28,169	21,449	24,425	3,213	1,858	5,502	112	710	85,438
2022	30,064	22,779	25,745	3,456	1,925	5,729	96	779	90,573
<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	989,680	807,194	948,872	243,825	436,182	121,590	48,650	36,441	3,632,434
2022	1,029,014	842,658	988,778	255,221	455,138	126,766	49,436	37,941	3,784,952
<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	58,915	42,770	39,529	9,401	16,598	3,974	1,728	1,555	174,470
2022	62,388	45,479	42,071	10,212	17,667	4,248	1,744	1,668	185,477
<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	103,845	88,649	76,878	25,334	56,554	10,023	4,774	1,700	367,757
2022	106,143	90,883	79,502	25,834	57,713	10,356	4,847	1,756	377,034
<b>Articulated trucks</b>									
2021 - ABS	25,358	31,254	23,541	9,021	17,086	2,245	1,221	201	109,927
2021	25,582	31,343	23,927	9,541	16,692	2,183	1,202	206	110,676
2022	26,794	32,635	25,067	9,817	17,658	2,205	1,285	189	115,650
<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	6,649	10,612	6,313	3,622	6,959	998	388	166	35,707
2022	6,714	10,916	6,389	3,780	7,069	1,033	391	167	36,459
<b>Buses</b>									
2021 - ABS	26,548	20,849	21,196	6,008	15,042	3,042	3,328	1,047	97,060
2021	25,964	20,053	20,645	6,034	14,568	2,835	2,489	1,047	93,635
2022	26,256	20,145	21,189	6,198	15,043	2,962	2,603	1,071	95,467
<b>Motorcycles</b>									
2021 - ABS	269,518	203,317	218,920	57,524	123,917	21,372	5,878	13,357	913,803
2021	272,595	196,521	222,940	60,698	124,059	20,081	6,112	13,652	916,658
2022	281,575	202,501	228,870	61,872	125,453	20,496	5,924	13,765	940,456
<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	5,954,397	5,174,984	4,343,283	1,485,351	2,312,265	505,582	163,527	318,350	20,257,739
2022	6,048,288	5,268,134	4,462,027	1,519,767	2,369,230	520,433	164,540	324,177	20,676,596

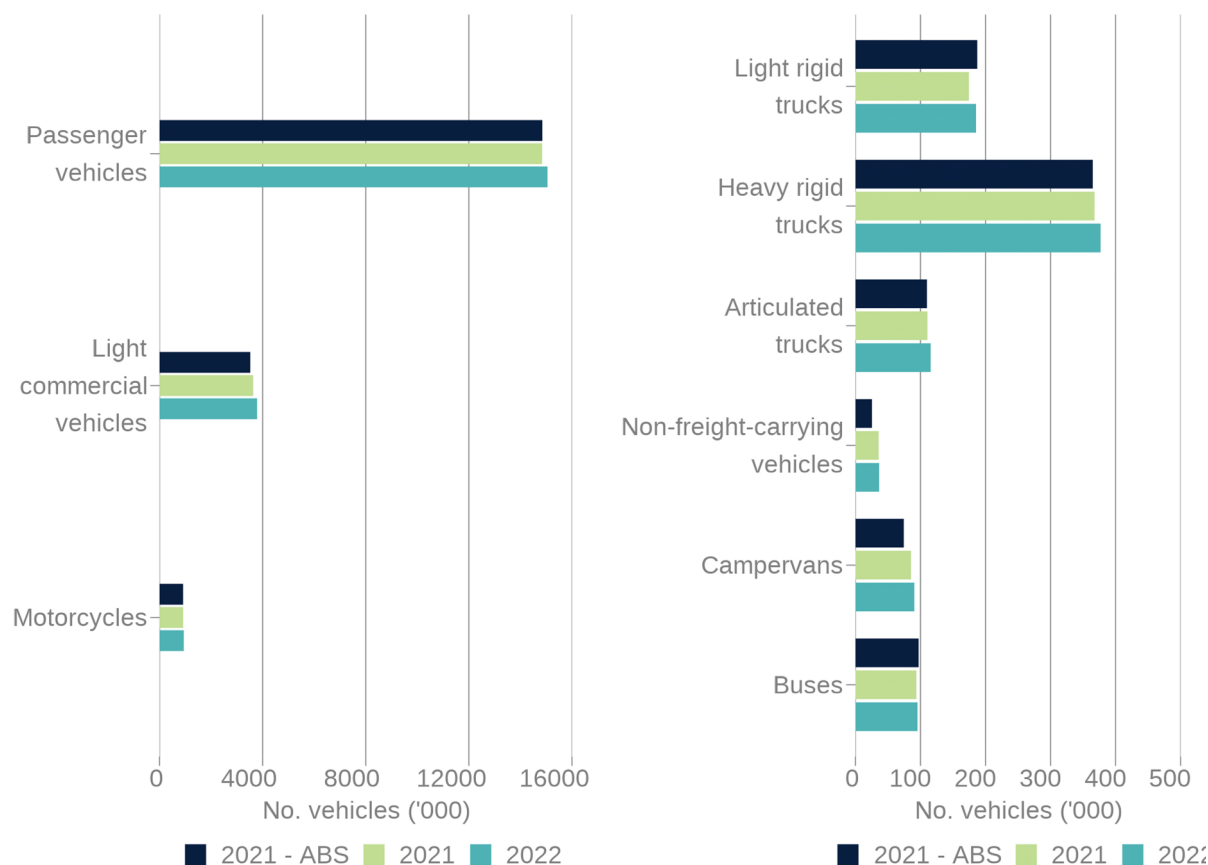
Sources: ABS (2021) and BITRE estimates.

## Registered motor 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 approximately 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 72.8 per cent of all registered motor vehicles at 31 January 2022, down from 73.3 per cent in 2021.
- Light commercial vehicles comprise the second-largest vehicle type on register, with 3.8 million vehicles (18.3 per cent of the fleet) at 31 January 2022, up 4 per cent over January 2021.

Figure 2 Total registered motor vehicles, by vehicle type, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

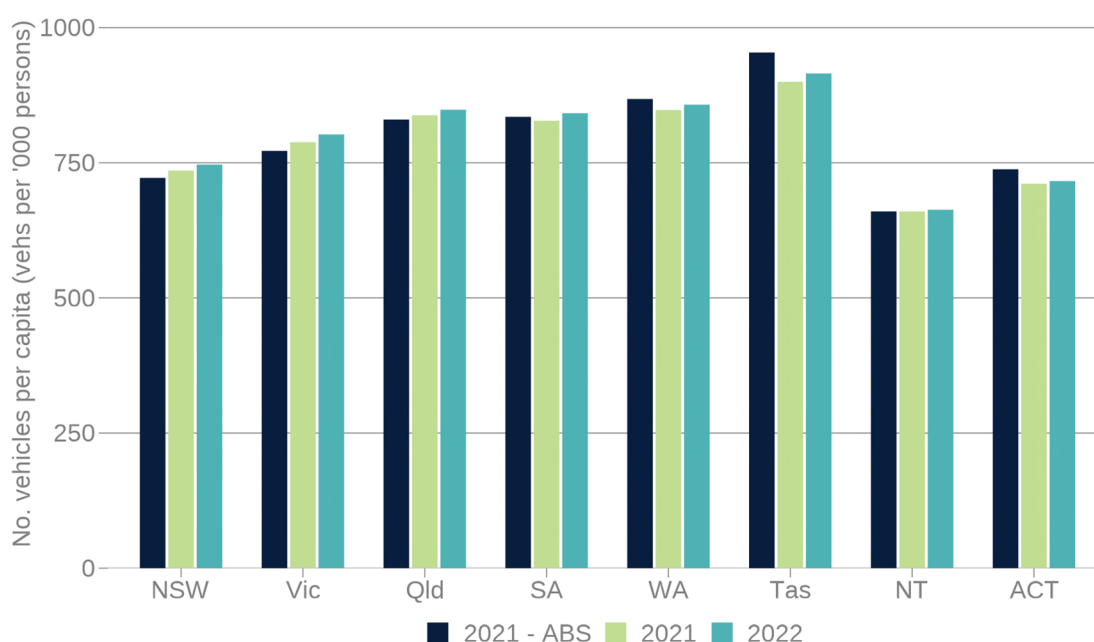
## Registered vehicles per capita

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.<sup>1</sup>

- 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 584 registered passenger vehicles per 1000 persons.
- Tasmania and Victoria experienced the largest increase in per capita passenger vehicle registrations, between 2021 and 2022, increasing by 1.2 per cent (to 609.6 vehicles per 1000 persons) and 1.1 per cent (to 609.2 vehicles per 1000 persons), respectively.

Figure 3 Total registered motor vehicles per capita, by state/territory of registration, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

<sup>1</sup> Per capita vehicle registrations are calculated as total registrations divided by the latest available ABS Estimated Resident Population (ERP) on 31 December of the calendar year prior to the date of the NEVDIS vehicle snapshot. The latest available ABS ERP estimates (ABS 2023) include revised ERP estimates for December 2020, which impact the January 2021 per capita vehicle estimates.

Table 2 Total registered motor 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
	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles	No. vehicles
<b>Passenger vehicles</b>									
2021 - ABS	539	594	574	639	620	647	408	614	578
2021	549	602	575	626	601	602	396	587	579
2022	553	609	579	633	605	610	396	590	584
<b>Campervans</b>									
2021 - ABS	3	2	4	3	3	10	1	1	3
2021	4	3	5	2	1	10	1	2	3
2022	4	4	5	2	1	10	0	2	4
<b>Light commercial vehicles</b>									
2021 - ABS	119	116	177	133	156	220	185	81	137
2021	122	123	183	136	160	216	196	81	142
2022	127	128	188	141	165	223	199	84	147
<b>Light rigid trucks</b>									
2021 - ABS	8	7	9	5	7	8	3	4	7
2021	7	7	8	5	6	7	7	4	7
2022	8	7	8	6	6	8	7	4	7
<b>Heavy rigid trucks</b>									
2021 - ABS	13	13	15	13	21	19	19	4	14
2021	13	14	15	14	21	18	19	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	2	1	2	3	2	2	0	1
2022	1	2	1	2	3	2	2	0	1
<b>Buses</b>									
2021 - ABS	3	3	4	3	6	6	14	2	4
2021	3	3	4	3	5	5	10	2	4
2022	3	3	4	3	5	5	11	2	4
<b>Motorcycles</b>									
2021 - ABS	33	30	42	32	46	39	24	31	36
2021	34	30	43	34	46	36	25	31	36
2022	35	31	44	34	45	36	24	30	37
<b>Total motor vehicles</b>									
2021 - ABS	722	772	830	835	868	954	660	738	784
2021	736	788	838	828	848	900	660	711	790
2022	747	802	848	842	858	915	663	716	802

Note: Per capita vehicle registrations are calculated as total registrations divided by the latest available ABS Estimated Resident Population (ERP) on 31 December of the calendar year prior to the date of the NEVDIS vehicle snapshot. The latest available ERP estimates (ABS 2023) include revised ERP estimates for December 2020, which impact the January 2021 per capita vehicle estimates.

Sources: ABS (2021 and 2023) 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 (years)	Victoria (years)	Queensland (years)	South Australia (years)	Western Australia (years)	Tasmania (years)	Northern Territory (years)	Australian Capital Territory (years)	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	10.30	10.78	12.14	11.19	12.25	9.98	9.51	10.50
2022	10.03	10.57	10.99	12.37	11.41	12.43	10.12	9.80	10.75
<b>Campervans</b>									
2021 - ABS	15.60	16.40	14.70	21.30	22.90	22.80	20.00	18.10	17.30
2021	15.47	16.33	16.97	16.99	22.45	22.48	17.18	17.53	16.79
2022	15.50	16.41	17.12	17.35	22.55	22.54	17.00	17.52	16.87
<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	11.00	11.20	11.91	11.74	13.46	10.10	9.52	11.03
2022	10.30	11.08	11.34	11.98	11.79	13.53	10.23	9.73	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	10.17	9.58	11.87	10.94	11.32	14.02	12.79	8.69	10.66
2022	10.17	9.68	11.79	10.94	11.41	13.97	12.80	8.78	10.68
<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	14.69	16.60	15.37	18.95	18.39	18.23	14.43	11.69	16.24
2022	14.85	16.58	15.42	18.79	18.57	18.39	14.63	11.65	16.31
<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	11.85	12.46	12.05	12.82	13.48	11.73	13.26	11.31	12.41
2022	12.00	12.52	12.18	13.03	13.53	12.05	13.32	11.74	12.52
<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	11.96	14.05	12.80	12.95	14.92	15.67	13.15	10.66	13.52
2022	12.39	14.21	13.00	12.52	15.02	15.71	13.82	11.36	13.67
<b>Buses</b>									
2021 - ABS	11.70	12.40	11.80	11.80	11.60	14.90	10.60	10.10	11.90
2021	11.26	12.09	11.75	12.74	11.73	14.57	10.01	10.31	11.77
2022	11.52	12.34	11.98	12.96	11.82	14.63	10.03	10.94	11.98
<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	11.29	12.37	13.16	14.30	12.48	9.86	11.55	11.76
2022	10.27	11.48	12.63	13.40	14.74	12.74	10.05	11.58	11.98
<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	10.60	11.10	12.27	11.68	12.81	10.21	9.63	10.81
2022	10.22	10.84	11.29	12.46	11.87	12.97	10.35	9.89	11.03

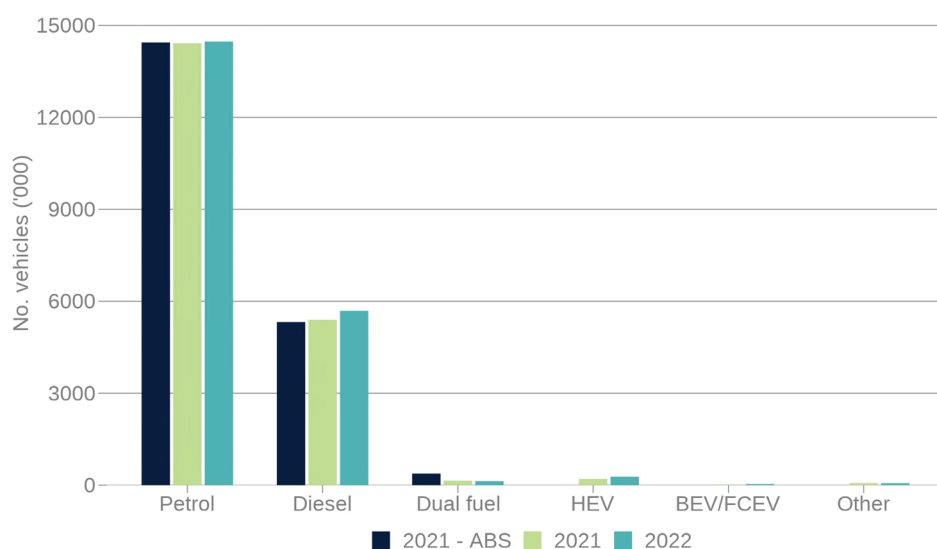
Sources: ABS (2021) and BITRE estimates.

## Registered motor vehicles by motive power type

Figure 5 shows the number of vehicles on register by motive power type, at 31 January 2022 and 31 January 2021, and ABS MVC estimates for 31 January 2021. Tables 4 and 5 show the number of vehicles on register by motive power type, vehicle type or state/territory of registration, on 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 0.4 per cent on 2021. Petrol-fuelled motor vehicles comprised around 70.0 per cent of the fleet at end January 2022, down from 71.2 per cent in January 2021.
- Diesel-fuelled vehicles on register numbered approximately 5.7 million at 31 January 2022, an increase of 5.4 per cent over 2021. Diesel-fuelled motor vehicles accounted for 27.5 per cent of the fleet as at 31 January 2022, up from 26.6 per cent in 2021.
- Hybrid electric vehicles (HEV) numbered approximately 277,000 at 31 January 2022, an increase of around 35 per cent over 2021.
- Battery electric vehicles (BEV) and fuel-cell electric vehicles (FCEV) on register increased from approximately 19,200 at 31 January 2021 to approximately 38,750 at 31 January 2022, an increase of approximately 100 per cent.

Figure 5 Total registered vehicles, by motive power type, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.



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

Year	Petrol (vehicles)	Diesel (vehicles)	Dual fuel (vehicles)	HEV (vehicles)	BEV / FCEV (vehicles)	Other (vehicles)	Total (vehicles)
<b>Passenger vehicles</b>							
2021 - ABS	12,524,596	2,036,876		289,203			14,850,675
2021	12,451,354	2,033,930	98,055	204,513	15,701	37,411	14,840,964
2022	12,507,092	2,111,010	87,974	276,453	33,777	34,222	15,050,528
<b>Campervans</b>							
2021 - ABS	20,659	52,305		1,360			74,324
2021	37,435	46,807	991	71	3	131	85,438
2022	38,977	50,433	945	90	4	124	90,573
<b>Light commercial vehicles</b>							
2021 - ABS	953,253	2,488,835		77,369			3,519,457
2021	986,466	2,570,940	43,484	80	229	31,235	3,632,434
2022	960,958	2,754,094	39,573	270	291	29,766	3,784,952
<b>Light rigid trucks</b>							
2021 - ABS	6,758	179,028		1,543			187,329
2021	4,101	169,813	464	32	11	49	174,470
2022	4,086	180,845	449	37	13	47	185,477
<b>Heavy rigid trucks</b>							
2021 - ABS	9,275	354,213		1,501			364,989
2021	11,442	354,973	868	74	32	368	367,757
2022	10,946	364,763	855	88	51	331	377,034
<b>Articulated trucks</b>							
2021 - ABS	820	108,829		278			109,927
2021	980	109,532	128	3	0	33	110,676
2022	935	114,557	128	3	3	24	115,650
<b>Non-freight-carrying vehicles</b>							
2021 - ABS	2,187	22,942		249			25,378
2021	2,282	33,013	197	13	53	149	35,707
2022	2,350	33,630	208	14	66	191	36,459
<b>Buses</b>							
2021 - ABS	15,308	78,775		2,977			97,060
2021	13,966	76,840	1,453	9	38	1,329	93,635
2022	13,381	79,398	1,348	13	120	1,207	95,467
<b>Motorcycles</b>							
2021 - ABS	911,052	44		2,707			913,803
2021	913,328	5	76	19	3,174	56	916,658
2022	935,869	6	75	17	4,429	60	940,456
<b>Total motor vehicles</b>							
2021 - ABS	14,443,908	5,321,847		377,187			20,142,942
2021	14,421,354	5,395,853	145,716	204,814	19,241	70,761	20,257,739
2022	14,474,594	5,688,736	131,555	276,985	38,754	65,972	20,676,596

np – not published/suppressed. Some values have been perturbed to preserve confidentiality.

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

Notes: HEV – Hybrid electric vehicles, BEV / FCEV– Battery-electric and Fuel-cell electric vehicles. Other / unspecified includes LPG- and NG-only powered vehicles.

Sources: ABS (2021) and BITRE estimates.

Table 5 Registered motor vehicles, by motive power type and state/territory of registration, 2021 and 2022

Year	Petrol (vehicles)	Diesel (vehicles)	Dual fuel (vehicles)	HEV (vehicles)	BEV/FCEV (vehicles)	Other (vehicles)	Total (vehicles)
<b>New South Wales</b>							
2021 - ABS	4,297,274	1,467,320		127,612			5,892,206
2021	4,355,954	1,487,903	18,607	72,370	6,160	13,403	5,954,397
2022	4,350,198	1,561,362	16,495	96,324	11,962	11,947	6,048,288
<b>Victoria</b>							
2021 - ABS	3,793,312	1,228,562		135,298			5,157,172
2021	3,745,074	1,259,813	78,415	47,886	4,936	38,860	5,174,984
2022	3,759,621	1,326,730	71,158	63,945	9,856	36,824	5,268,134
<b>Queensland</b>							
2021 - ABS	2,923,399	1,314,018		66,296			4,303,713
2021	2,950,977	1,324,714	20,084	39,274	3,671	4,563	4,343,283
2022	2,978,063	1,399,041	18,140	54,296	8,201	4,286	4,462,027
<b>South Australia</b>							
2021 - ABS	1,121,493	348,264		8,142			1,477,899
2021	1,101,547	357,521	5,133	15,002	988	5,160	1,485,351
2022	1,107,020	380,540	4,795	20,667	1,933	4,812	1,519,767
<b>Western Australia</b>							
2021 - ABS	1,599,443	687,165		28,104			2,314,712
2021	1,575,344	687,614	21,820	19,894	2,112	5,481	2,312,265
2022	1,583,862	729,018	19,495	27,579	4,191	5,085	2,369,230
<b>Tasmania</b>							
2021 - ABS	366,067	147,970		2,414			516,451
2021	351,183	148,134	169	3,149	474	2,473	505,582
2022	355,140	157,518	181	4,460	862	2,272	520,433
<b>Northern Territory</b>							
2021 - ABS	95,093	67,048		500			162,641
2021	93,901	67,765	404	1,326	85	46	163,527
2022	91,968	69,936	365	2,091	139	41	164,540
<b>Australian Capital Territory</b>							
2021 - ABS	247,827	61,500		8,821			318,148
2021	247,374	62,389	1,084	5,913	815	775	318,350
2022	248,722	64,591	926	7,623	1,610	705	324,177
<b>Australia</b>							
2021 - ABS	14,443,908	5,321,847		377,187			20,142,942
2021	14,421,354	5,395,853	145,716	204,814	19,241	70,761	20,257,739
2022	14,474,594	5,688,736	131,555	276,985	38,754	65,972	20,676,596

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

Notes: HEV – Hybrid electric vehicles, BEV/FCEV– Battery-electric and Fuel-cell electric vehicles. Other / unspecified includes LPG- and NG-only powered vehicles.

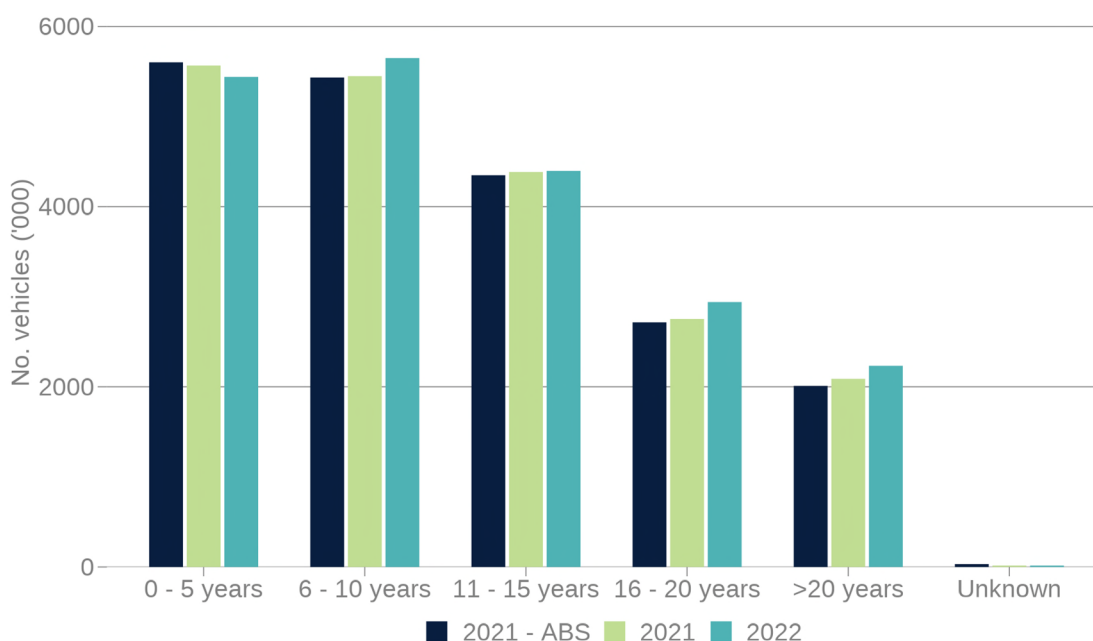
Sources: ABS (2021) and BITRE estimates.

## Age distribution by state/territory and vehicle type

Figure 6 shows the number of registered motor vehicles by age distribution on 31 January 2022. Table 6 lists the number of registered motor vehicles by age distribution, state and territory, and vehicle type on 31 January 2022.

- Across all registered motor vehicles:
  - Vehicles manufactured between 2017 and 2022 (0-5 years) comprised 26.3 per cent of the fleet.
  - Vehicles manufactured between 2012 and 2016 (5-10 years) comprised 27.3 per cent of the fleet.
  - Vehicle manufactured in 2001 and earlier (>20 years) comprised 10.8 per cent of the fleet.
- Across all registered passenger vehicles:
  - Vehicles manufactured between 2017 and 2022 (0-5 years) comprised 25.8 per cent of the fleet.
  - Vehicles manufactured between 2012 and 2016 (5-10 years) comprised 28.5 per cent of the fleet.
  - Vehicle manufactured in 2001 and earlier (>20 years) comprised 9.3 per cent of the fleet.

Figure 6 Registered motor vehicles, by age group, 2021 and 2022



Sources: BITRE estimates.

Table 6 Registered motor vehicles, by type of vehicle, year of manufacture and state/territory of registration, 2022

Year of Manufacture	New South Wales (vehicles)	Victoria (vehicles)	Queensland (vehicles)	South Australia (vehicles)	Western Australia (vehicles)	Tasmania (vehicles)	Northern Territory (vehicles)	Australian Capital Territory (vehicles)	Australia (vehicles)
<b>Passenger vehicles</b>									
2017 - 2022	1,263,075	1,027,259	786,590	253,928	382,252	72,403	27,892	76,977	3,890,376
2012 - 2016	1,322,186	1,156,426	854,722	290,060	466,134	82,670	28,276	81,986	4,282,460
2007 - 2011	943,962	882,297	669,738	249,302	402,173	74,856	21,494	57,595	3,301,417
2002 - 2006	601,869	570,842	441,778	192,333	256,489	62,988	12,687	32,190	2,171,176
To 2001 <sup>a</sup>	348,248	363,314	291,588	157,754	164,516	53,721	7,865	18,093	1,405,099
Total	4,479,340	4,000,138	3,044,416	1,143,377	1,671,564	346,638	98,214	266,841	15,050,528
<b>Campervans</b>									
2017 - 2022	4,086	3,765	3,686	403	23	533	9	77	12,582
2012 - 2016	4,177	2,458	3,055	454	86	502	8	110	10,850
2007 - 2011	6,438	3,926	4,068	519	262	794	15	165	16,187
2002 - 2006	8,719	7,054	6,670	1,143	771	952	43	217	25,569
To 2001 <sup>a</sup>	6,644	5,576	8,266	937	783	2,948	21	210	25,385
Total	30,064	22,779	25,745	3,456	1,925	5,729	96	779	90,573
<b>Light commercial vehicles</b>									
2017 - 2022	328,186	252,251	277,132	69,555	117,967	27,684	14,712	12,858	1,100,345
2012 - 2016	272,192	210,026	249,374	60,348	113,810	26,559	13,821	10,536	956,666
2007 - 2011	187,717	157,379	196,068	49,563	94,318	23,971	9,802	6,860	725,678
2002 - 2006	125,886	112,659	137,098	36,200	64,257	20,477	6,252	4,306	507,135
To 2001 <sup>a</sup>	115,033	110,343	129,106	39,555	64,786	28,075	4,849	3,381	495,128
Total	1,029,014	842,658	988,778	255,221	455,138	126,766	49,436	37,941	3,784,952
<b>Light rigid trucks</b>									
2017 - 2022	21,460	16,052	12,451	3,228	4,653	1,068	414	715	60,041
2012 - 2016	14,690	10,884	8,394	2,227	4,066	777	359	390	41,787
2007 - 2011	10,531	8,214	7,505	1,922	3,482	713	340	254	32,961
2002 - 2006	8,048	6,035	7,098	1,600	3,332	745	319	162	27,339
To 2001 <sup>a</sup>	7,659	4,294	6,623	1,235	2,134	945	312	147	23,349
Total	62,388	45,479	42,071	10,212	17,667	4,248	1,744	1,668	185,477
<b>Heavy rigid trucks</b>									
2017 - 2022	22,474	17,938	16,399	4,738	8,275	1,690	815	472	72,801
2012 - 2016	19,049	14,967	13,806	3,790	9,007	1,386	907	398	63,310
2007 - 2011	19,894	16,093	14,989	4,324	11,260	1,685	1,127	382	69,754
2002 - 2006	17,388	13,981	12,626	3,649	8,123	1,578	798	260	58,403
To 2001 <sup>a</sup>	27,338	27,904	21,682	9,333	21,048	4,017	1,200	244	112,766
Total	106,143	90,883	79,502	25,834	57,713	10,356	4,847	1,756	377,034
<b>Articulated trucks</b>									
2017 - 2022	7,488	9,678	7,270	2,479	3,756	607	254	37	31,569
2012 - 2016	6,135	7,026	5,568	2,146	3,847	523	285	55	25,585
2007 - 2011	4,854	5,369	4,494	1,874	3,634	382	288	40	20,935
2002 - 2006	3,810	4,239	3,488	1,420	2,995	350	214	38	16,554
To 2001 <sup>a</sup>	4,507	6,323	4,247	1,898	3,426	343	244	19	21,007
Total	26,794	32,635	25,067	9,817	17,658	2,205	1,285	189	115,650

(continued)

Table 6 Registered motor vehicles, by type of vehicle, year of manufacture and state/territory of registration, 2022 (continued)

Year of Manufacture	New South Wales (vehicles)	Victoria (vehicles)	Queensland (vehicles)	South Australia (vehicles)	Western Australia (vehicles)	Tasmania (vehicles)	Northern Territory (vehicles)	Australian Capital Territory (vehicles)	Australia (vehicles)
<b>Non-freight-carrying vehicles</b>									
2018 – 2023	1,971	2,444	1,445	1,221	1,464	216	88	43	8,892
2013 – 2017	1,355	2,440	1,538	779	1,563	152	71	37	7,935
2008 – 2012	1,261	1,920	1,396	610	1,521	185	89	49	7,031
2003 – 2007	953	1,401	871	443	867	178	48	25	4,786
To 2002 <sup>a</sup>	1,174	2,711	1,139	727	1,654	302	95	13	7,815
Total	6,714	10,916	6,389	3,780	7,069	1,033	391	167	36,459
<b>Buses</b>									
2018 – 2023	5,947	4,489	4,650	1,310	3,869	556	759	307	21,887
2013 – 2017	6,050	4,542	4,973	1,409	3,668	525	680	253	22,100
2008 – 2012	7,274	4,684	5,706	1,386	3,535	639	634	248	24,106
2003 – 2007	3,371	2,905	2,900	920	1,657	411	295	133	12,592
To 2002 <sup>a</sup>	3,614	3,525	2,960	1,173	2,314	831	235	130	14,782
Total	26,256	20,145	21,189	6,198	15,043	2,962	2,603	1,071	95,467
<b>Motorcycles</b>									
2018 – 2023	88,028	50,996	56,696	14,667	21,581	3,995	1,973	3,833	241,769
2013 – 2017	76,219	47,547	58,500	14,395	31,305	5,105	1,756	3,665	238,492
2008 – 2012	55,942	42,077	47,782	13,282	30,780	4,962	1,134	2,877	198,836
2003 – 2007	31,218	26,084	30,709	7,915	16,608	3,060	518	1,580	117,692
To 2002 <sup>a</sup>	30,168	35,797	35,183	11,613	25,179	3,374	543	1,810	143,667
Total	281,575	202,501	228,870	61,872	125,453	20,496	5,924	13,765	940,456
<b>Total motor vehicles</b>									
2018 – 2023	1,742,715	1,384,872	1,166,319	351,529	543,840	108,752	46,916	95,319	5,440,262
2013 – 2017	1,722,053	1,456,316	1,199,930	375,608	633,486	118,199	46,163	97,430	5,649,185
2008 – 2012	1,237,873	1,121,959	951,746	322,782	550,965	108,187	34,923	68,470	4,396,905
2003 – 2007	801,262	745,200	643,238	245,623	355,099	90,739	21,174	38,911	2,941,246
To 2002 <sup>a</sup>	544,385	559,787	500,794	224,225	285,840	94,556	15,364	24,047	2,248,998
Total	6,048,288	5,268,134	4,462,027	1,519,767	2,369,230	520,433	164,540	324,177	20,676,596

a. Includes year of manufacture not stated.

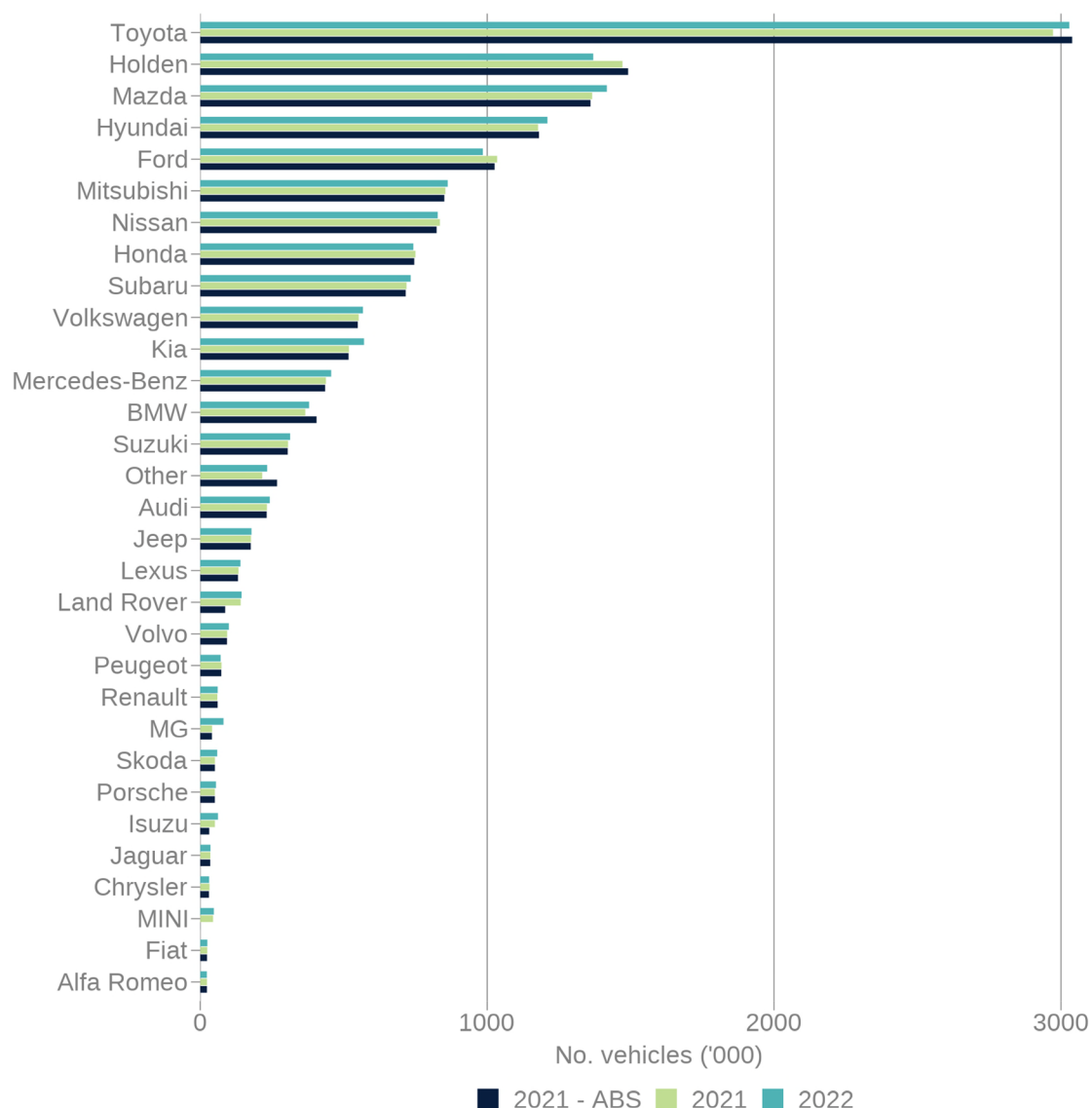
Sources: ABS (2021) and BITRE estimates.

## Top passenger vehicle makes

Figure 7 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 7 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 7 Registered passenger vehicles by make, top 30 makes, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 7 Registered passenger vehicles by vehicle make, top 30 makes, 2021 and 2022

Make	Position change	2022	2021	2021 - ABS
(vehicles)				
Toyota		3,029,092	2,972,319	3,038,984
Mazda	↑	1,417,177	1,366,035	1,360,107
Holden	↓	1,369,528	1,471,548	1,491,230
Hyundai		1,210,052	1,177,374	1,180,573
Ford		984,789	1,034,870	1,025,922
Mitsubishi		862,407	854,422	850,639
Nissan		827,654	835,222	823,826
Honda		742,710	750,055	745,898
Subaru		733,405	718,979	716,089
Kia	↑	570,674	518,154	516,942
Volkswagen	↓	567,013	552,313	549,006
Mercedes-Benz		456,339	438,020	435,168
BMW		379,304	366,048	405,336
Suzuki		313,103	305,819	304,840
Audi		242,346	232,402	231,525
Jeep	↑	178,528	176,697	176,091
Land Rover <sup>a</sup>	↑	143,926	140,790	86,881
Lexus	↑	140,149	133,255	131,499
Volvo	↑	99,497	93,723	93,096
MG	↑	80,960	41,082	40,649
Peugeot		71,046	74,072	73,322
Isuzu	↑	61,672	50,963	31,299
Renault	↓	60,754	59,444	60,516
Skoda	↓	59,049	51,110	50,962
Porsche		54,722	50,826	50,765
MINI <sup>b</sup>		47,339	44,545	249
Jaguar	↑	35,554	35,069	34,656
Chrysler	↑	30,882	32,172	30,290
Fiat	↑	24,701	24,404	23,493
Alfa Romeo <sup>b</sup>	↑	22,945	23,316	23,181
Other	↓	233,211	215,916	267,644
Total		15,050,528	14,840,964	14,850,678

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.

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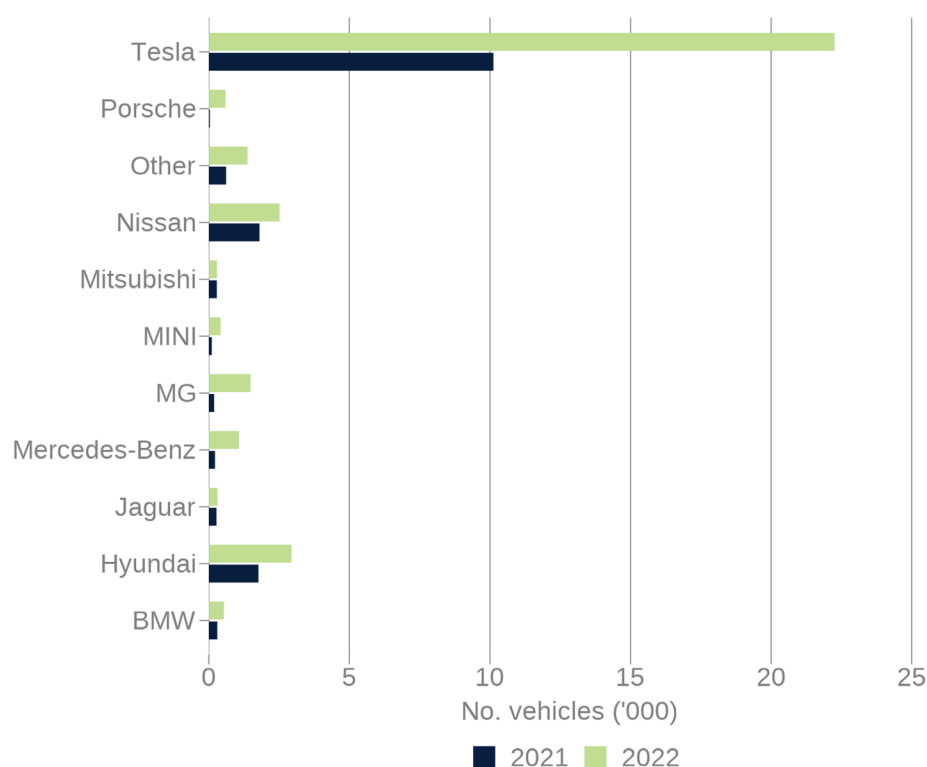
Sources: ABS (2021) and BITRE estimates.

## Electric vehicle makes

This report, and accompanying estimates, separately enumerate the number of registered battery electric vehicles (BEV) and hybrid electric vehicles (HEV). Figure 8 shows, and Table 8 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 33,800 battery electric passenger vehicles on register as at 31 January 2022, a 115 per cent increase over the number of registered electric vehicles on register in January 2021.
- Tesla is the most popular electric vehicle make with approximately 22,260 vehicles on register as at 31 January 2022, up from around 10,120 vehicles on 31 January 2021.
- Hyundai is the second largest electric vehicle make, with approximately 2,940 registered vehicles as at 31 January 2022.
- In addition to these vehicles, there were also 46 FCEVs on register as at 31 January 2022 (primarily the Hyundai Nexo and Toyota Mirai), up from 4 vehicles as at 31 January 2021.

Figure 8 Registered passenger BEVs and FCEVs by make, top 10 makes, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.



Table 8 Registered passenger BEVs and FCEVs by make, top 10 makes, 2021 and 2022<sup>a</sup>

Make	Rank change	2022	2021
		(vehicles)	
Tesla		22,256	10,123
Hyundai	↑	2,939	1,763
Nissan	↓	2,516	1,802
MG	↑	1,480	187
Mercedes-Benz	↑	1,075	219
Mazda	↑	587	35
Porsche	↓	534	299
Toyota	↑	417	104
MINI	↓	308	271
BMW	↓	290	284
Other		1,375	614
Total		33,777	15,701

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

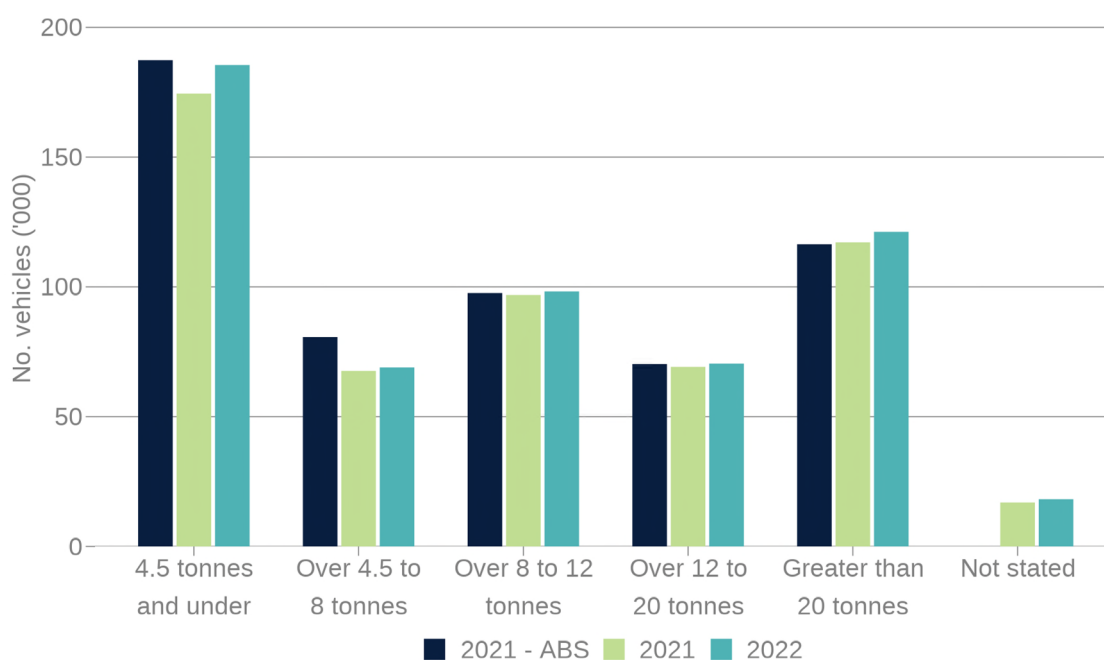
Sources: ABS (2021) and BITRE estimates.

## Rigid trucks by gross vehicle mass (GVM)

Figure 9 shows the number of registered rigid trucks by gross vehicle mass (GVM) ranges on 31 January 2022, 31 January 2021 and ABS estimates for 31 January 2021. Table 9 shows registered rigid trucks by GVM and state/territory of registration on ranges on 31 January 2022, 31 January 2021 and ABS estimates for 31 January 2021.

- There were approximately 562,500 registered rigid trucks on 31 January 2022 - an increase of approximately 3.8 per cent on the number of registered rigid trucks at the end of January 2021.
  - Light rigid trucks comprised approximately 33.0 per cent of total registered rigid trucks on 31 January 2023.
  - Rigid trucks between 4.5 and 8 tonnes GVM comprised 12.3 per cent of rigid trucks.
  - Rigid trucks between 8 and 12 tonnes GVM comprised 17.5 per cent of rigid trucks.
  - Rigid trucks between 12 and 20 tonnes GVM comprised 12.5 per cent of rigid trucks.
  - Rigid trucks between above 20 tonnes GVM comprised 21.5 per cent of rigid trucks.

Figure 9 Registered rigid trucks by GVM, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 9 Registered rigid trucks, by GVM and state/territory of registration, 2021 and 2022

Year	Gross vehicle mass						Total (vehicles)
	4.5 tonnes and under (vehicles)	Over 4.5 to 8 tonnes (vehicles)	Over 8 to 12 tonnes (vehicles)	Over 12 to 20 tonnes (vehicles)	Above 20 tonnes (vehicles)	Not stated (vehicles)	
New South Wales							
2021 - ABS	62,567	23,715	29,787	18,604	31,637	..	166,310
2021	58,915	22,579	29,832	18,715	32,130	589	162,760
2022	62,388	22,994	30,241	19,158	33,165	585	168,531
Victoria							
2021 - ABS	43,883	18,185	24,442	16,390	30,730	..	133,630
2021	42,770	16,713	24,577	15,625	29,316	2,418	131,419
2022	45,479	17,009	25,046	16,083	30,415	2,330	136,362
Queensland							
2021 - ABS	45,628	15,453	20,742	16,795	24,579	..	123,197
2021	39,530	14,340	20,739	16,779	24,556	463	116,407
2022	42,071	15,050	21,116	17,193	25,656	487	121,573
South Australia							
2021 - ABS	8,267	4,768	6,329	4,600	7,177	..	31,141
2021	9,402	4,805	7,273	5,301	7,806	148	34,735
2022	10,213	4,890	7,338	5,368	8,085	152	36,046
Western Australia							
2021 - ABS	19,987	13,905	12,158	10,978	17,677	..	74,705
2021	16,598	4,743	10,286	9,751	18,635	13,139	73,152
2022	17,667	4,470	10,245	9,570	18,953	14,475	75,380
Tasmania							
2021 - ABS	4,543	2,780	2,567	1,793	2,902	..	14,585
2021	3,974	2,589	2,527	1,859	2,958	90	13,997
2022	4,248	2,655	2,579	1,905	3,127	90	14,604
Northern Territory							
2021 - ABS	799	1,505	1,146	836	1,160	..	5,446
2021	1,728	1,492	1,175	866	1,177	64	6,502
2022	1,744	1,509	1,202	855	1,216	65	6,591
Australian Capital Territory							
2021 - ABS	1,655	352	459	279	559	..	3,304
2021	1,555	365	469	279	568	19	3,255
2022	1,668	375	481	299	584	17	3,424
Australia							
2021 - ABS	187,329	80,663	97,630	70,275	116,421	..	552,318
2021	174,472	67,626	96,878	69,175	117,146	16,930	542,227
2022	185,478	68,952	98,248	70,431	121,201	18,201	562,511

.. – nil reported.

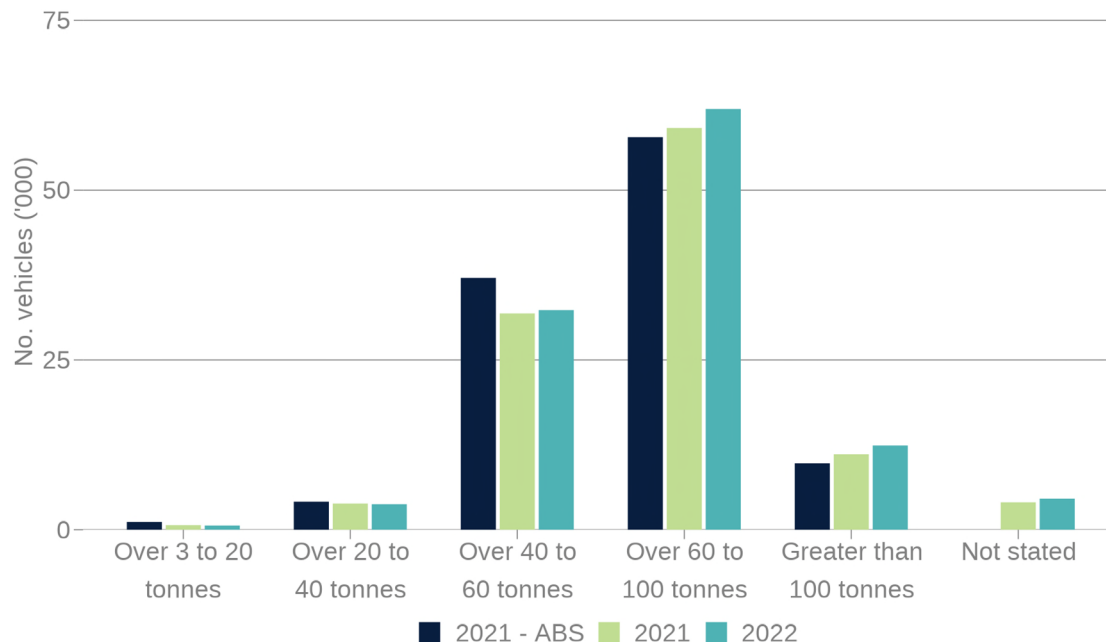
Sources: ABS (2021) and BITRE estimates.

## Articulated trucks by gross combination mass (GCM)

Figure 10 shows the number of registered articulated trucks by selected gross combination mass (GCM) ranges on 31 January 2022, 31 January 2021 and ABS estimates for 31 January 2021. Table 10 shows registered articulated trucks by GCM and state/territory of registration on 31 January 2022, 31 January 2021 and ABS estimates for 31 January 2021.

- There were approximately 115,650 registered articulated trucks on 31 January 2022 - an increase of approximately 4.5 per cent on the number of registered articulated trucks at the end of January 2021.
  - Articulated trucks less than 40 tonnes GCM comprised approximately 3.8 per cent of all articulated trucks on 31 January 2022.
  - Articulated trucks between 40 and 60 tonnes GCM comprised 28.0 per cent of all articulated trucks.
  - Articulated trucks between 60 and 100 tonnes GCM comprised 53.6 per cent of all articulated trucks.
  - Articulated trucks greater than 100 tonnes GCM comprised 10.7 per cent of all articulated trucks.

Figure 10 Registered articulated trucks by GCM, 2021 and 2022



Sources: ABS (2021) and BITRE estimates.

Table 10 Registered articulated trucks, by GCM and state/territory of registration, 2021 and 2022

2021 and 2022							
Year	Gross combination mass						Total (vehicles)
	Over 3 to 20 tonnes	Over 20 to 40 tonnes	Over 40 to 60 tonnes	Over 60 to 100 tonnes	Greater than 100 tonnes	Not stated	
	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	
New South Wales							
2021 - ABS	101	695	5,392	17,187	1,983	..	25,358
2021	93	684	5,190	17,419	2,099	97	25,582
2022	92	660	5,147	18,408	2,384	103	26,794
Victoria							
2021 - ABS	782	1,781	7,782	20,906	3	..	31,254
2021	470	1,539	7,149	21,349	460	376	31,343
2022	421	1,507	7,172	22,374	793	368	32,635
Queensland							
2021 - ABS	38	678	4,073	13,255	5,497	..	23,541
2021	46	742	3,931	13,159	6,013	36	23,927
2022	46	722	4,055	13,812	6,393	39	25,067
South Australia							
2021 - ABS	23	244	2,782	4,584	1,388	..	9,021
2021	9	327	2,164	5,392	1,642	7	9,541
2022	8	320	2,135	5,496	1,851	7	9,817
Western Australia							
2021 - ABS	53	633	16,251	130	19	..	17,086
2021	38	459	12,952	19	12	3,212	16,692
2022	38	448	13,368	23	16	3,765	17,658
Tasmania							
2021 - ABS	144	70	645	1,332	54	..	2,245
2021	9	72	328	1,411	66	297	2,183
2022	9	72	325	1,446	68	285	2,205
Northern Territory							
2021 - ABS	0	17	102	271	0	..	1,221
2021	8	17	99	264	814	0	1,202
2022	4	18	104	262	894	3	1,285
Australian Capital Territory							
2021 - ABS	..	12	49	137	0	..	201
2021	0	16	32	140	4	14	206
2022	3	12	28	132	3	11	189
Australia							
2021 - ABS	1,143	4,130	37,076	57,802	9,776	..	109,927
2021	673	3,856	31,845	59,153	11,110	4,039	110,676
2022	621	3,759	32,334	61,953	12,402	4,581	115,650

.. – nil reported.

np – not published/suppressed. Some values have been perturbed to preserve confidentiality.

Sources: ABS (2021) and BITRE estimates.

## Explanatory notes

This section provides more details about the scope, coverage and quality of the registered road vehicle data reported in this publication. 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 road 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' Motor Vehicle Census (MVC) motor vehicle 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 and/or off-road vehicles are categorised as Plant and equipment, using make and model, and not included in total registered motor vehicles. However, some trail bikes and quad bikes may still appear as Motorcycles in the estimates.

NEVDIS data also includes road-registered caravans, trailers, and plant and equipment, which includes construction equipment, agricultural tractors and equipment, golf buggies, etc. These vehicle types are not included in the definition of registered *motor vehicles*, but are within scope of all road vehicles. Separate estimates are provided in this publication of total registered caravans, trailers and plant and equipment. More detailed estimates for these road vehicles can be made available on request.

BITRE has followed the previous ABS' MVC registration cut-off date, deeming all vehicles whose registration lapsed up to one month 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 road vehicles (over 25 million vehicles in 2022) 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 variation in vehicle registration categories and motive power codes across 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 road vehicles for any year may be revised or corrected in later years.

## Statistical geography

*Road Vehicles, Australia* is available at the following geographical areas:

- state/territory of vehicle registration
- postcode of vehicle registration
- postcode of vehicle garaging (i.e. vehicle garaging postcode where recorded and registered postcode where garaging postcode is not available).

In analysing registered vehicle counts at postcode level, please note:

- there are vehicles for which the postcode of the vehicle's owner is in a different jurisdiction to that in which the vehicle is registered. For example, the registered postcode of the vehicle could be in New South Wales, yet the vehicle is registered in Queensland;
- some official postcodes (PO boxes, large volume receivers and specialist delivery postcodes) do not correspond to residential areas; and
- a small proportion of registered postcodes could not be matched to official Australian postcodes (e.g. incomplete, invalid or overseas postcode). All invalid postcodes are encoded as 'UNKN' – Unknown.

## Methodological changes to ABS (2021)

### 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 (year-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 7.

## Confidentialisation

Vehicle counts presented in this publication have been 'confidentialised' so as mitigate the risk that third parties could identify particular individuals, families, households, dwellings or businesses, from released vehicles counts.

BITRE's confidentialisation procedures involve a combination of suppressing the value of small-count cells, including any total cells, and perturbation or suppression of any secondary cells necessary to preserve confidentiality.



## 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 changed 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 formulas below, which allow for the month of the year in which the registered vehicle fleet snapshot is taken. The formulas assume that vehicles are manufactured at a constant rate over the year.

For vehicles manufactured in the current year:

$$\text{Vehicle age} = (\text{snapshot month})/24$$

For vehicles manufactured in previous years:

$$\text{Vehicle age} = (\text{snapshot year}) - (\text{Year of manufacture}) + (\text{snapshot month} - 6)/12$$

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 vehicles* Battery electric vehicles (BEV) are vehicles reported by the registering authority as having a single power source which is electricity sourced from an on-board battery.

*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.

*Caravan* Any enclosed trailer designed primarily for human occupation while stationary.

*Campervans* Self-propelled motor vehicles containing an area primarily used for human occupation when stationary. 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 NEVDIS vehicle snapshot.
<i>Fuel-cell electric vehicles</i>	Fuel-cell electric vehicles (FCEV) vehicles reported by the registering authority as being powered by a fuel cell fuelled by hydrogen.
<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 vehicles</i>	Hybrid electric vehicles are based on vehicles reported by the registering authority as having more than one power source, one of which is electricity drawn from an on-board battery.
<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-designated brand (or marque) of the vehicle.
<i>Motive power type</i>	Vehicle motive power type is based on that reported by the registering authority. Principal motive 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>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>Motor vehicles</i>	Self-propelled road vehicles with an on-board power source.

<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, fire trucks, tow trucks, hearses, etc.).
<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>Plant and equipment</i>	Motor vehicles constructed primarily for off-road and/or special purpose use, and registered for occasional or infrequent road use.
<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>
<i>Trailers</i>	An unpowered vehicle constructed to be drawn behind a motor vehicle.

## References

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

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