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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 2023

June 2023

Bureau of Infrastructure and Transport
Research Economics

Road Vehicles, Australia
January 2023

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 on 31 January 2023. 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), on 31 January 2023.

This is the second 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. This release includes revisions to BITRE's 2021 and 2022 estimates due to further development and updates to BITRE data processing systems. This release also includes estimates of total registered caravans, trailers and plant and equipment. More detailed estimates, by make-model, registered postcode, year of manufacture and other selected vehicle characteristics, are available via the BITRE website and data.gov.au.

This report was prepared by David Mitchell and Weihua Chen, with support from Joe O'Sullivan, Jordan Lorenzatto and Marcus To. BITRE gratefully acknowledges the assistance of the following current Austroads staff in arranging and providing the raw NEVDIS data: Geoff Allen, Sohail Ejaz and Bill Newman.

Shona Rosengren
Head of Bureau
Bureau of Infrastructure and Transport Research Economics
June 2023

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Summary

- There were 21.2 million registered motor vehicles on 31 January 2023 – an increase of approximately 2.3 per cent between January 2022 and January 2023.
- There were a further 4.7 million caravans, trailers and plant and equipment (e.g. construction equipment, tractors and agricultural equipment, all-terrain vehicles, forklifts, golf buggies, etc.) not included in total registered motor vehicles.
- Toyota remained the largest passenger vehicle make for the 18th consecutive year, with approximately 3.1 million registered vehicles.
- The number of registered vehicles increased across every state and territory. Queensland, Western Australia and Tasmania experienced the largest proportionate increases in vehicle registrations, 3.0 per cent, 2.9 per cent and 2.3 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 accounted for around 68.7 per cent of registered motor vehicles on 31 January 2023, down from 70.0 per cent in 2022. Diesel-powered vehicles accounted for 28.3 per cent of the fleet at end January 2023, up from 27.5 per cent on 31 January 2022.
- There were approximately 79,700 registered battery and fuel-cell electric vehicles (BEVs and FCEVs) on 31 January 2023, an increase of just over 100 per cent over the end of January 2022. These figures include 72,248 battery and fuel-cell electric passenger cars, approximately 0.5 per cent of all registered passenger vehicles in 2023, and an increase of 114 per cent over 2022.
- There were approximately 362,700 registered hybrid electric vehicles (HEVs) on 31 January 2023, an increase of 31 per cent over the end of January 2022. Hybrid electric passenger vehicles on register numbered 361,580 on 31 January 2023, accounting for approximately 2.4 per cent of all registered passenger vehicles.
- The average age of vehicles across Australia increased from around 11.0 years in 2022 to around 11.3 years in 2023. The average age of passenger vehicles increased from around 10.8 years in 2022 to 11.0 years in 2023.
- There were approximately 574,600 registered rigid trucks on 31 January 2023 – a 4.3 per cent increase on January 2022. In addition, there were approximately 120,300 registered articulated trucks on 31 January 2023 – a 4.1 per cent increase on January 2022.
- There were 765,150 registered caravans on 31 January 2023 - an increase of approximately 5.3 per cent on the number of registered caravans at the end of January 2022.
- There were approximately 3.61 million registered trailers on 31 January 2023 - an increase of approximately 1.8 per cent on the number of registered trailers at the end of January 2022.

Introduction

This report presents Bureau of Infrastructure and Transport Research Economics' (BITRE) estimates of the number of registered motor vehicles in Australia on 31 January 2023. It is the second issue of BITRE's annual statistical release, and is intended as a replacement for the Australian Bureau of Statistics' (ABS) Motor Vehicle Census (MVC), discontinued in 2022.

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 battery electric vehicles (BEVs), fuel-cell electric vehicles (FCEVs) and hybrid electric vehicles (HEVs) 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 2022), on the BITRE website and on data.gov.au.

BITRE's estimates include:

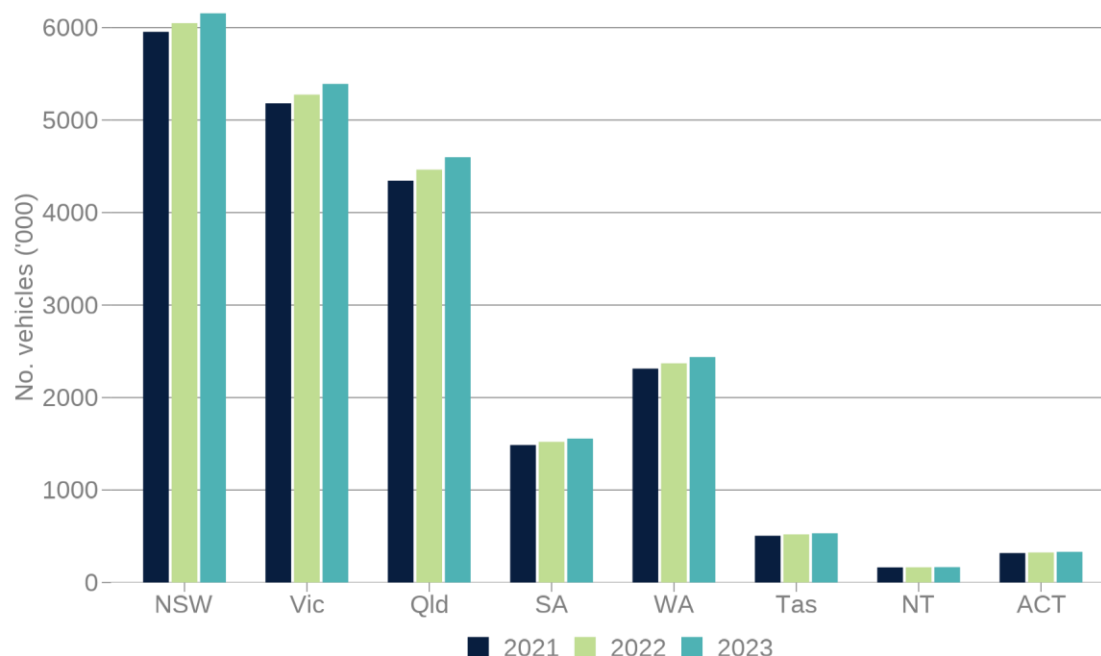
- State/territory of registration
- Postcode of registration
- Postcode of vehicle garaging
- Vehicle type
- Make-model
- Year of manufacture
- Fuel type
- Number of cylinders
- Engine capacity
- Seating capacity
- Tare weight
- Gross vehicle mass/gross combination mass
- National Heavy Vehicle charge code
- Industry (ANZSIC Sub-division, for company-registered vehicles)

Registered vehicles by state and territory

Figure 1 shows total motor vehicle registrations by state and territory of registration, on 31 January 2023, 31 January 2022, and 31 January 2021. Table 1 shows total motor vehicle registrations by state and territory of registration and by vehicle type.

- There were 21.2 million registered motor vehicles as at 31 January 2023 - an increase of approximately 2.3 per cent since the end of January 2022.
- The number of registered vehicles increased across every state and territory between 2022 and 2023.
 - Queensland, Western Australia and Tasmania recorded the largest proportionate increases in motor vehicle registrations, 3.0 per cent, 2.9 per cent and 2.25 per cent, respectively.
 - The Northern Territory vehicle fleet grew slowest, by 0.9 per cent between 31 January 2022 and 31 January 2023.
- New South Wales, Victoria and Queensland have the highest number of motor vehicle registrations, and together accounted for over 76 per cent of all registered motor vehicles as at 31 January 2023.
- There were a further 4.7 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, 2022 and 2023



Sources: BITRE estimates.

Table 1 Total registered motor vehicles, by vehicle type and state/territory of registration, 2021, 2022 and 2023

Year	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)
Passenger vehicles									
2021	4,443,787	3,957,230	2,979,982	1,124,190	1,638,716	338,567	98,089	262,931	14,843,492
2022	4,480,081	4,000,937	3,044,638	1,143,850	1,671,466	346,810	98,230	266,901	15,052,913
2023	4,537,985	4,071,957	3,120,765	1,165,484	1,707,884	352,658	98,586	272,293	15,327,612
Campervans									
2021	28,163	21,449	23,105	3,213	1,851	5,390	112	661	83,944
2022	30,059	22,779	24,528	3,456	1,917	5,608	96	728	89,171
2023	31,292	24,223	25,735	3,673	1,951	5,735	110	794	93,513
Light commercial vehicles									
2021	995,034	815,921	950,188	245,782	438,114	122,362	48,764	36,704	3,652,869
2022	1,034,508	851,487	990,087	257,227	457,115	127,552	49,549	38,201	3,805,726
2023	1,069,179	881,802	1,032,446	267,108	479,278	132,015	50,427	39,537	3,951,792
Light rigid trucks									
2021	53,306	36,621	39,514	8,074	14,138	3,252	1,504	1,319	157,728
2022	56,679	39,149	41,985	8,816	15,168	3,511	1,526	1,436	168,270
2023	62,265	43,955	47,015	9,979	17,541	3,888	1,683	1,632	187,958
Heavy rigid trucks									
2021	103,637	88,302	76,922	25,231	56,454	10,027	4,794	1,691	367,058
2022	105,938	90,545	79,516	25,726	57,609	10,363	4,859	1,748	376,304
2023	108,016	92,564	82,474	26,116	60,110	10,619	4,935	1,775	386,609
Articulated trucks									
2021	25,589	31,303	23,931	9,542	16,725	2,184	1,201	207	110,682
2022	26,795	32,594	25,069	9,817	17,694	2,205	1,285	190	115,649
2023	27,631	33,756	26,050	10,313	18,805	2,270	1,320	192	120,337
Non-freight-carrying vehicles									
2021	6,595	10,678	6,138	3,607	6,910	966	382	166	35,442
2022	6,640	11,256	6,228	3,762	7,021	1,003	386	167	36,463
2023	6,762	11,939	6,317	3,865	7,430	1,056	393	172	37,934
Buses									
2021	25,697	19,194	20,457	5,635	15,271	2,730	2,565	1,018	92,567
2022	26,022	19,349	21,011	5,836	15,771	2,862	2,681	1,041	94,573
2023	26,659	19,727	21,787	6,031	16,469	2,974	2,795	1,027	97,469
Motorcycles									
2021	272,627	200,743	224,717	61,405	124,649	20,097	6,153	13,659	924,050
2022	281,603	206,815	230,750	62,544	126,012	20,505	5,980	13,769	947,978
2023	285,025	211,332	236,166	63,616	128,317	20,927	5,861	13,994	965,238
Total motor vehicles									
2021	5,954,435	5,181,441	4,344,954	1,486,679	2,312,828	505,575	163,564	318,356	20,267,832
2022	6,048,325	5,274,911	4,463,812	1,521,034	2,369,773	520,419	164,592	324,181	20,687,047
2023	6,154,814	5,391,255	4,598,755	1,556,185	2,437,785	532,142	166,110	331,416	21,168,462

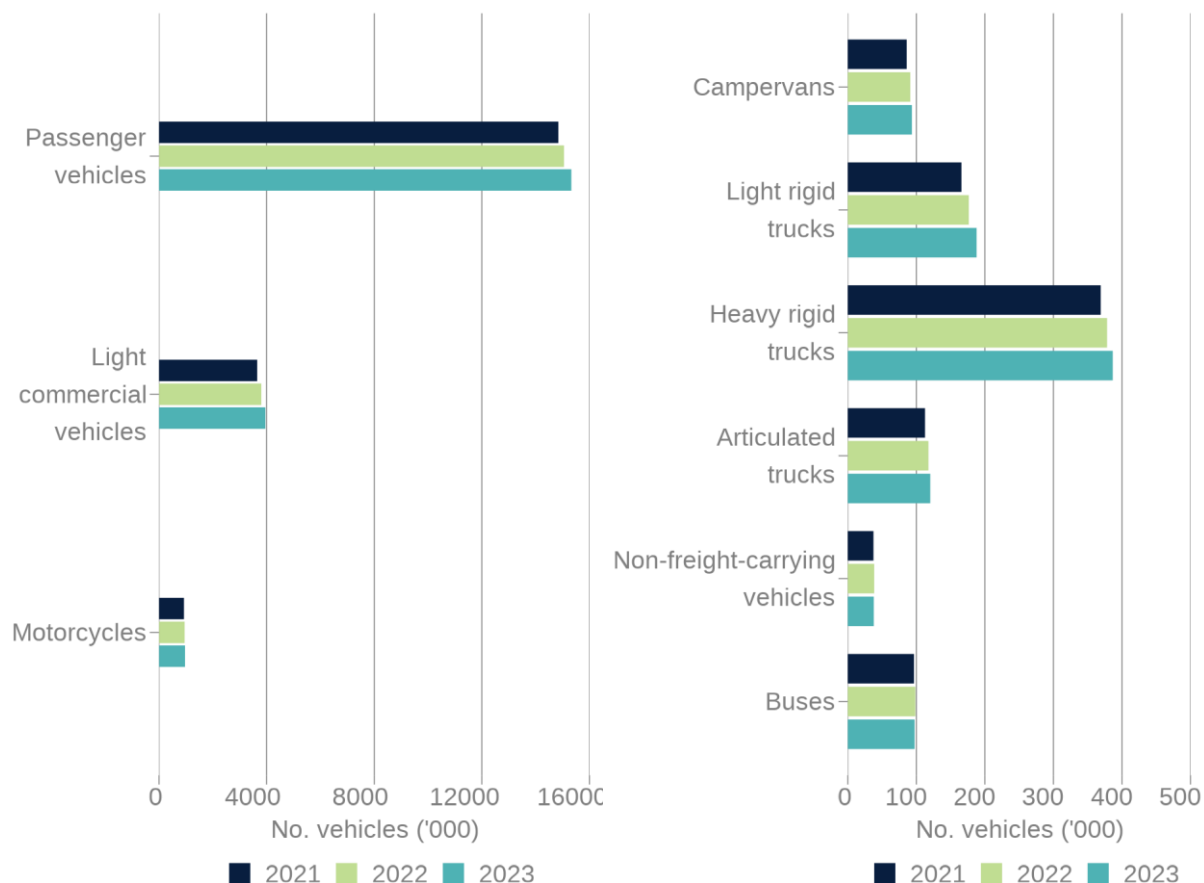
Sources: BITRE estimates.

Registered motor vehicles by vehicle type

Figure 2 shows total motor vehicle registrations by vehicle type on 31 January 2023, 31 January 2022, and 31 January 2021.

- Passenger vehicles remain the largest vehicle type on register, with 15.3 million registered vehicles on 31 January 2023, an increase of 1.8 per cent over the number of registered passenger vehicles on 31 January 2022.
- Passenger vehicles comprised 72.4 per cent of all registered motor vehicles on 31 January 2023, down from 72.8 per cent in 2022.
- Light commercial vehicles comprise the second-largest vehicle type on register, with 3.95 million vehicles (18.7 per cent of the fleet) on 31 January 2023, up 3.8 per cent over the end of January 2022.

Figure 2 Total registered motor vehicles, by vehicle type, 2021, 2022 and 2023



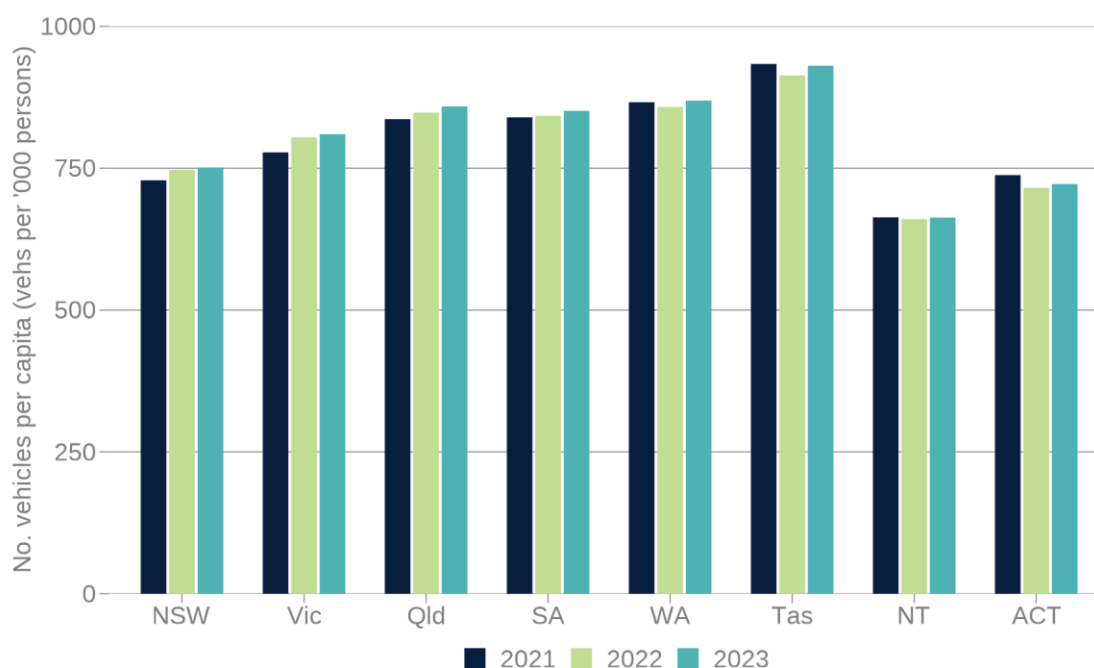
Sources: BITRE estimates.

Registered motor vehicles per capita

Figure 3 shows total motor vehicle registrations per 1000 persons, by state and territory of registration, on 31 January 2023, 31 January 2022, and 31 January 2021. Table 2 shows total motor vehicle registrations per 1000 persons, by state and territory of registration and by vehicle type.¹

- Between 31 January 2022 and 31 January 2023, the number of registered passenger vehicles per capita increased across the whole of Australia from 584.2 to 586.7 passenger vehicles per 1000 persons.
- Tasmania experienced the largest proportionate increase in per capita passenger vehicle registrations, between 2022 and 2023, increasing from 608.7 to 616.6 passenger vehicles per 1000 persons.
- Northern Territory was the only jurisdiction to experience a decline in per capita passenger vehicle registrations between 2022 and 2023, falling from 394.0 to 393.4 passenger vehicles per 1000 persons.

Figure 3 Total registered motor vehicles per capita, by state/territory of registration, 2021, 2022 and 2023



Sources: BITRE estimates.

¹ 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, 2022 and 2023

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
(vehicles / '000 persons)									
Passenger vehicles									
2021	543.8	594.0	573.6	634.9	613.7	625.2	397.8	609.3	577.7
2022	553.4	609.9	578.3	633.2	605.1	608.7	394.0	588.8	584.2
2023	553.9	611.7	582.8	637.3	608.9	616.6	393.4	593.2	586.7
Campervans									
2021	3.5	3.2	4.5	1.8	0.7	10.0	0.5	1.5	3.3
2022	3.7	3.5	4.7	1.9	0.7	9.8	0.4	1.6	3.5
2023	3.8	3.6	4.8	2.0	0.7	10.0	0.4	1.7	3.6
Light commercial vehicles									
2021	121.8	122.5	182.9	138.8	164.1	226.0	197.8	70.9	141.9
2022	127.8	129.8	188.1	142.4	165.5	223.9	198.8	70.5	147.5
2023	130.5	132.5	192.8	146.1	170.9	230.8	201.2	86.1	151.3
Light rigid trucks									
2021	6.5	5.5	7.6	4.6	5.3	6.0	6.1	17.2	6.4
2022	7.0	6.0	8.0	4.9	5.5	6.2	6.1	17.0	6.8
2023	7.6	6.6	8.8	5.5	6.3	6.8	6.7	3.6	7.2
Heavy rigid trucks									
2021	12.7	13.3	14.8	14.3	21.1	18.5	19.4	3.9	14.3
2022	13.1	13.8	15.1	14.2	20.9	18.2	19.5	3.9	14.6
2023	13.2	13.9	15.4	14.3	21.4	18.6	19.7	3.9	14.8
Articulated trucks									
2021	3.1	4.7	4.6	5.4	6.3	4.0	4.9	0.5	4.3
2022	3.3	5.0	4.8	5.4	6.4	3.9	5.2	0.4	4.5
2023	3.4	5.1	4.9	5.6	6.7	4.0	5.3	0.4	4.6
Non-freight-carrying vehicles									
2021	0.8	1.6	1.2	2.0	2.6	1.8	1.6	0.4	1.4
2022	0.8	1.7	1.2	2.1	2.5	1.8	1.6	0.4	1.4
2023	0.8	1.8	1.2	2.1	2.7	1.9	1.6	0.4	1.5
Buses									
2021	3.1	2.9	3.9	3.2	5.7	5.0	10.4	2.4	3.6
2022	3.2	3.0	4.0	3.2	5.7	5.0	10.8	2.3	3.7
2023	3.3	3.0	4.1	3.3	5.9	5.2	11.2	2.2	3.7
Motorcycles									
2021	33.4	30.1	43.3	34.7	46.7	37.1	25.0	31.7	36.0
2022	34.8	31.5	43.8	34.6	45.6	36.0	24.0	30.4	36.8
2023	34.8	31.8	44.1	34.8	45.8	36.6	23.4	30.5	37.0
Total motor vehicles									
2021	728.6	777.8	836.4	839.6	866.2	933.7	663.3	737.8	788.8
2022	747.1	804.1	847.8	841.9	857.9	913.3	660.2	715.2	802.9
2023	751.2	810.0	858.8	851.0	869.1	930.5	662.9	722.0	810.3

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 (2023) and BITRE estimates.

Average vehicle age by state/territory and vehicle type

Figure 4 shows average vehicle age of the registered motor vehicle fleet, by state and territory of registration, at 31 January 2023, 31 January 2022, and 31 January 2021. Table 3 shows average vehicle age across all registered motor vehicles, by state and territory of registration and by vehicle type.

- The average age across all registered motor vehicles in Australia increased from around 11.0 years in 2022 to around 11.3 years in 2023.
- The average age of vehicles increased across all jurisdictions between 2022 and 2023.
- The Tasmanian registered vehicle fleet is the oldest at just over 13.2 years.
- The Australian Capital Territory registered vehicle fleet is newest at 10.2 years.
- The average age of registered passenger vehicles across Australia increased from around 10.8 years in 2022 to around 11.0 years in 2023. The average age of registered LCVs across Australia increased from around 11.2 years in 2022 to around 11.3 years in 2023.

Figure 4 Average vehicle age, by state/territory of registration, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 3 Average vehicle age of registered motor vehicles, by vehicle type and state/territory of registration, 2021, 2022 and 2023

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)
Passenger vehicles									
2021	9.77	10.30	10.78	12.15	11.19	12.26	9.98	9.51	10.51
2022	10.03	10.58	10.99	12.37	11.42	12.44	10.13	9.80	10.75
2023	10.28	10.81	11.21	12.65	11.70	12.70	10.25	10.12	11.00
Campervans									
2021	15.47	16.33	17.04	16.99	22.51	22.56	17.18	17.53	16.81
2022	15.50	16.41	17.15	17.35	22.61	22.61	17.00	17.56	16.88
2023	15.61	16.38	17.31	17.73	23.01	22.80	16.30	17.94	16.98
Light commercial vehicles									
2021	10.19	11.06	11.21	12.00	11.76	13.51	10.12	8.06	11.05
2022	10.31	11.14	11.35	12.07	11.80	13.59	10.25	8.38	11.16
2023	10.48	11.27	11.52	12.19	11.88	13.76	10.34	9.98	11.31
Light rigid trucks									
2021	9.79	9.07	11.73	10.17	10.15	12.03	12.20	15.35	10.47
2022	9.81	9.23	11.68	10.20	10.27	11.98	12.25	15.13	10.49
2023	9.54	8.90	11.09	9.74	9.74	11.57	11.35	7.83	9.85
Heavy rigid trucks									
2021	14.72	16.65	15.43	18.99	18.41	18.26	14.48	11.80	16.27
2022	14.88	16.62	15.47	18.82	18.59	18.42	14.68	11.74	16.34
2023	14.86	16.53	15.43	18.65	18.51	18.64	14.81	12.00	16.30
Articulated trucks									
2021	11.86	12.44	12.06	12.82	13.48	11.73	13.27	11.25	12.41
2022	12.00	12.49	12.19	13.03	13.53	12.05	13.32	11.69	12.52
2023	11.85	12.50	12.18	13.15	13.57	12.40	13.52	12.39	12.51
Non-freight-carrying vehicles									
2021	11.92	13.98	12.87	12.89	14.91	15.71	13.33	10.66	13.50
2022	12.37	13.95	13.04	12.50	15.01	15.73	13.98	11.36	13.60
2023	12.54	13.67	13.17	12.46	14.72	15.66	13.89	11.47	13.52
Buses									
2021	11.15	11.39	11.56	12.04	11.87	14.11	10.09	10.01	11.51
2022	11.40	11.65	11.80	12.31	12.00	14.20	10.10	10.56	11.74
2023	11.76	11.90	11.96	12.39	12.08	14.41	10.48	11.20	11.96
Motorcycles									
2021	10.12	11.39	12.35	13.16	14.30	12.49	9.83	11.55	11.78
2022	10.27	11.58	12.61	13.40	14.74	12.74	10.02	11.58	12.00
2023	10.50	11.80	12.89	13.71	15.14	13.07	10.24	11.96	12.27
Total motor vehicles									
2021	9.98	10.61	11.10	12.28	11.68	12.81	10.21	9.63	10.81
2022	10.22	10.85	11.29	12.48	11.87	12.97	10.35	9.89	11.03
2023	10.44	11.05	11.49	12.71	12.10	13.21	10.47	10.20	11.25

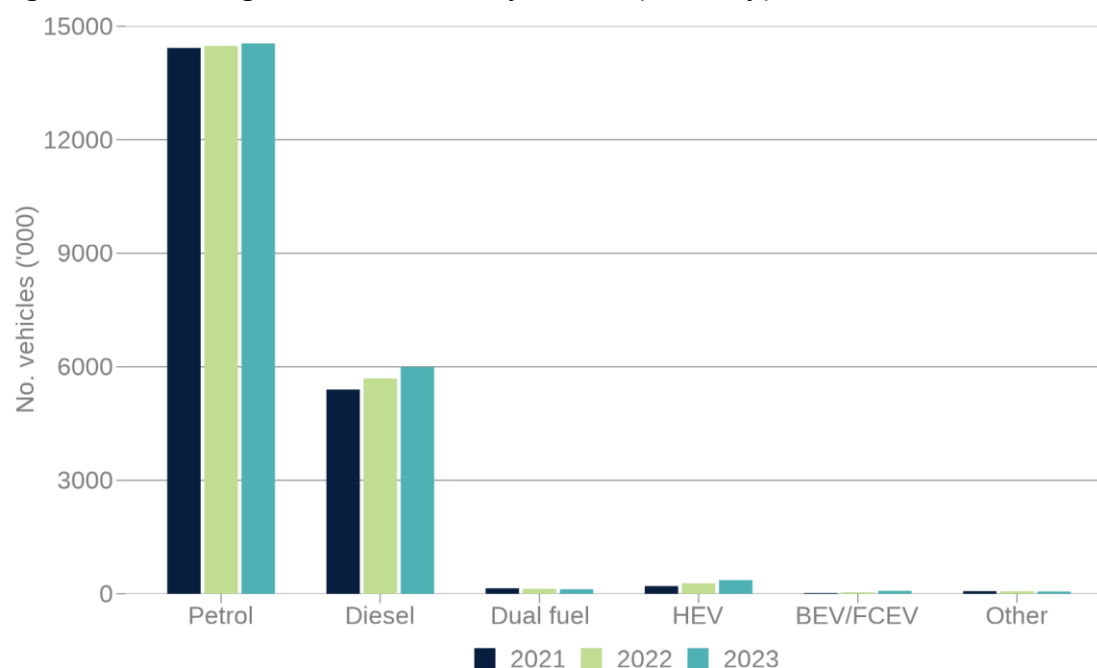
Sources: BITRE estimates.

Registered motor vehicles by motive power type

Figure 5 shows the number of vehicles on register by motive power type on 31 January 2023, 31 January 2022, and 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 2023, 31 January 2022, and 31 January 2021

- There were approximately 14.5 million registered petrol-fuelled motor vehicles on 31 January 2023, up 0.5 per cent on 2022. Petrol-fuelled motor vehicles comprised around 68.7 per cent of the fleet at end January 2023, down from 70.0 per cent in January 2022.
- Diesel-fuelled vehicles on register numbered approximately 6.0 million on 31 January 2023, an increase of 5.3 per cent over 31 January 2022. Diesel-fuelled motor vehicles accounted for 28.3 per cent of the fleet on 31 January 2023, up from 27.5 per cent in 2022.
- Hybrid electric vehicles (HEV) numbered approximately 362,700 vehicles on 31 January 2023, an increase of around 31 per cent over 2022.
- Battery electric vehicles (BEV) and fuel-cell electric vehicles (FCEV) on register increased from approximately 39,300 vehicles on 31 January 2022 to approximately 79,700 vehicles on 31 January 2023, an increase of approximately 103 per cent.
 - BEV and FCEV passenger vehicles increased from around 33,800 vehicles on 31 January 2022 to around 72,250 vehicles on 31 January 2023, an increase of 114 per cent.

Figure 5 Total registered vehicles, by motive power type, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 4 Registered motor vehicles, by motive power type and vehicle type, 2021, 2022 and 2023

Year	Petrol (vehicles)	Diesel (vehicles)	Dual fuel (vehicles)	HEV (vehicles)	BEV/FCEV (vehicles)	Other (vehicles)	Total (vehicles)
Passenger vehicles							
2021	12,452,360	2,035,379	98,127	204,510	15,700	37,416	14,843,492
2022	12,508,059	2,112,376	88,104	276,371	33,776	34,227	15,052,913
2023	12,579,425	2,202,186	80,658	361,580	72,248	31,515	15,327,612
Campervans							
2021	37,415	45,350	975	73	np	131	83,944
2022	38,957	49,067	930	93	np	124	89,171
2023	39,792	52,633	870	105	np	113	93,513
Light commercial vehicles							
2021	987,374	2,590,417	43,522	80	233	31,243	3,652,869
2022	961,881	2,773,893	39,612	270	295	29,775	3,805,726
2023	941,261	2,944,939	36,126	823	437	28,206	3,951,792
Light rigid trucks							
2021	3,225	153,999	430	31	7	36	157,728
2022	3,219	164,558	418	32	9	34	168,270
2023	3,518	183,955	395	37	17	36	187,958
Heavy rigid trucks							
2021	11,376	354,343	868	73	32	366	367,058
2022	10,884	364,105	857	78	51	329	376,304
2023	10,357	374,988	808	92	91	273	386,609
Articulated trucks							
2021	980	109,538	128	np	np	33	110,682
2022	935	114,556	128	np	np	25	115,649
2023	930	119,227	147	np	np	28	120,337
Non-freight-carrying vehicles							
2021	2,099	32,904	248	12	44	135	35,442
2022	2,172	33,525	441	13	79	233	36,463
2023	2,274	34,591	672	13	116	268	37,934
Buses							
2021	13,391	76,447	1,375	8	37	1,309	92,567
2022	12,862	79,118	1,281	13	119	1,180	94,573
2023	12,497	82,384	1,241	24	223	1,100	97,469
Motorcycles							
2021	919,463	657	101	27	3,744	58	924,050
2022	942,105	694	96	26	4,994	63	947,978
2023	957,783	713	87	30	6,561	64	965,238
Total motor vehicles							
2021	14,427,683	5,399,034	145,774	204,814	19,800	70,727	20,267,832
2022	14,481,073	5,691,892	131,867	276,894	39,331	65,990	20,687,047
2023	14,547,837	5,995,616	121,004	362,702	79,700	61,603	21,168,462

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

Notes: HEV – Hybrid electric vehicles, BEV / FCEV– Battery-electric and Fuel-cell electric vehicles. Other includes LPG- and NG-only powered vehicles as well as vehicles where motive power was not specified.

Sources: BITRE estimates.

Table 5 Registered motor vehicles, by motive power type and state/territory of registration, 2021, 2022 and 2023

Year	Petrol (vehicles)	Diesel (vehicles)	Dual fuel (vehicles)	HEV (vehicles)	BEV/FCEV (vehicles)	Other (vehicles)	Total (vehicles)
New South Wales							
2021	4,355,951	1,487,952	18,606	72,374	6,160	13,392	5,954,435
2022	4,350,202	1,561,410	16,494	96,328	11,962	11,929	6,048,325
2023	4,342,277	1,636,516	14,795	125,594	24,867	10,765	6,154,814
Victoria							
2021	3,749,142	1,262,053	78,472	47,880	5,027	38,867	5,181,441
2022	3,763,802	1,328,938	71,467	63,853	9,963	36,888	5,274,911
2023	3,789,970	1,396,728	66,283	83,009	20,376	34,889	5,391,255
Queensland							
2021	2,952,123	1,324,913	20,085	39,274	4,024	4,535	4,344,954
2022	2,979,290	1,399,273	18,142	54,294	8,553	4,260	4,463,812
2023	3,008,878	1,479,698	16,423	72,724	17,092	3,940	4,598,755
South Australia							
2021	1,102,267	358,094	5,134	15,001	1,022	5,161	1,486,679
2022	1,107,713	381,087	4,797	20,664	1,960	4,813	1,521,034
2023	1,113,682	402,604	4,570	26,918	3,898	4,513	1,556,185
Western Australia							
2021	1,575,739	687,709	21,820	19,896	2,184	5,480	2,312,828
2022	1,584,238	729,113	19,495	27,580	4,263	5,084	2,369,773
2023	1,595,484	775,227	17,613	36,342	8,400	4,719	2,437,785
Tasmania							
2021	351,184	148,128	169	3,150	473	2,471	505,575
2022	355,134	157,512	181	4,461	861	2,270	520,419
2023	356,624	165,772	187	5,845	1,620	2,094	532,142
Northern Territory							
2021	93,906	67,787	404	1,326	95	46	163,564
2022	91,978	69,959	365	2,091	158	41	164,592
2023	90,569	72,044	320	2,893	244	40	166,110
Australian Capital Territory							
2021	247,371	62,398	1,084	5,913	815	775	318,356
2022	248,717	64,600	926	7,623	1,610	705	324,181
2023	250,353	67,027	813	9,377	3,203	643	331,416
Australia							
2021	14,427,683	5,399,034	145,774	204,814	19,800	70,727	20,267,832
2022	14,481,073	5,691,892	131,867	276,894	39,331	65,990	20,687,047
2023	14,547,837	5,995,616	121,004	362,702	79,700	61,603	21,168,462

Notes: HEV – Hybrid electric vehicles, BEV/FCEV– Battery-electric and Fuel-cell electric vehicles. Other includes LPG- and NG-only powered vehicles as well as vehicles where motive power was not specified.

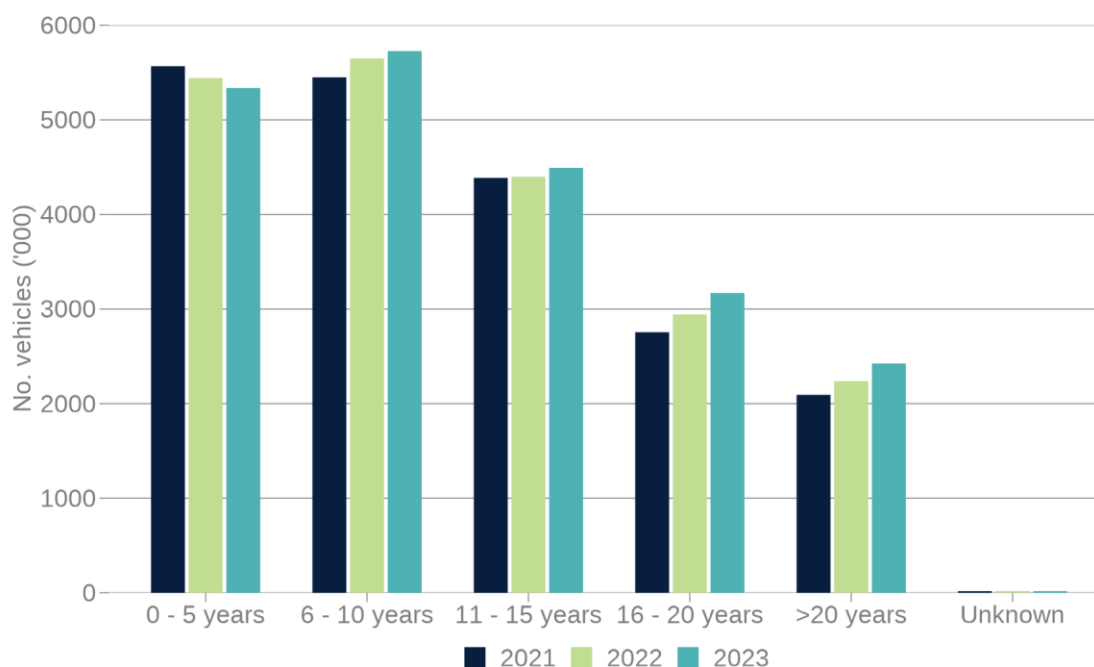
Sources: BITRE estimates.

Age distribution by state/territory and vehicle type

Figure 6 shows the number of registered motor vehicles by age distribution on 31 January 2023. Table 6 lists the number of registered motor vehicles by age distribution, state and territory, and vehicle type on 31 January 2023.

- Across all registered motor vehicles:
 - Vehicles manufactured between 2018 and 2023 (0-5 years) comprised 25.2 per cent of the fleet.
 - Vehicles manufactured between 2013 and 2017 (5-10 years) comprised 27.1 per cent of the fleet.
 - Vehicle manufactured prior to 2002 (>20 years) comprised 11.5 per cent of the fleet.
- Across all registered passenger vehicles:
 - Vehicles manufactured between 2018 and 2023 (0-5 years) comprised 24.5 per cent of the fleet.
 - Vehicles manufactured between 2013 and 2017 (5-10 years) comprised 28.2 per cent of the fleet.
 - Vehicle manufactured prior to 2002 (>20 years) comprised 10.0 per cent of the fleet.

Figure 6 Registered motor vehicles, by age group, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 6 Registered motor vehicles, by type of vehicle, year of manufacture and state/territory of registration, 2023

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)
Passenger vehicles									
2018 – 2023	1,203,712	980,588	775,518	243,865	378,462	70,792	27,687	72,409	3,753,033
2013 – 2017	1,345,886	1,179,649	862,834	293,588	452,652	83,166	27,452	83,415	4,328,642
2008 – 2012	964,809	908,032	682,960	254,777	411,655	74,758	21,613	60,980	3,379,584
2003 – 2007	640,853	606,655	480,660	200,990	285,386	65,872	13,595	35,572	2,329,583
To 2002 ^a	382,725	397,033	318,793	172,264	179,729	58,070	8,239	19,917	1,536,770
Total	4,537,985	4,071,957	3,120,765	1,165,484	1,707,884	352,658	98,586	272,293	15,327,612
Campervans									
2018 – 2023	4,494	3,836	3,762	381	16	500	12	74	13,075
2013 – 2017	4,318	2,973	3,196	516	84	535	17	109	11,748
2008 – 2012	5,884	3,872	3,423	497	197	688	15	146	14,722
2003 – 2007	9,066	7,254	6,509	1,125	796	1,017	42	240	26,049
To 2002 ^a	7,530	6,288	8,845	1,154	858	2,995	24	225	27,919
Total	31,292	24,223	25,735	3,673	1,951	5,735	110	794	93,513
Light commercial vehicles									
2018 – 2023	325,537	255,846	283,116	71,199	126,555	28,327	14,926	12,615	1,118,121
2013 – 2017	286,749	221,123	253,128	62,827	111,678	27,608	13,670	11,232	988,015
2008 – 2012	199,339	165,136	205,906	51,729	100,027	24,431	10,052	7,345	763,965
2003 – 2007	132,495	117,321	150,463	37,597	71,266	21,351	6,614	4,603	541,710
To 2002 ^a	125,059	122,376	139,833	43,756	69,752	30,298	5,165	3,742	539,981
Total	1,069,179	881,802	1,032,446	267,108	479,278	132,015	50,427	39,537	3,951,792
Light rigid trucks									
2018 – 2023	23,053	17,147	15,670	3,706	6,013	1,226	543	761	68,119
2013 – 2017	15,428	10,577	9,568	2,160	3,889	818	305	398	43,143
2008 – 2012	9,200	7,093	7,075	1,692	3,155	644	276	213	29,348
2003 – 2007	7,322	5,520	7,434	1,486	2,951	578	291	147	25,729
To 2002 ^a	7,262	3,618	7,268	935	1,533	622	268	113	21,619
Total	62,265	43,955	47,015	9,979	17,541	3,888	1,683	1,632	187,958
Heavy rigid trucks									
2018 – 2023	22,377	18,377	17,318	4,917	9,469	1,659	857	467	75,441
2013 – 2017	20,338	15,721	14,172	3,926	7,854	1,512	859	406	64,788
2008 – 2012	17,562	14,423	13,216	3,809	11,173	1,450	1,031	314	62,978
2003 – 2007	19,545	15,589	14,982	4,118	9,944	1,795	944	311	67,228
To 2002 ^a	28,194	28,454	22,786	9,346	21,670	4,203	1,244	277	116,174
Total	108,016	92,564	82,474	26,116	60,110	10,619	4,935	1,775	386,609
Articulated trucks									
2018 – 2023	7,778	10,103	7,571	2,664	4,096	584	257	34	33,087
2013 – 2017	6,339	7,304	5,684	2,121	3,764	564	286	48	26,110
2008 – 2012	4,414	4,571	4,033	1,670	3,518	297	259	35	18,797
2003 – 2007	4,619	5,216	4,270	1,814	3,708	447	269	51	20,394
To 2002 ^a	4,481	6,562	4,492	2,044	3,719	378	249	24	21,949
Total	27,631	33,756	26,050	10,313	18,805	2,270	1,320	192	120,337

(continued)

Table 6 Registered motor vehicles, by type of vehicle, year of manufacture and state/territory of registration, 2023 (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)
Non-freight-carrying vehicles									
2018 – 2023	1,764	3,123	1,383	1,240	1,710	253	83	46	9,602
2013 – 2017	1,591	2,403	1,490	822	1,394	134	73	33	7,940
2008 – 2012	1,163	1,946	1,264	577	1,617	168	84	51	6,870
2003 – 2007	1,031	1,625	1,035	495	1,006	191	59	28	5,470
To 2002 ^a	1,213	2,842	1,145	731	1,703	310	94	14	8,052
Total	6,762	11,939	6,317	3,865	7,430	1,056	393	172	37,934
Buses									
2018 - 2023	5,595	4,414	4,886	1,352	4,373	576	839	263	22,298
2013 - 2017	6,314	4,664	4,813	1,332	3,332	498	642	264	21,859
2008 - 2012	7,210	4,676	5,746	1,503	4,238	675	654	260	24,962
2003 - 2007	3,994	3,089	3,490	846	1,814	466	365	119	14,183
To 2002 ^a	3,546	2,884	2,852	998	2,712	759	295	121	14,167
Total	26,659	19,727	21,787	6,031	16,469	2,974	2,795	1,027	97,469
Motorcycles									
2018 - 2023	86,901	51,660	57,640	14,792	22,924	4,082	2,068	3,800	243,867
2013 - 2017	76,088	48,249	57,990	14,511	28,146	5,000	1,553	3,648	235,185
2008 - 2012	54,196	39,936	46,469	12,519	29,849	4,603	1,057	2,768	191,397
2003 - 2007	35,903	31,110	36,228	9,404	20,861	3,651	603	1,831	139,591
To 2002 ^a	31,937	40,377	37,839	12,390	26,537	3,591	580	1,947	155,198
Total	285,025	211,332	236,166	63,616	128,317	20,927	5,861	13,994	965,238
Total motor vehicles									
2018 - 2023	1,681,211	1,345,094	1,166,864	344,116	553,618	107,999	47,272	90,469	5,336,643
2013 - 2017	1,763,051	1,492,663	1,212,875	381,803	612,793	119,835	44,857	99,553	5,727,430
2008 - 2012	1,263,777	1,149,685	970,092	328,773	565,429	107,714	35,041	72,112	4,492,623
2003 - 2007	854,828	793,379	705,071	257,875	397,732	95,368	22,782	42,902	3,169,937
To 2002 ^a	591,947	610,434	543,853	243,618	308,213	101,226	16,158	26,380	2,441,829
Total	6,154,814	5,391,255	4,598,755	1,556,185	2,437,785	532,142	166,110	331,416	21,168,462

a. Includes year of manufacture not stated.

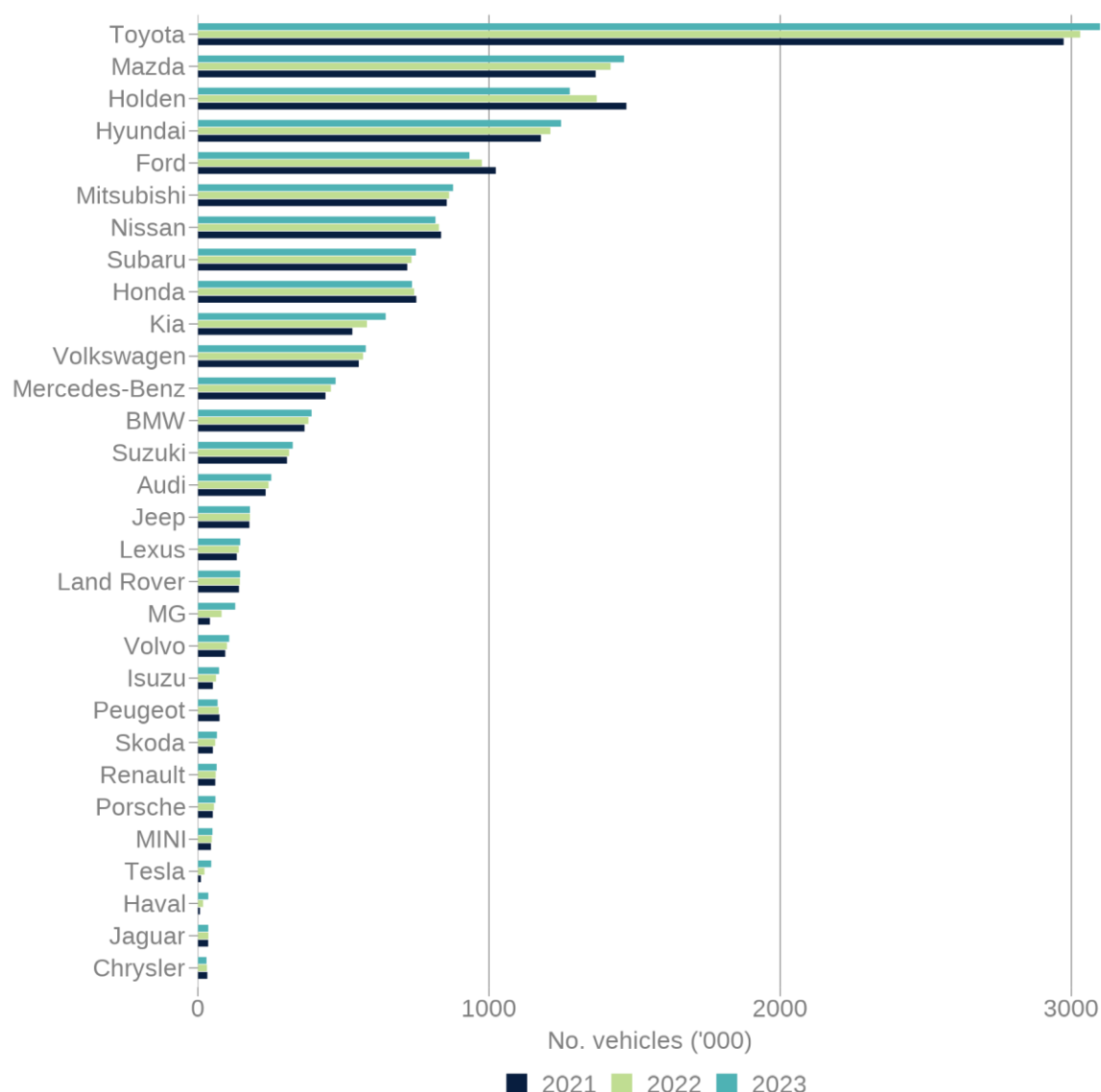
Sources: BITRE estimates.

Top passenger vehicle makes

Figure 7 shows the total number of passenger vehicles by vehicle make, for the top 30 registered passenger vehicle makes on 31 January 2023, and comparison with the number of registered passenger vehicles on 31 January 2022 and 31 January 2021. Table 7 lists the total number of passenger vehicles by make.

- Toyota remained the largest passenger vehicle make for the 18th consecutive year, with approximately 3.1 million registrations.
- MG vehicles again experienced the largest proportionate increase among the top 30 makes, with almost 47,000 additional passenger vehicles on register on 31 January 2023 relative to the previous year, a 58 per cent increase over January 2022.

Figure 7 Registered passenger vehicles by make, top 30 makes, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 7 Registered passenger vehicles by vehicle make, top 30 makes, 2021, 2022 and 2023

Make	Rank change	2023	2022	2021
		(vehicles)		
Toyota		3,098,392	3,030,227	2,973,564
Mazda		1,463,536	1,417,183	1,366,039
Holden		1,277,145	1,369,669	1,471,688
Hyundai		1,247,318	1,210,528	1,177,872
Ford		932,323	975,215	1,022,991
Mitsubishi		876,261	862,428	854,444
Nissan		815,872	827,662	835,227
Subaru	↑	748,532	733,405	718,979
Honda	↓	735,145	742,717	750,060
Kia		644,800	580,381	530,185
Volkswagen		576,429	567,031	552,329
Mercedes-Benz		472,736	456,387	438,065
BMW		390,270	379,308	366,054
Suzuki		325,591	313,098	305,812
Audi		251,753	242,344	232,400
Jeep		178,595	178,531	176,700
Lexus	↑	145,154	140,149	133,255
Land Rover	↓	144,846	143,974	140,843
MG	↑	127,918	80,961	41,083
Volvo	↓	107,237	99,500	93,726
Isuzu	↑	72,446	61,812	51,102
Peugeot	↓	67,316	71,046	74,072
Skoda	↑	65,061	59,050	51,111
Renault	↓	64,167	60,727	59,419
Porsche		59,888	54,725	50,827
MINI ^a		49,750	47,339	44,545
Tesla	↑	45,502	22,257	10,124
Haval	↑	35,474	17,666	6,959
Jaguar	↓	35,408	35,557	35,071
Chrysler	↓	29,371	30,971	32,259
Other		243,376	241,064	246,687
Total		15,327,612	15,052,912	14,843,492

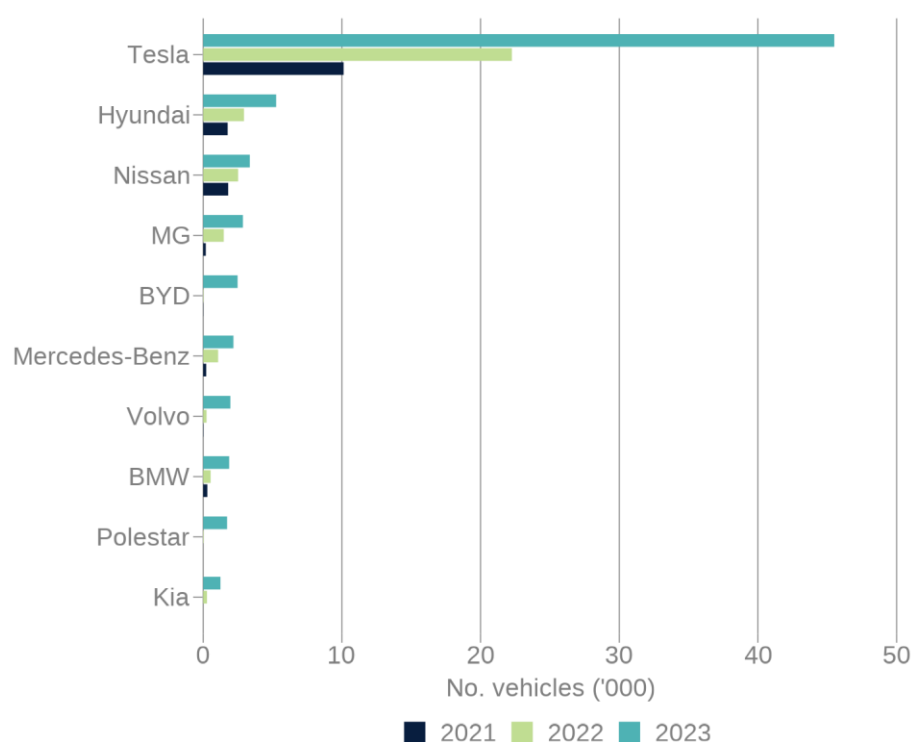
Sources: BITRE estimates.

Electric vehicle makes

Figure 8 shows and Table 8 lists the number of registered BEVs and FCEVs by make, for the top 10 BEV and FCEV vehicle makes, on 31 January 2023, 31 January 2022 and 31 January 2021.

- There were approximately 72,250 registered BEVs and FCEVs on 31 January 2023, a 114 per cent increase over the number of registered BEVs and FCEVs on 31 January 2022.
- Tesla is the most popular BEV make with approximately 45,500 vehicles on register on 31 January 2023, up from around 22,260 vehicles on 31 January 2022.
- Hyundai is the second largest electric vehicle make, with approximately 5,260 registered vehicles as at 31 January 2023, up from around 2,940 vehicles on 31 January 2022.
- These estimates include approximately 63 registered FCEVs on 31 January 2023 (primarily Hyundai Nexso and Toyota Mirai), up from 46 vehicles on 31 January 2022.

Figure 8 Registered passenger BEVs and FCEVs by make, top 10 makes, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 8 Registered passenger BEVs and FCEVs by make, top 10 makes, 2021, 2022 and 2023

Make	Rank change	2023	2022	2021
		(vehicles)		
Tesla		45,502	22,257	10,124
Hyundai		5,259	2,939	1,763
Nissan		3,360	2,516	1,802
MG		2,863	1,480	187
BYD	↑	2,478	27	12
Mercedes-Benz	↓	2,178	1,074	218
Volvo	↑	1,959	238	19
BMW	↓	1,871	534	299
Polestar	↑	1,721	34	0
Kia	↓	1,243	271	0
Others		3,814	2,406	1,276
Total		72,248	33,776	15,700

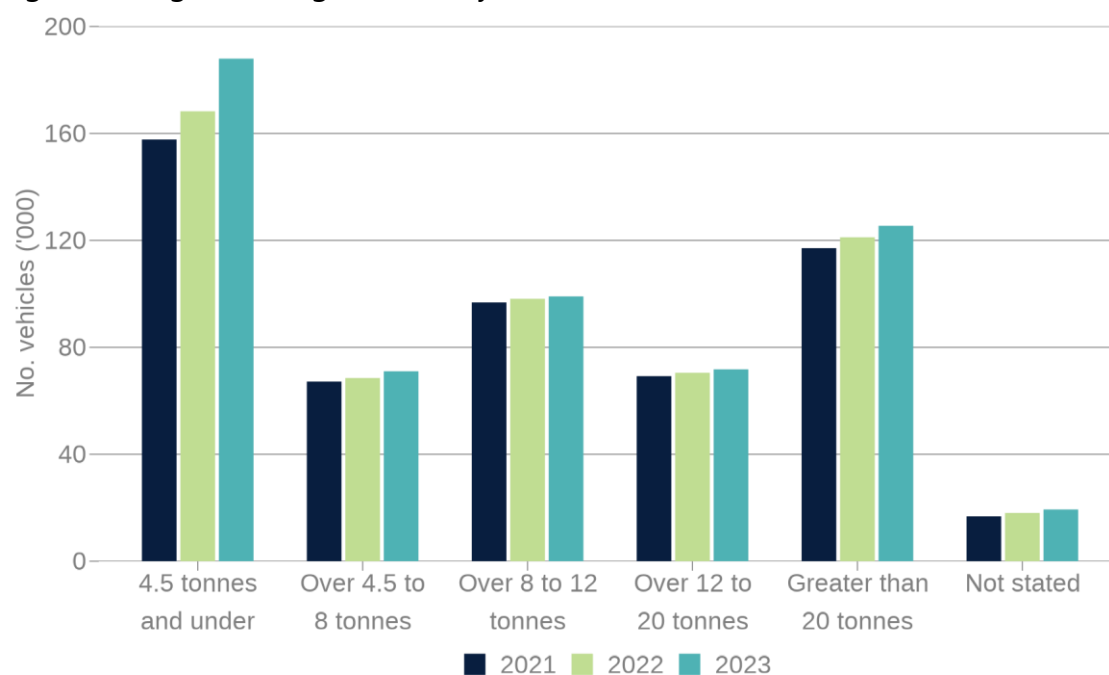
Sources: BITRE estimates.

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 2023, 31 January 2022 and 31 January 2021. Table 9 shows registered rigid trucks by GVM and state/territory of registration on 31 January 2023, 31 January 2022 and 31 January 2021.

- There were approximately 574,600 registered rigid trucks on 31 January 2023 - an increase of approximately 4.3 per cent on the number of registered rigid trucks at the end of January 2022.
 - Light rigid trucks comprised approximately 32.7 per cent of total registered rigid trucks on 31 January 2023.
 - Rigid trucks between 4.5 and 8 tonnes GVM comprised 12.1 per cent of rigid trucks.
 - Rigid trucks between 8 and 12 tonnes GVM comprised 17.2 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 21.8 per cent of rigid trucks.

Figure 9 Registered rigid trucks by GVM, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 9 Registered rigid trucks, by GVM and state/territory of registration, 2021, 2022 and 2023

Year	Gross vehicle mass						Total (vehicles)
	4.5 tonnes and under	Over 4.5 to 8 tonnes	Over 8 to 12 tonnes	Over 12 to 20 tonnes	Above 20 tonnes	Not stated	
	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	
New South Wales							
2021	53,306	22,402	29,811	18,751	32,138	535	156,943
2022	56,679	22,803	30,223	19,202	33,173	537	162,617
2023	62,265	23,468	30,415	19,669	33,952	512	170,281
Victoria							
2021	36,621	16,450	24,549	15,673	29,304	2,326	124,923
2022	39,149	16,754	25,019	16,127	30,403	2,242	129,694
2023	43,955	17,194	25,367	16,391	31,485	2,127	136,519
Queensland							
2021	39,514	14,305	20,730	16,819	24,548	520	116,436
2022	41,985	14,994	21,110	17,232	25,649	531	121,501
2023	47,015	15,887	21,447	17,580	27,028	532	129,489
South Australia							
2021	8,074	4,764	7,311	5,243	7,794	119	33,305
2022	8,816	4,849	7,368	5,320	8,069	120	34,542
2023	9,979	4,959	7,380	5,394	8,279	104	36,095
Western Australia							
2021	14,138	4,807	10,210	9,720	18,598	13,119	70,592
2022	15,168	4,556	10,161	9,524	18,916	14,452	72,777
2023	17,541	4,877	10,132	9,613	19,582	15,906	77,651
Tasmania							
2021	3,252	2,599	2,529	1,860	2,963	76	13,279
2022	3,511	2,667	2,581	1,906	3,132	77	13,874
2023	3,888	2,731	2,609	1,943	3,260	76	14,507
Northern Territory							
2021	1,504	1,502	1,178	869	1,181	64	6,298
2022	1,526	1,515	1,205	857	1,218	64	6,385
2023	1,683	1,547	1,206	860	1,264	58	6,618
Australian Capital Territory							
2021	1,319	355	469	279	567	21	3,010
2022	1,436	366	482	299	582	19	3,184
2023	1,632	369	478	306	599	23	3,407
Australia							
2021	157,728	67,184	96,787	69,214	117,093	16,780	524,786
2022	168,270	68,504	98,149	70,467	121,142	18,042	544,574
2023	187,958	71,032	99,034	71,756	125,449	19,338	574,567

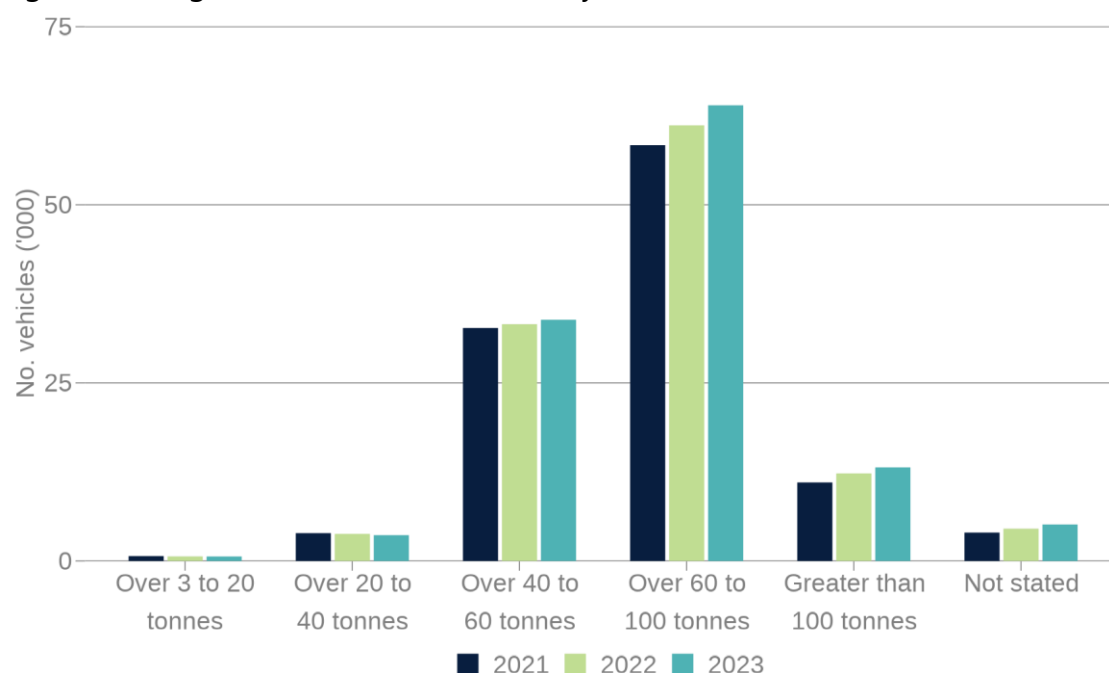
Sources: BITRE estimates.

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 2023, 31 January 2022 and 31 January 2021. Table 10 shows registered articulated trucks by GCM and state/territory of registration on 31 January 2023, 31 January 2022 and 31 January 2021.

- There were approximately 120,300 registered articulated trucks on 31 January 2023 - an increase of approximately 4.1 per cent on the number of registered articulated trucks at the end of January 2022.
 - Articulated trucks less than 40 tonnes GCM comprised approximately 3.5 per cent of all articulated trucks on 31 January 2023.
 - Articulated trucks between 40 and 60 tonnes GCM comprised 28.1 per cent of all articulated trucks.
 - Articulated trucks between 60 and 100 tonnes GCM comprised 53.2 per cent of all articulated trucks.
 - Articulated trucks greater than 100 tonnes GCM comprised 10.9 per cent of all articulated trucks.

Figure 10 Registered articulated trucks by GCM, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 10 Registered articulated trucks, by GCM and state/territory of registration, 2021, 2022 and 2023

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	94	687	5,190	17,420	2,099	99	25,589
2022	92	659	5,176	18,390	2,375	103	26,795
2023	100	609	5,322	19,080	2,436	84	27,631
Victoria							
2021	471	1,546	7,155	21,347	459	325	31,303
2022	423	1,514	7,221	22,344	777	315	32,594
2023	412	1,465	7,542	23,069	960	308	33,756
Queensland							
2021	46	745	3,931	13,160	6,013	36	23,931
2022	46	724	4,072	13,807	6,382	38	25,069
2023	43	687	4,291	14,505	6,487	37	26,050
South Australia							
2021	21	333	3,017	4,610	1,555	6	9,542
2022	20	326	2,959	4,740	1,766	6	9,817
2023	20	301	2,967	5,114	1,902	9	10,313
Western Australia							
2021	40	491	12,954	19	12	3,209	16,725
2022	40	477	13,346	35	28	3,768	17,694
2023	36	455	13,266	298	355	4,395	18,805
Tasmania							
2021	9	72	329	1,412	66	296	2,184
2022	9	72	331	1,442	67	284	2,205
2023	11	73	348	1,487	75	276	2,270
Northern Territory							
2021	np	17	99	264	814	np	1,201
2022	np	18	104	262	894	np	1,285
2023	np	19	94	282	918	np	1,320
Australian Capital Territory							
2021	np	16	33	140	4	np	207
2022	np	12	29	132	3	np	190
2023	np	12	29	132	6	np	192
Australia							
2021	687	3,902	32,708	58,372	11,022	3,985	110,682
2022	635	3,796	33,238	61,152	12,292	4,529	115,649
2023	627	3,614	33,859	63,967	13,139	5,123	120,337

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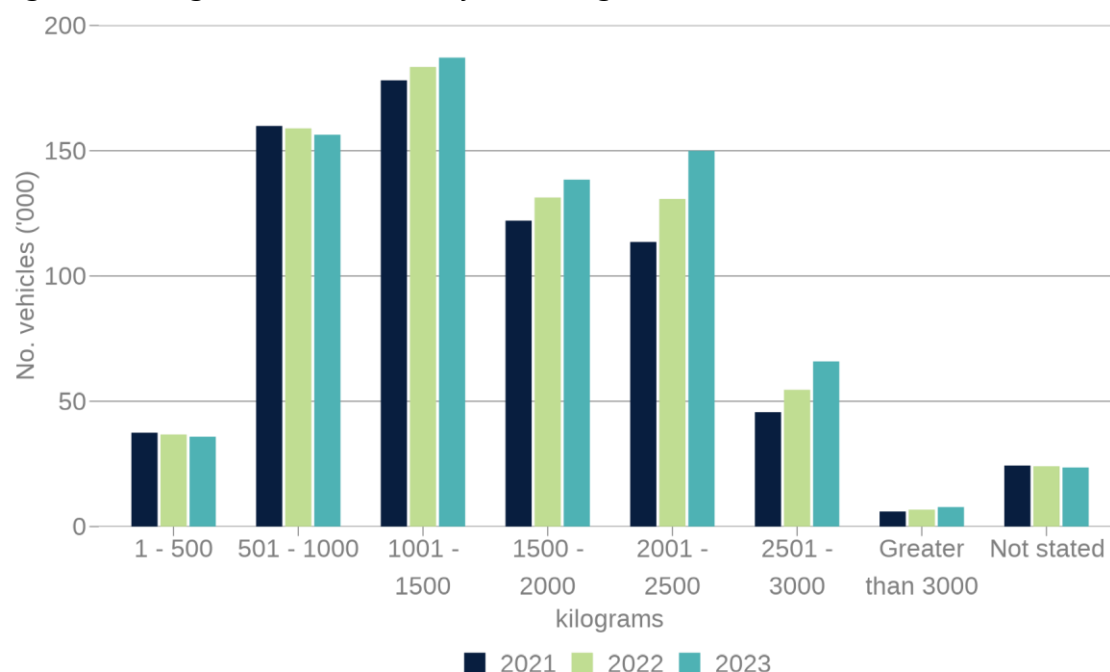
Sources: BITRE estimates.

Caravans by tare weight

Figure 11 shows the number of registered caravans by selected tare weight groups on 31 January 2023, 31 January 2022 and 31 January 2021. Table 11 shows registered caravans by tare weight and state/territory of registration on 31 January 2023, 31 January 2022 and 31 January 2021.

- There were 765,150 registered caravans on 31 January 2023 - an increase of approximately 5.3 per cent on the number of registered caravans at the end of January 2022.
 - Caravans less than 1000 kilograms tare weight, comprised approximately 25.1 per cent of all caravans on 31 January 2023, but total registrations declined 1.7 per cent on January 2022.
 - Caravans 1001-1500 kilograms tare weight, comprised 24.5 per cent of all caravans on 31 January 2023, and total registrations increased 2.0 per cent on January 2022.
 - Caravans 1501-2000 kilograms tare weight, comprised 18.1 per cent of all caravans on 31 January 2023, and total registrations increased 5.4 per cent on January 2022.
 - Caravans 2001-2500 kilograms tare weight, comprised 18.1 per cent of all caravans on 31 January 2023, and total registrations increased 14.7 per cent on January 2022.
 - Caravans above 2500 kilograms tare weight, comprised 9.6 per cent of all caravans on 31 January 2023, and total registrations increased 20.2 per cent on January 2022.

Figure 10 Registered caravans by tare weight, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 11 Registered caravans, by tare weight and state/territory of registration, 2021, 2022 and 2023

2021, 2022 and 2023									
	Tare weight								
	1-500	501-1000	1001-1500	1500-2000	2001-2500	2501-3000	Greater than 3000		
Year	kilograms	kilograms	kilograms	kilograms	kilograms	kilograms	kilograms	Not stated	Total
	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)	(vehicles)
	New South Wales								
2021	7,970	38,915	42,104	28,840	26,761	9,362	843	139	154,934
2022	7,865	38,301	43,298	30,987	31,294	11,593	1,019	124	164,481
2023	7,690	37,216	44,064	32,615	36,234	14,354	1,212	122	173,507
	Victoria								
2021	2,820	28,599	42,630	31,153	31,017	12,343	1,437	21,261	171,260
2022	2,794	28,720	43,294	32,703	35,132	14,818	1,631	19,832	178,924
2023	2,735	28,480	43,474	33,801	39,721	17,947	1,902	18,449	186,509
	Queensland								
2021	16,510	42,905	43,339	33,064	29,787	12,754	1,707	2,936	183,002
2022	16,032	42,412	44,607	36,097	34,071	14,846	1,847	4,102	194,014
2023	15,504	41,625	45,544	38,620	39,469	17,873	2,211	4,992	205,838
	South Australia								
2021	1,338	13,810	15,030	9,668	9,445	3,632	375	np	53,298
2022	1,279	13,405	15,086	10,171	10,961	4,370	436	np	55,708
2023	1,207	12,783	14,976	10,574	12,403	5,161	467	np	57,571
	Western Australia								
2021	6,651	26,794	26,109	17,022	14,429	6,799	1,440	np	99,244
2022	6,618	26,992	27,439	18,765	16,721	7,997	1,570	np	106,102
2023	6,535	26,996	28,390	20,032	19,004	9,327	1,718	np	112,002
	Tasmania								
2021	1,443	7,110	6,988	1,176	1,181	373	157	11	18,439
2022	1,468	7,303	7,737	1,333	1,439	488	174	11	19,953
2023	1,500	7,437	8,595	1,443	1,763	664	209	11	21,622
	Northern Territory								
2021	49	224	530	362	394	222	40	0	1,821
2022	45	229	525	394	437	258	45	0	1,933
2023	39	218	546	463	552	315	46	0	2,179
	Australian Capital Territory								
2021	684	1,543	1,379	813	578	167	10	0	5,174
2022	640	1,574	1,453	874	704	208	16	0	5,469
2023	659	1,641	1,577	912	848	269	16	0	5,922
	Australia								
2021	37,465	159,900	178,109	122,098	113,592	45,652	6,009	24,347	687,172
2022	36,741	158,936	183,439	131,324	130,759	54,578	6,738	24,069	726,584
2023	35,870	156,396	187,166	138,460	149,994	65,910	7,781	23,573	765,150

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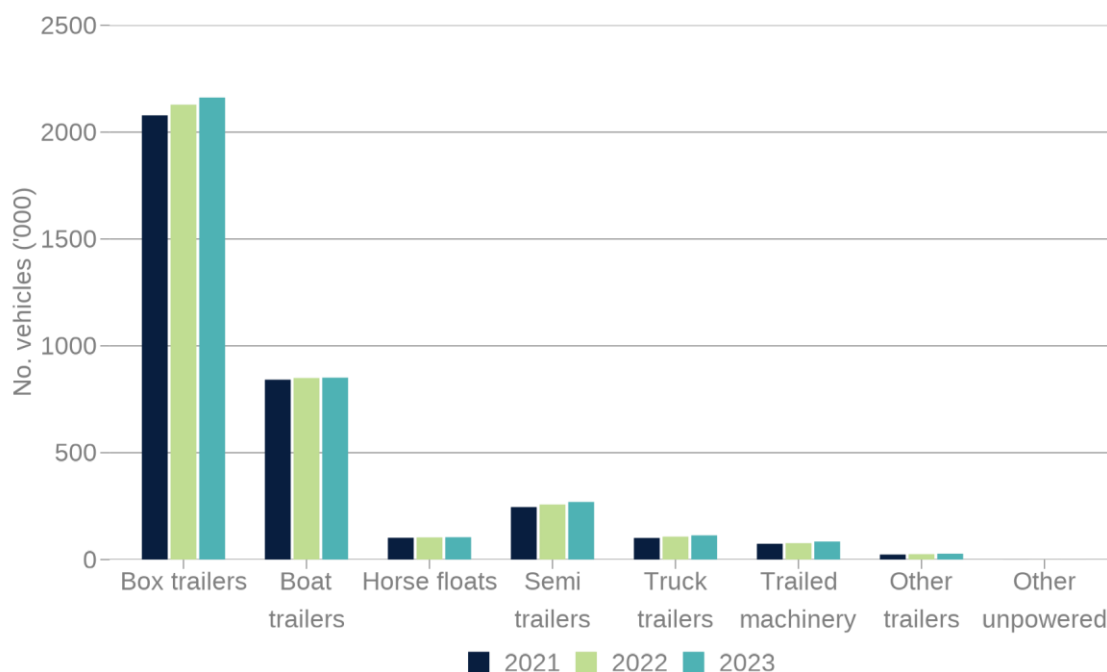
Sources: BITRE estimates.

Trailers by type

Figure 12 shows the number of registered trailers by trailer type on 31 January 2023, 31 January 2022 and 31 January 2021. Table 12 shows registered trailers by trailer type and state/territory of registration on 31 January 2023, 31 January 2022 and 31 January 2021.

- There were approximately 3.61 million registered trailers on 31 January 2023 - an increase of approximately 1.8 per cent on the number of registered trailers at the end of January 2022.
 - Box trailers on register numbered around 2.16 million on 31 January 2023, and increased of approximately 1.6 per cent over cent on the number of registered trailers at the end of January 2022.
 - Boat trailers and horse floats together account for approximately 955,600, or 26.5 per cent of all registered trailers on 31 January 2023.
 - Semi-trailers on register numbered approximately 269,500 on 31 January 2023, an increase of 4.7 per cent on the number on register at end of January 2022.
 - Truck trailers on register numbered approximately 113,100 on 31 January 2023, an increase of 5.7 per cent on the number on register at end of January 2022.
 - Trailed machinery type trailers account for only 2.3 per cent (approximately 84,160) of all trailers on 31 January 2023, but numbers increased by 9.9 per cent on the number on register at end of January 2022.

Figure 12 Registered trailers by type, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 12 Registered trailers , by trailer type and state/territory of registration, 2021, 2022 and 2023

Year	Trailer type								Total (vehicles)
	Box trailers (vehicles)	Boat trailers (vehicles)	Horse floats (vehicles)	Semi- trailers (vehicles)	Truck trailers (vehicles)	Trailed machinery (vehicles)	Other trailers (vehicles)	Other unpowered (vehicles)	
New South Wales									
2021	551,926	230,441	31,001	48,060	12,155	18,198	13,322	5	905,108
2022	562,957	232,681	31,352	51,200	12,586	19,920	13,866	4	924,566
2023	566,990	232,100	31,330	52,849	12,885	23,893	14,575	3	934,625
Victoria									
2021	440,731	176,190	28,390	57,451	13357	31,446	2,405	5	749,975
2022	457,886	177,830	28,746	59,972	13,524	32,317	3,394	5	773,674
2023	469,561	178,966	29,035	62,625	13,617	33,279	4,405	4	791,492
Queensland									
2021	461,401	246,806	23,089	61,983	66,745	6,813	2,723	103	869,663
2022	472,751	248,634	23,673	65,191	71,674	7,058	2,712	96	891,789
2023	482,124	250,022	24,074	68,346	76,933	7,365	2,780	90	911,734
South Australia									
2021	234,353	51,623	4,713	21,025	4,478	3,740	559	np	320,491
2022	236,091	51,583	4,779	21,561	4,716	3,969	596	3	323,298
2023	234,902	49,321	4,881	22,592	4,952	4,187	627	3	321,465
Western Australia									
2021	267,528	95,270	10,040	48,115	2,714	10,620	32	8	434,327
2022	273,718	97,320	10,255	50,390	2,882	10,163	37	8	444,773
2023	281,114	99,357	10,414	53,508	3,039	12,043	65	7	459,547
Tasmania									
2021	74,035	28,330	3,508	4,154	1,054	2,109	3,194	0	116,384
2022	76,514	28,622	3,561	4,321	1,126	2,307	3,419	0	119,870
2023	78,748	28,900	3,603	4,431	1,143	2,501	3,595	0	122,921
Northern Territory									
2021	20,978	8,340	614	4,472	339	488	np	np	35,233
2022	21,180	8,238	611	4,565	346	482	np	0	35,422
2023	21,199	7,962	611	4,874	346	455	3	0	35,450
Australian Capital Territory									
2021	27,805	4,744	475	314	185	369	1,140	0	35,032
2022	27,601	4,663	476	291	186	391	1,157	0	34,765
2023	27,473	4,537	496	308	179	440	1,205	0	34,638
Australia									
2021	2,078,757	841,744	101,830	245,574	101,027	73,783	23,375	123	3,466,213
2022	2,128,698	849,571	103,453	257,491	107,040	76,607	25,181	116	3,548,159
2023	2,162,111	851,165	104,444	269,533	113,094	84,163	27,255	107	3,611,872

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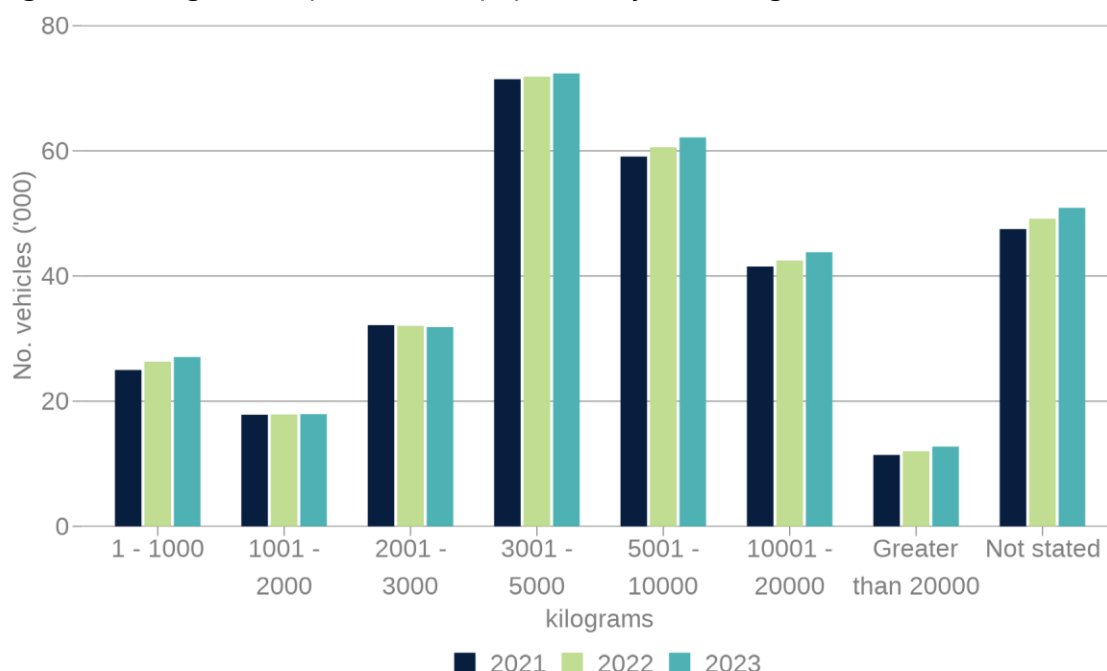
Sources: BITRE estimates.

Plant and equipment by tare weight

Figure 13 shows the number of registered plant and equipment type vehicles by tare weight classes on 31 January 2023, 31 January 2022 and 31 January 2021. Table 13 shows registered plant and equipment type vehicles by tare weight classes and state/territory of registration on 31 January 2023, 31 January 2022 and 31 January 2021.

- There were approximately 320,800 registered plant and equipment type vehicles on 31 January 2023 - an increase of approximately 2.0 per cent on the number of equivalent vehicles at the end of January 2022.
- Differences in jurisdictions' registration practices and/or NEVDIS reporting for such vehicles are apparent, with significant variation in the number of such vehicles reported across jurisdictions.

Figure 13 Registered plant and equipment by tare weight, 2021, 2022 and 2023



Sources: BITRE estimates.

Table 13 Registered plant and equipment, by tare weight and state/territory of registration, 2021, 2022 and 2023

Year	Tare weight							Not stated (vehicles)	Total (vehicles)
	1-1000	1001-2000	2001-3000	3000-5000	5001-10000	10001-20000	Greater than 20000		
	kilograms (vehicles)	kilograms (vehicles)	kilograms (vehicles)	kilograms (vehicles)	kilograms (vehicles)	kilograms (vehicles)	kilograms (vehicles)		
New South Wales									
2021	87	212	286	607	726	1,027	601	np	3,546
2022	81	195	254	539	665	976	632	np	3,342
2023	80	174	224	493	592	902	653	np	3,118
Victoria									
2021	13,386	5,640	10,877	22,973	19,375	8,806	1,208	11,056	93,321
2022	14,385	5,690	10,891	23,273	20,443	9,292	1,304	10,904	96,182
2023	14,610	5,667	10,890	23,408	21,304	9,564	1,435	10,600	97,478
Queensland									
2021	7,137	4,649	7,916	21,236	14,326	10,987	5,912	22,991	95,154
2022	7,512	4,763	7,871	21,346	14,804	11,265	6,138	24,533	98,232
2023	7,872	4,873	7,847	21,522	15,292	11,774	6,466	26,307	101,953
South Australia									
2021	1,493	3,911	7,548	15,937	13,185	8,515	1,538	348	52,475
2022	1,506	3,880	7,536	15,998	13,190	8,479	1,543	298	52,430
2023	1,522	3,747	7,417	15,991	13,181	8,464	1,533	359	52,214
Western Australia									
2021	2,370	3,268	5,437	10,605	11,354	12,036	2,103	172	47,345
2022	2,346	3,189	5,365	10,602	11,359	12,334	2,330	166	47,691
2023	2,505	3,318	5,362	10,865	11,663	12,973	2,609	162	49,457
Tasmania									
2021	424	74	19	17	10	12	3	11,082	11,641
2022	401	71	21	17	14	12	3	11,387	11,926
2023	386	71	19	19	14	12	5	11,605	12,131
Northern Territory									
2021	4	3	7	18	72	94	27	1,848	2,073
2022	4	4	7	19	63	82	27	1,860	2,066
2023	4	4	7	14	57	76	24	1,857	2,043
Australian Capital Territory									
2021	85	84	65	52	41	36	19	np	382
2022	81	87	82	49	42	36	18	np	395
2023	78	78	74	51	42	36	21	np	380
Australia									
2021	24,986	17,841	32,155	71,445	59,089	41,513	11,411	47,497	305,937
2022	26,316	17,879	32,027	71,843	60,580	42,476	11,995	49,148	312,264
2023	27,057	17,932	31,840	72,363	62,145	43,801	12,746	50,890	318,774

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

Sources: 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 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 2023.

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 are not provided to NEVDIS by most jurisdictions and hence not included in BITRE's estimates. Consular and defence force vehicles also appear to be excluded from NEVDIS and hence not included in these estimates. 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 are available via the BITRE website and data.gov.au.

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

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 greatly complicates the process of consistently and accurately identifying and categorising vehicles.

The number of registered road vehicles (over 25 million vehicles in 2023) 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. BITRE will continue to refine and improve its data cleaning and standardisation processes, which may also result in estimates being revised or corrected in later years.

Statistical geography

Road Vehicles, Australia data is available for 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

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 (2022). For example, 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 by BITRE.

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 (i.e. cells with fewer than 3 units), 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 motive power type definition has changed with new motive power sources introduced: battery electric vehicles, fuel-cell electric vehicles and hybrid electric vehicles.

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.

<i>Estimated Resident Population (ERP)</i>	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"> • Light rigid trucks of GVM greater than 3.5 tonnes and less than or equal to 4.5 tonnes. • Heavy rigid trucks of GVM greater than 4.5 tonnes.
<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.

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

ABS 2023, *National, state and territory population*, ABS.

URL: www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release.

Vehicle Standard (Australian Design Rule – Definitions and Vehicle Categories) 2005. URL: <https://www.legislation.gov.au/Details/F2023C01069>, Accessed: 15 June 2023.