

Number of motor vehicles in New Zealand

HIGHLIGHTS:

- In 2016, there were almost 4.0 million vehicles in New Zealand – the highest number ever.
- Diesel vehicle numbers continue to increase, and now make up 18 percent of all light vehicles in New Zealand.
- In 2016, there were 774 light vehicles per 1000 people in New Zealand.
- The electric vehicle fleet is steadily increasing.



Relevance of motor vehicles to environmental health

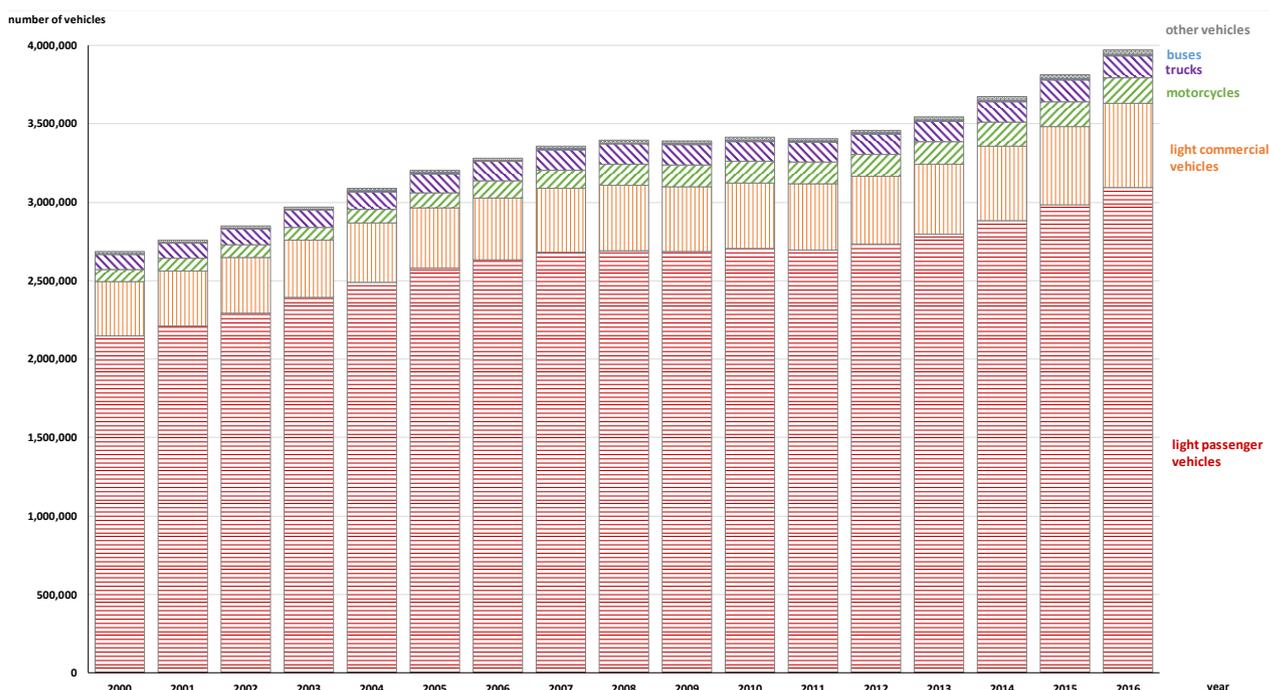
Vehicle use can impact on human health through air pollution, motor vehicle crashes, road traffic noise and greenhouse gases. In particular, vehicle emissions from burning petrol and diesel affect outdoor air quality. Vehicles release carbon monoxide, particulate matter, nitrogen dioxide and other gases, which can lead to health problems (Kjellström, 2004). Diesel vehicles are disproportionately more polluting than petrol vehicles in terms of particulate matter and total nitrogen oxides (Sridhar, Wickham and Metcalfe, 2014). Recent evidence also shows that diesel engine fumes can cause lung cancer (Benbrahim-Tallaa et al., 2012). Additionally, vehicles emit carbon dioxide, contributing to climate change. Road traffic noise can also affect health, particularly through high blood pressure (van Kampen and Babisch, 2012).

More vehicles on our roads

There were about 3,973,000 vehicles in New Zealand in 2016—the highest ever number (Figure 1). Between 2000 and 2016, the number of motor vehicles in New Zealand increased by 48 percent, from 2.7 million in 2000 to almost 4.0 million motor vehicles in 2016.

In 2016, light passenger vehicles were the most common type of vehicle (3,094,000 vehicles, 78 percent of the fleet), followed by light commercial vehicles (537,000 vehicles, 14 percent of the fleet). Together, light vehicles made up over 90 percent of the total vehicle fleet. Increases in numbers were seen for all vehicle types since 2011. Between 2000 and 2016, the number of light vehicles and trucks increased by over 40 percent. Motorcycles and buses had the largest growth, their numbers more than doubled between 2000 and 2016.

Figure 1:
Number of motor vehicles in New Zealand, by vehicle type, 2000–2016



Source:
Ministry of Transport (2017)

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Diesel vehicle numbers continue to increase

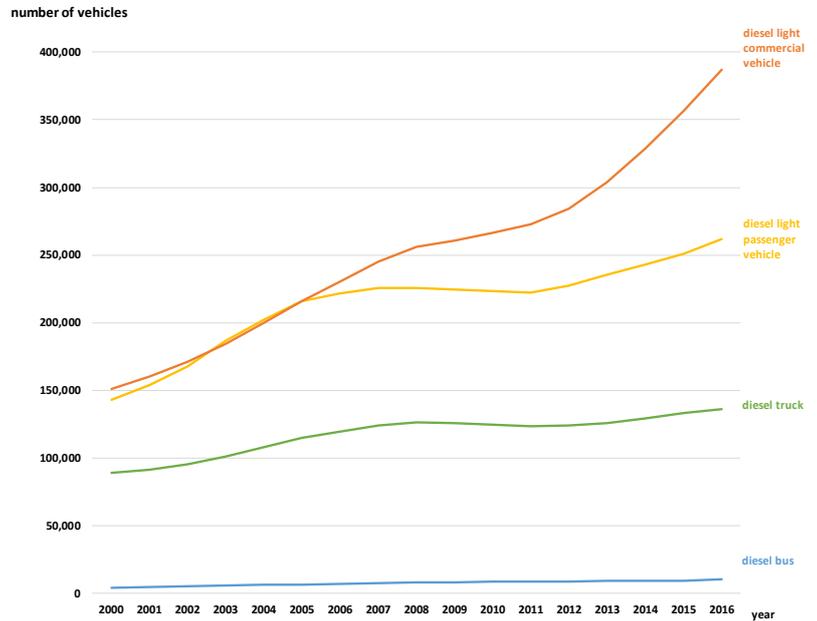
The number of diesel vehicles has increased steadily since 2000, particularly light diesel vehicles (Figure 2). In 2016, diesel vehicles made up 17.9 percent (649,000 vehicles) of the light vehicle fleet, up from 11.8 percent in 2000. The truck and bus fleet almost entirely consist of diesel vehicles (Table 1).

Table 1: Percentage of vehicles that are diesel in New Zealand, by vehicle type, in 2016

| vehicle type | % of vehicles that are diesel |
|---------------------------------|-------------------------------|
| diesel bus | 97.9% |
| diesel truck | 97.7% |
| diesel light commercial vehicle | 72.2% |
| diesel light passenger vehicle | 8.5% |

Source for Figure 2 and Table 1: Ministry of Transport (2017)

Figure 2: Number of diesel vehicles in New Zealand, by vehicle type, 2000 – 2016

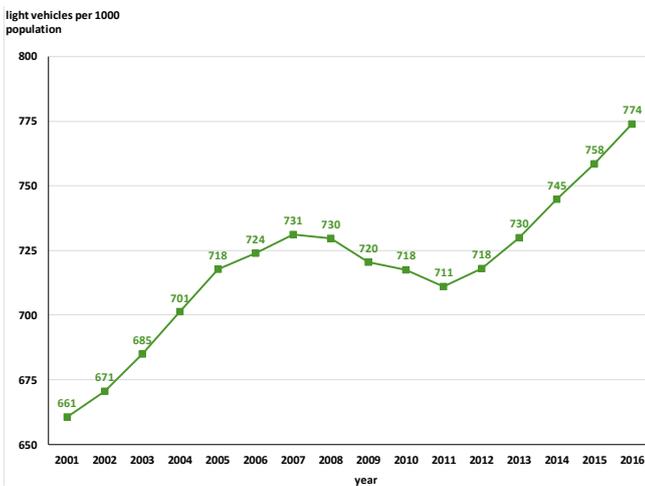


Car ownership per capita continues to increase in New Zealand

Between 2001 and 2016, the number of light vehicles per 1000 people increased by over 17 percent. In 2016, New Zealand’s car ownership rate was 774 light vehicles per 1000 people, the highest number over the 16-year period (Figure 3). This rate represents one of the highest levels of car ownership in the world (Ministry of Transport, 2017).

Ownership rates varied across the country. The three regions with the highest ownership rates were all in the South Island: Nelson-Marlborough (964 light vehicles per 1000 people), Canterbury (905 light vehicles per 1000 people) and Southland (895 light vehicles per 1000 people) (Figure 4). The region with the lowest car ownership rate was Wellington, with 649 light vehicles per 1000 people in 2016.

Figure 3: Number of light vehicles per 1000 population in New Zealand, 2001–2016



Source for Figure 3 and Figure 4: Ministry of Transport (2017)

Note: Light vehicles include light passenger vehicles and light commercial vehicles.

Figure 4: Number of light vehicles per 1000 population in New Zealand, by region, 2016



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Number of electric vehicles in New Zealand motor vehicle fleet is increasing rapidly

The electric vehicle fleet in New Zealand mainly comprises light vehicles. In the second quarter of 2017, there were 2,648 pure electric and 1,214 plug-in hybrid vehicles in the New Zealand motor vehicle fleet (Figure 5). These numbers have been rapidly increasing since the first quarter of 2013 (118 pure electric vehicles and 6 plug-in hybrid vehicles).

Figure 5: Number of electric vehicles in New Zealand, by vehicle type, 2013 (quarter one) – 2017 (quarter two)

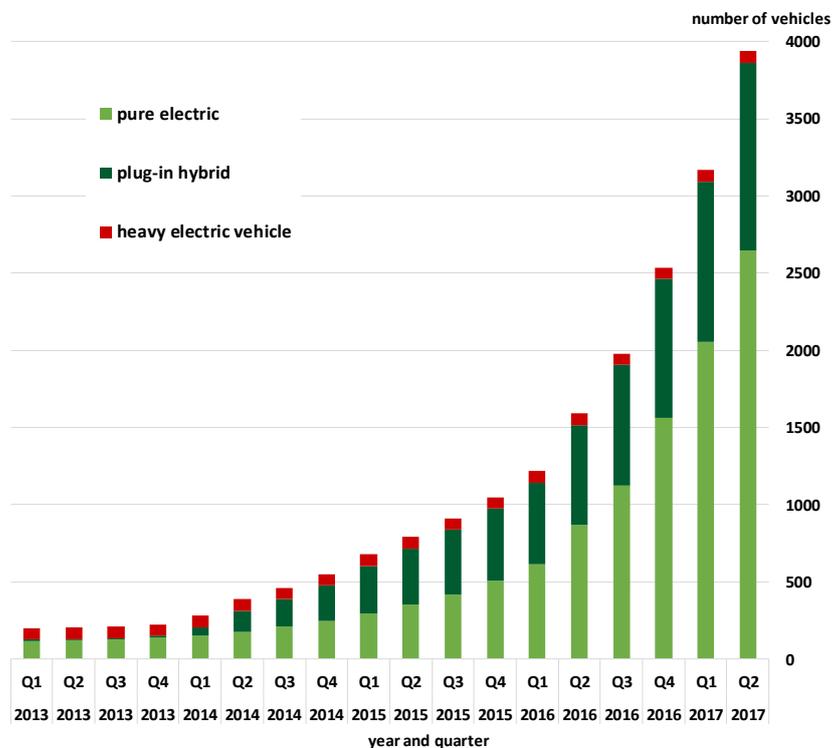
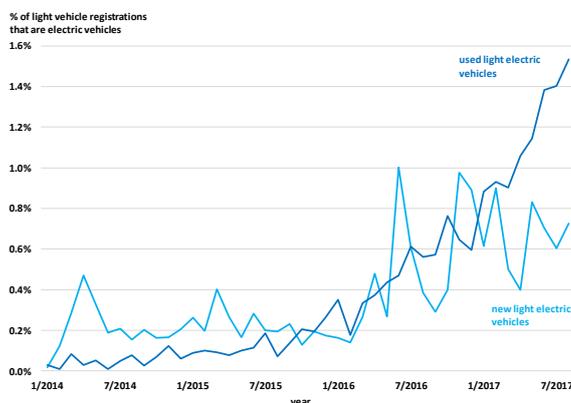


Figure 6: Percentage of light vehicles that are electric vehicles, by vehicle type, January 2014 - August 2017



Light electric vehicles are increasingly becoming a larger proportion of light vehicle registrations (Figure 6). The majority of electric vehicle registrations were used imports. In August 2017, used light electric vehicles accounted for 1.53 percent of all used light vehicle registrations, compared to 0.03 percent in January 2014. 0.73 percent of new light vehicle registrations were electric vehicles in August 2017.

Source for Figure 5 and Figure 6: Ministry of Transport (2017b)

Notes on vehicle types

- Light vehicles include light passenger vehicles and light commercial vehicles:
 - 'Light passenger vehicles' include passenger cars and vans.
- 'Light commercial vehicles' include the following, if under 3500kg: goods vans, trucks, utilities, buses, motor caravans.
 - 'Trucks' include the following, if over 3500kg: goods vans, trucks, utilities, motor caravans.
 - 'Motorcycles' include motorcycles and mopeds.
 - 'Buses' include buses over 3500kg.

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For more information,
please contact Carolin
Haenfling on
ehnz@massey.ac.nz