A million and more but who's counting?

ROB PERKINS

Nearly a decade ago a number of ARTSA members got together to try and solve a riddle – how many heavy vehicles are on the road? (Spoiler alert: it's passed 1 million late in 2020.) Up until then people relied on the ABS collection which appeared to have gaps, and some extracts from individual states, but no one seemed to have an overall picture of what was registered and how the fleet was changing over time. ARTSA's then Chairman Dr Peter Hart and myself, then acting as Executive Director, approached Austroads, which is the peak body representing road agencies in Australia. They had for some time pooled their state collections of driver licencing and registration data in order that enforcement agencies (among others) could have access to data Australia wide. The pooling agency is called NEVDIS which stands for the National Exchange of Vehicle and Driver Information System. ARTSA argued successfully that there was a public good in having NEVDIS provide a quarterly extract of the "non-private" data from their collection of heavy vehicles.

That was in late 2013. Since the end of that year NEVDIS has (for a fee) provided ARTSA (and now ARTSA-i) with quarterly extracts of all commercial vehicles over 4.5 tonnes GVM. The data includes name of manufacturer, registration status and category, as well as State and post code of registration and a number of other variables.

It has limited information on some characteristics that many people would like to see: body type, technology on the vehicles (suspension and braking systems, coupling details etc). This data sits in the Commonwealth domain and is part of the Australian Design Rule approval process. While OEM manufacturers must seek design approval and those designs are available on the web (see https://rvcs.infrastructure.gov.au) there seems to be no collective appetite by the Commonwealth and states (for that is what is needed) to link the design approval of individual vehicles to the registration of the vehicle. This is a missed opportunity, indeed a missing link, and seems to sit in nowhere land between the Commonwealth (concerned with design approvals) and the states (concerned with registration and in-service compliance). The result is that it is difficult to analyse the heavy vehicle fleet in terms of its technical innovation and evolution. Questions of technology penetration (modern smart braking systems, vehicle suspension, body types etc) would be possible through the linking of the Commonwealth approvals process and the state driven registration systems. It is a collective 'own goal' by these jurisdictions and needs to be corrected in order that this data can then inform future policy makers.

### Total medium and heavy duty registrations

This data includes two categories:
• Heavy vehicles which are greater than 12 tonnes GVM.
• Medium duty vehicles which range from 4.5 tonnes to 12 tonnes GVM.
Note that the ARTSA-I does not receive data for vehicles in the 3.5tonne – 4.5tonne GVM segment.

The heavy-duty category makes up 67 per cent of the total parc of medium and heavy-duty commercial vehicles. This has increased from 65 per cent five years ago. This shows a trend towards the heavy vehicle sector which is a little surprising given the growth in the urban freight task and the rise of the click and collect/home shopping economy which would normally favour smaller (medium duty) vehicles. The growth in the total parc of equipment over the last five years has been 10 per cent. This is net growth after retirements. This is not large given the growth in the economy and suggests that freight productivity is on the rise.
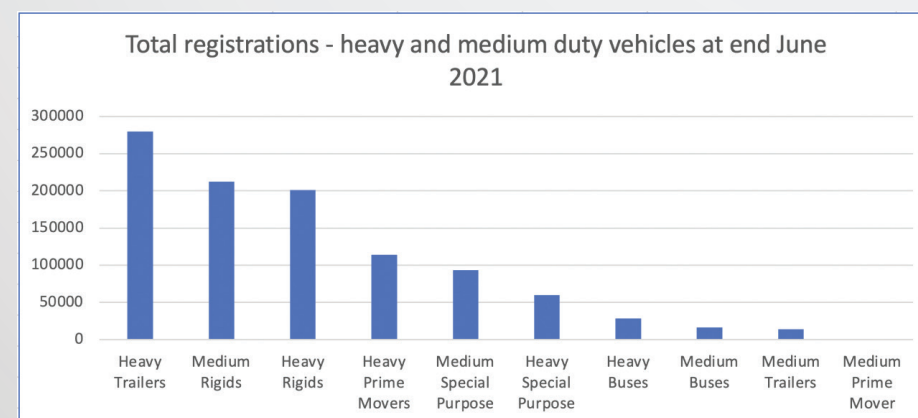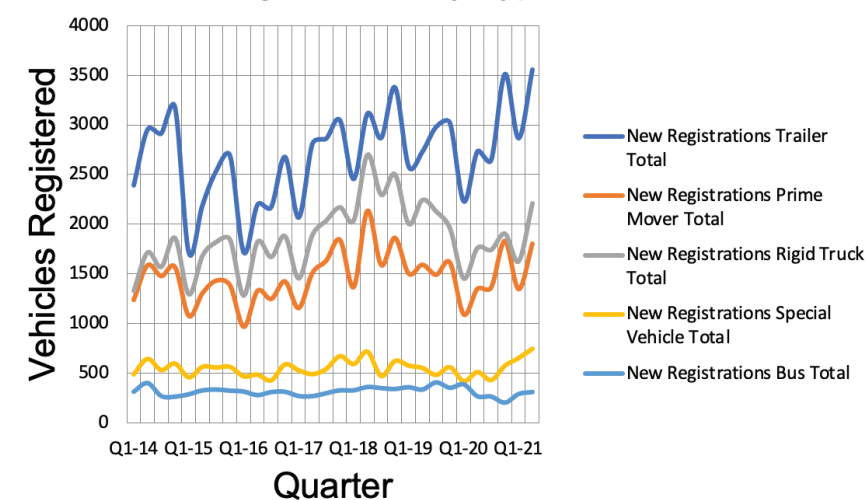

. New Registrations of Heavy Duty Vehicles, by Quarter
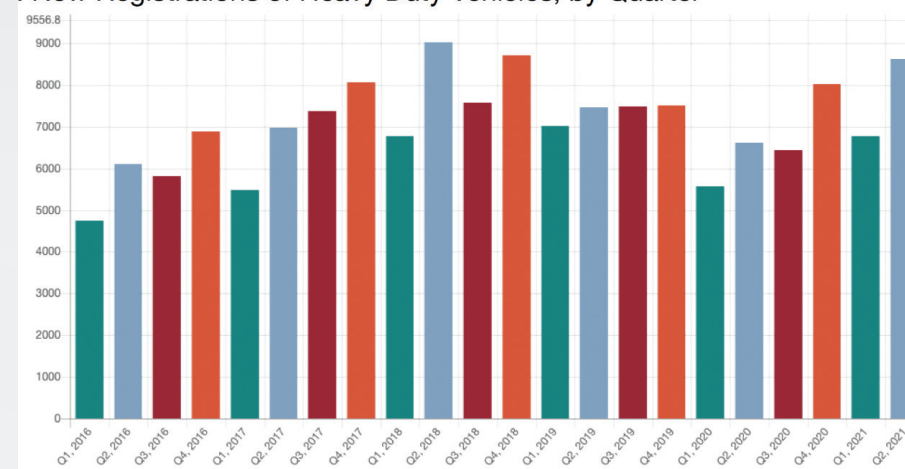
Source: ARTSA-i Data analytics based upon NEVDIS registration data extract

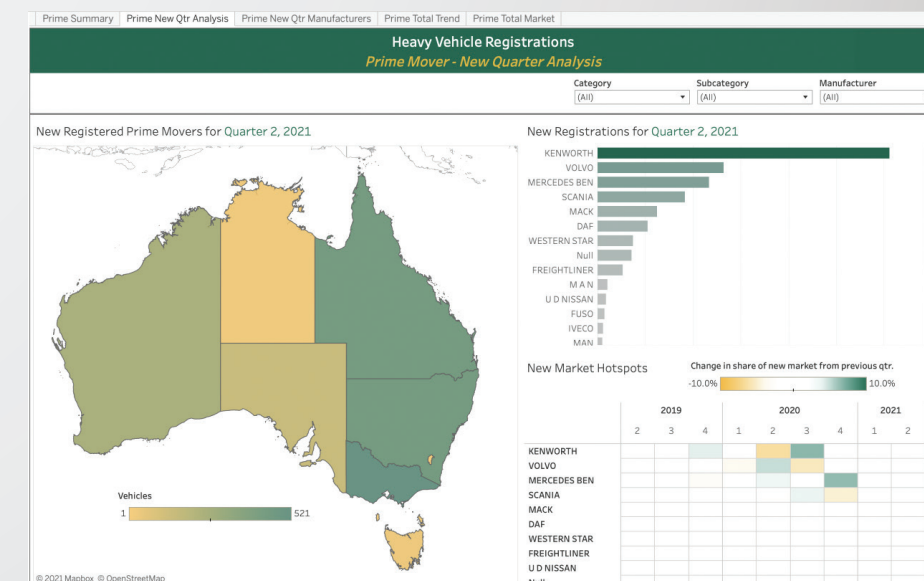New Registrations By Type Per Quarter

Source: ARTSA-i Data analytics based upon NEVDIS registration data extract

New registrations

New registrations go through an annual saw tooth pattern with the first quarter of the calendar year being slower and building through to December quarter. The data for heavy vehicles since 2016 is shown below:

New registrations for heavy vehicles are running in a band of six to nine thousand new units per quarter. This equates to around 30 thousand new heavy vehicle units registered per annum. Against a total parc of just over 1 million vehicles this is a replacement rate of around 3 per cent. It is not high and as a result the median age of heavy vehicles is creeping up from 12.5 years at mid-2016 to now around 13 years at mid-2021.

Tableau data analytics

ARTSA-i Data analytics has implemented an online data analytics platform using Tableau. This is an important innovation as it delivers simple-to-use analytics tools into the hands of users. This data can be accessed at any time and is updated quarterly.

The features of Tableau are too numerous to list here but what it does is allow the user to configure and create your own favourite views and to quickly establish down to State level the market leaders and many more details. The world of data analytics just got a little more exciting!

ARTSA-i is working on expanding the scope of data in its databases. This will allow us, using Tableau, to answer important questions about the trends and bottlenecks that exist in our essential industry.

Access to the ARTSA-i Data collection is by subscription through the ARTSA-i Data Executive Director Rob Perkins at rob@artsa.com.au

Free quarterly summary reports are also available via the ARTSA-i website at http://www.artsa.com.au/data/

Rob Perkins,
ARTSA-i Data Executive Director

Total registrations - heavy and medium duty vehicles at end June 2021

Source: ARTSA-i Data analytics based upon NEVDIS registration data extract

Source: ARTSA-i Data analytics Tableau online data based upon NEVDIS registration data extract