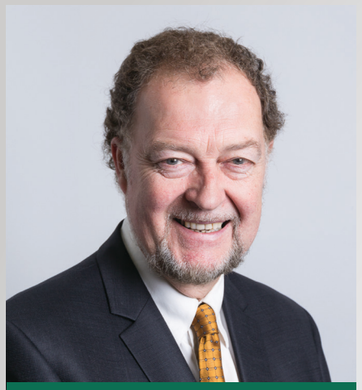
Drilling down into ARTSA data



PETER HART

ARTSA-i Data splits the heavy vehicle fleet up according to state, region and postcode of registration. Insights into how regions and industries in those regions are travelling economically could be obtained from the registration trends for vehicle types that can be associated with particular industries. ARTSA Data classifies vehicle types according to Registration category, GVM/ATM and body type.

This article focuses on state regions.

We can go a lot deeper, but that would be a consulting report. The number of heavy vehicles per 100,00 population is important for assessing the size of the freight task. The population in each state is a measure of the number of consumers. Conversely, the drivers and mechanics to run the vehicles have to be found in that state population. The freight task is split between deliveries for local consumption, deliveries to transfer goods via the state and deliveries to take export product out of the country. The local delivery task is probably dependent on the population in the state and the income level of that population. I will call the number of heavy vehicles per 100,00 people "the vehicle type population density".

There are some conclusions that can be drawn from the population density graphs for various vehicle types: Graph 1 shows that on a per-capita basis the single-trailer prime mover density is highest in South Australia. This may reflect SA's role as the conduit state between western and eastern Australia. The state with the largest number of prime mover registrations (single and multi-combination) is Victoria (34,586 which is 27 per cent of the Australian total). The term 'Heavy' in these graphs means that the vehicle has a gross rating exceeding 12 tonne. The data used in this article is current for Q4 in 2023. Graph 2 shows that for multi-combination prime movers the peak population density jurisdictions are Northern Territory and South Australia. Both are centrally located in Australia. These graphs hide the total situation. Victoria has 14,424 multi-combination registrations (about 26% of the Australian total). Next for multi-combinations is NSW (21 per cent). While NSW has a greater population and a larger economy than the other states, it is not the prime mover capital state of Australia. That title might arguably go to Western Australia, which has a higher prime mover population density and higher total number (16,183, 13 per cent of the total population). It is notable that Western Australia also has the highest per capita gross product per capita. Obviously, that is due to mining revenue and a lot of volume is moved by train and pipeline rather than by trucks. However, WA is a truckin' state!

Considering heavy trailers, Queensland and Victoria have about the same number registered at about 75,000 (about 24 per cent of the total). NSW (63,780 – 20 per cent) again under-performs considering its population and economic size. Graph 3 shows that the outstanding jurisdiction on a per capita basis is…Northern Territory. The predominant trailer types in Northern Territory are semi-trailers and dolly trailers (Graph 4). Lead trailer registrations indicate the level of B-double combinations in the population of trailers. Graph 5 shows that B-doubles are rare in the 'roadtrain states' of Western Australia and Northern Territory.

Heavy Rigid Trucks are the largest heavy vehicle category. The total number of rigid trucks is 217,000 which greatly exceeds the number of prime movers. Heavy rigid trucks are used for intrastate and local freight delivery. NSW has more rigid trucks (57,243 or 26 per cent) than other jurisdictions, which reflects the nature of its economy. The population density of Australian heavy rigid trucks is shown in Graph 6.

The ARTSA-i database allows connections to be identified between registration category totals, vehicle type and location at state, region and postcode level. ARTSA-i is working to improve its understanding of the connections between registrations and industry freight activity.

Dr Peter Hart,
ARTSA-i Life Member