



Llywodraeth Cymru  
Welsh Government

# Llwybr Newydd

A New Wales Transport Strategy  
Consultation Draft

Supporting information

Transport data and trends



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YNDIAETH CYMRU  
SPORT FOR WALES

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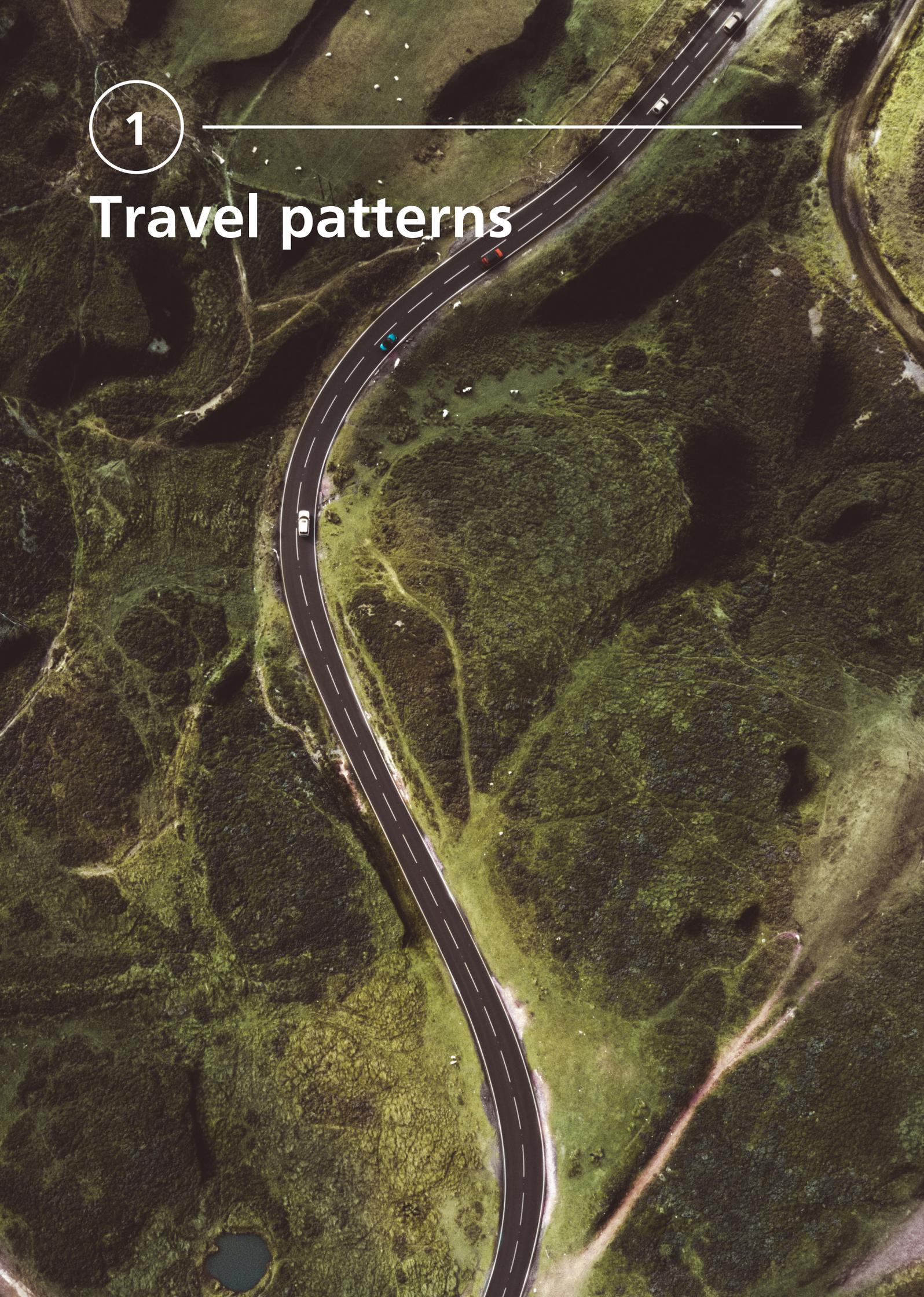
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# Travel patterns



# Headline Trends

The dominant mode of transport in Wales, for both the number of journeys undertaken and distances travelled, continues to be the private car. As far as growth is concerned then rail and private car are the modes of transport experiencing the greatest growth in Wales, both reaching their highest ever recorded levels over the last two years (measured by passenger numbers on the rail network and distances travelled on the road network).

Current trends suggest that, despite expected growth in rail use, private cars will remain the dominant mode of transport in Wales in the short to medium term. There is also evidence confirming that Covid-19 has increased the dominance of the private car, at least in the short term. Research undertaken in June/July 2020 identified that, in Wales more than any other part of the UK, car traffic levels were recovering at a much greater rate than public transport patronage.

By 3rd July 2020 car traffic had reached 80% of pre-lockdown levels while public transport patronage had only recovered to 30%<sup>1</sup>.

Looking to the future, forecasts show increased demand of as much as 151% for longer distance rail travel by 2043<sup>2</sup> and a 16.7% increase in private vehicle miles by 2030<sup>3</sup>. While the forecast percentage growth in rail use is high, this is set against a relatively low absolute baseline when compared to the volume of trips undertaken by car. Such a high percentage increase in rail travel is dependent on confidence in public transport returning as part of Covid-19 recovery.

Although there has been a downward trend in the number of passenger journeys made on local bus services over the past decade, buses accounted for 101.87 million passenger journeys in 2018/19<sup>4</sup> Wales. Local bus is therefore far more significant than rail in relation to number of passenger journeys undertaken

<sup>1</sup>The Impacts of Covid-19 on Travel Patterns in the UK: Third Phase Research Findings, July 2020, Royal HaskoningDHV

<sup>2</sup>Railway Upgrade Plan – Wales 2017-18, Network Rail, 2018 <https://cdn.networkrail.co.uk/wp-content/uploads/2017/06/Railway-Upgrade-Plan-Update-2017-Wales.pdf>

<sup>3</sup>DfT Road Traffic Forecasts 2018, Reference Case

<sup>4</sup>StatsWales, Vehicle kilometres and passenger journeys on buses and coaches by year, <https://stats.wales.gov.wales/Catalogue/Transport/Roads/Public-Service-Vehicles/vehiclekilometresandpassengerjourneysonbusesandcoaches-by-year>. Original source: Public Service Vehicle Survey, Department for Transport

# 1

## Travel Patterns

The following key statistics have been identified from recent data:

### Active travel

There has been little change in the frequency and duration of walking and cycling use as a mode of transport since the Active Travel (Wales) Act came into place in 2013. Survey evidence<sup>5</sup> suggests a slight decline in active travel by bicycle over the last 5 years.

### Bus

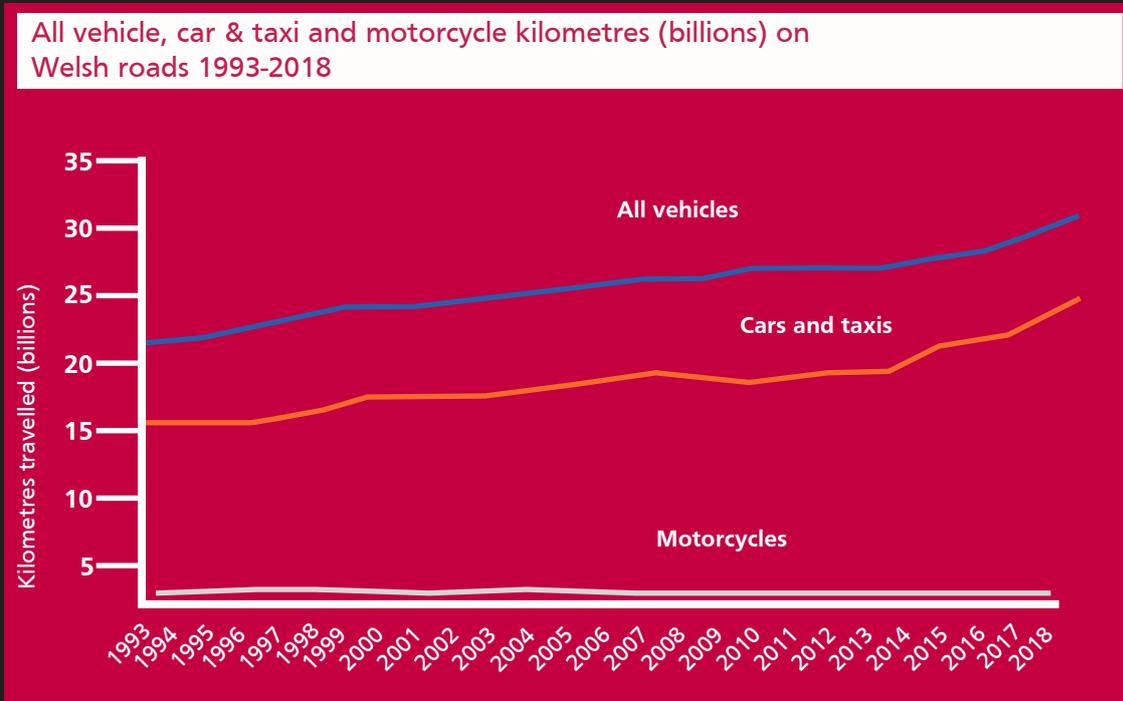
The number of journeys undertaken by local bus in Wales declined by 22% between 2008/9 and 2018/19. Despite this decline, recent years have seen a slight recovery in bus use, with the number of journeys rising by 2.2% between 2016/17 and 2018/19<sup>6</sup>.

### Rail

Up to Q3 2019-20 there had been continued growth in rail usage, although the rate of growth had slowed over the last couple of years. Growth in recent years has been driven by rail trips that both start and end in Wales rather than for rail trips to/from other parts of GB<sup>7</sup>.

### Private cars and motorcycles

Road traffic in Wales reached the highest ever recorded level in 2018, at 29.4 billion vehicle kilometres<sup>8</sup>. While traffic flow is dominated by the private car (78% of vehicle flow), the greatest percentage increase between 2017 and 2018 was for motorcycles which currently represent only 1% of vehicle flow<sup>9</sup>.



<sup>5</sup> 2018-19 National Survey for Wales

<sup>6</sup> StatsWales, Vehicle kilometres and passenger journeys on buses and coaches by year, <https://statswales.gov.wales/Catalogue/Transport/Roads/Public-Service-Vehicles/vehiclekilometresandpassengerjourneysonbusesandcoaches-by-year>. Original source: Public Service Vehicle Survey, Department for Transport

<sup>7</sup> Regional Rail Usage – 2018-19 Statistical Release, Office of Road and Rail, 2020 <https://dataportal.orr.gov.uk/media/1742/regional-rail-usage-2018-19.pdf>

<sup>8</sup> Road Traffic: 2018, Welsh Government, 2019 <https://gov.wales/road-traffic-2018.html>

<sup>9</sup> Road Traffic: 2018, Welsh Government, 2019 <https://gov.wales/road-traffic-2018.html>

## Mode share

Wales continues to have the highest proportion of people travelling to work by car (estimated at approximately 75-80%)<sup>10</sup> when compared to the different regions of England or Scotland. The proportions of people driving to work, walking or cycling to work, traveling by rail and using buses have remained relatively stable in Wales over the past 15 years<sup>11</sup>.

## Trip length and direction

Most personal trips in Wales are relatively short distance, averaging 8 miles<sup>12</sup>. Longer distance inter-regional journey patterns are dominated by east-west flows, particularly cross-border between Wales and England<sup>13</sup>.

## Freight

Total freight tonnage carried through ports in Wales and on the road network in Wales is in a general decline. However, total vehicle kilometres travelled by light goods vehicles is increasing<sup>14</sup>. Across Great Britain, the rail market share for freight carried has reduced from 12.5% in 2014 to 8.9% in 2018<sup>15</sup>.

**29.4 billion vehicle kilometres travelled on Welsh roads**

<sup>10</sup> Values vary depending on the survey data source used. The lower end estimate of 75% is from the National Survey for Wales 2019-20, while the upper end estimate is from Transport Statistics Great Britain TSG0108 Oct-Dec 2018. The National Survey for Wales results will also include those travelling to a place of study.

<sup>11</sup> Well-being of Wales 2018-19, Statistics for Wales, 2019 <https://gov.wales/well-being-wales-2019>. Original data source Transport Statistics Great Britain, Department for Transport

<sup>12</sup> Personal travel in Wales – 2012, Welsh Government, 2013 <https://gov.wales/sites/default/files/statistics-and-research/2019-01/personal-travel-2012.pdf>

<sup>13</sup> TfW analysis of mobile phone network data, sourced during March/April 2019

<sup>14</sup> DfT, Road traffic (vehicle kilometres) by vehicle type and region and country in Great Britain, annual 2019 – TRA0206

<sup>15</sup> Table 1350 – rail freight market share, ORR

## Active travel

Walking is undertaken much more frequently than cycling for journeys to or from a workplace or educational establishment, or to access health, leisure or other services or facilities. In 2019-20, 8% of adults cycled as a means of transport at least once a month, while 69% of adults walked for more than ten minutes as a means of transport at least once a month and 27% of adults walked for more than ten minutes as a means of transport every day<sup>16</sup>. The proportions of adults walking or cycling as a means of transport has been relatively stable over recent years.

There is variation between levels of active travel in urban and rural locations. 70% of people in urban areas walked for more than 10 minutes as a means of transport at least once a month, compared with 56% of people in rural areas<sup>17</sup>.

Demographic differences, across gender, age, level of qualification and health have also been identified. Men, younger people, those without limiting illness and those who have qualifications are more likely than others to cycle. Younger people, those without limiting illnesses, those with qualifications and people from urban areas were more likely than others to walk for more than 10 minutes to get to a destination<sup>18</sup>.

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<sup>16</sup> National Survey for Wales, Welsh Government 2019-20

<sup>17</sup> Walking and cycling in Wales: Active travel, 2018-19 – Statistical Bulletin, Welsh Government 2019

<sup>18</sup> Walking and cycling in Wales: Active travel, 2018-19 – Statistical Bulletin, Welsh Government 2019

# Bus travel

With 101.87 million journeys made by bus in Wales during 2018/19<sup>19</sup> and 31 million journeys made by rail (starting and/or ending in Wales) during the same period, more than three in every four public transport journeys in Wales are made by bus.

Local bus use in Wales has declined from 129.83 million journeys in 2008/9, a 22% reduction over 10 years<sup>20</sup>. Despite this decline, recent years have seen a slight recovery in bus use, rising from a low of 99.67 million journeys in 2016/17 (a 2.2% increase).

Since 2008/9, bus service availability has also declined from 125.3 million vehicle kilometres to 101.83 million vehicle kilometres in 2018/19 (a 19% reduction).

Following a similar pattern to passenger journeys, service availability has also recovered slightly from a low of 98.9

million vehicle kilometres in 2016/17 (a 3% increase)<sup>21</sup>.

Part of the reason for the overall decline in bus service availability is the 37% decline in subsidised services since 2008/09.

In July 2017, the Welsh Government introduced free weekend travel across the TrawsCymru longer distance bus network, with a subsequent increase in weekend patronage'. This growth has been sustained, as between July 2018 and December 2018, an additional 81,336 passengers travelled on TrawsCymru services which represented an increase of 32% at weekends, compared to the equivalent period in July to December 2017.

In 2018/19 the TrawsCymru network carried 2.54 million passengers, which is a 45% (792,872) increase on the previous year<sup>22</sup>.

<sup>19</sup> StatsWales, Vehicle kilometres and passenger journeys on buses and coaches by year, <https://statswales.gov.wales/Catalogue/Transport/Roads/Public-Service-Vehicles/vehiclekilometresandpassengerjourneysonbusesandcoaches-by-year>. Original source: Public Service Vehicle Survey, Department for Transport

<sup>20</sup> StatsWales, Vehicle kilometres and passenger journeys on buses and coaches by year, <https://statswales.gov.wales/Catalogue/Transport/Roads/Public-Service-Vehicles/vehiclekilometresandpassengerjourneysonbusesandcoaches-by-year>. Original source: Public Service Vehicle Survey, Department for Transport

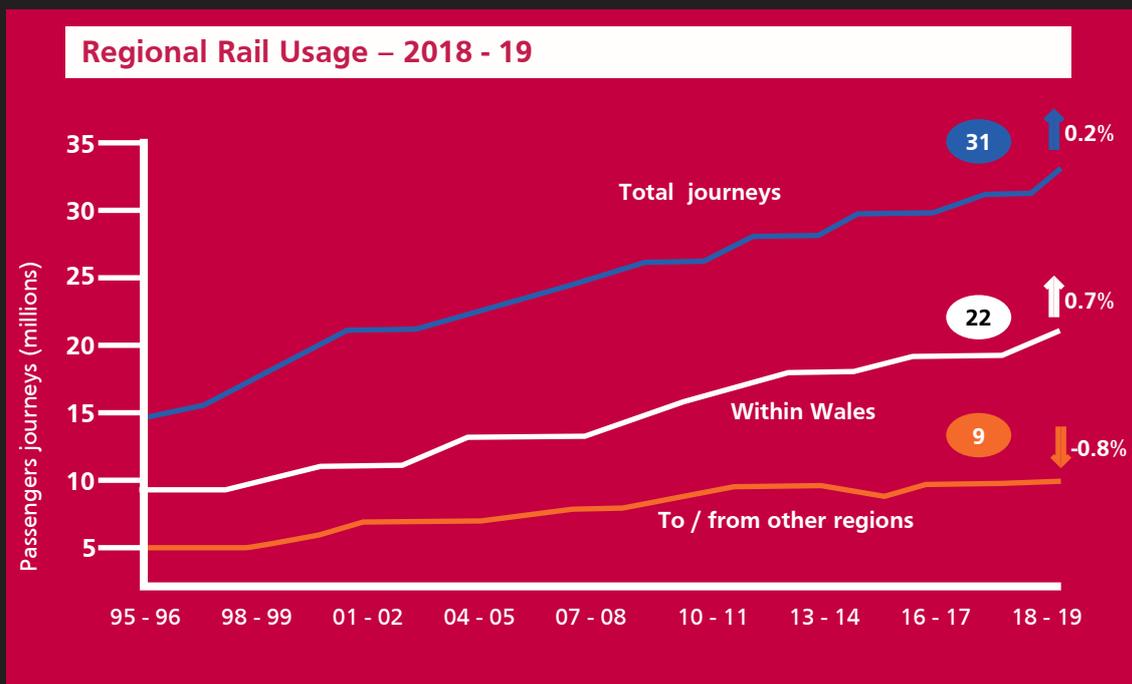
<sup>21</sup> StatsWales, Vehicle kilometres and passenger journeys on buses and coaches by year, <https://statswales.gov.wales/Catalogue/Transport/RoadsPublic-Service-Vehicles/vehiclekilometresandpassengerjourneysonbusesandcoaches-by-year>

<sup>22</sup> TrawsCymru Annual Report 2018-19, 2019 <https://gov.wales/sites/default/files/publications/2020-02/trawscymru-annual-report-2018-to-2019.pdf>

# Rail travel

There were 31 million rail passenger journeys starting and/or ending in Wales in 2018-19, an increase of 0.2% compared with the previous year<sup>23</sup>. The growth was due to the 0.7% increase in journeys that both start and end in Wales, whereas there was actually a decline of 0.8% in rail trips between Wales and other parts of Great Britain. Approximately 70% (22 million) of rail journeys in Wales in 2018-19 had both a start and end in Wales.

The 0.2% growth in rail passenger journeys starting and/or ending in Wales compares to a 3.0% growth in rail passenger journeys across the UK. However, Wales is the only GB region (as defined by the ORR) to have recorded a growth in rail journeys every year since the regional rail usage statistics were first published in 1995-96.



<sup>23</sup>Regional Rail Usage – 2018-19 Statistical Release, Office of Road and Rail, 2020 <https://dataportal.orr.gov.uk/media/1742/regional-rail-usage-2018-19.pdf>

# Private cars and motorcycles

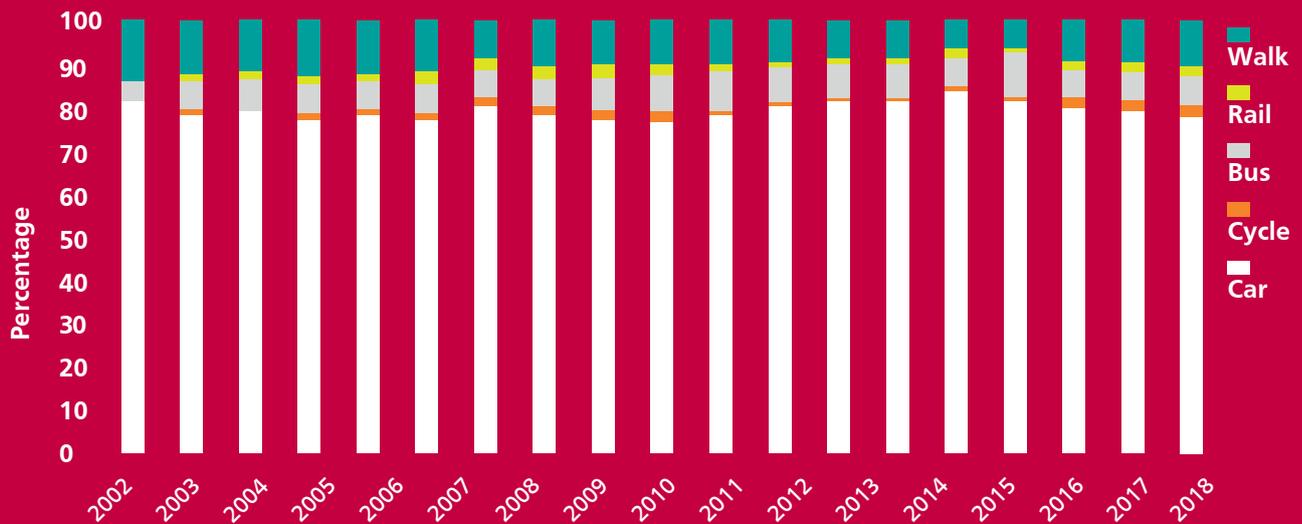
Private car remains the dominant mode of travel and accounts for the overwhelming majority of journeys in Wales. When combining data from 2011 and 2012, private cars account for 69% of all trips, and 84% of distance covered in a year<sup>25</sup>.

It is estimated that 75-80% of commuters in Wales use a car as their usual method of travel<sup>26</sup>.

Wales has the highest proportion of people travelling to work by car (80%) when compared to the regions of England and Scotland and the Great Britain average of 68%<sup>27</sup>.

While the total volume of traffic on the road network in Wales is dominated by private cars (78% of vehicle flow), in percentage terms the greatest increase has been for motorcycles with 18% growth between 2017 and 2018. However, motorcycles represent only 1% of vehicle flow on the road network.

Mode share (%) for journeys to work



Percentage change in traffic volume by type of vehicle between 2017 and 2018



<sup>25</sup>Personal travel in Wales – 2012, Welsh Government, 2013 <https://gov.wales/sites/default/files/statistics-and-research/2019-01/personal-travel-2012.pdf>

<sup>26</sup>Values vary depending on the survey data source used. The lower end estimate of 75% is from the National Survey for Wales 2019-20, while the upper end estimate is from Transport Statistics Great Britain 2 TSGB0108 Oct-Dec 2018. The National Survey for Wales results will also include those travelling to a place of study.

<sup>27</sup>DfT Transport Statistics Great Britain 2019: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_datafile/870647/tsgb-2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_datafile/870647/tsgb-2019.pdf)

# Trip length and direction

An average one-way personal trip in Wales, where someone is travelling to reach a specific destination, covers 8 miles (in 2012). The average car journey is 9 miles and the average trip by local bus is 6 miles. A typical walking trip is less than a mile<sup>28</sup>.

For journeys to work in 2019-20, 12% are less than one mile, 20% between one and three miles, 44% between 3 and 15 miles, and 24% are more than 15 miles<sup>29</sup>.

The relatively short distance nature of most trips is backed up by more recent analyses of mobile phone network data, sourced during March/April 2019. The mobile network data indicates that 77% of journeys made in Wales in the morning peak period (07:00-10:00) remain within the same region (North, Mid, South West and South East Wales). The remaining 23% of journeys are generally longer inter-regional journeys between different Welsh regions, or between England and Wales<sup>30</sup>. Overall, the pattern of inter-regional flows is dominated by east-west movements.

From the 2019 mobile network data it is estimated that there are 680,000 inter-regional journeys within or partly within Wales over a 24-hour weekday period. Out of these, approximately 75% (510,000 journeys) are cross-border between England and Wales (both directions)<sup>31</sup>.

More journeys occur from Wales to England than from England into Wales in the morning peak period (07:00-10:00).

This is due to an imbalance in commuting flows, with more out-commuting from Wales than in-commuting to Wales.

The following key points have been identified from the mobile network data covering the morning peak period (07:00-10:00):

- The largest inter-regional flow of journeys is between North Wales and North West England (30% of all inter-regional journeys if both directions are combined)
- Cross-border journeys starting in North Wales are more than 20 times greater in number than the inter-regional journeys that take place from North Wales to other regions of Wales
- The number of cross-border journeys starting in South East Wales is 70% higher than the number of inter-regional journeys that take place from South East Wales to other regions of Wales
- For inter-regional journeys starting in Mid Wales, the number crossing the Wales/England border is approximately equal to the number travelling to other regions of Wales
- The largest inter-regional flows entirely within Wales are between South East Wales and South West Wales, with at least 10,000 journeys in either direction during the morning peak period

<sup>28</sup> Personal travel in Wales – 2012, Welsh Government, 2013 <https://gov.wales/sites/default/files/statistics-and-research/2019-01/personal-travel-2012.pdf>

<sup>29</sup> National Survey for Wales, Welsh Government 2019-20

<sup>30</sup> Analysis of 2019 mobile phone network data undertaken by Transport for Wales, June 2020

<sup>31</sup> Trips between two Welsh regions which pass through England as part of their route are not counted as cross-border trips in this analysis. They are instead accounted for as trips remaining in Wales.

# Freight trends

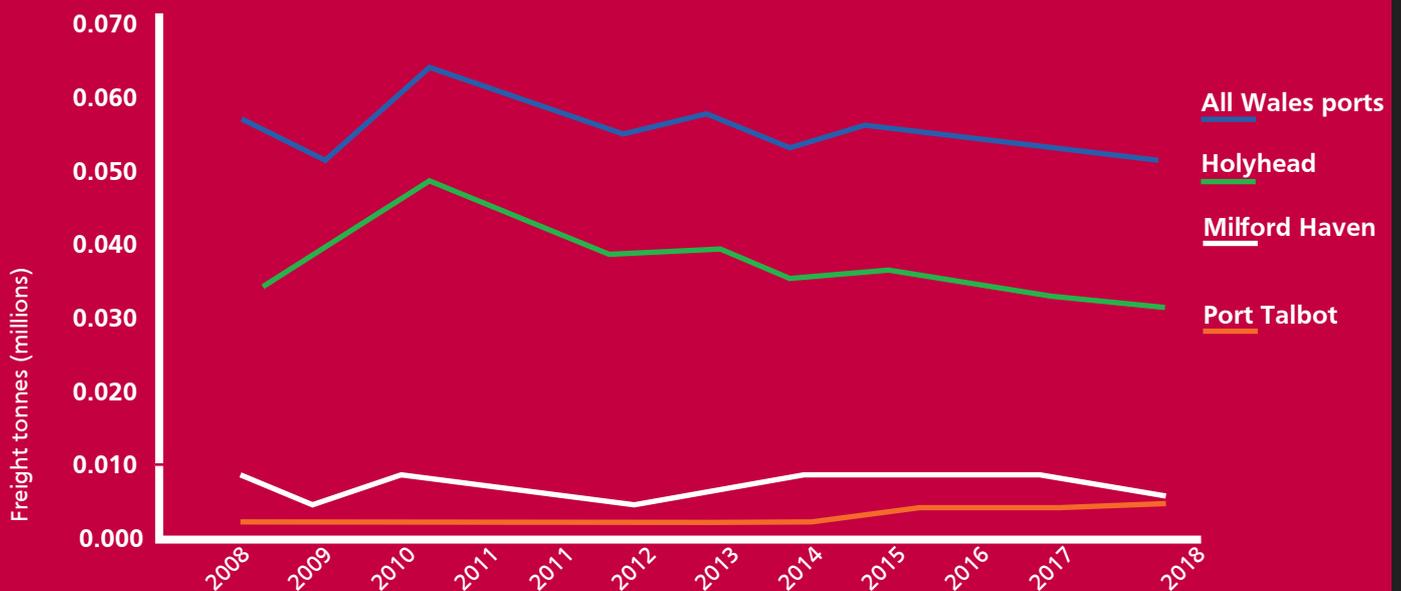
Total freight traffic at ports in Wales fell by 4.8% in 2018 to 49.2 million tonnes – its lowest level since comparable records began in 1976. The three largest ports in Wales that meet specialist shipping needs are Milford Haven (crude oil, oil products and liquefied natural gas), Port Talbot (imports iron ore and coal mostly for the adjacent steel works) and Holyhead which is the main port for freight and sea passenger transport with the Irish Republic<sup>32</sup>.

The total volume of domestic freight being carried by road has also been in general decline. In 2019 there were 6,491 million tonne kilometres carried by road haulage in Wales, which represents an 8% decrease since 2008. Although the 2019 value is an increase of 22% since the lowest recorded level in 2014 (5,327 million tonne kilometres)<sup>33</sup>.

While the largest freight volumes on the road network are carried by heavy goods vehicles, light goods vehicle distances are increasing rapidly. The distance travelled by light goods vehicles in Wales increased by 100 million kilometres (1.9%) in 2019 compared to 2018. Since 2008 there has been a 38% increase (1.5 billion kilometres) in the distance travelled by light goods vehicles in Wales<sup>34</sup>.

At present there are no specific statistics available for rail freight in Wales, as these are currently collated at the GB level. In GB, the total volume of rail freight moved dropped to 16.6 billion net tonne kilometres in the financial year 2019-20, the lowest for 23 years and a 5% decrease from the total in 2018-19. In 2018, 9% (17.2 billion net tonne kilometres) of all freight moved in GB was by rail. The rail freight market share in GB peaked at 12.5% in 2014 and has gradually declined since<sup>35</sup>.

Tonnes of freight moved through ports in Wales 2008-2018



<sup>32</sup> <https://gov.wales/sites/default/files/statistics-and-research/2020-05/summary-statistics-regions-wales-2020-629.pdf>

<sup>33</sup> DfT, Road freight statistics 2019 (Table RFS0121)

<sup>34</sup> DfT, Road traffic (vehicle kilometres) by vehicle type and region and country in Great Britain, annual 2019 – TRA0206

<sup>35</sup> Freight Rail Usage and Performance 2019-20 Q4 Statistical Release, ORR

<sup>36</sup> Table 1350 – rail freight market share, ORR

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# Travel Patterns

THIS CONTAINER HAS BEEN DESIGNED AND TESTED FOR 40,000 KG (88,000 LB) MAXIMUM GROSS WEIGHT AND 30,480 KG (67,200 LB) MAXIMUM GROSS WEIGHT FOR TRACKING (MOW) 24,000 KGS (52,910 LBS)

ATTENTION  
THIS CONTAINER  
MUST BE REPAIRED  
ONLY  
WITH  
CORTEN  
STEEL



APPROVED FOR EXPORT UNDER CUSTOMS SEAL  
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Total freight traffic at ports in Wales fell by 4.8% in 2018 to 49.2 million tonnes

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# Impact of Covid 19 on travel demand

Before Covid-19, as evidenced throughout this chapter, private car use was growing, public transport use was broadly stable, and there was a growth in light goods vehicle traffic. Active travel (walking and cycling) was increasing in only a small number of places as a result of specific interventions such as shared bikes, remaining stable at a national level<sup>37</sup>.

The initial impact of Covid-19 certainly changed travel behaviour in the short term:

- Sectors of society that have been able to work at home have reduced their commuting substantially, with a direct impact on public transport and car travel both of which reduced in volume during the summer of 2020<sup>37</sup>.
- Those needing to travel generally preferred to walk, cycle or remain in their own cars, rather than use public transport and shared public spaces.
- As people were unable to visit shops, light goods vehicle traffic increased in line with the growth in online shopping.
- With restrictions on other forms of exercise (such as gyms and team sports), people have been walking more locally.
- Reduced traffic flows meant that some people turned to cycling.

At the deepest point of lockdown on average across the UK public transport dropped by 87% from normal usage,

walking and cycling by 83% and car trips by 81%. Freight dropped by 78%<sup>38</sup>.

Although it is too soon to understand the medium to long term impact of Covid-19 on transport in Wales, some significant changes in travel patterns were observed following the nationwide lockdown. Private car use rebounded rapidly and in July 2020 road traffic was back to 80% of the pre-pandemic level, whereas public transport use remained at 30% of the earlier levels. At that date rail footfall in Wales was at around 12-15% of pre-Covid levels<sup>40</sup>.

There have also been changes in travel patterns, with a move away from the pre-Covid twin peaks of congestion during weekdays, with more evenly spread public transport and road use throughout the day<sup>41</sup>.

There is also emerging evidence of expected longer term changes, particularly reducing the need to commute to work by instead working from home.

The nationwide lockdown led to temporary benefits to the environment including significant improvements in air quality. From 16th March 2020 (the start of recommended social distancing) to 31st May 2020 it is estimated that Nitrogen oxides (NOx) and Nitrogen dioxide (NO2) concentrations decreased on average by 49% and 36% respectively<sup>42</sup>, compared with what would normally be expected at roadside sites, with smaller reductions at urban background sites.

<sup>37</sup> RoyalHaskoning DHV, The Impacts of Covid-19 on Travel Patterns in the UK – Third Phase research findings

<sup>38</sup> RoyalHaskoning DHV, The Impacts of Covid-19 on Travel Patterns in the UK – Third Phase research findings

<sup>39</sup> RoyalHaskoning DHV, The Impacts of Covid-19 on Travel Patterns in the UK – Third Phase research findings

<sup>40</sup> Information provided by Transport for Wales from station gateline passenger counts

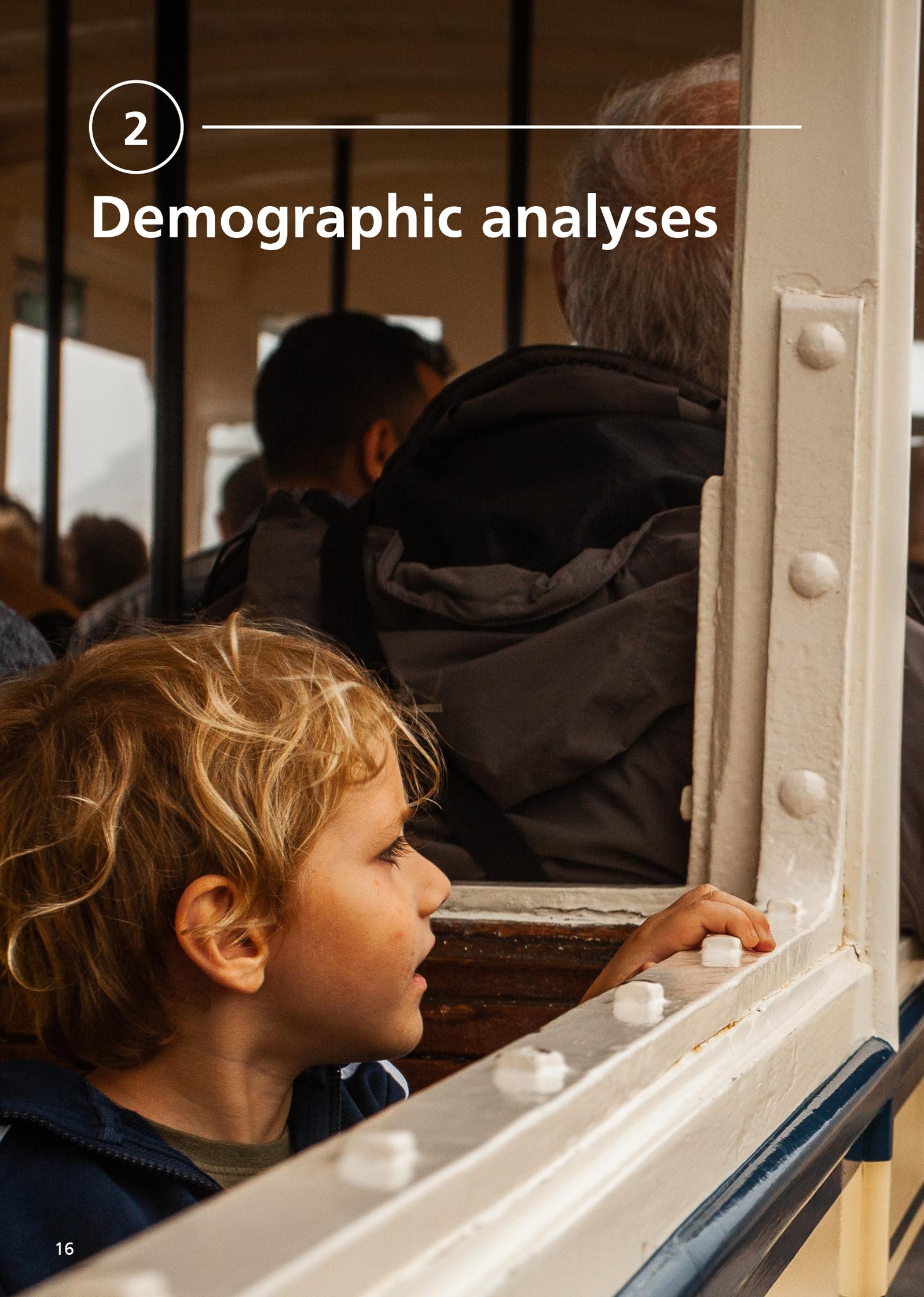
<sup>41</sup> O2 station insights data provided to Transport for Wales

<sup>42</sup> Provisional Analysis of Welsh Air Quality Monitoring Data – Impacts of Covid-19, Report for Welsh Government by Ricardo Energy & Environment, June 2020

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# Demographic analyses



## Concessionary travel

The Welsh Government funds the cost of retaining and analysing the data collected on mandatory concessionary fare usage, which is held by a third party on behalf of all 22 local authorities. Information gathered on pass usage suggests that around two thirds of passes issued each year are being used, with the rest retained “just in case” they are required<sup>43</sup>.

There are approximately 600,000 active concessionary cards as at end March 2020). All bus concessionary travel cardholders had to re-apply for concessionary travel cards before 31st December 2019 when the previous generation ITSO smartcards expired. This reapplication process led to a reduction in the overall number of active cards as some of the previous cardholders did not reapply<sup>44</sup>.

Over the next 20 years, the percentage of people aged over 60 in Wales is set to increase from around 27% of the entire population in 2018 to around 32% in 2038. The population aged over 75 in Wales is also projected to increase from 9% of the population in 2018 to around 14% in 2038. On this basis, if the current age of eligibility for free bus travel is maintained at 60 years of age, it is expected the number of older people eligible for free bus travel by 2021 will be about 881,000 people, rising to a little more than a million people by 2030<sup>45</sup>.

Based on survey data from 2015 to 2017 it is estimated that 21% of the population in Wales has some form of disability, which is broadly in line with other parts of the UK<sup>46</sup>. The registers of people with physical or sensory disabilities maintained by local authorities include all persons registered under Section 18 of the Social Services and Well-being (Wales) Act 2014. Registration is voluntary and figures will therefore be an underestimate of the numbers of people with physical or sensory disabilities. As at 31st March 2019, there were 13,507 people on the register of people with learning disabilities, of whom 85% were living in community placements and 15% were in residential establishments. There were 52,295 people on registers of people with physical or sensory disabilities. Of these 54% were registered as having a physical disability only<sup>47</sup>.

About 55,000 concessionary passes have been issued to disabled people across Wales, with a further 21,000 disabled and companion passes issued. A further 2,000 passes have been issued to blind people and people with loss of sight. Whilst concessionary passes issued to passengers who are disabled accounts for about 10% of passes issued, the proportion of journeys undertaken by disabled people and disabled people with a companion accounts for 25% of the total number of free bus journeys made in Wales.

<sup>43</sup> 2017 Consultation on Mandatory Concessionary Fares Scheme in Wales

<sup>44</sup> Figures provided by TfW (21/09/2020)

<sup>45</sup> 2016-based national population projections for Wales, 2018-204 (https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/National/2018-based/populationprojections-by-year-age)

<sup>46</sup> StatsWales, Disability Status by Region. Original source ONS, Annual Population Survey.

<sup>47</sup> Local authority registers of disabled people, 31 March 2019 – SFR 105/2019, Welsh Government

## Young people

Mytravelpass is a scheme funded by Welsh Government to provide discounted bus fares to young people. It provides people in Wales aged 16 to 21 with around a third off their bus fare.

During 2017-18 there were an estimated 1,343,659 discounted journeys made with a cumulative total of 26,181 passes in circulation as of 30 September 2018<sup>48</sup>.

## Children and school travel

During 2018/19, 34% of children in Wales aged 11 to 16 walked or cycled to secondary school at least some of the time, with those from less affluent families more likely to walk or cycle. This percentage has remained largely unchanged for four years. Similarly, the proportions of secondary school children travelling by car and by school bus have remained steady at approximately one third each<sup>49</sup>.

At primary school level the percentage walking or cycling at least some of the time was slightly higher, at 44% during 2018/19. However, 55% of primary school children travelled by car at least some of the time. The proportion of primary school children travelling by school bus some of the time is considerably lower than for secondary school (6%).

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<sup>48</sup>The Welsh Government's youth discounted bus fare scheme, Welsh Audit Office – 'MyTravelPass' (<https://www.audit.wales/system/files/publications/MyTravelPass-English.pdf>)

<sup>49</sup>Walking and cycling in Wales: Active travel, 2018-19 – Statistical Bulletin, Welsh Government 2019

## Home location

Where people live has an impact on their access to the transport system. While access to the road network is universal for those who have use of a car, access to public transport networks is primarily dependent on home location. Bus network coverage is much greater than the rail network, although for both bus and rail significant regional variations exist.

Just 13% of people in Wales live less than 800m distance (by walking route) from a rail station with at least one train per hour. This varies by region, from a fifth of the population in South East Wales to just 1% in Mid Wales<sup>50</sup>.

70% of the population in Wales live less than a 400m walk from a bus stop with at least one bus per hour. This varies from 81% of people in South East Wales to just over a quarter in Mid Wales<sup>51</sup>.

Between October and December 2018, 48% of employees in Wales travelled to work in less than 20 minutes, and 83% in less than 40 minutes<sup>52</sup>.

## Car ownership and availability

Car ownership and availability is covered as part of the UK national census. From the 2011 census, it was estimated that 298,519 (23%) of households in Wales did not own or have access to a car or van, 559,866 (43%) had one car or van, and 444,291 (34%) had at least two cars or vans<sup>53</sup>.

Estimates from the National Survey for Wales suggest that the proportion of households without access to a car or van has fallen steadily since the 2011 census:

- 21% of households in Wales did not have access to a car (for activities such as visiting local shops or going to the doctor) in 2013/14
- 15% of households in Wales did not normally have a car available for use in 2017/18, falling to 14% in 2018/19 then 13% in 2019/20

<sup>50</sup>Analysis undertaken by Transport for Wales, 2019

<sup>51</sup>Analysis undertaken by Transport for Wales, 2019

<sup>52</sup>Time taken to travel to work by region of workplace: Great Britain, October to December 2018 (TSGB0110)

<sup>53</sup>QS416EW - Car or van availability (census 2011) – ONS nomis official labour market statistics

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**Estimates from the National Survey for Wales suggest that the proportion of households without access to a car or van has fallen steadily since 2011**

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# Transport network performance

# Capacity

When demand for the transport system exceeds available capacity then this is typically identified by overcrowding on rail and bus networks (sometimes with people left on platforms or at bus stops) or congestion and delay on the road network.

## Rail

During 2019 overcrowding on trains continued to occur frequently across Wales, particularly on the peak period journeys into and out of Cardiff but also during weekends and holiday periods along the North Wales coast and on the Marches line.

On weekdays the most significant overcrowding was recorded by Transport for Wales onboard counts on the Core Valley Lines and Vale of Glamorgan routes between Cardiff and Barry/Caerphilly/Pontypridd.

Rail passengers boarding at stations within and close to Cardiff are more frequently affected by overcrowding issues than other passengers in Wales, on many occasions meaning that it is not possible to board their intended train at Cardiff Central / Queen Street; Cathays; Cogan; Eastbrook; Grangetown; Heath High/Low Level; Llandaf; Llanishen; Pontyclun.

## Bus

At present there is no consistent approach to measuring overcrowding on bus routes in Wales.

## Road

There are several locations on the road network where demand regularly exceeds the available capacity during peak periods. According to INRIX GPS-based analysis of journey times and delays on the road network, the most significant road congestion in Wales is focused on three areas in the south of the country and predominantly during the morning or evening peak periods:

- M4 around Newport
- M4 near Port Talbot
- Periphery of Cardiff

The following five locations (in priority order) were shown to be the most severely affected by congestion on weekdays (Monday to Friday) during November 2019 and January 2020<sup>54</sup>:

- M4 westbound for 5 miles approaching the Brynglas Tunnels.
- A4232 NW-bound for 4 miles approaching the M4 at Cardiff West.
- M4 westbound for 3.5 miles approaching Baglan (M4 J41).
- A470 northbound for 4 miles approaching Nantgarw.
- A470 southbound for 4.5 miles approaching the northern edge of Cardiff.

The significance of the locations identified is that these are all on the Strategic Road Network and on, or immediately connected to, the M4 corridor. Congestion on these routes will have wide-reaching reliability impacts across a range of local and longer distance journeys, including freight movement.

<sup>54</sup>The INRIX analysis is based on the average duration of the congestion, the average length of road affected and the number of days on which the congestion occurs. This creates a combined 'impact factor' allowing different sections of road to be ranked

# Punctuality and reliability

## Bus

During 2019/20, Bus Users Cymru conducted a large-scale bus service punctuality monitoring programme across Wales<sup>55</sup>. Average service punctuality (defined as buses departing a timing point no more than 1 minute early or 5 minutes late) was:

- 81% in North Wales
- 79% in South East Wales
- 90% in South West Wales

## Rail

Rail service punctuality across the Wales and Borders area (with services operated by Arriva Trains Wales until October 2018 and then Transport for Wales after this date) has remained broadly stable over the last five years (Q1 2015 to Q1 2020 inclusive)<sup>56</sup>:

- Approximately 60% of trains arrive within 1 minute of their scheduled time
- Approximately 80% of trains arrive within 3 minutes of their scheduled time

There is a consistent pattern each year with rail services operating at a lower level of punctuality, typically by 5 percentage points, during the October to December period. This is due to autumnal weather conditions which are typically the most challenging for rail services. Wales and Borders rail service punctuality is similar to the Great Britain average.

Over the same five-year period, rail service cancellations across Wales and Borders has increased slightly. Rail service cancellations ranged from 1.3% to 2.1% during each quarter in 2015/16, increasing gradually to range from 1.6% to 2.4% during each quarter in 2018/19. The highest number of service cancellations tends to occur during the October to December period each year. Wales and Borders rail service cancellations are slightly better (lower) than the Great Britain average.

Rail service delays are caused by a variety of issues, with delays during the April 2018 to March 2019 period attributed most commonly to rolling stock issues (34%), network management (13%), non-track assets (12%), train crew availability (11%), severe weather (6%), and station-related issues (5%)<sup>57</sup>.

The proportion of delays attributed to the rolling stock has increased from just over 20% in 2016/17 to 34% in 2018/19.

The most common severe weather events that lead to rail service delays relate to high winds, followed by flooding.

<sup>55</sup> Bus Users Annual Report for Wales 2019/20, available at <https://bususers.org/operators/resources/>

<sup>56</sup> <https://dataportal.orr.gov.uk/statistics/performance/passenger-rail-performance/>

<sup>57</sup> Information provided by Transport for Wales

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## Transport network performance

### Road

Average vehicle speeds at a regional level (as a proxy for traffic congestion) have been calculated based on all available INRIX speed data for all road types for weekdays during September and October over the last five years (2015 to 2019 inclusive).

The following conclusions can be drawn:

- Average vehicle speeds across all regions of Wales are typically higher, and demonstrate greater variation, at night.
- Clear evidence of peak periods in both South East and South West Wales, with average vehicle speeds reaching their lowest at 08:30 and 17:30.
- Average vehicle speed variations during the day are less noticeable in Mid and North Wales.
- Average vehicle speeds have reduced in North, South East and South West Wales over the five-year period 2015-2019, but not in Mid Wales.

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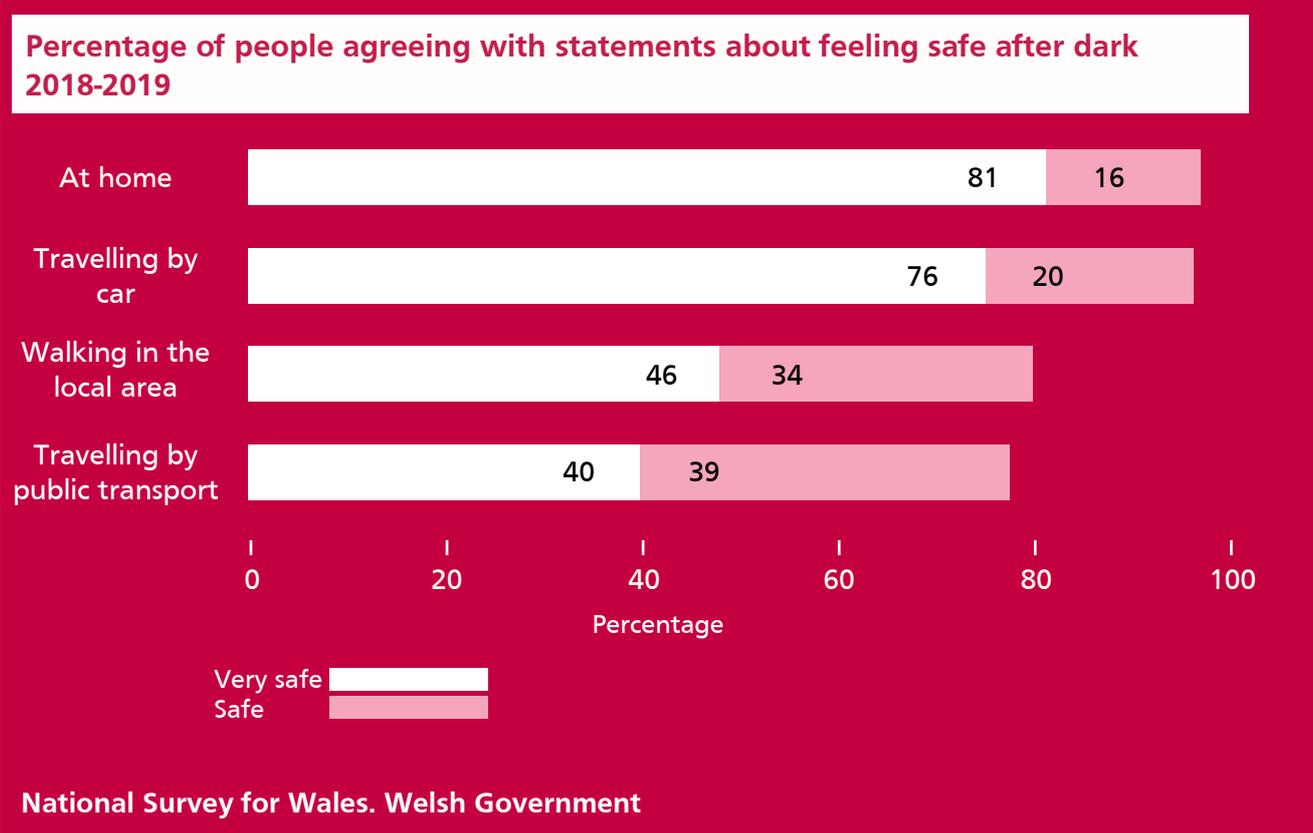
Transport network performance

# Safety

When people are travelling they should be able to do so without the fear or threat of crime. Even though Wales has fewer recorded crimes than any region in England<sup>58</sup>, 20% of people in Wales do not feel safe walking in the local area or using public transport after dark<sup>59</sup>.

During 2018-19 there were 1,546 notifiable offences on Welsh railways, an increase of 13.3% (182 offences) from 2017-18.

Since 2012-13, the number of offences has fluctuated year on year from a low of 1,172 in 2014-15 to 1,546 in 2018-19. The largest categories of recorded offences were public order (364), violence against the person (359) and theft of passenger property (173), which accounted for 58%<sup>60</sup>.



<sup>58</sup>Crime in England and Wales, Office of National Statistics, 2019

<sup>59</sup>Well-being of Wales 2018-19, Statistics for Wales, 2019

<sup>60</sup>StatsWales, <https://statswales.gov.wales/Catalogue/Transport/rail/rail-transport/recordednotifiablecrimeoroffencesontherailnetwork-by-type-year>

In 2019, there were nine fatalities on the rail network in Wales, five of which were suicides. There have been between five and 11 suicides annually for each of the past five years, and between one and three fatalities resulting from other causes. Suicides have accounted for the majority of rail fatalities in recent years and this represents a change from the period up to 2012, when there were fewer suicides and more non-suicide fatalities<sup>61</sup>.

Cars, taxis and buses represented 79% of vehicle kilometres travelled on the Welsh road network in 2018, but in 2019 accounted for proportionally fewer casualties (65%). Pedal cyclists and motorcycle users accounted for just 2% of traffic volume but 17% of all casualties and 32% of those killed or seriously injured. Pedestrians and cyclists continue to be more likely to suffer serious injury as a result of an accident relative to other road users<sup>62</sup>.

There has been a long-term fall in personal injury road accidents recorded by police forces in Wales. In 2019, police forces in Wales recorded 4,330 road accidents involving personal injury, 108 more (2.6% higher) than in 2018. Although this represents a small increase this year, over the longer term, accidents have fallen substantially. In recent years the number of accidents resulting in fatalities or serious injury has been relatively stable, with the overall decline in accidents accounted for by a continued fall in 'slight' injury accidents<sup>64</sup>.

The number of children under 16 who were killed or seriously injured in 2019 was similar to the previous year. There were 232 young people (aged 16-24) killed or seriously injured in 2019, 41% lower than the averages from 2004-2008. There were 137 killed or seriously injured casualties aged 70+ in 2019, which was 5% lower than 2018<sup>65</sup>.

<sup>61</sup>Rail Transport, April 2017 to March 2018, Welsh Government, 2019 <https://gov.wales/sites/default/files/statistics-and-research/2019-04/rail-transport-april-2017-to-march-2018-824.pdf>

<sup>62</sup>StatsWales Road Accident data by mode (2019): <https://statswales.gov.wales/Catalogue/Transport/rail/rail-transport/railfatalities-by-yearRoad-Accidents/accidents/allroadaccidents-by-area-year>

<sup>63</sup> Recorded road accidents by area and year (<https://statswales.gov.wales/Catalogue/Transport/Roads/Road-Accidents/accidents/allroadaccidents-by-area-year>)

<sup>64</sup>Police recorded road accidents, 2018 – Revised, Welsh Government, 2019 <https://gov.wales/sites/default/files/statistics-and-research/2019-09/police-recorded-road-accidents-2018-990.pdf>

<sup>65</sup>Police recorded road accidents, Welsh Government, 2020 (<https://gov.wales/police-recorded-road-accidents-interactive-dashboard>)

## Customer satisfaction

In 2019, 83% of UK regional rail passengers (excluding London and long distance journeys) were satisfied with their journey overall. For Transport for Wales customers, satisfaction was similar to the national regional average, with 82% satisfied with their journey. There is some variation in rail user satisfaction levels across Wales, with those using services around Cardiff and the Valleys generally less satisfied (77%)<sup>66</sup>. Satisfaction levels are largely unchanged since 2018.

According to the results of the National Survey for Wales 2019/20, 44% of respondents were satisfied with the reliability of their local bus service, 14% were dissatisfied and 32% responded with 'Don't Know'<sup>67</sup>.

## Infrastructure

The road network is one of Wales' most valuable assets in terms of monetary value, worth an estimated £13.5 billion<sup>68</sup>. There is a maintenance backlog of around £0.5bn because the level of investment has not kept up with the amount of deterioration<sup>69</sup>. Both strategic and local roads face considerable maintenance backlogs and need significant investment to ensure they are appropriately maintained.

In 2018, motorway and trunk roads make up less than 5% of the total road length in Wales, but they account for over 38% of the total volume of traffic<sup>70</sup>.

In 2018-19, 6.4% of the motorway network and 2.8% of the trunk road network required close monitoring (as a result of maintenance related issues), compared to 4.9% and 1.8% respectively in 2017-18.

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<sup>66</sup>National Rail Passenger Survey, Transport Focus, 2019 – Main Report Autumn 2019

<sup>67</sup>National Survey for Wales 2019-20.

<sup>68</sup>The State of Roads in Wales, National Assembly for Wales Economy, Infrastructure and Skills Committee, 2018

<sup>69</sup>Data provided by WG's Network Management Division (October 2020)

<sup>70</sup>Road Traffic: 2018, <https://gov.wales/road-traffic-2018-html>

<sup>71</sup>Road lengths and conditions, 2018-19: revised, Welsh Government, 2019

<sup>72</sup>Note that the often-quoted figure of 248 stations is for the Wales and Borders area, which includes 26 stations in England.

The condition of the local road network is notably worse than the trunk roads and motorways. During 2018-19, 4% of A county roads, 5% of B roads and 14% of C roads were considered to be in poor condition<sup>71</sup>.

The majority of the rail infrastructure in Wales is under the ownership of Network Rail and the UK government, with the major exception of the Core Valleys Lines in South Wales where ownership passed to the Welsh Government on 28th March 2020. There are 222 rail stations in Wales, 56 of which (25%) are on the Core Valleys Lines and are therefore now under Welsh Government ownership.

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<sup>71</sup>Road lengths and conditions, 2018-19: revised, Welsh Government, 2019

<sup>72</sup>Note that the often-quoted figure of 248 stations is for the Wales and Borders area, which includes 26 stations in England.



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