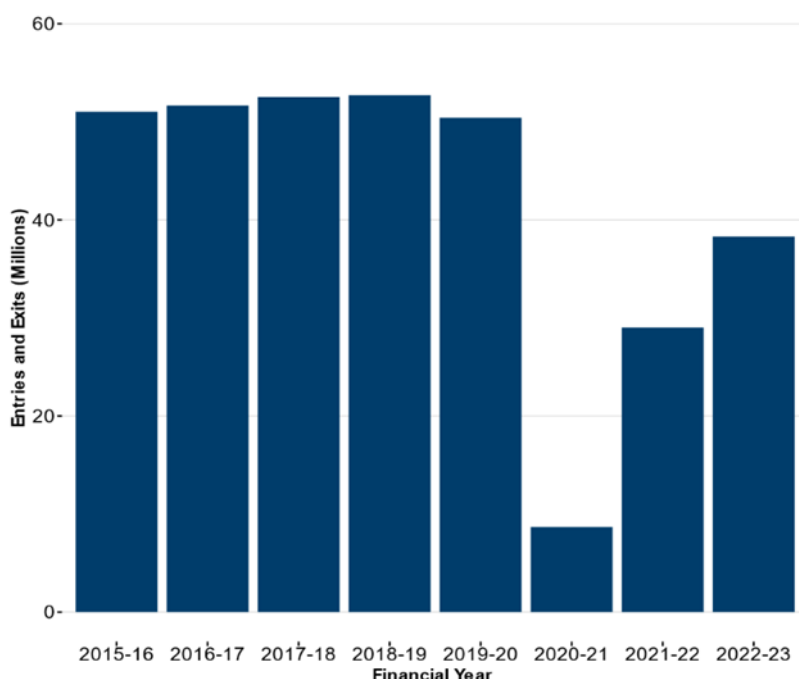# Rail station usage in Wales, 2022-23

Key Points

Rail station usage in 2022-23 increased by 31.9% to 38.3 million from 29.0 million in the previous year (2021-22). While overall rail station usage levels increased compared to 2021, they have not yet returned to levels seen before the COVID-19 pandemic where 50.4 million entry and exits were recorded during 2019-20.

- The total number of station entries and exits (the number of people travelling to or from a station) in Wales increased between 2021-22 and 2022-23 (from 29.0 million to 38.3 million).

- Rail station usage remained below pre-pandemic levels, with usage in 2022-23 24.0% lower than in 2019-20.

- In 2022-23, 218 rail stations reported an increase in station entries and exits across Wales compared to the previous year. 5 stations reported a decrease.

- Cardiff Central was the busiest station in Wales accounting for over a quarter of all station entries and exits in 2022-23 (Figure 2).

- Rail station usage in Wales accounts for around 1.6% of the United Kingdom total.

This annual publication presents the most recent recorded station entries and exits statistics for the period 1 April 2022 to 31 March 2023.

About this bulletin

This bulletin reports on the usage of rail stations in Wales. Information covers stations in Wales from 2006-07 to 2022-23 and the UK for 2022-23. The bulletin is based on the annual station usage report published by the Office of Rail and Road (ORR). This report includes a spreadsheet which gives estimated station entries and station exits based on ticket sales for each station on the UK rail network.

Figure 1: Station entries and exits in Wales, 2015-16 to 2022-23

In this bulletin

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Description of figure 1: Bar chart showing levels of station entries and exits by financial year from 2015-16 to 2022-23. In 2022-23, there was an increase in the number of entries and exits compared to the previous year.

Source: Welsh Government analysis of ORR estimates of station usage data

Complete data on rail station exits and entry time series for each line and station in Wales highlighted below can be accessed through our Rail Station Usage Dashboard or data tables published on our StatsWales

Impact of COVID-19 on rail station usage

Rail station usage in 2020-21 (1 April 2020 to 31 March 2021) was significantly affected by the coronavirus (COVID-19) pandemic. Any comparisons of data with 2020-21 should therefore be treated with caution.

Trends in Wales and the UK

Rail station usage in Wales accounted for 1.6% of the UK total in 2022-23. This proportion has been stable in recent years and shows that rail travel is less prevalent in Wales than across the UK in general, with Wales accounting around 4.6% of the UK population on average per year.

The number of rail stations changes very little from year to year. Since 2013-14 the number of stations in Wales increased by 4 to 223 and in the UK increased by 1 in 2022-23 to 2,649.
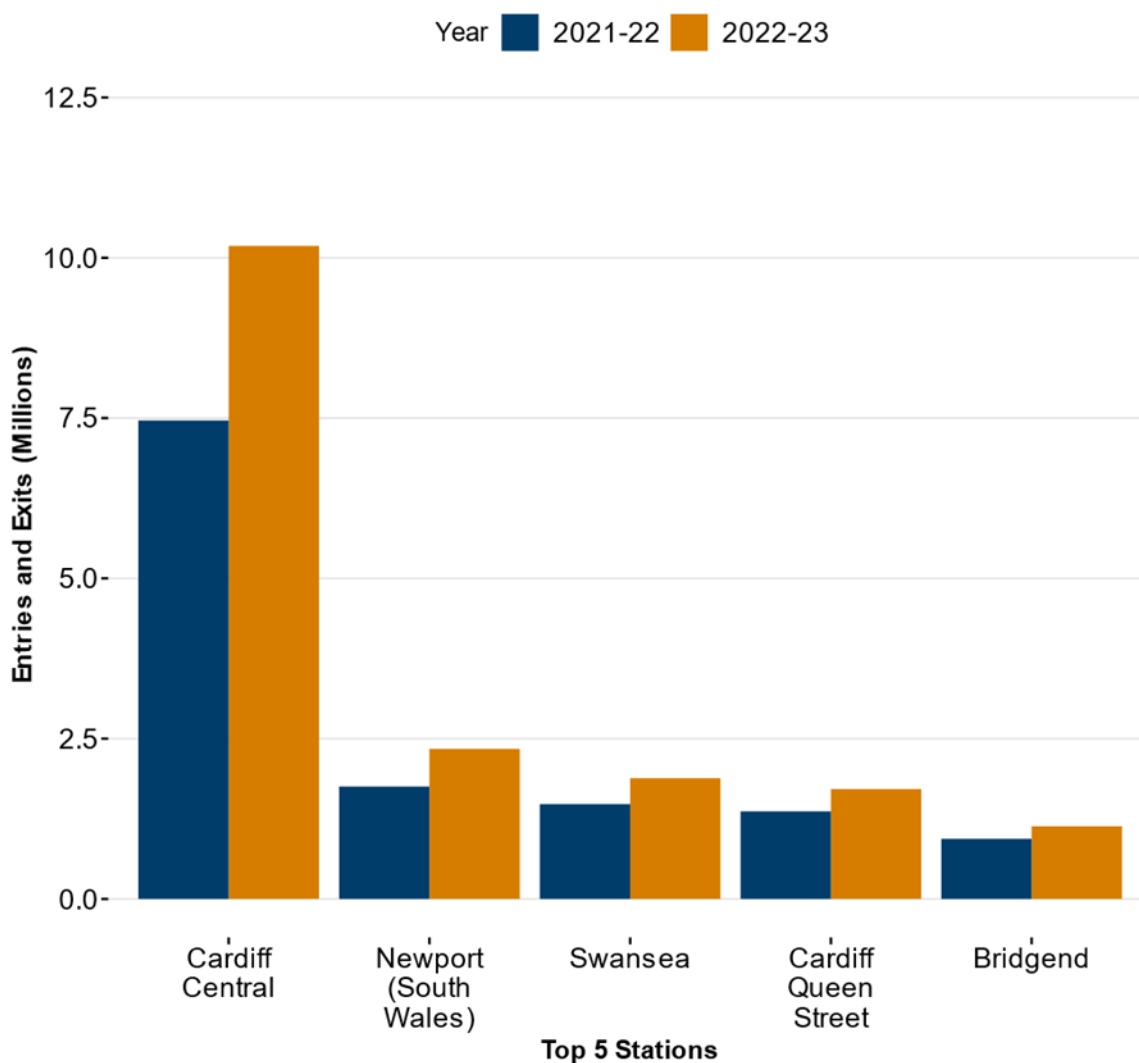
Busiest stations in Wales

Rail station usage in 2022-23 (1st April 2022 to 31st March 2023) increased to 38.3 million from 29 million in the previous year (2021-22). However, compared to pre-pandemic period (2019-20) this represents a 24.0% decrease in total entries and exits. 38 rail stations out of 223 in Wales had entry and exit levels similar to those pre-pandemic, while184 have not returned to pre-pandemic levels. 1 station (Bow Street) opened in 2021-22.

Of the 5 busiest Welsh rail stations in 2022-23:

- Cardiff Central was the busiest station with 10.2 million entries and exits and was 4 times busier than the next busiest station, Newport (South Wales). However, compared to pre-pandemic period (April 2019 – March 20) this represents a 19.6% decrease (figure 2).

- Over a quarter (26.6%) of all entries and exits in Wales (10.2 million) occurred at Cardiff Central station.

Figure 2: Top 5 busiest Stations in Wales by station entries and exits (Millions), 2021-22 to 2022-23

Description of figure 2: Bar chart showing number of station entries and exits in 2022-23 and 2019-20 (pre-pandemic) at the top 5 busiest stations. Cardiff Central was the busiest station with 10.2 million entries and exits in 2022-23.
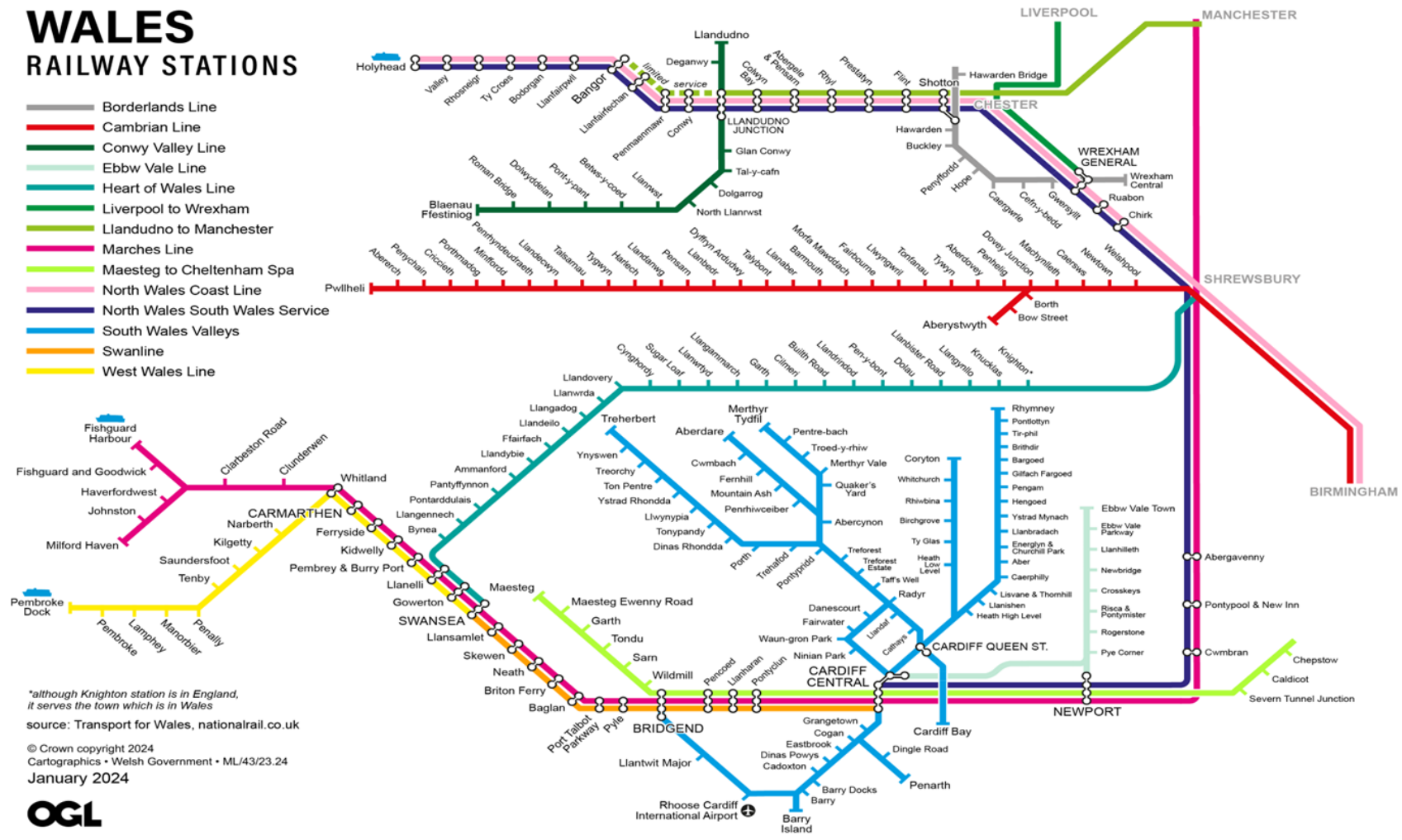
Source: Welsh Government analysis of ORR estimates of station usage data

The station with the lowest number of entries and exits in Wales in 2022-23 was Sugar Loaf station which recorded only 398 in total.

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Map 1: Rail stations in Wales

Description of figure 3: Map showing rail station routes and station location in Wales.

Source: Welsh Government based on Transport for Wales map

Interchange stations

An interchange station is a train station that serves more than one railway route. It allows passengers to change from one route to another. Interchange stations play an important role in ensuring continuity of passenger journeys from one line to another. This also ensures that the rail network is completely interlinked. Wales has 23 interchange stations, representing 10%of all stations in Wales.

The number of passenger interchanges at interchange stations in this section represents the number of passengers changing trains at the station i.e. they did not leave the station but connected to a different train.

- There were increases in interchange station passengers in 18 interchange stations in Wales in 2022-23 compared with 2021-22. A total of 5 interchange stations recorded a decrease over the same period.

- Cardiff Central is the busiest interchange station, supporting a total of 10 different lines. This is followed by Cardiff Queen Street, which supports 6 lines.

- The total number of interchanges in Wales increased by 45.5% in 2022-23 compared to 2021-22, from 1.7 million to 2.4 million, however, this represents a 44.5% decrease when compared to 2019-20 (pre covid year).

- More details can be accessed from StatsWales and Rail Station interactive Dashboard.

Figure 4: Passenger interchanges by station in 2021-22 and 2022-23
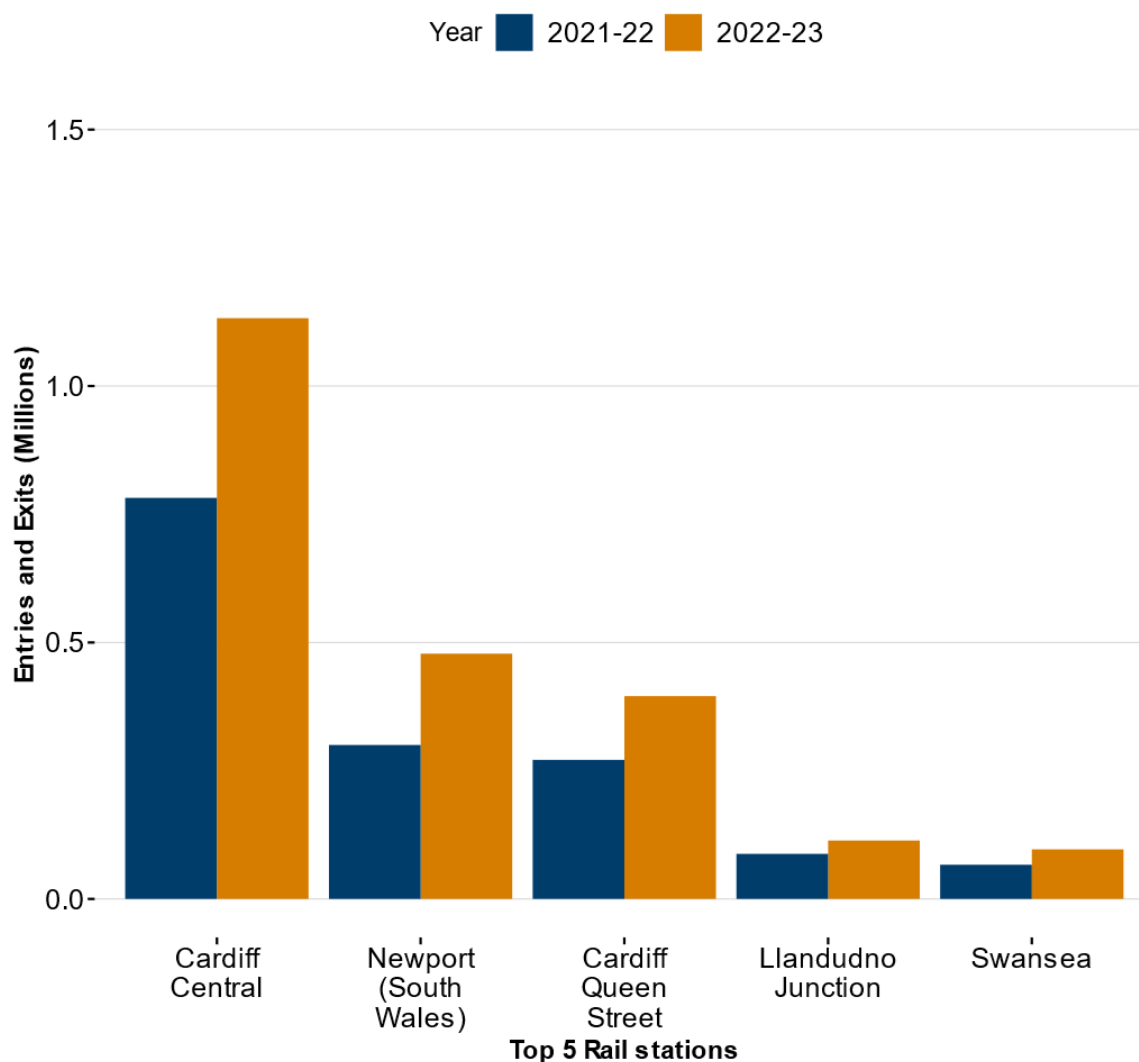
Description of figure 4: Bar chart showing the number of interchanges at the top 5 rail stations in 2022-23 compared to previous year. Cardiff Central was the busiest interchange station with 1.1 million interchanges.

Source: Welsh Government analysis of ORR estimates of station usage data

Rail lines and routes

Welsh Rail has a total of 5 main rail lines that connects different rail routes. The section below provides a summary insight on rail station usage by rail line and routes the lines cover. The 5 main rail lines include Valley lines, South Wales lines, West Wales lines, Mid Wales lines and North Wales lines, Figure 3.

More details such as the volume of entries and exits at individual stations can be accessed from StatsWales and Rail Station interactive Dashboard.

Valley lines

The Valley Lines are a network of suburban rail lines connecting the major communities in South East Wales with Cardiff via Cardiff Central, Cardiff Queen Street and Cathays Stations. The lines provide an important role carrying commuter traffic to and from Cardiff. The lines also link up several universities and carry a significant number of people travelling for shopping and leisure purposes.

There are a total of 82 stations along the Valley main line.

South Wales lines

South Wales lines includes the Great Western Main Line (Newport to Swansea), (Figure 3), the lines connecting Newport with Chepstow and Abergavenny and the Swanline (Cardiff to Swansea), as illustrated on Figure 3. These lines and routes carry a variety of passengers: commuters, longer distance business travellers and some leisure travellers too.

The line serves a total of 19 stations along the South Wales lines.

West Wales lines

West Wales lines includes routes from Swansea to Pembroke Dock (West Wales Line) and to Milford Haven and Fishguard (Marches Line), as illustrated on Figure 3, connect to the West Wales ferry ports and many of the rail services are timed to meet ferry services with additional services running in the summer months.

The main line serves a total of 24 stations.

Mid Wales line

The Mid Wales lines cover the Heart of Wales line and the Cambrian line, as illustrated on Figure 3. These lines serve communities across Mid-Wales and North Wales, linking into services to the Midlands, Northern England and London and the South East via Shrewsbury.

The Mid Wales mainline serves a total of 59 stations.

North Wales lines

The North Wales lines encompass the North Wales Coast Line, the Conwy Line, the Borderlands line and on routes from Wrexham as illustrated on Figure 3.

The mainline serves a total of 41 stations.

Feedback

We have reduced the level of detail in this statistical bulletin. Detailed information on individual lines and stations are available in the accompanying Rail dashboard and StatsWales tables. We welcome feedback on this new version of the statistical bulletin and the accompanying products.

We also welcome user feedback on the content, dissemination and frequency of our transport statistical releases more generally which can be provided to stats.transport@gov.wales.

Key Quality Information

The Office of Rail and Road (ORR) commissions Steer Davies Gleave to collate and report on station usage figures on an annual basis. The data consists of estimates of the number of passengers travelling to and from each station (entries and exits). They are based on ticket sales data from the national ticketing database and estimates of travel using zonal/multi-modal tickets sold by Strathclyde Partnership for Transport and English Integrated Transport Authorities (formerly PTEs). More information on the methodology and ORR station information can be found in the ORR's Estimates of Station Usage 2020-21 report.

2 Definitions

2.1 Coverage

In Wales, as in England and Scotland, passenger train services are operated by a number of companies, referred to as Train Operating Companies (TOCs), normally on the basis of regional franchises awarded by the Department for Transport. There were 4 TOCs operating services to/from/within Wales during 2022-23:

- Transport for Wales (TfW) (Arriva Trains Wales operated the Wales and Borders franchise until October 2018);

- Great Western Railway (which operates services between Swansea and London with a summer weekend service to Pembroke Dock);

- Cross-country Trains (which operates a service from Cardiff to Nottingham via Newport and Chepstow); and

- Avanti West Coast (previously Virgin Trains, which operates services from Holyhead to London Euston), with one train a day from Wrexham General to London Euston.

Station usage estimates are based on ticket sales regardless of which TOC is providing the journey. The estimate for 2018-19 covers the period when the Wales and Border rail franchise changed from Arriva Trains Wales to Transport for Wales.

2.2 Relevance

These statistics are used both within and outside the Welsh Government to monitor trends in rail transport and as a baseline for further analysis. They are also used in monitoring Welsh Government transport policy.

These statistics do not provide an indication of a TOC's revenue as train fares are allocated to TOCs dependent on the route of the journey. For example, if a TOC only carried out a small portion of a longer passenger journey, they would only receive a small allocation of the fare.

2.3 Accuracy

The estimate of station usage data set consists of estimates of the total numbers of people:

- Travelling from or to the station (entries and exits); and
- Interchanging at the station (interchanges).

The estimates are subject to some error. Volatility in the estimates is more common when numbers are low. Information is given for all the national rail stations in England, Scotland, and Wales based on tickets sales data and for some stations may not be an accurate reflection of usage. For example, some tickets are sold to the end of the line or as far as a fare price will allow, and not to the actual journey destination. Consequently, some stations marking the end of lines or fare prices appear busier than they are and other stations along those lines appear less busy than they are.

All estimates of station usage, exits, entries and interchanges included in the station count dataset, are derived from the Origin Destination Matrix (ODM), produced for the ORR and derived primarily from the MOIRA2.2 Demand Matrix.

The MOIRA2.2 demand matrix is sourced from MOIRA2.2: the rail industry's principal planning tool and includes a comprehensive representation of travel on the national rail network. The base data for this demand matrix is LENNON, the rail industry's ticketing and revenue system, with the addition of "infills" for tickets outside the LENNON system such as London Travelcards, airport links and multi-modal and zonal products sponsored by Passenger Transport Executives (PTEs).

2.4 Types of infills and other definitions

Infills are included within the MOIRA2.2 demand matrix to add in the missing journeys and revenue in three key areas:

- Within London travel card area. The underlying matrix does not include a significant number of national rail trips made using Travel cards purchased at Tube stations, travel shops and newsagents.

- Within Passenger Transport Executive (PTE) areas. The underlying matrix excludes virtually all rail trips made on PTE-sponsored tickets, which are usually zonal and often multimodal.

- Trips to/from Airports. The underlying matrix excludes all Heathrow Express journeys, and some tickets sold for Gatwick Express, Stansted Express and other airport operators.

Passenger Transport Executives (PTEs) – PTEs are local government bodies which are responsible for public transport within large urban areas and are accountable to Integrated Transport Authorities (ITAs). There are five PTEs in England, for each of the metropolitan counties (Merseyside, South Yorkshire, Tyne and Wear, West Midlands and West Yorkshire). In Scotland the Strathclyde Partnership for Transport is the equivalent body covering the region of Strathclyde.

Stations - Network Rail own and maintain all the stations in Wales (with the exception of Fishguard Harbour which is owned and operated by Stena Line) and all are leased to Transport of Wales.

3. Quality note

Estimates of rail station usage are based on ticket sales data for all rail stations in Wales, regardless of which train operating company provides the journey (for example, Transport for Wales, Great Western Railway or Cross Country). Ticket sales are not always an accurate reflection of usage for some stations. For example, some tickets are sold to the end of the line or as far as a fare price will allow, and not to the actual journey destination. Consequently, some stations marking the end of lines or fare prices appear busier and other stations along those lines appear less busy.

Additionally, numbers are estimates and subject to error. Volatility in the estimates is more common when numbers are low. The Office for Road and Rail (ORR) also produces estimates of Passenger Rail Use, which provides usage estimates for each train operating company rather than for individual stations.

In 2020-21 ORR introduced adjustments for the first time to methodology used to estimate rail station usage estimates at 8 rail stations in Wales. This adjustment to methodology accounts for season ticket journeys likely to have been made to or from a different station to that specified on the ticket.

4. Timeliness and punctuality

This bulletin reports on rail stations usage in Wales. Information covers each station in Wales during the 2022-23 financial year and the UK as a whole back to 2012-13. The bulletin is based on the annual station usage report that is published by the Office of Rail Regulation (ORR). As part of this report the ORR publish a spreadsheet which lists the estimation station entries and station exits for each station on the UK rail network.

5. Accessibility and clarity

This statistical bulletin is pre-announced and then published on the Statistics & Research website and all the data in this bulletin as well as other years will be available on the StatsWales website in due course.

6. Comparability and coherence

Caution must be taken when making comparisons over time due to changes in the coverage of the LENNON database and annual methodological improvements. Users should also take care when interpreting percentage changes, especially when dealing with small numbers.

7. Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural wellbeing of Wales. The Act puts in place seven wellbeing goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must

be applied for the purpose of measuring progress towards the achievement of the wellbeing goals, and (b) lay a copy of the national indicators before Senedd Cymru. Under section 10(8) of the Well-being of Future Generations Act, where the Welsh Ministers revise the national indicators, they must as soon as reasonably practicable (a) publish the indicators as revised and (b) lay a copy of them before the Senedd. These national indicators were laid before the Senedd in 2021. The indicators laid on 14 December 2021 replace the set laid on 16 March 2016.

Information on the indicators, along with narratives for each of the wellbeing goals and associated technical information is available in the [Wellbeing of Wales report](#).

Further information on the [Well-being of Future Generations (Wales) Act 2015](#).
The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local wellbeing assessments and local wellbeing plans.

8. Further details

The document is available at: https://gov.wales/rail-station-usage

9. Next update

February 2025 (Provisional)

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to:
stats.transport@gov.wales

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