Rail station usage in Wales, 2020-21
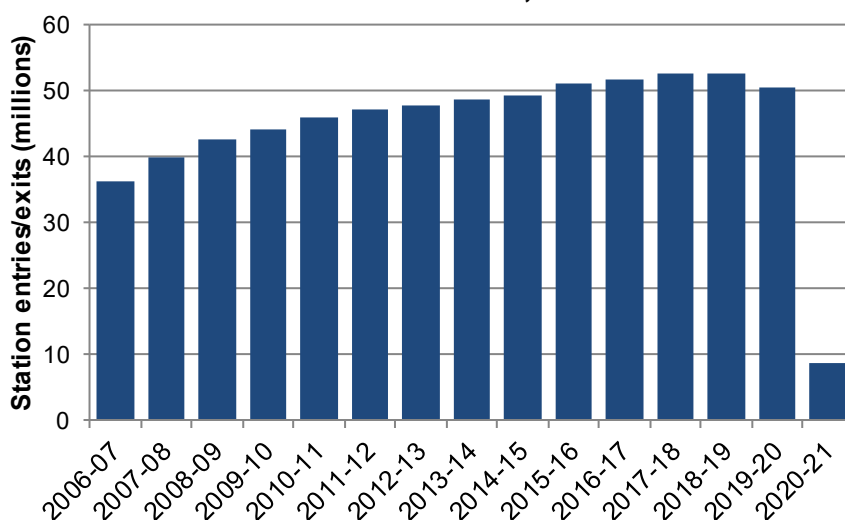
Key Points

Rail station usage in 2020-21 (1 April 2020 to 31 March 2021) was significantly affected by the coronavirus (COVID-19) pandemic. In Wales, rail passenger usage decreased by 77.1% when compared to the previous year (2019-20). Please see page 2 for further detail.

- There was a 82.8% decrease in the total number of station entries and exits in Wales in 2020-21 compared with the previous year

- Over the year, there was a fall in the number of entries and exits at all stations across Wales.

- In 2021-20 there were 223 rail stations in Wales - an increase of one station from 2019-20.

- Cardiff Central remains the busiest station in Wales with 22.8% of all station entries and exits (Table 1).

- Rail station usage in Wales accounts for around 1.8% of the UK total. Of the 20 busiest stations in Wales, more than half are part of the Valley Lines network (not including Cardiff Central and Cardiff Queen Street) (Table 1).

About this bulletin

This bulletin reports on the usage of rail stations in Wales. Information covers stations in Wales from 2006-07 to 2020-21 and the UK for 2020-21. 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.

Chart 1: Station entries and exits in Wales, 2006-07 to 2020-21

Note:
In 2020-21 there was a drop in entries and exits due to COVID-19 pandemic.

Source: Welsh Government (WG) analysis of ORR data

In this bulletin

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 made 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.

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. ORR estimate that across Great Britain, passenger usage was down around 77.7% when compared with the previous year. In Wales, rail passenger usage decreased by 77.1% when compared to the previous year (2019-20). This represented the lowest level of annual passenger usage on record. (Table 1).

Feedback

We have reduced the level of detail in this statistical bulletin. Detailed information on individual lines and stations are available in the accompanying 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.

Busiest stations in Wales

In 2020-21 the total number of entries and exits at Welsh stations decreased by 77.1% on the previous year from 50.4 million to 8.7 million, the largest year on year decrease on record, reflecting the impact of the COVID-19 pandemic.

Of the 20 busiest Welsh rail stations in 2020-21:

- Cardiff Central was the busiest station and was 4 times busier than the next busiest station, Cardiff Queen Street.
- 22.8% of all entries and exits in Wales (2 million) occurred at Cardiff Central station.

Table 1: 20 busiest stations in Wales by station entries and exits, 2019-20 to 2020-21

| Rail Station	Entries and Exits		% change	
	2019-20	2020-21		
Cardiff Central	12,670,920	1,975,462	▼	-84.4
Newport (Gwent)	2,717,124	543,356	▼	-80.0
Cardiff Queen Street	2,694,084	472,914	▼	-82.4
Swansea	2,059,952	468,824	▼	-77.2
Bridgend	1,508,294	321,576	▼	-78.7
Neath	808,174	184,756	▼	-77.1
Pontypridd	814,898	153,272	▼	-81.2
Rhyl	504,244	151,816	▼	-69.9
Cathays	964,616	135,646	▼	-85.9
Port Talbot Parkway	544,960	129,482	▼	-76.2
Wrexham General	501,800	128,428	▼	-74.4
Caerphilly	712,648	119,314	▼	-83.3
Barry Island	762,042	110,356	▼	-85.5
Barry	518,364	109,594	▼	-78.9
Cwmbran	412,670	107,216	▼	-74.0
Bangor (Gwynedd)	624,926	106,520	▼	-83.0
Abergavenny	415,250	102,016	▼	-75.4
Prestatyn	324,634	94,156	▼	-71.0
Cardiff Bay	1,462,962	88,028	▼	-94.0
Harlech	133,824	84,612	▼	-36.8
Other Welsh stations	31,930,734	5,066,654	▼	-84.1
All Welsh stations	**50,416,200**	**8,678,536**	▼	**-82.8**

Source: WG analysis of ORR estimates of station usage

Map 1: Rail stations in Wales

WALES
RAILWAY STATIONS

Legend:
- Borderlands Line
- Cambrian Line
- Conwy Valley Line
- Heart of Wales Line
- Liverpool to Wrexham
- Llandudno to Manchester
- Marches Line
- Maesteg to Cheltenham Spa
- North Wales Coast Line
- North Wales South Wales Service
- South Wales Valleys
- Swanline
- West Wales Line

*although Knighton station is in England,
it serves the town which is in Wales*
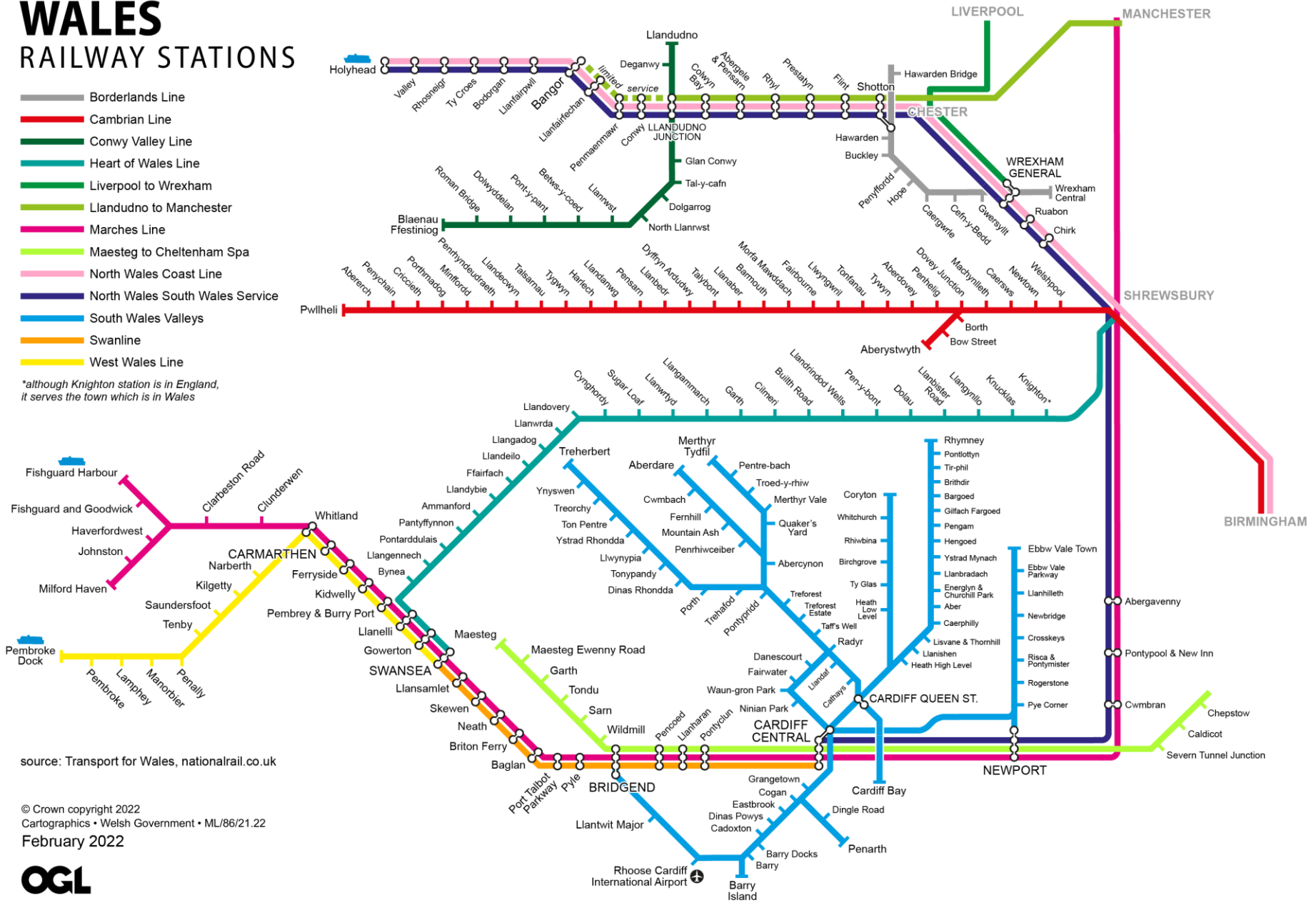
source: Transport for Wales, nationalrail.co.uk

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Cartographics • Welsh Government • ML/86/21.22
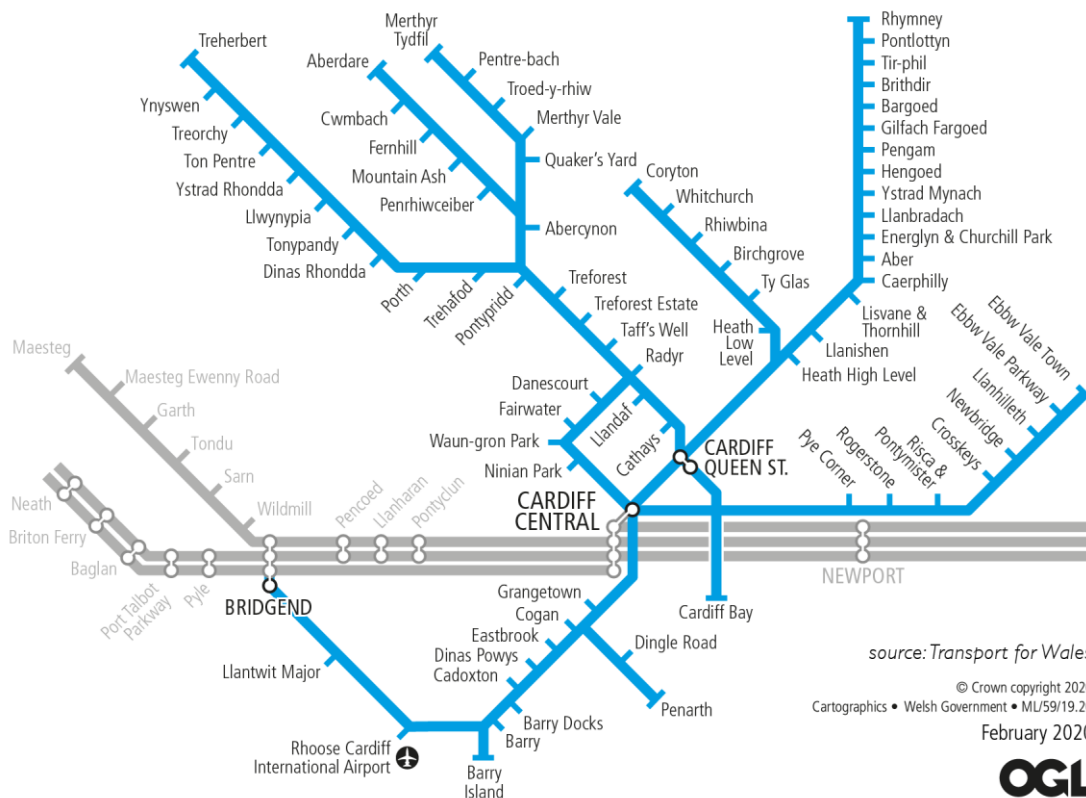February 2022

OGL

Trends in Wales and the UK

Rail station usage in Wales accounted for 1.3% of the UK total in 2020-21. 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 for 4.7% of the UK population.

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 it increased to 2,641.

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. The figures shown are for entries and exits at all stations along these lines – the figures at 'interchange' stations (e.g. Cardiff Central, Cardiff Queen Street) are for users of all lines, not just the lines presented in this section.

source: Transport for Wales

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February 2020

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Butetown line

The Butetown line consists of just two stations at either end of the short link between Cardiff Queen Street and Cardiff Bay. In 2020-21, there was a fall of 86.5% in entries and exits on the Butetown line, to 561 thousand.

City line

The City Line runs from Radyr to Coryton linking a number of suburban stations with Cardiff Central and Cardiff Queen Street. In 2020-21, excluding Cardiff Central and Queen Street, there was a decrease in station entries and exits of 88.9% on the City line compared with 2019-20.

Vale of Glamorgan line

The Vale of Glamorgan lines link Cardiff to Penarth, Barry and Bridgend. In 2020-21, excluding Cardiff Central and Queen Street, there was a decrease in station entries and exits of 81.0% on this line compared with 2019-20.

Merthyr line

The Merthyr line links Cardiff Central station with Merthyr Tydfil via Pontypridd and Abercynon. In 2020-21, excluding Cardiff Central and Queen Street, there was a decrease in station entries and exits of 85.4% on the Merthyr line compared with 2019-20.

Aberdare line

The Aberdare line follows much of the same route as the Merthyr Line, branching off to Aberdare to the north of Abercynon. In 2020-21, excluding Cardiff Central and Queen Street, there was an annual decrease in station entries and exits of 85.9% on this line compared with 2019-20.

Rhondda line

The Rhondda Line follows much of the same route as the Merthyr Line, branching off north of Pontypridd to Trehafod and further stations terminating at Treherbert. In 2020-21:
- All Rhondda Line stations had decreases in entries and exits. The largest was at Treherbert, down 93.0%.
- Excluding Cardiff Central and Queen Street, there was a 86.0% decrease in station entries and exits on this line compared with 2019-20.

Rhymney line

The Rhymney line links Cardiff Central with Rhymney via a number of stations in the Caerphilly local authority area. In 2020-21, excluding Cardiff Central and Queen Street, there was a decrease of 87.2% in station entries and exits on this line compared with 2019-20.

Maesteg line

The Maesteg line links Cardiff Central to Maesteg via a route along the South Wales Main Line to Bridgend where the line branches off to Maesteg. In 2020-21, excluding Cardiff Central, there was a decrease of 80.3% in station entries and exits on this line compared with 2019-20.

Ebbw Valley line

The Ebbw Valley line links Cardiff Central to Ebbw Vale Town. In 2020-21, excluding Cardiff Central, there was a decrease of 80.9% in station entries and exits on this line compared with 2019-20.

South Wales lines

This section reports on the station usage along the Great Western Main Line (Newport to Swansea), the lines connecting Newport with Chepstow and Abergavenny and the Swanline (Cardiff to Swansea), as illustrated on Map 1. These lines and routes carry a variety of passengers: commuters, longer distance business travellers and some leisure travellers too.

Great Western Main Line

The Great Western Main Line (also referred to as the South Wales Main Line) links Newport to Swansea and calls at major stations. In 2020-21, there was a decrease of 82.2% in station entries and exits along this line compared with 2019-20.

Newport to Chepstow

The Newport to Chepstow line runs on to Gloucester and is also used as a relief line when the Severn Tunnel is shut for services to and from South Wales. In 2020-21, the number of stations entries and exits on this route decreased by 80.7% compared to 2019-20.

Newport to Abergavenny

The line north of Abergavenny runs onto Hereford and links to the Midlands, Northern England and North and Mid-Wales via Shrewsbury. In 2020-21, all of the stations along this line saw decreases, with a 78.5% decrease in station entries and exits on this route compared with 2019-20.

Swanline

Swanline services run along the South Wales Main Line, calling at major and minor stations along the route between Cardiff Central and Swansea. In 2020-21, excluding Cardiff Central there was a 78.1% decrease in station entries and exits on this line compared to 2019-20.

West Wales lines

The routes from Swansea to Pembroke Dock (West Wales Line) and to Milford Haven and Fishguard (Marches Line), as illustrated on Map 1, 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. In May 2012, Fishguard and Goodwick station was re-opened, and this change was combined with increased service frequencies on the Fishguard branch line.

Swansea to Pembroke Dock

This line runs (West Wales line) from Swansea through to Pembroke Dock via Carmarthen, branching off West of Whitland calling at a number of stations before terminating at Pembroke Dock. In 2020-21, there was a 78.7% decrease in station entries and exits on this line compared with 2019-20.

Swansea to Milford Haven and Fishguard

This line runs (Marches line) from Swansea through to Fishguard and Milford Haven via a branch line west of Clarbeston Road. In 2020-21, there was a 78.4% decrease in station entries and exits on this line compared with 2019-20.

Mid Wales lines

The Mid Wales lines cover the Heart of Wales line and the Cambrian line, as illustrated on Map 1. 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.

Heart of Wales line

The Heart of Wales Line runs from Swansea to Shrewsbury via a number of stations across Mid-Wales. In 2020-21:

- The number of station entries and exits on this line decreased by 78.6% when compared with 2019-20.
- Sugar Loaf station had no entries or exits in 2020-21. Services at this station were temporarily suspended during the pandemic.

Cambrian main line

The Cambrian Main Line runs from Shrewsbury across Mid-Wales to Aberystwyth via Machynlleth. In 2020-21:

- Bow Street rail station reopened on the line in February 2021 and had an estimated 306 entries and exits in 2020-21.
- All stations (excluding Bow Street) along the line saw decreases in exits and entries when compared with 2019-20.
- There was a decrease of 83.5% in station entries and exits on this line compared with last year.

Cambrian Coast line

The Cambrian Coast Line runs from Machynlleth to Pwllheli in North Wales via a number of stations along the coast. In 2020-21:

- There was a 72.4% decrease in station entries and exits on this line when compared to 2019-20.
- There were no entries or exits at Llanbedr or Abererch stations as their services were temporarily suspended during the pandemic.

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 Map 1.

North Wales Coast line

The North Wales Coast Line is the mainline in North Wales linking Holyhead in the West to Shotton in the East and services onto Northern England, the Midlands and London via Crewe. In 2020-21, there was a 76.7% decrease in station entries and exits on this line when compared to 2019-20.

Conwy Valley line

The Conwy Valley Line runs from the North Wales Coast at Llandudno through the Conwy Valley via Llandudno Junction, terminating at Blaenau Ffestiniog. In 2020-21, there was a 77.3% decrease in station entries and exits on this line when compared to 2019-20.

Borderlands line

The Borderlands Line runs north from Wrexham Central terminating at Bidston in the Wirral. In 2020-21, there was a 77.7% decrease in station entries and exits on this line when compared with 2019-20.

Wrexham to Chirk

This route is part of the Shrewsbury to Chester line. For 2020-21, there was a 75.9% decrease in all station entries and exits on this route when compared with 2019-20.

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' railway has 23 interchange stations, representing 10 percent of all stations in Wales.

The number of entries and exits at interchange stations in this section represents the number of passengers *changing* at the station i.e. they did not leave the station but connected to a different train.

- There was a decrease of 89.1% in all interchange station entries and exits in Wales in 2020-21 compared with 2019-20.

- 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.

Table 2: Interchange entries and exits by station, 2019-20 to 2020-21

Station	Entries and Exits			
	2019-20	**2020-21**	**% change**	
Cardiff Central	2,033,462	239,657	▼	-88.2
Cardiff Queen Street	1,310,830	74,733	▼	-94.3
Newport (South Wales)	485,502	77,882	▼	-84.0
Llandudno Junction	117,672	20,962	▼	-82.2
Swansea	98,806	17,382	▼	-82.4
Bridgend	59,262	8,839	▼	-85.1
Pontypridd	48,280	6,808	▼	-85.9
Radyr	37,763	4,140	▼	-89.0
Severn Tunnel Junction	37,215	6,024	▼	-83.8
Abercynon	29,079	1,887	▼	-93.5
Shotton	16,183	3,586	▼	-77.8
Other	*69,397*	*9,658*		
Total	**4,343,451**	**471,558**	▼	**-89.1**

Source: WG analysis of ORR Estimates of Station Usage

Key Quality Information

1 Data source

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 are 4 TOCs operating services to/from/within Wales during 2020-21 – 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. Timeliness and punctuality

This bulletin reports on rail stations usage in Wales. Information covers each station in Wales during the 2018-19 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.

4. 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.

5. 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.

6. 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 well-being goals and associated technical information is available in the Well-being 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 well-being assessments and local well-being plans.

7. Further details

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

8. Next update

February 2023 (Provisional)

9. We want your feedback

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

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