

Rail station usage in Wales, 2021-22

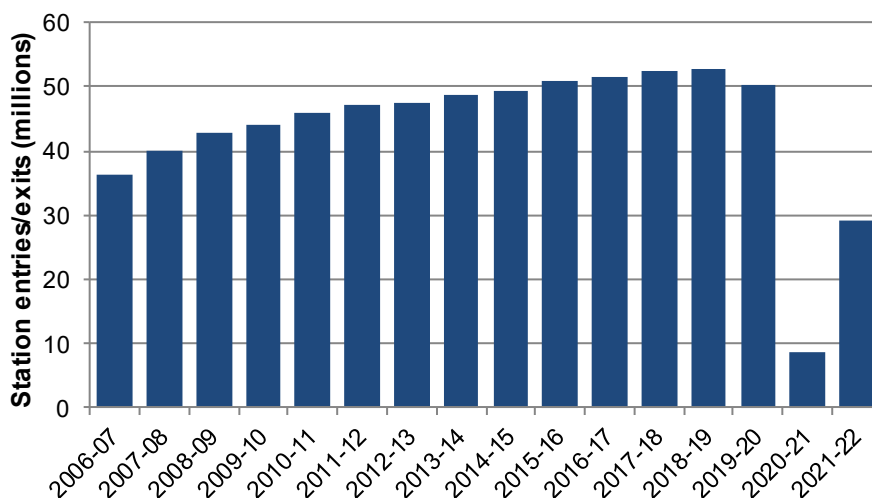
22 March 2023
SB 12/2023

Key Points

Rail station usage in 2021-22 (1 April 2021 to 31 March 2022) increased to 29.0 million from 8.7 million in the previous year (2020-21). However, it remained considerably lower than the 50.4 million recorded during 2019-20 (prior to the Covid-19 pandemic).

- The total number of station entries and exits in Wales more than tripled between 2020-21 and 2021-22 (from 8.7 million to 29.0 million) reflecting the easing of travel restrictions imposed as a result of the coronavirus pandemic.
- Rail station usage remained below pre-pandemic levels, with usage in 2021-22 42% lower than in 2019-20.
- In 2021-22, there was an increase in the number of entries and exits at all stations across Wales compared to the previous year.
- Cardiff Central remains the busiest station in Wales accounting for over a quarter of all station entries and exits ([Figure 2](#)).
- Rail station usage in Wales accounts for around 1.6% of the UK total.

Figure 1: Station entries and exits in Wales, 2006-07 to 2021-22



Source: Welsh Government (WG) analysis of ORR estimates of station usage

About this bulletin

This bulletin reports on the usage of rail stations in Wales. Information covers stations in Wales from 2006-07 to 2021-22 and the UK for 2021-22. 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.

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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.

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 should therefore be treated with caution. Compared to 2020-21, the latest rail passenger numbers have increased in all Welsh stations with most stations recording more than double numbers of passengers. This may reflect a return to normality after disruptions due to Covid-19 travel restrictions.

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.

Trends in Wales and the UK

Rail station usage in Wales accounted for 1.6% of the UK total in 2021-22. 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 4.6% of the UK population in 2021.

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 2021-22 to 2,642 .

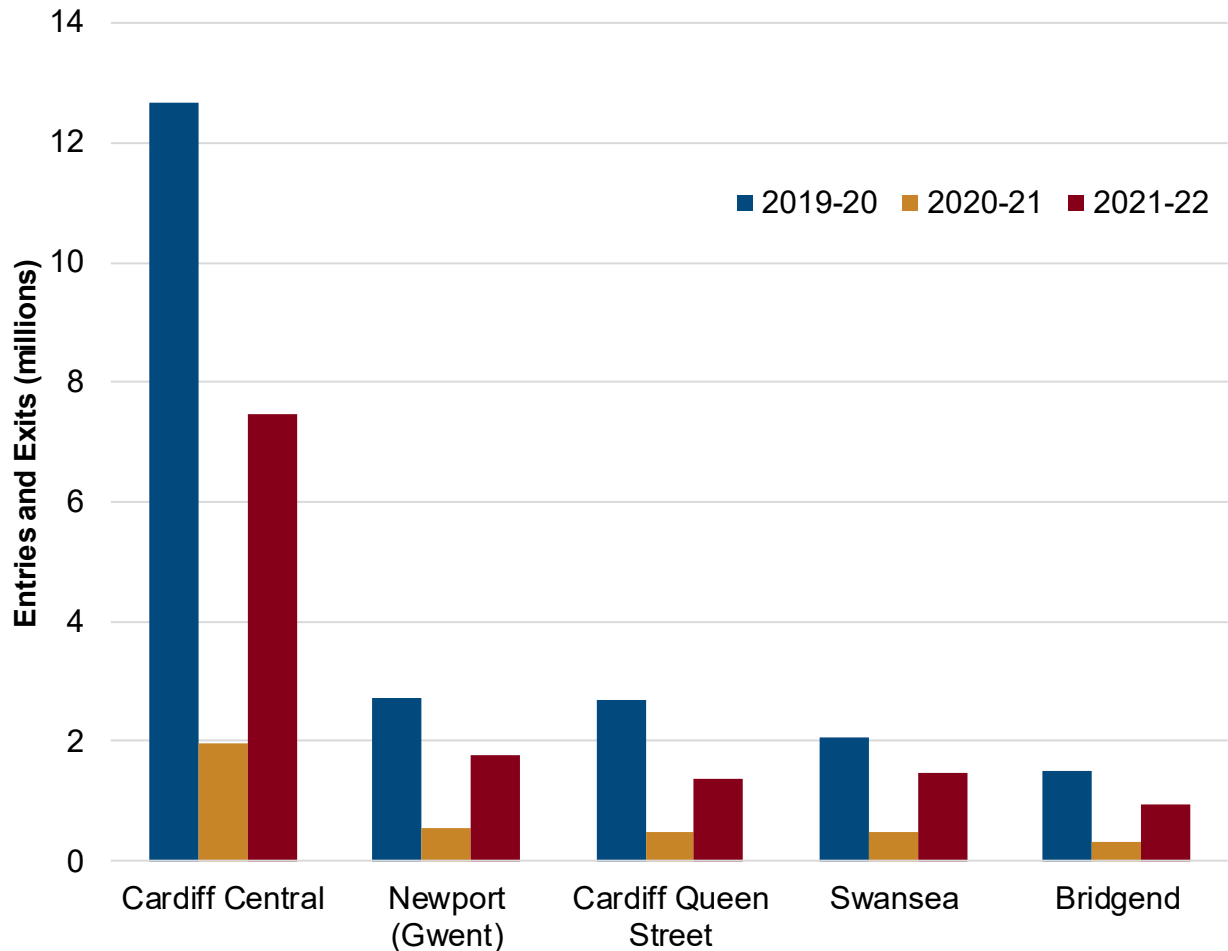
Busiest stations in Wales

Rail station usage in 2021-22 (1 April 2021 to 31 March 2022) increased to 29.0 million from 8.7 million in the previous year (2020-21). However, compared to pre-pandemic period (2019-20) this represents a 42% decrease in total entries and exits. 11 rail stations out of 223 in Wales had entries and exits levels similar to those pre-pandemics, while the rest were lower.

Of the 5 busiest Welsh rail stations in 2021-22 ([Figure 2](#)):

- Cardiff Central was the busiest station with 7.5 million entries and exits and was 4 times busier than the next busiest station, Newport (Gwent). However, compared to pre-pandemic period (April 2019 – March 20) this represents a 41% decrease.
- Over a quarter (25.7%) of all entries and exits in Wales (7.5 million) occurred at Cardiff Central station.

Figure 2: Top 5 busiest Stations in Wales by station entries and exits (Millions), 2019-20 to 2021-22



Source: WG analysis of ORR estimates of station usage

The station with the lowest number of entries and exits in Wales in 2021-22 was Sugar Loaf station which recorded only 76 entries of entries and exits. This equates to 1 passenger every 5 days.

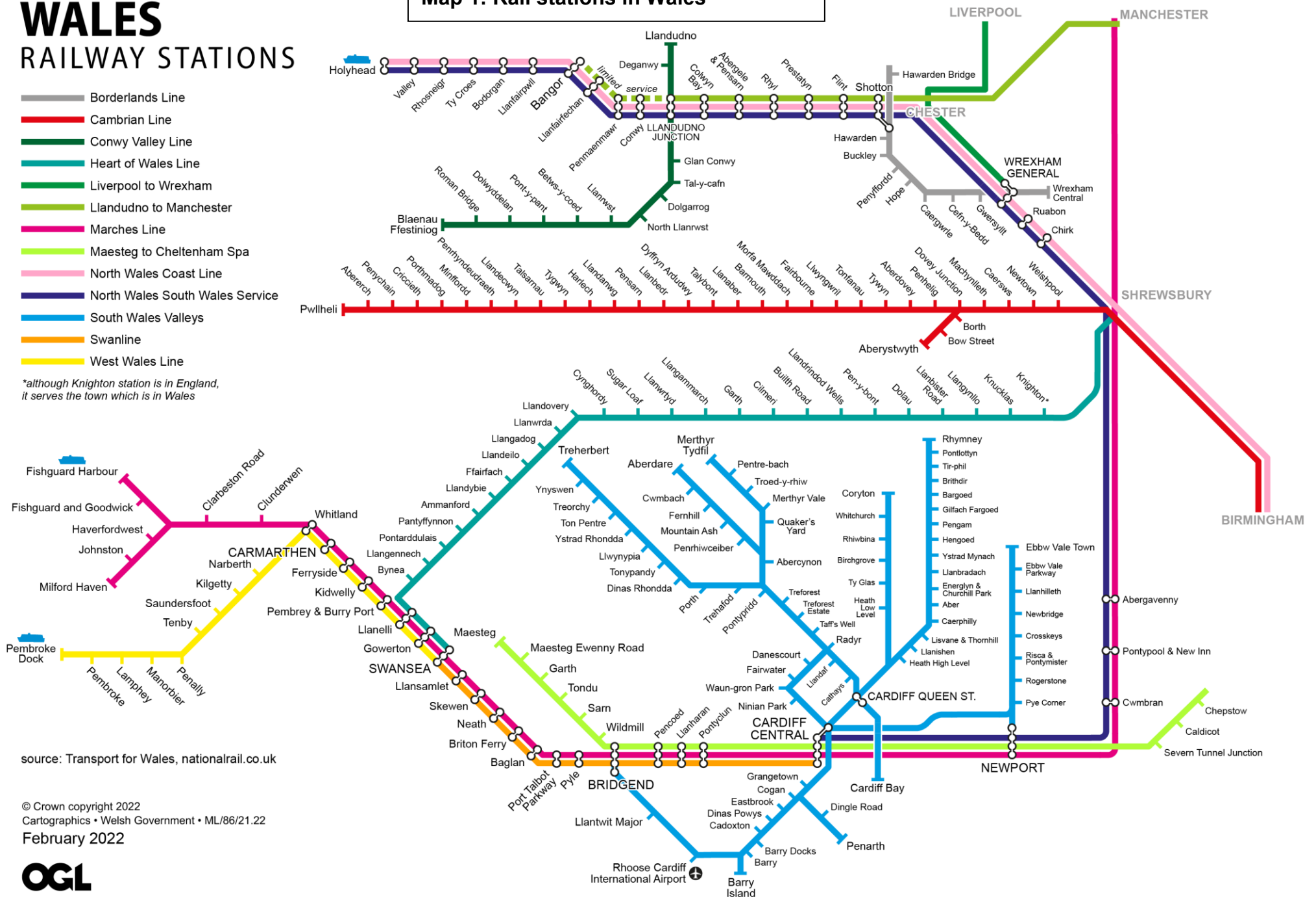
WALES

RAILWAY STATIONS

- 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*

Map 1: Rail stations in Wales



source: Transport for Wales, nationalrail.co.uk

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



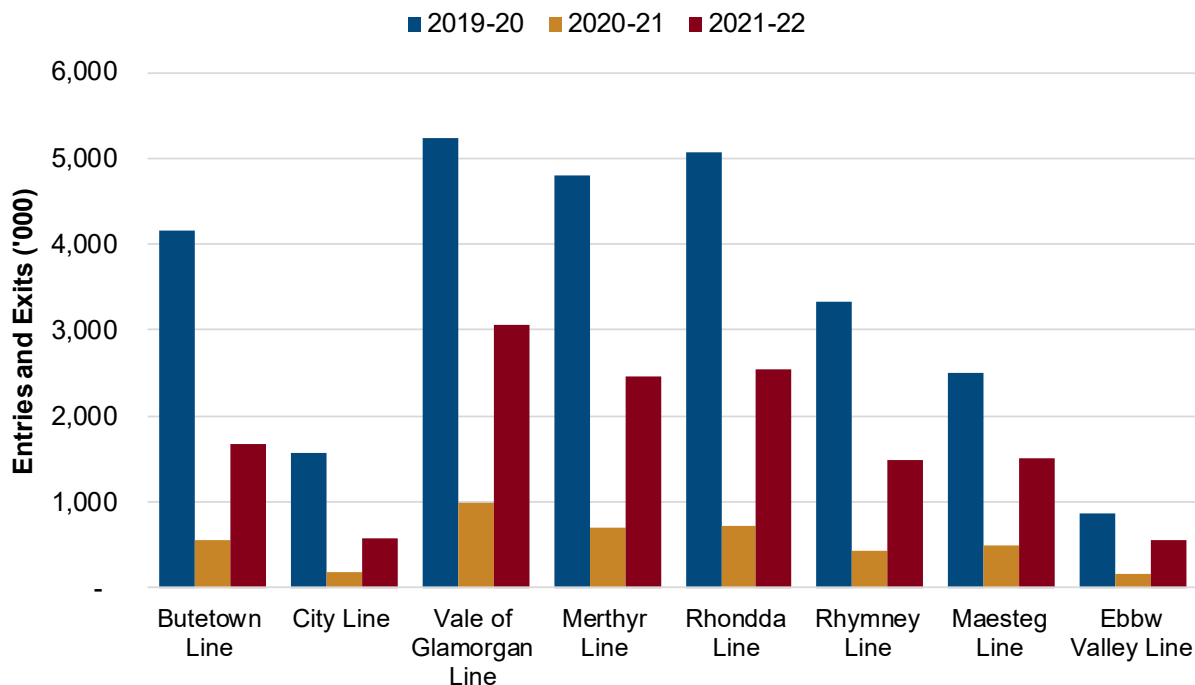
Welsh Rail has a total of 5 main rail lines that connects different rail routes. The section below provides a summary insight on rail station usage by rail line and routes the lines cover. The 5 main rail lines include Valley lines, [South Wales lines](#), [West Wales lines](#), [Mid Wales lines](#)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

All main rail lines reported increases in number of entries and exits in 2021-22 compared with the previous year, but not to levels seen in 2019-20.

Valley lines

The Valley Lines (Figure 3) 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.

Figure 3: Valley Rail Lines by entries and exits, 2019-20 to 2021-22



Source: WG analysis of ORR estimates of station usage

Key points

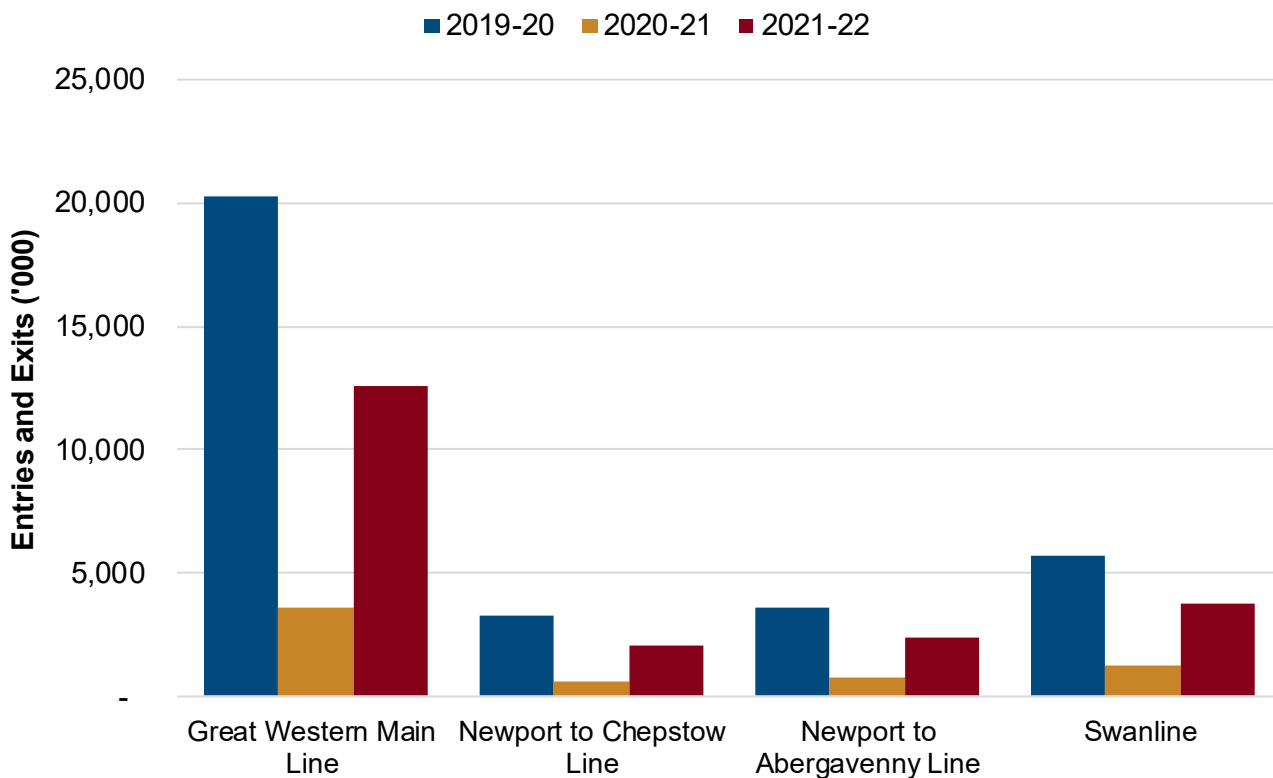
- All Valley Rail lines reported increase in entries and exits numbers in 2021-22 compared with the previous year, but not to levels seen in 2019-20.

- There are a total of 82 stations along the Valley main line. More details can be accessed from [StatsWales](#) and [Rail Station interactive Dashboard](#).
- Total number of entries and exits on all 8 lines had at least tripled between 2020-21 and 2021-22 with Butetown line increasing the least.

South Wales lines

This section reports on the station usage along the Great Western Main Line (Newport to Swansea), (Figure 4), 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.

Figure 4: South Wales lines by entries and exits, 2019-20 to 2021-22



Source: WG analysis of ORR estimates of station usage

Key points

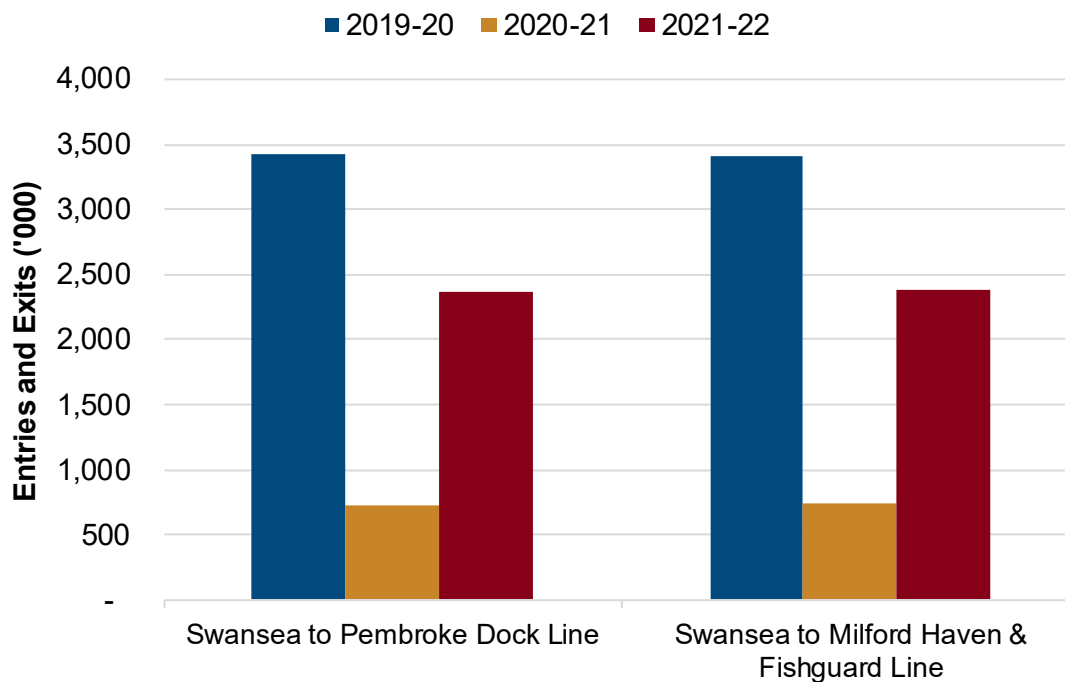
- All South Wales lines reported increase in entries and exits numbers in 2021-22 compared with the previous year, but not to levels seen in 2019-20.
- The line serves a total of 19 stations along the South Wales lines. More details can be accessed from [StatsWales](#) and [Rail Station interactive Dashboard](#).

- Total number of entries and exits on two of the lines (Great Western Main Line and Newport to Chepstow Line) had tripled between 2020-21 and 2021-22.

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](#), (Figure 5), 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.

Figure 5: West Wales lines by entries and exits, 2019-20 to 2021-22



Source: WG analysis of ORR estimates of station usage

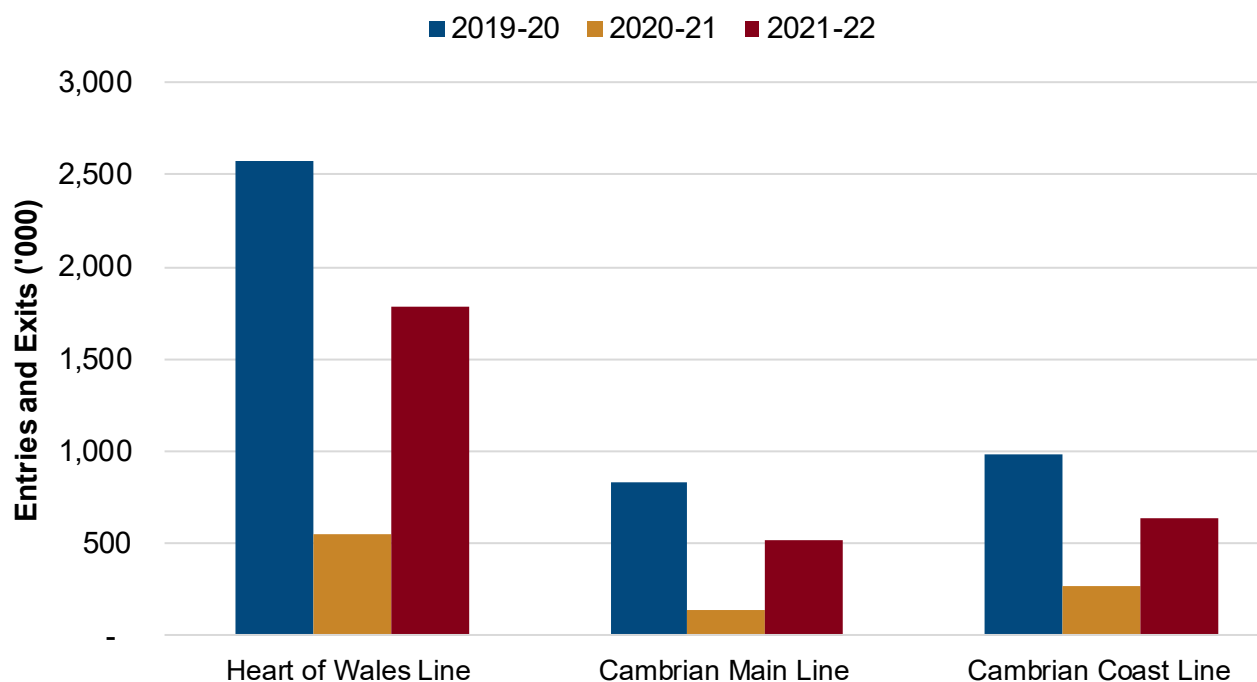
Key points

- All West Wales lines reported increase in entries and exits numbers in 2021-22 compared with the previous year, but not to levels seen in 2019-20.
- The main line serves a total of 24 stations. More details can be accessed from [StatsWales](#) and [Rail Station interactive Dashboard](#).
- Total number of entries and exits on all 2 lines had more than tripled between 2020-21 and 2021-22.

Mid Wales line

The Mid Wales lines (Figure 6) 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.

Figure 6: Mid Wales lines by entries and exits, 2019-20 to 2021-22



Source: WG analysis of ORR estimates of station usage

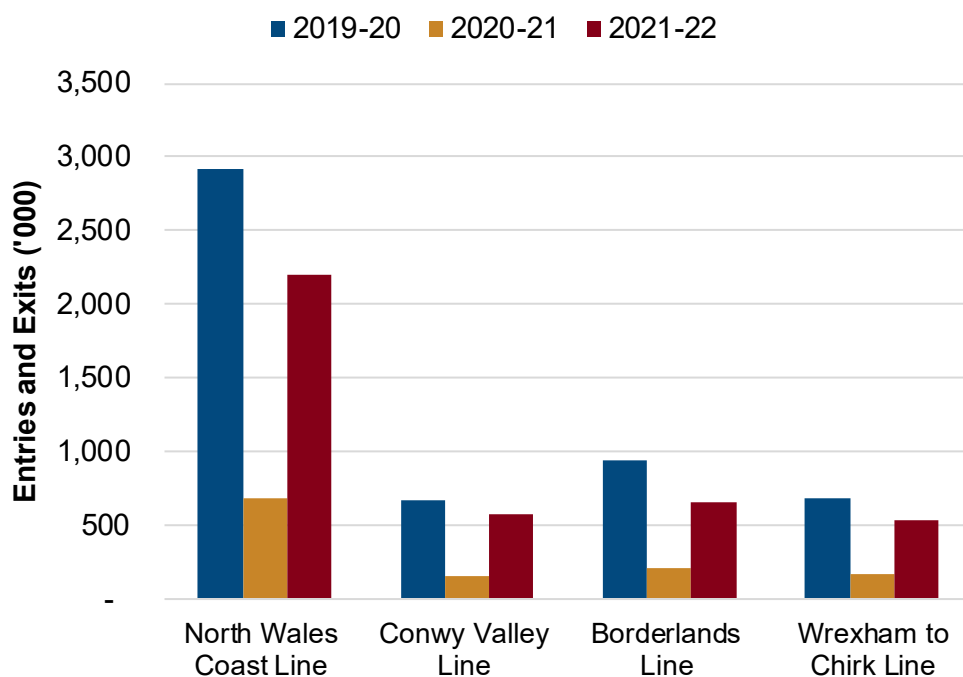
Key points

- All lines along Mid Wales mainline reported increase in entries and exits numbers in 2021-22 compared with the previous year, but not to levels seen in 2019-20.
- The Mid Wales mainline serves a total of 59 stations. More details can be accessed from [StatsWales](#) and [Rail Station interactive Dashboard](#).
- Total number of entries and exits on all 3 lines had more than tripled between 2020-21 and 2021-22.
- Sugar Loaf station had no entries or exits in 2020-21. In 2021-22 it recorded 76 entries and exits. This equates to 1 passenger every 5 days.
- Bow Street rail station along the Cambrian Main Line had an estimated 14,000 entries and exits in 2021-22 compared to 306 entries and exits recorded in previous year when it was reopened.

North Wales lines

The North Wales lines (Figure 7) encompass the North Wales Coast Line, the Conwy Line, the Borderlands line and on routes from Wrexham as illustrated on [Map 1](#).

Figure 7: North Wales lines by entries and exits, 2019-20 to 2021-22



Source: WG analysis of ORR estimates of station usage

Key points

- All lines along North Wales lines reported increase in entries and exits numbers in 2021-22 compared with the previous year, but not to levels seen in 2019-20.
- The mainline serves a total of 41 stations. More details can be accessed from [StatsWales](#) and [Rail Station interactive Dashboard](#).
- Total number of entries and exits on all 4 lines had more than tripled between 2020-21 and 2021-22.

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 percent of all stations in Wales.

The number of passenger interchanges 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 were increases in all interchange station passenger interchanges in Wales in 2021-22 compared with 2020-21 (Figure 8).
- 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 more than tripled between 2020-21 and 2021-22, from 0.4 million to 1.7 million, however, this represents a 62% decrease when compared to 2019-20.
- More details can be accessed from [StatsWales](#) and [Rail Station interactive Dashboard](#).

Figure 8: Passenger Interchanges by station, 2019-20 to 2021-22

Station	passenger interchanges				% Change
	2019-20	2020-21	2021-22		
Cardiff Central	2,033,462	239,657	781,852	▲	226.2
Newport (South Wales)	485,502	77,882	300,101	▲	285.3
Cardiff Queen Street	1,310,830	74,733	271,092	▲	262.7
Llandudno Junction	117,672	20,962	87,916	▲	319.4
Swansea	98,806	17,382	66,720	▲	283.8
Bridgend	59,262	8,839	27,812	▲	214.7
Pontypridd	48,280	6,808	24,448	▲	259.1
Severn Tunnel Junction	37,215	6,024	19,906	▲	230.4
Radyr	37,763	4,140	16,121	▲	289.4
Shotton	16,183	3,586	12,246	▲	241.5
Abercynon	29,079	1,887	11,592	▲	514.3
<i>Other</i>	69,397	9,658	36,254		
Total	4,343,451	471,558	1,656,060	▲	251.2

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 2021-22 – 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 2021-22 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 2024 (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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