



Department  
for Transport

**SYSTRA**

# Dartmoor Line

## Early Impact Evaluation

March 2025

Department for Transport  
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# Glossary of Terms

A glossary of terms of technical terms and acronyms used in this report is provided below.

AFC	Anticipated Final Cost
Census Output Area	The lowest level of geographical area for census statistics, tending to include data for between 100 and 625 persons
Class 150 trains	A type of rolling stock: diesel multiple unit passenger trains
DCRP	Devon and Cornwall Rail Partnership
DfT	Department for Transport
DRA	Dartmoor Railway Association
FBC	Final Business Case
GDP	Gross Domestic Product - an economic growth measure, based on the value of goods and services provided during a defined time period
Generalised Cost	The sum of the monetary and non-monetary costs of travel. For public transport modes, the monetary costs relate to the fare and the non-monetary costs relate to the time spent travelling including in-vehicle wait time. To calculate the cost of time, time is converted to a monetary value using values of time from the DfT's transport analysis guidance (TAG)
GIS	Geographic Information System - a computer programme used for analysis and display of geographically referenced data
GVA	Gross Value Added - an estimate of the total value generated by the production of goods or services
GWR	Great Western Railway – the train operating company that operates the Greater Western passenger railway franchise which includes Dartmoor Line services
IVT	In-vehicle time - the time spent on board a vehicle such as a train or bus
Isochrone	A visual representation shown on maps to signify the area accessible from an identified geographic point via a specific mode of transport and within an equal time threshold
KEQ	Key evaluation question
LENNON	Passenger rail tickets sales database for Great Britain
Logic Model	A graphic which represents the theory of how an intervention produces its outcomes
MND	Mobile Network Data - data source that allows for analysis of movement patterns in a large sample
Modal shift	Changing from using one type of transport to using another instead. For example, using the Dartmoor Line rail service instead of driving a car
MOIRA2	Rail timetable model which calculates generalised journey times and can compare the demand and revenue impacts of different rail timetables. It can also be used to model crowding and calculate economic benefits.

MRQ	Multiple-Response Question
NR	Network Rail
NRPS	National Rail Passenger Survey
NTS	National Travel Survey
OBC	Outline Business Case - the second stage of business case development for transport policies and investments. OBCs provide a detailed assessment of proposed shortlisted options, including economic and financial appraisals, to identify a preferred option
ONS	Office of National Statistics - the recognised national statistics institute in the UK, providing official statistics such as Census data
PDFH	Passenger Demand Forecasting Handbook
Project SPEED	The Project SPEED (Swift, Pragmatic and Efficient Enhancement Delivery) approach aims to lower cost and speed up the delivery of rail infrastructure projects
RYR	Restoring Your Railway funding was launched by the Department for Transport in January 2020 to reopen disused rail lines and stations for passenger services. The fund ran until July 2024.
Stats19	Database of all road traffic accidents that resulted in personal injury and were reported to the police within 30 days of the accident
TAG	Transport analysis guidance – provides information on the role of transport modelling and appraisal, and how the transport appraisal process supports the development of investment decisions to support a business case
Tarka Line	Railway between Exeter and Barnstaple, operated by GWR
TRACC	Software tool used to create multi-modal journey time calculations
WebTRIS	The National Highways Traffic Information System, containing traffic flow and journey time data

## Executive Summary

An early impact evaluation has been undertaken of the Dartmoor Line which reopened in 2021 and was the first scheme to be delivered through the Restoring Your Railway (RYR) programme. The objective of the evaluation has been to identify, and where possible quantify, the early consequential changes of the reopening of the Line. Assessment of the extent to which the Line has delivered benefits for transport users has been the focus of the evaluation, but socio-economic benefits to the local area have also been considered.

The evaluation findings have been informed by multiple research methods and data sources to develop a comprehensive picture of the early impacts of the Line's reopening. This has involved primary data collection in autumn 2023 (on-train surveys, residents' surveys, and interviews with stakeholders and local businesses) and analysis of secondary data sources including rail and bus demand data, and traffic counts.

The evaluation has identified evidence of a range of positive impacts of the Dartmoor Line for transport users, local residents and businesses:

- The majority of local residents and rail users perceive the Line to have improved connectivity between Okehampton, Crediton and Exeter for a range of journey purposes, particularly for leisure activities.
- Door-to-door public transport journey times between Okehampton, Crediton and Exeter have reduced due to the Line. The journey time saving between Okehampton and Exeter by rail compared to bus is up to 10 minutes for large parts of the Okehampton area, with areas close to Okehampton station benefitting by up to 40 minutes.
- The Line has increased accessibility of public transport with over 10,000 people in the Okehampton area now within a 20-minute walk of a railway station.
- A majority rail users (81%) and residents (67%) surveyed report that they now travel by rail more frequently. There are also high levels of passenger satisfaction with the Line with over nine in ten rail users and residents rating it as 'good' or 'very good'.
- There is evidence of modal shift with a reported reduction in the frequency of use of car since the Line reopened with up to half of survey respondents reporting they now use car less. Local bus demand has decreased which may be related to passengers now using the Line instead of bus, however, this evaluation was not able to control for other potential factors affecting this reduction.
- There is evidence that the Line has positively affected tourism in the Okehampton area, potentially benefitting the local economy via an increase in patronage of retail and

hospitality businesses. Over 80% of survey respondents reported a positive impact of the Line reopening on tourism.

- Access to employment and education in Exeter for Okehampton residents has been improved by the Line by enabling faster and more affordable journeys. This includes Exeter College which offers a wider range of A-level courses than local institutions.

The evaluation also finds evidence of potential negative impacts:

- The Line may be one of the reasons for the observed reduction in bus demand between Okehampton and Exeter, which has led to a marginal reduction in off-peak service frequency. However, it has not been possible to separate this from wider COVID-19 impacts on travel demand, and new bus timetables have also been designed to align with rail services at Okehampton station.
- Improved access to Exeter is perceived to have increased the range of educational institutions for young people in Okehampton. This may, however, be linked to falling enrolments and has financial implications for the further education college in Okehampton.

Comparison of actual and forecast passenger demand (as contained in the business case for the Line) on the Dartmoor Line shows that the forecasts under-estimated demand the first 2 full years of the Line's operation with total demand 47% higher than forecast over this period. However, since November 2023 actual demand by period has typically been marginally lower than forecast. The large variance in the first two years is primarily due to the forecasting methodology assuming more conservative demand ramp-up factors. It is currently too early to draw conclusions, and a focus needs to be maintained on growing demand if the business case forecasts are to be achieved in the long-term.

The financial performance and sustainability of the Line has also been considered. An assessment of operating costs and revenue generated in 2023/24 indicates that the Dartmoor Line is creating an estimated annual operating surplus of around £0.85m implying there is no subsidy requirement. However, whilst this provides an early indication of the financial sustainability of the Line, there are significant caveats to this conclusion. These include the analysis being based on a single year and uncertainty around certain costs some of which may increase significantly in future e.g. rolling stock lease costs. As with the assessment of demand, it is too early to draw conclusions regarding the long-term financial performance of the line. This will only be known when the costs and revenue associated with the Line can be assessed over an extended time period and when demand has fully matured.

Further evaluation in 2026/27 is proposed to assess demand and financial performance over the longer-term, as well as to evaluate wider socio-economic outcomes that may have occurred as a result of the Line's re-opening.

Finally, the delivery of the Line has been examined. This has established that the Line was delivered in just under the forecast 8-month construction period and at an expected final cost of approximately £51m, lower than the forecast cost of £56.6m as set out in the Full Business Case. Stakeholders involved in the delivery of the Line have attributed this achievement largely to the application of Project SPEED principles and strong partnership working including involvement of local stakeholders. Best practice and key learning points from the delivery of the Dartmoor Line are now being shared across the wider rail industry.



# 1. Introduction

## 1.1. Study Purpose and Objectives

The Department for Transport (DfT) commissioned SYSTRA Ltd to undertake an [early impact evaluation of the Dartmoor Line](#) which reopened in 2021 and was the first scheme to be delivered through the Restoring Your Railway (RJR) programme.

The primary purpose of this evaluation is to [assess the extent to which the Dartmoor Line has delivered against the anticipated transport outcomes](#) including answering the following key evaluation questions:

- How does the level of usage for the Dartmoor Line compare to forecasts and what are the drivers of any observed differences?
- What types of journeys has the reopening of the Dartmoor Line enabled?
- What impacts has the reopening of the Dartmoor Line had on the usage of other transport modes?
- Has the Dartmoor Line been cost-effective?
- Was the Dartmoor Line delivered to time and to budget?

## 1.2. Dartmoor Line Overview

The Dartmoor Line is 25km long and runs between Exeter St David's and Okehampton via Crediton (Figure 1). It was previously part of the Line between Exeter and Plymouth until passenger services were withdrawn in 1972. Following a long-running campaign by local people and organisations, the Line reopened for regular public services in November 2021. Initially, a two-hourly passenger service operated between Okehampton and Exeter, increasing to an hourly service from May 2022.

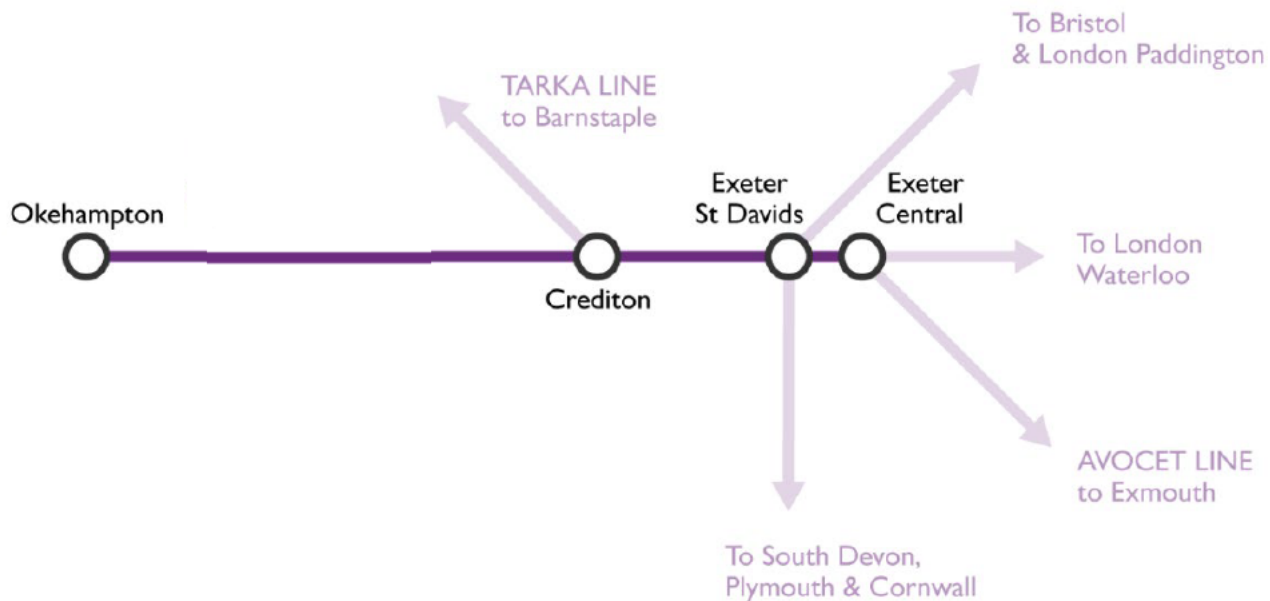


Figure 1: Summary map of Dartmoor Line and rail connections

### 1.3. Report Content and Structure

This report provides a summary of the evaluation methodology and key findings of analysis of early impacts of the Dartmoor Line. More detail on the methodology and full data tables from the surveys undertaken are provided in a separate technical annex.

The report covers the following sections:

**Section 2: The Dartmoor Line** – discusses the history of the railway line and the expected outcomes and impacts of the reopened line.

**Section 3: Evaluation Objectives and Scope** – sets out the key evaluation questions addressed and the scope of the evaluation.

**Section 4: Evaluation Methodology** – sets out the methodology used for the study including the research methods and data sources used, and summarises the analysis undertaken for each area of assessment.

**Section 5: Early Impact Findings: Benefits for Transport Users** – provides findings to assess extent to which the Dartmoor Line has delivered benefits for transport users.

**Section 6: Early Impact Findings: Types of Journeys Enabled** – assesses the journey purpose of trips made on the Dartmoor Line.

**Section 7: Early Impact Findings: Impact on Other Modes** – presents evidence of modal change and the impact on local car and bus demand.

**Section 8: Early Impact Findings: Benefits for Local Area** – discusses early evidence of socio-economic outcomes such as the impact on employment and education.

**Section 9: Cost-effectiveness of the Dartmoor Line** – assesses the financial sustainability of the Dartmoor Line through a comparison of generated revenue against operating costs.

**Section 10: Summary and Next Steps** – provides a summary of the early impact findings and sets out proposals for further evaluation and data collection.

## 2. The Dartmoor Line

### 2.1. History of the Dartmoor Line

The Dartmoor Line was originally part of the route between Exeter and Plymouth with passenger services starting in the 1860s. Services were withdrawn in 1972 as part of a series of rail route closures and service changes across the UK. Between 1997 and 2019, the Line operated as a heritage line and passenger services funded by Devon County Council also ran on Sundays during the summer.



Figure 2: Okehampton station in the 1960s (photo credit: Dartmoorline.com)

### 2.2. Restoring Your Railway Programme

The RYR programme ran from January 2020 to July 2024 as part of a government pledge to invest in the reopening of railway lines and stations. The programme aimed to help reconnect smaller towns and contribute to regenerating local economies by improving access to jobs, housing, and education.

## 2.3. Reopened Line

The Dartmoor Line was the first line to be reopened under the RYR programme with funding announced in March 2021. This followed a long-running campaign by local people and organisations including the Dartmoor Railway Association (DRA) and the Devon and Cornwall Rail Partnership (DCRP) for the return of regular year-round services between Exeter and Okehampton. The project involved laying over 11 miles of track and upgrades to Okehampton station<sup>1</sup>.

The Dartmoor Line reopened for regular passenger services between Okehampton and Exeter in November 2021. Figure 3 shows the key features of the service and Figure 4 shows a Dartmoor Line train and the reopened Okehampton station.




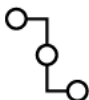

	<b>Service frequency</b> increased from an initial two-hourly service to an hourly service from May 2022.
	The <b>journey time</b> from Okehampton to Crediton and Exeter Central stations is typically 23 minutes and 40 minutes respectively.
	<b>First / last departures</b> are currently around 06:30 and 21:15 from Exeter and 07:25 and 22:20 from Okehampton Monday to Saturday. Services on Sunday begin later in the morning.
	The majority of Dartmoor Line trains are <b>through services</b> between Exeter St David's and Exeter Central; other services require a connecting service.
	The route is served by <b>Class 150 diesel trains</b> consisting of two carriages and a seating capacity of 122.

Figure 3: Key features of the Dartmoor Line

<sup>1</sup> Network Rail. *Reopening of passenger services to Okehampton*. Available at: <https://www.networkrail.co.uk/running-the-railway/our-routes/western/dartmoor-line/> (Accessed November 2024).





Figure 4: Okehampton station (photo credit: Devon and Cornwall Rail Partnership)

## 2.4. Expected Outcomes and Impacts

The business case for the reopening of the Dartmoor Line identified that previous connectivity between Okehampton and Exeter was undermined by poor public transport and traffic congestion on the edge of Exeter. Whilst there has been recent housing growth in Okehampton, the town is dependent on Exeter for access to jobs, education, and health services. At the same time, Exeter has a growing economy which is dependent on significant inward commuting.

The reopened Dartmoor Line aims to help this relationship and allow residents in Okehampton better access to jobs in Exeter and support employment growth in Exeter. Moreover, it also aims to give residents in Exeter and beyond better access to recreational outdoor exercise on Dartmoor, supporting healthier lifestyles and creating business opportunities in Okehampton due to an increase in the number of visitors.

The logic model for the Dartmoor Line is shown in Figure 5. This provides a systematic and visual way of presenting the steps required to turn a set of **inputs** (funding, skills, activities) into **outputs** (the delivered scheme) that are designed to lead to a specific set of **outcomes** (short and medium-term results) and **impacts** (long-term outcomes). The logic model shown builds upon the work undertaken to develop a Theory of Change for the wider programme, which sets a broad framework for understanding the causal effects of reopening secondary rail routes in England and Wales. The overarching inputs, outputs, outcomes and impacts from this programme-level theory of change have been adapted to make them specific to the Dartmoor Line. The model makes explicit the expected causal mechanisms linking the reopening of the Line with the expected transport and socio-economic outcomes and impacts. This in turn has guided the key evaluation questions (KEQs) and evidence collection set out in Section 3.

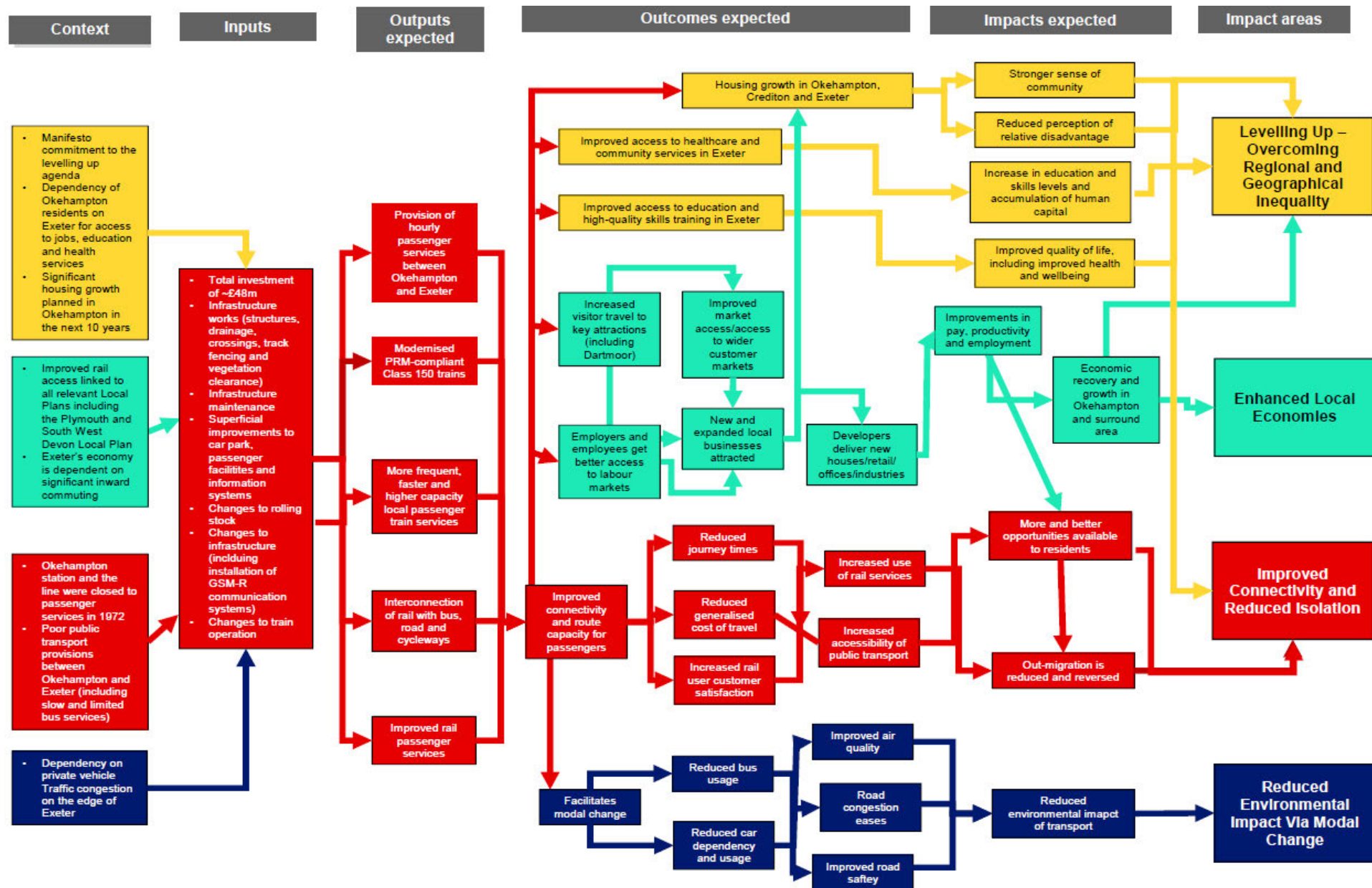


Figure 5: Dartmoor Line logic model

## 3. Evaluation Objectives and Scope

### 3.1. Key Evaluation Questions

The overall objective of this early impact evaluation is to identify, and where possible, quantify, the early consequential transport outcomes of the reopening of the Dartmoor Line.

To achieve this objective, a set of KEQs have been developed as shown in Table 1. The table also sets out specific outcome measures assessed under each KEQ, in addition to signposting where relevant findings are detailed within this report. For KEQs 1, 1.2 and 1.3, these relate to the transport-related outcomes identified in the logic model shown in Figure 5.

Key Evaluation Question	Specific outcome measure	Chapter
<b>KEQ 1:</b> To what extent has the Dartmoor Line delivered against anticipated benefits for transport users?	<ul style="list-style-type: none"> <li>Improved connectivity</li> <li>Increased route capacity</li> <li>Reduced journey time</li> <li>Reduced generalised cost of travel</li> <li>Increased rail user satisfaction</li> <li>Increased use of rail services</li> <li>Increased accessibility of public transport</li> </ul>	Chapter 5
<b>KEQ 1.1:</b> How does the level of usage for the Dartmoor Line compare to forecasts and what are the drivers of any observed differences?	<ul style="list-style-type: none"> <li>Review of forecasting methodology</li> <li>Comparison of forecast and outturn demand drivers</li> <li>Impact of Covid-19</li> <li>Comparison of forecast and outturn ticket type</li> </ul>	Technical annex
<b>KEQ 1.2:</b> What types of journeys has the Dartmoor Line enabled?	<ul style="list-style-type: none"> <li>Rail passenger journey purpose</li> </ul>	Chapter 6
<b>KEQ 1.3:</b> What impacts has the reopening of the Dartmoor Line has on the usage of other modes?	<ul style="list-style-type: none"> <li>Modal change</li> <li>Reduced bus usage</li> <li>Reduced car dependency and usage</li> </ul>	Chapter 7
<b>KEQ 2:</b> To what extent has the Dartmoor Line delivered against the anticipated benefits for the local area? *	<ul style="list-style-type: none"> <li>Access to employment and education</li> <li>Increased tourism</li> </ul>	Chapter 8
<b>KEQ 3:</b> Has the Dartmoor Line been cost-effective?	<ul style="list-style-type: none"> <li>Operating costs</li> <li>Revenue generated</li> <li>Level of surplus / subsidy</li> </ul>	Chapter 9
<b>KEQ 4:</b> Was the Dartmoor Line delivered on time and to budget?	<ul style="list-style-type: none"> <li>Outturn vs forecast project timescales and capital costs</li> </ul>	Chapter 10

\* It is expected that KEQ 2 will be fully assessed in long-term impact evaluation study of the reopening of the Dartmoor Line. However some early evidence is provided in this report.

**Table 1: Dartmoor Line early impact KEQs and associated specific outcome measures**



### 3.2. Evaluation Scope

This evaluation focuses on the transport outcomes of reopening the Dartmoor Line (i.e., KEQ 1, 1.1, 1.2 and 1.3). This is because it is too soon to assess the socio-economic outcomes and impacts identified in the logic model, as these often take years to be substantially realised.

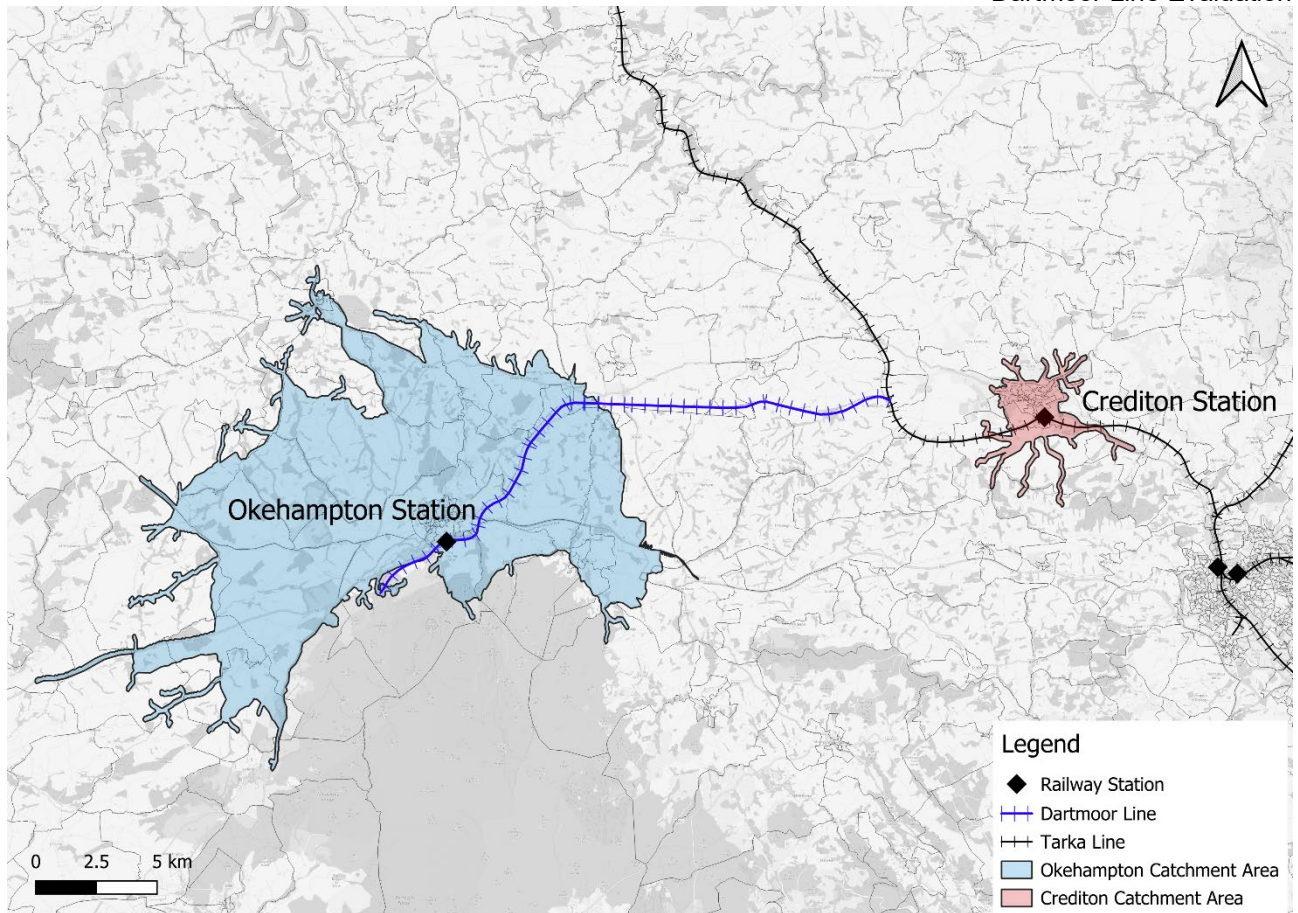
The following transport outcomes included in the logic model have not been considered as part of this early impact evaluation and are out of scope:

- **Improved road safety:** a reduction in car usage because of the Dartmoor Line reopening could result in fewer road accidents and an improvement in road safety. However, due to the random and relatively infrequent nature of accidents, it is advisable that such changes are measured over longer periods of time (e.g., five years) to assess accident trends more robustly. As at this stage less than two years' worth of accident data post-opening is available. It is recommended that the assessment of road accident data is undertaken in a future evaluation when more data can be collected. This would need to include data for the roads linking Okehampton and Exeter (including the A30) as well as a comparator route.
- **Improved air quality:** a reduction in car usage due to modal shift to the Dartmoor Line in the area may lead to improved air quality. However, as there are currently no air quality monitoring sites along the roads between Okehampton and Exeter that would likely see an improvement in air quality as a result of the reopening of the Dartmoor Line, no explicit assessment has been undertaken.

It is expected that wider benefits to the local area (i.e., KEQ 2) will be fully assessed in a later, long-term impact evaluation study of the reopening of the Dartmoor Line. However, some consideration has been given to wider benefits and any early evidence of socio-economic outcomes in this study. This concerns the Line's impact on tourism, and access to education and employment, as set out in Chapter 8.

### 3.3. Study Area

To focus the data collection and analysis on geographically relevant areas, a study area has been defined using a Geographic Information System (GIS) to identify the area reachable within a 15-minute and 5-minute drive time from Okehampton and Crediton stations respectively (Figure 6). This represents the geographical area over which the main impacts of the reopening of the Dartmoor Line are expected to be experienced. In the absence of any other data to derive the study area empirically, the drive times assume how long people would typically be willing to travel to Okehampton and Crediton stations. The Crediton study area is smaller than for Okehampton owing to the proximity of other stations on the Tarka Line.



**Figure 6: Evaluation study area**

The study area defines the boundary for the extent of the secondary data analysis undertaken, as well as the population from survey respondents were recruited. For certain aspects of this early evaluation study, assessment has covered areas outside of the main study area, e.g., analysis of road congestion includes traffic counts on the A30 close to Exeter. To maximise sample sizes, the residents' and on-train surveys undertaken as part of this early evaluation have also included parts of Crediton which has also benefited from the reopened line, as follows:

- For the residents' survey, households reachable within a 15-minute drive time from Crediton station were invited to provide a survey response.
- For the on-train survey, data collection was completed at Crediton station.

It is acknowledged that the impacts of the reopened Line such as improved accessibility will extend beyond the study area defined above to the wider West Devon and North Cornwall region. These regional impacts will be enhanced further following the opening of Okehampton Interchange on the Line in spring 2026. This will complement Okehampton station and serve the east side of the town. It will be just two minutes from the A30 facilitating access from the wider region by road. It is recommended that the impacts across the wider region are examined in a further evaluation of the Line at a later date.

## 4. Evaluation Methodology

### 4.1. Overview

The reopening of the Dartmoor Line represents a relatively simple transport intervention that reintroduced a regular rail service between three stations: Okehampton, Crediton and Exeter St David's. However, the wider context in which this reopening has taken place is complex. For instance, the Dartmoor Line connects into the wider rail network, providing opportunities to interchange and travel between a vast number of origins and destinations across the country. Furthermore, it also interacts with other modes of transport, especially private vehicle and local bus services.

Due to this complexity, this evaluation takes a [theory-based approach](#) to address the KEQs. The emphasis is placed on using evidence from different sources to assess whether the Dartmoor Line's expected outcomes have occurred, as anticipated in the logic model (Figure 5) and if so, to what extent the line is responsible for the observed outcomes. This evaluation does not attempt to isolate and estimate precise effect sizes using causal or econometric methods. This is largely because no baseline study was undertaken prior to the opening of the line and the data required to apply these methods were not available.

Qualitative and quantitative research methods, as well as primary and secondary data sources have been used to develop an evidence base to inform the findings of this early impact evaluation study. This mixed method approach provides multiple sources of evidence on any outcomes of the Dartmoor Line that might have occurred. In this study, we triangulate data and evidence from the following sources to answer the key evaluation questions (Figure 7):

- [primary data collection](#) including:
  - an [on-train survey](#) of Dartmoor Line passengers
  - a [survey of residents](#) in the Okehampton and Crediton areas
  - [stakeholder interviews](#) with organisations involved in the development and delivery of the Line
  - [interviews with local businesses](#) that may have been impacted by the reopening of the Line
- [secondary data analysis](#) including rail and bus demand data, and traffic counts.

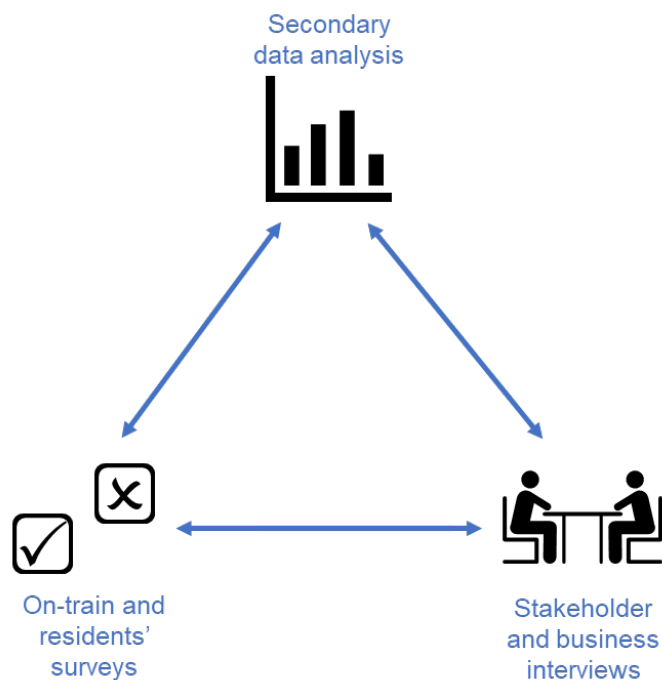


Figure 7: Triangulation of evaluation evidence sources

In this approach, there is no hierarchy of evidence, meaning no one data source takes precedence over another. However, for a particular area of assessment, some sources are more relevant than others. We triangulate evidence in order to identify where different data sources align or contradict one another. If different sources align, then we are able to draw a conclusion about the impact of the Dartmoor Line, this may be either positive or negative. However, where they are divergent, we determine the evidence to be inconclusive and make no firm conclusions about the impact of the Dartmoor Line.

## 4.2. Primary Data Collection

Four different research activities were undertaken to support the early impact evaluation of the Dartmoor Line. These are summarised in Table 2 below, with more detail provided in the technical annex.

Research activity	On-train survey	Residents' survey	Stakeholder interviews	Business interviews
Data collection approach	Face-to-face survey on-train and at Okehampton and Crediton train stations between 11 <sup>th</sup> September and 8 <sup>th</sup> October 2023	Online survey between 30 <sup>th</sup> October and 19 <sup>th</sup> November 2023, promoted via letters to 12,069 residential addresses	Video-call interviews, lasting up to 1 hour	Video-call interviews, lasting up to 1 hour
Sample size	552	1,429	7	3
Sample characteristics	Dartmoor Line users aged 16 years and over (capturing visitors, as well as residents)	Okehampton and Crediton residents aged 16 years and over	Stakeholders who had a role in the delivery of the Dartmoor Line	Local businesses to the Dartmoor Line
Question areas	<ul style="list-style-type: none"> <li>Use of the Dartmoor Line</li> <li>Tourism and the Dartmoor Line</li> <li>Impact of the Dartmoor Line on transport choice, travel costs, journey time and travel satisfaction</li> <li>Satisfaction with different elements of the railway</li> <li>Impact of the Dartmoor Line on access to different opportunities</li> <li>Demographic questions</li> </ul>	<ul style="list-style-type: none"> <li>Awareness and use of the Dartmoor Line</li> <li>Impact of the Dartmoor Line on transport choice, travel costs, journey time and travel satisfaction</li> <li>Satisfaction with different elements of the Dartmoor Line</li> <li>Impact of the Dartmoor Line on access to different opportunities and on the local area</li> <li>Demographic questions</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholder role</li> <li>Observations on delivery</li> <li>Observations on performance and impact</li> </ul>	<ul style="list-style-type: none"> <li>Business overview</li> <li>Observations on performance and impact</li> </ul>
Analysis approach	Descriptive statistics and significance testing by key respondent demographics, using chi-square tests		Thematic analysis	

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**Table 2: Primary data collection methods**

### 4.3. Secondary Data Collection

A range of secondary data has been collected to provide evidence of the early impacts of the reopening of the Dartmoor Line. This has been gathered from publicly available sources or provided by stakeholders, and includes information on:

- rail passenger demand and revenue (from the rail industry's ticketing and revenue system, LENNON)
- operating costs
- bus passenger demand (provided by Stagecoach, the local bus operator)
- local road traffic count data (from the Highways England Traffic Information System, WebTRIS<sup>2</sup>)
- public transport timetables including the Dartmoor Line and local bus services.

As set out below, data has also been gathered for comparator routes for certain analyses to inform the findings and assess the extent to which any changes in outcomes can be attributed to the Dartmoor Line. Full details on all the secondary data and how it has been analysed to contribute to this evaluation study are provided in Appendix B.

### 4.4. Comparator Areas

A key element of evaluation is assessing the extent of an intervention's contribution to the impacts observed. This is typically achieved by comparing against the **counterfactual: what would otherwise have happened if the intervention had not taken place**. The impact of the intervention is then estimated by comparing counterfactual outcomes to those observed under the intervention. Whilst in reality, the true counterfactual can never be directly observed, it can be approximated through reference to a **comparator area**. Ideally, the comparator area should have similar characteristics to the Dartmoor Line (e.g. population, incomes, age profile) but have not benefited from any recent significant transport investment or intervention.

In this early evaluation study, simple comparator analysis has been used to assess the extent to which any differences in observed outcomes between the Dartmoor Line and the comparator can be attributed to the Dartmoor Line rather than external factors. Due to data limitations<sup>3</sup>, more robust causal inference methods such as difference-in-differences have not been used and only simple comparisons have been undertaken using secondary data.

Examples of comparators used in this analysis are:

- to evaluate the extent to which the Dartmoor Line has reduced car usage, change in traffic on the A30 (the main road between Okehampton and Exeter) before and after the Line reopened has been compared with that on the A30 east of Exeter and the A38; and

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<sup>2</sup> National Highways. *Traffic Information System*. Available at: <https://webtris.highwaysengland.co.uk/> [Accessed November 2024]

<sup>3</sup> A lack of baseline residents and train user survey and limited spatial granularity and sample sizes. For more information, please see Table 3.



- to assess the increased use of rail due to the Dartmoor Line, rail passenger demand growth at Dartmoor Line stations where rail services operated before the Line reopened (Crediton, Exeter St David's and Exeter Central) have been compared with that at Barnstaple station on the Tarka Line.

## 4.5. Data Sources by KEQ

As noted above, a combination of primary and secondary data has been used to assess each KEQ. For certain areas of assessment (e.g., *improved connectivity*, KEQ 1), findings have been informed by all five sources of data (on-train survey, residents' survey, stakeholder interviews, business interviews and secondary data) whereas for others, findings have only been informed by just the surveys (e.g., *increased rail user satisfaction*) or just the secondary data (e.g., *increased accessibility of public transport*)

Table 3 below sets out the source of data informing each KEQ.



Data Source	KEQ 1: Improved connectivity	KEQ 1: Increased route capacity	KEQ 1: Reduced journey times	KEQ 1: Reduced generalised cost of travel	KEQ 1: Increased rail user satisfaction	KEQ 1: Increased use of rail services	KEQ 1: Increased accessibility of public transport	KEQ 1.1: Actual level of usage compared to forecast	KEQ 1.2: Journey types enabled	KEQ 1.3: Impacts on bus demand	KEQ 1.3: Impacts on car demand	KEQ 1.3: Impacts on mode share	KEQ 2: Benefits for the local area	KEQ 3: Cost-effectiveness of Dartmoor Line	KEQ 4: Project delivery
Secondary data analysis	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓
On-train survey	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓		
Residents' survey	✓			✓	✓	✓			✓	✓	✓	✓	✓		
Stakeholder interviews	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓		✓
Business interviews	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓		

Table 3: Data sources by KEQ

## 4.6. Methodological limitations

The mixed method approach used for this evaluation of the Dartmoor Line is intended to provide an indication of early trends following the two years it has been in operation.

As noted above, either a single cross-sectional survey or simple comparator analysis has been used to assess the outcomes and impacts of the Dartmoor Line in this evaluation. This approach was largely determined by the fact no baseline data collection was undertaken prior to the Line reopening. Whilst simple comparator analysis can provide an indication of the Dartmoor Line's effects, this evaluation does not control for confounding factors, meaning that it is not possible to isolate and estimate precise effect sizes.

It should, also be emphasised that findings reported here may not represent longer-term effects. Trends may be distorted by the Covid-19 pandemic and subsequent recovery. This means that findings at this stage cannot be used to conclusively determine the contribution of the Dartmoor Line on the benefits to local users and impacts on the area, relative to other factors.

Finally, ahead of the presentation of the findings in the subsequent sections of this report, it is also useful to discuss the robustness of the data sources and highlight any potential limitations in the evaluation findings (Table 4). Where applicable, these are also set out alongside the analysis throughout the report.

Data Source	Strengths	Potential limitations
Secondary data	<ul style="list-style-type: none"> <li>▪ The datasets used for this early evaluation are widely used in the transport sector and therefore they are established, credible sources that provide a reliable and efficient means of understanding key trends which could not easily be assessed using primary data.</li> <li>▪ Datasets provide objective insights into travel behaviour, through collating information from true passenger behaviours (e.g. ticket sales) rather relying on passenger perceptions</li> <li>▪ Most datasets are longitudinal, using robust data collection methods, and providing data before and after the reopening of the Dartmoor Line, and so the data series established can be extended in future evaluations. This will allow trends to be analysed over time and inform whether the Line has had a long-term impact.</li> </ul>	<ul style="list-style-type: none"> <li>▪ At this early stage, there is limited post-opening data available which does not provide a complete picture of all outcomes and impacts from the reopening of the Line.</li> <li>▪ Some datasets lack granularity and represent a wider geography than the study area or catchment population of the Dartmoor Line (e.g., road traffic counts). Trends may therefore be influenced by broader factors which may mask any localised impacts of the Line.</li> </ul>
On-train survey	<ul style="list-style-type: none"> <li>▪ The survey explicitly captured in-the-moment feedback from Dartmoor Line users, including both visitors and residents.</li> <li>▪ Quantitative approach enables general trends and patterns to be identified as the evaluation progresses (e.g., journey purpose and passenger satisfaction).</li> <li>▪ The survey was designed by evaluation researchers with specialisms in transport. Materials were tested and agreed by DfT ahead of full launch.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Opportunity sampling was used on train services and at Crediton and Okehampton stations between 11<sup>th</sup> September and 8<sup>th</sup> October 2023. The sample may not be fully representative of the general population of Dartmoor Line users.</li> <li>▪ The sample is specifically drawn from passengers travelling on the Dartmoor Line and provides limited insight on non-users of the Dartmoor Line.</li> <li>▪ It was not possible to undertake an on-train survey prior to the Line's opening. For this reason, some questions on attitudes and behaviours prior to the Line's opening are asked retrospectively, which may be affected by memory or recall bias.</li> </ul>

Residents' survey	<ul style="list-style-type: none"> <li>▪ The survey captured feedback from residents living around the Dartmoor Line</li> <li>▪ Provides an understanding of what proportion of the local population are using the Line, their characteristics and travel patterns and behaviours.</li> <li>▪ A targeted letter, providing an online link to the survey and telephone response number, ensured those completing the survey were local residents. Addresses receiving the letter were randomly selected out of those in scope.</li> <li>▪ The sample is probability-based, with all residential addresses within the defined catchment areas being eligible to take part in the survey (having an equal probability of taking part), allowing for wider generalisation of patterns and trends (e.g., levels of ridership).</li> <li>▪ Provides perspectives and responses from non-rail users.</li> <li>▪ As above, the quantitative approach enables general trends and patterns to be identified as the evaluation progresses.</li> <li>▪ The questionnaire was carefully designed, tested, and reviewed ahead of full launch.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The final sample was not fully representative of the population surrounding Okehampton and Crediton train stations, in terms of age and gender. Calibration weighting has been applied to balance these characteristics in the sample, based on data from the 2021 Census.</li> <li>▪ No baseline survey was undertaken and only one (post-opening) survey has been conducted to date. For this reason, some questions on attitudes and behaviours prior to the Line's opening are asked retrospectively, which may be affected by memory or recall bias.</li> </ul>
Stakeholder and business interviews	<ul style="list-style-type: none"> <li>▪ Interviews captured qualitative feedback to understand potential reasons behind emerging trends in more detail.</li> <li>▪ As above, interview materials were designed by evaluation researchers with specialisms in transport and extensively tested and reviewed.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Respondents' perspectives on the impact of the reopening of the Dartmoor Line are subjective and solely based on their own opinions and might not accurately reflect the real-world situation.</li> </ul>

Table 4: Strengths and potential limitations of evaluation study research method

## 5. Early Impact Findings: Benefits for Transport Users (KEQ 1)

### 5.1. Summary Findings

#### **KEQ 1: To what extent has the Dartmoor Line delivered against anticipated benefits for transport users?**

Overall, the Dartmoor Line has delivered a range of benefits to transport users including:

- improved connectivity between Okehampton, Crediton and Exeter.
- reduced public transport journey times and costs.
- increased accessibility of public transport in the Okehampton area.

The Line has facilitated leisure travel and tourism, and increased accessibility to work and education, especially for those with without a car.

There is a reported increase in the use of rail in the local area since the reopening of the Line with rail users with residents saying that they now travel by rail more frequently.

There are also high levels of satisfaction amongst rail users and residents with the Line, both overall and with different aspects of the service including the journey time, levels of crowding, affordability, and integration with other modes of transport.



### Increased route capacity

- The Dartmoor Line now provides 15 rail services a day and over 4,400 seats in each direction between Okehampton and Exeter. Between Crediton and Exeter, this means an almost doubling of rail capacity. This represents a major increase in transport network capacity alongside the road connections and bus services.
- There are generally high levels of satisfaction with levels of crowding and ability to get a seat.



### Reduced journey time

- The Dartmoor Line has reduced door-to-door journey times for large parts of the Okehampton area, including compared to bus travel. However, 52% of the population of the Okehampton area are seeing no impact on public transport journey times to Exeter Central as a result of the Line reopening.
- Despite this, there are high levels of satisfaction with journey times on the Dartmoor Line.



### Improved connectivity

- The Line is perceived to have had a positive impact on connectivity for a range of journey purposes, particularly leisure activities such as accessing sports clubs, the cinema, shops and visiting friends and relatives.



### Increased accessibility of public transport

- Over 10,000 people are now within a 20-minute walk of a railway station as a result of the Dartmoor Line reopening. Previously, the nearest station was 18 miles away in Crediton. As a result, walking and cycling connections with the Dartmoor Line are rated as good, especially by residents residing in more urban than rural areas around the Line.
- The 6A bus service has been rerouted to service Okehampton railway station and public transport connections are rated as good, especially by residents residing in more urban than rural areas around the Line.
- Okehampton railway station provides 70 parking spaces and parking at Dartmoor Line stations is rated as good.
- Line users tend to access Okehampton station by car, or by foot.



### Reduced generalised cost of travel

- The generalised cost of the Dartmoor Line is typically less than by bus between Okehampton and Exeter.
- The Dartmoor Line is generally perceived to provide cost savings, especially in comparison to travelling by car.



### Increased rail user satisfaction

- There are high levels of overall satisfaction with the Dartmoor Line with over nine in ten rail users and residents rating it as 'good' or 'very good'.



### Increased rail usage

- Around 796,000 trips have been made on the Dartmoor Line between its opening and November 2024. Nearly 60% of these were wholly on the Line with the remainder to/from non-Dartmoor Line stations via an interchange.
- At the Dartmoor Line stations where there were already rail services before the reopening of the Line (Credon, Exeter St David's and Exeter Central), there was a much larger demand increase in the first year of the Line being operational compared to comparator stations, which may be attributed to the impact of the Line.
- The majority of respondents to both the on-train survey (81%) and most respondents to the residents' (67%) survey reported that they now travel by rail more frequently than before the Line reopened.

## 5.2. Increased Route Capacity

*An expected outcome of the reopening of the Dartmoor Line is an increase in the overall transport network route capacity between Okehampton, Crediton and Exeter since it provides new rail passenger services in addition to the existing road capacity and bus services along the route.*

### Evidence Assessed

The assessment of increased route capacity has been undertaken using the data sources shown in Table 5.

Data Sources	Analysis
Secondary data	<ul style="list-style-type: none"> <li>Analysis of GWR rail timetables and rolling stock capacities from MOIRA2<sup>4</sup> to understand the number of trains and passenger seats per day.</li> </ul>
On-train survey Residents' survey	<ul style="list-style-type: none"> <li>Analysis of self-reported rail passenger satisfaction with being able to find a seat, observations on crowding and observations on service frequency.</li> </ul>

Table 5: Assessment of increased route capacity

### Rail capacity

Table 6 shows the number of trains and seats in each direction (Okehampton – Exeter) on a weekday on the Dartmoor Line. This shows there are now **15 services a day providing over 1,830 seats including 244 in the morning peak.**

Capacity Element	AM peak (6 to 9am)	Inter-peak (9am to 4pm)	PM peak (4 to 7pm)	Evening (after 7pm)	Total
Number of trains	2	7	3	3	15
Number of seats	244	854	366	366	1,830

Source: GWR Dartmoor Line weekday timetable (May to December 2023); GWR rolling stock capacity for a 2-car Class 150 train from MOIRA2

Table 6: Dartmoor Line weekday unidirectional rail capacity (Okehampton to Exeter) by time period

Between Crediton and Exeter, the reopening of the Dartmoor Line has provided additional rail capacity. Previously this section of the network was only served by Tarka Line services (the railway line between Exeter and Barnstaple via Crediton) with a frequency of one train per hour. There are now two trains per hour with the addition of Dartmoor Line services. This means there are now 15 more trains and a maximum of 1,830 more seats each

<sup>4</sup> Rail timetable model which calculates generalised journey times and can compare the demand and revenue impacts of different rail timetables. It can also be used to model crowding and calculate economic benefits



weekday compared to before the reopening of the Dartmoor Line. This equates to a 54.4% increase in rail capacity (both trains and seats) between Crediton and Exeter (Table 7).

Capacity Element	AM peak (6 to 9am)	Inter-peak (9am to 4pm)	PM peak (4 to 7pm)	Evening (after 7pm)	Total
<b>Before reopening of the Dartmoor Line</b>					
Number of trains	3	7	3	4	17
Maximum number of seats	594	1,386	594	792	3,366
<b>After reopening of the Dartmoor Line</b>					
Number of trains	5	14	6	7	32
Maximum number of seats	838	2,240	960	1,158	5,196
<b>Increase in rail capacity</b>					
Number of trains	2	7	3	3	15
Maximum number of seats	244	854	366	366	1,830
% change	41.1%	61.6%	61.6%	46.2%	54.4%

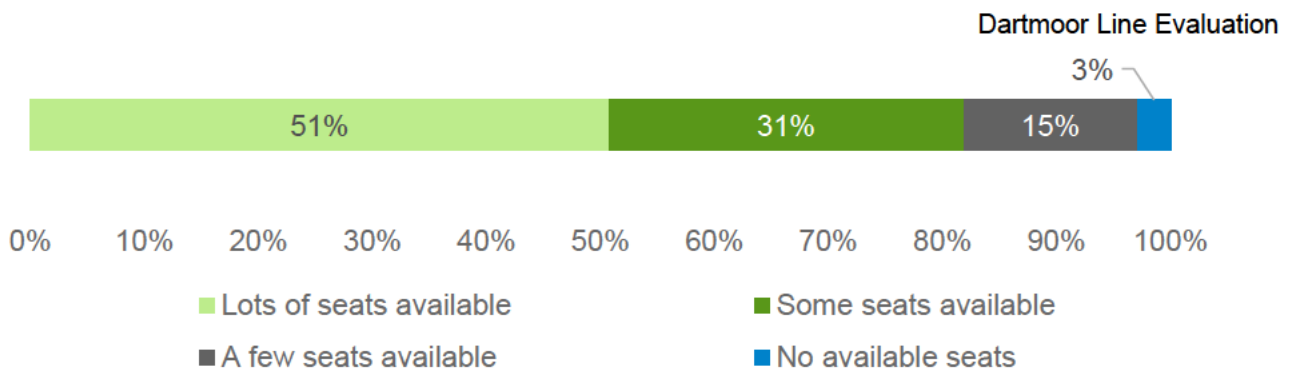
Source: GWR Dartmoor Line and Tarka Line weekday timetable (May to December 2023); GWR rolling stock capacity for Class 150 and Class 158 trains

**Table 7: Dartmoor Line weekday unidirectional rail capacity (Crediton to Exeter) by time period**

The local road capacity has not changed since the reopening of the Line, with no capacity improvements on the A30, the main road between Okehampton and Exeter. For bus, however, there was a timetable revision in November 2022 which marginally reduced the off-peak frequency and therefore capacity. Despite this, overall, the introduction of rail services represents a major increase in transport network capacity between Okehampton, Crediton and Exeter.

### **Rail passenger satisfaction with capacity**

Nearly all respondents to the on-train survey (97%) stated that there were seats available when they boarded the Dartmoor Line at the time of completing the survey, with 51% of respondents stating that there were 'lots of seats available' (Figure 8). This would suggest that there are currently adequate levels of capacity on the Line, although the survey was unable to isolate satisfaction with capacity at peak periods.



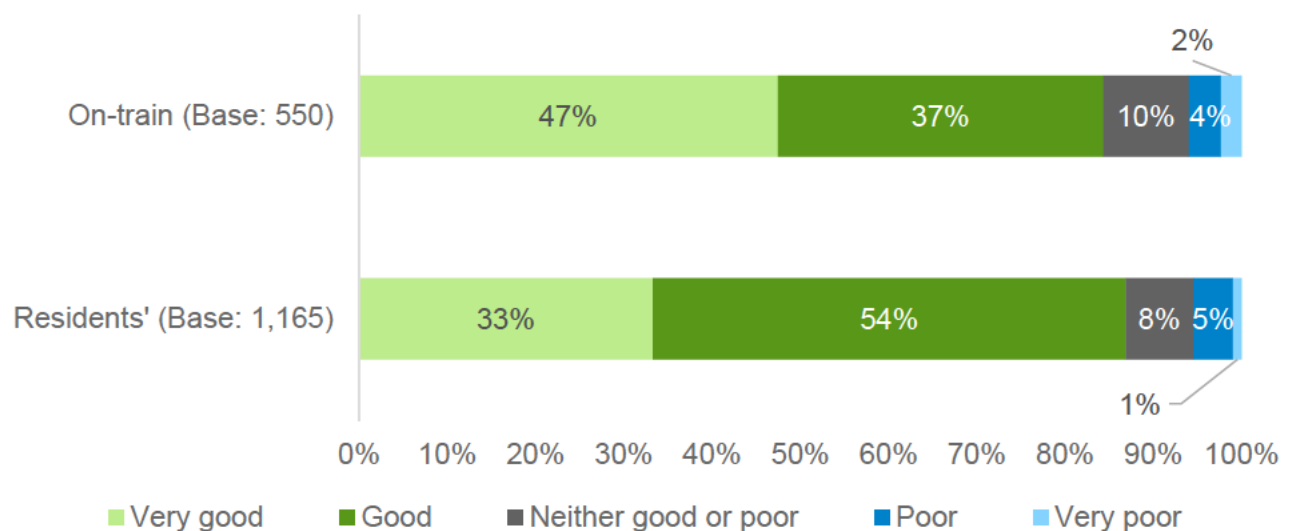
Source: On-train survey (Base: 552)

Figure 8: Overall, how busy was the train when you boarded it?

Despite differences in frequency of use of the Dartmoor Line, across both the on-train and residents' surveys, the availability of seats on the Dartmoor Line was perceived to be good (Figure 9):

- 84% of respondents to the on-train survey rated the availability of seats as either 'very good' or 'good'; and
- 87% of respondents to the residents' survey rated the availability of seats as 'very good' or 'good'.

Similar and only very small proportions of respondents rated the availability of seats as either 'very poor' or 'poor'.



Source: On-train and residents' survey (users only)<sup>5</sup>

Figure 9: Thinking about the Dartmoor Line, how would you rate the availability of seats?

<sup>5</sup> Figure 10 shows responses from on-train survey respondents and residents' survey respondents who had reported using the Dartmoor Line since its reopening in November 2021 (82% of residents' survey respondents).

The survey findings are largely supported by stakeholders who expressed overall high levels of satisfaction with route capacity, especially after the service became hourly. Most stakeholders described there being no capacity issues. However, one thought more carriages are needed, and another stated having experienced capacity issues on Friday afternoons.

*“Usually there are seats, but ... a Friday [...] after work, schoolish time [...] it has been quite packed then.”*  
Local Authority representative

### **Evidence summary**

The Dartmoor Line reopening has introduced 15 rail services per day, providing over 4,400 rail seats between Okehampton and Exeter. It has also doubled the rail capacity between Crediton and Exeter.

Despite there being no capacity improvements to the road network since the reopening of the Line, and marginal reductions in the off-peak bus frequency, this major increase in rail capacity does mean there has been an overall increase in transport network capacity between Okehampton, Crediton and Exeter as a result of the Line reopening.

Evidence from the on-train and residents' surveys shows that the capacity of the Line is perceived to be good, with the majority of respondents rating the availability of seats as either 'good' or 'very good'. This is largely supported by stakeholders who expressed overall high levels of satisfaction with route capacity, especially after the Dartmoor Line service became hourly. The availability of seats, however, is not indicative of significant excess capacity with passenger demand currently in excess of forecasts and the line generating an operating surplus (as discussed later in the report).

## **5.3. Reduced Journey Time**

*An expected outcome of the reopening of the Dartmoor Line is a reduction in public transport journey times between Okehampton, Crediton and Exeter. This will result from the provision of new rail passenger services which have a shorter in-vehicle journey time than existing bus services.*

### **Evidence Assessed**

Assessment of reduced public transport journey times has been undertaken using the data sources shown in Table 8.

<b>Data Sources</b>	<b>Analysis</b>
Secondary data	<ul style="list-style-type: none"> <li>Comparison of the number of interchanges before and after the Dartmoor Line reopening, utilising timetable information from the Dartmoor Line and key bus service routes.</li> <li>Assessment of how door-to-door journey times by public transport have changed following the Dartmoor Line reopening using TRACC. This is a journey time analysis</li> </ul>

	<p>tool that uses actual public transport timetables to calculate accurate journey times. From multiple origins to multiple destinations, TRACC then analyses how many origins can access each destination within specified time ranges, creating travel time contours.</p> <ul style="list-style-type: none"> <li>Comparison of rail and bus in-vehicle journey times using current rail and bus timetables.</li> </ul>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Analysis of self-reported perceptions of journey time, including perceived journey time changes as a result of modal shift.</li> </ul>

Table 8: Assessment of reduced journey time

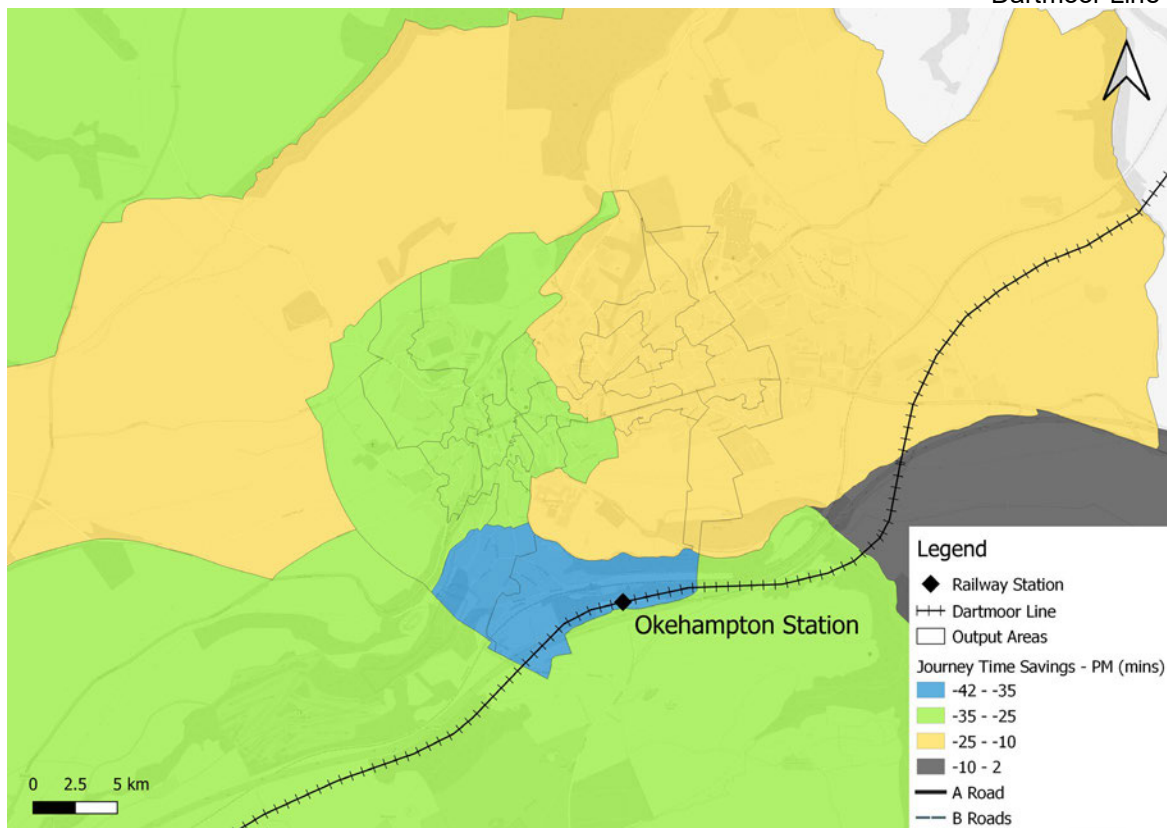
### **Number of interchanges**

Before the reopening of the Dartmoor Line, there was already a direct bus service (route 6A), and therefore no requirement for interchange, between Okehampton and Exeter. This service continues to operate alongside the direct rail service. There has therefore been **no impact on the number of interchanges** as a result of the Line reopening.

### **Door-to-door public transport journey times**

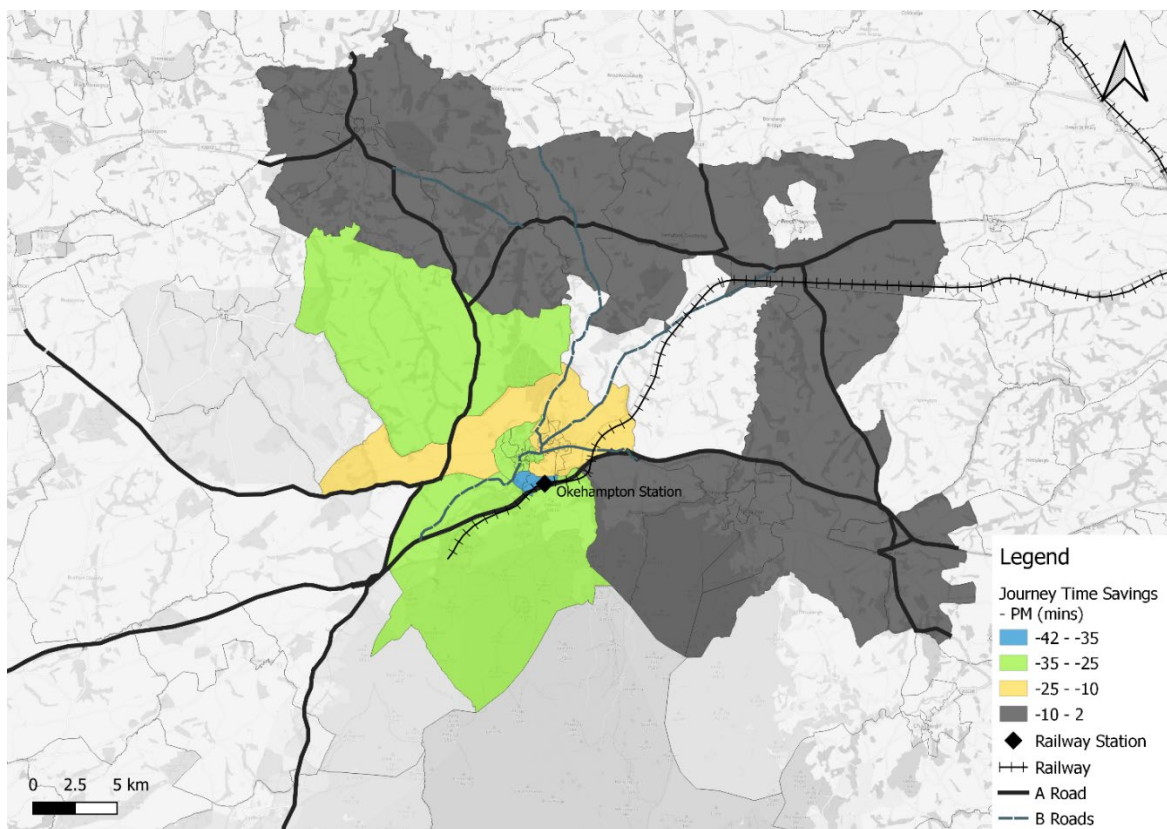
TRACC has been used to assess the impact on door-to-door journey times by public transport (bus and rail) due to the reopening of the Dartmoor Line. This uses timetable information before and after the reopening of the Line and considers changes in bus frequency (as discussed in Section 7, the frequency of the bus service between Okehampton and Exeter has reduced since the reopening of the Line). It also factors in walk time to/from the nearest bus stop or railway station and assumes no car access.

The reduction in minimum public transport journey times between Okehampton and Exeter city centre (represented by Exeter Central station) is shown in Figure 10 for the area immediately around Okehampton, with Figure 11 showing the reduction across the whole study area. This shows a **journey time saving of up to 10 minutes for large parts of the Okehampton area** with some parts close to Okehampton station benefitting by up to 40 minutes.



Source: TRACC

**Figure 10: Reduction in minimum public transport journey times from Okehampton to Exeter Central station (AM peak period)**



Source: TRACC

**Figure 11: Reduction in minimum public transport journey times from the study area to Exeter Central station (AM peak period)**



Table 9 shows the impact of the reduced public transport journey times by proportion of the population of the Okehampton area. This shows that for **nearly 20% of the population in this area, public transport journey times to Exeter Central station have been reduced by at least 10 minutes** because of the reopening of the Dartmoor Line. By contrast, 52% of the population of the Okehampton area have seen no impact on public transport journey times to Exeter Central as a result of the Line reopening.

<b>Public transport journey time saving to Exeter Central reduction after Line reopening (minutes)</b>	<b>&gt; 20</b>	<b>10 – 20</b>	<b>&lt; 10</b>	<b>No impact</b>
<b>Population</b>	2,123	1,456	5,350	9,546
<b>%</b>	11%	8%	29%	52%

Source: TRACC, 2021 Census data

**Table 9: Public transport journey time saving from Okehampton to Exeter Central station in AM peak period by proportion of population of the Okehampton area**

### ***In-vehicle journey times***

The in-vehicle journey time represents only the time spent on board a vehicle i.e. bus or train. It is therefore part of the door-to-door journey time analysed above but excludes the time spent off the vehicle such as the trip to the station or bus stop, or to the final destination. Table 10 shows the typical in-vehicle journey times by bus and rail for the Okehampton to Crediton and Okehampton to Exeter routes. The time saving by rail is also shown, calculated by subtracting the typical rail journey time from the typical bus journey time. This shows that the **journey time is shorter for both routes by rail, compared to travelling the same route by bus**. Specifically, the journey is now 45 minutes faster between Okehampton and Crediton and 35 minutes faster between Okehampton and Exeter. Note that whilst there has been some revision of bus timetables since the reopening of the Dartmoor Line<sup>6</sup>, in-vehicle times are broadly the same compared to before the reopening.

<b>Route</b>	<b>Typical journey time (minutes)</b>		<b>Journey time saving by rail (minutes)</b>
	<b>Bus</b>	<b>Rail</b>	
Okehampton – Crediton	70	25	45
Okehampton – Exeter	75	40	35

Source: GWR Dartmoor Line and Tarka Line weekday timetable (May to December 2023); Stagecoach 5A (Okehampton – Crediton) and 6A (Okehampton – Exeter) bus services (September 2023)

**Table 10: Typical journey time and rail journey time saving by route**

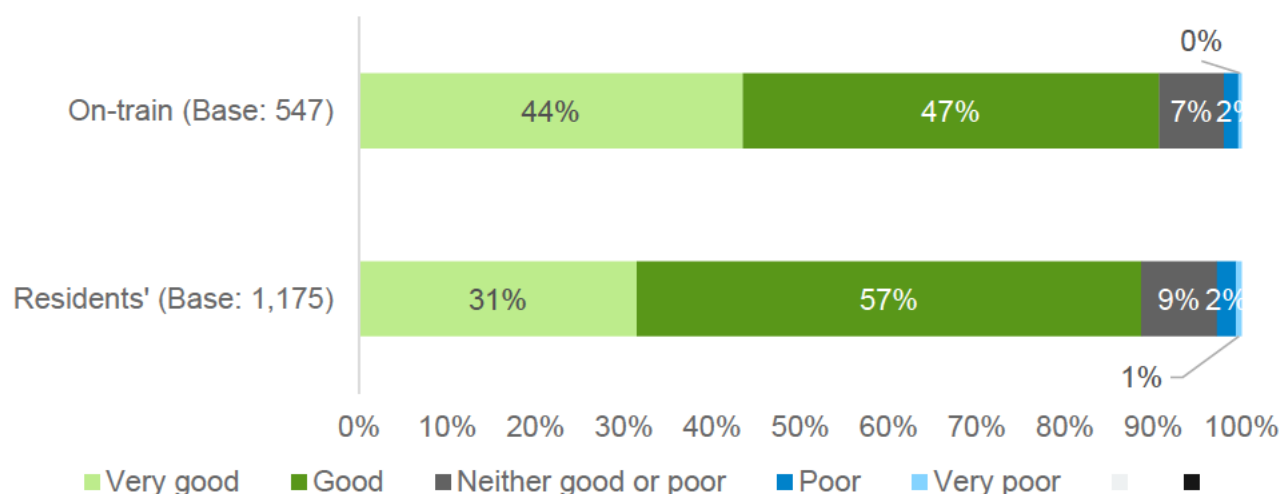
<sup>6</sup> The 6A bus service is operated by Stagecoach and runs between Okehampton railway station and Exeter city centre. Whilst the service has been largely maintained in the peak period, there has been a reduction in off-peak service frequency since late 2022. The timetable changes were designed to facilitate integration between the 6A and other bus services with rail services at Okehampton station. The operator has attributed the reduction in off-peak frequency to a range of reasons including the fall in bus demand post-Covid and the reopening of the Line which has resulted in passengers using rail instead of bus.

### Perception of journey time and journey time changes

Across both the on-train and residents' surveys, the majority of respondents stated that journey times on the Dartmoor Line were 'good' or 'very good' (Figure 12):

- 80% of respondents to the on-train survey rated journey times as either 'very good' or 'good'; and
- 88% of respondents to the residents' survey rated journey times as either 'very good' or 'good'.

Very small proportions of respondents across both surveys rated journey times as either 'very poor' or 'poor'.



Source: On-train and residents' surveys (excluding 'Don't know' and 'Not applicable') (users only)

Figure 12: Thinking about the Dartmoor Line, how would you rate journey times?

Stakeholders and businesses interviewed also expressed satisfaction with the current journey time of the Line, with the Line perceived to take less time than driving or travelling by bus, particularly for journeys into Exeter where there is usually congestion. One specific example of observed journey time benefits was for students travelling to a special educational school in Okehampton. Students had previously travelled to this school by taxi, with journey times of up to two and a half hours. However, access to the Dartmoor Line had greatly reduced this journey time for them.

*"[Students] would be taxed into school [...] they could have had a two-and-a-half-hour journey, whereas now they can pop on the train with a chaperone and get into Okehampton."*  
Education establishment

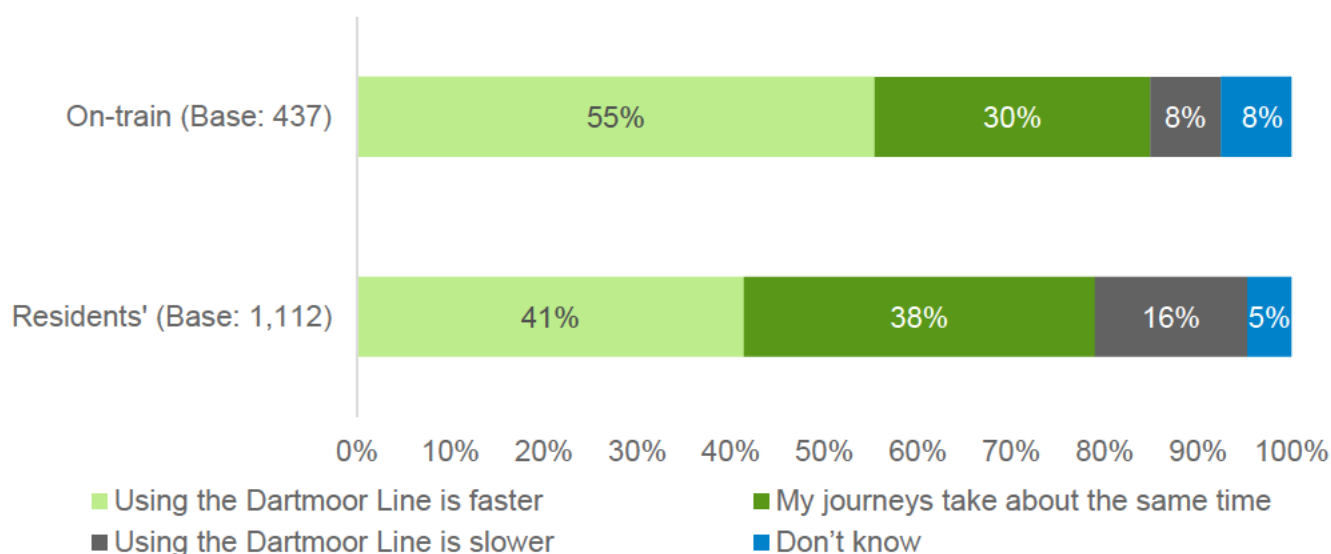
Respondents who reported changing from another type of transport to using the Dartmoor Line since the Line reopening<sup>7</sup> were asked what journey time impact, if any, this change had had for their journeys.

Figure 13 shows that 55% of respondents to the on-train survey reported that their journeys are now faster using the Dartmoor Line. This compares to 41% of respondents to the residents' survey who felt the same way. Whilst these findings are similar across the

<sup>7</sup> 78% of residents' survey respondents and 79% of on-train survey respondents. More detail on modal change can be found in Section 8 of this report.

on-train and residents' surveys, it should be noted that a larger proportion of respondents to the residents' survey (54%) felt their journeys using the Dartmoor Line take about the same amount of time or are slower than their original mode used. This suggests that journey time savings are not experienced by all, supporting the finding above that 52% of the population of the Okehampton area see no impact on public transport journey times to Exeter Central as a result of the Line reopening.

Additionally, just 18% of respondents to the residents' survey selected 'shorter journeys' as one of their reasons for change in mode when asked 'Thinking about the journeys you used to make in another way before the Dartmoor Line came into operation, what are your main reasons for using the train service for these journeys now instead?'. This compares to 27% of respondents to the on-train survey who stated 'shorter journeys' as one of their reasons for change in mode. Whilst this is a substantial proportion of respondents in both surveys, other reasons were valued more highly<sup>8</sup>.



Source: On-train and residents' survey

Figure 13: What journey time impact, if any, has changing from another type of transport to using the Dartmoor Line had on you?

Only a small proportion of respondents cited performance and reliability issues as a reason for not travelling by the Dartmoor Line:

- <1% of respondents to the on-train survey selected 'trains are often delayed or cancelled' as a reason for finding use of the Dartmoor Line difficult; and
- 2.25% of respondents to the residents' survey selected 'trains are often delayed or cancelled' as a reason for not using the Dartmoor Line.

## Evidence summary

<sup>8</sup> Respondents to the on-train survey's main selected reason was 'more convenient than alternatives' (49% selected this), followed by 'the train is more environmentally friendly' (40%). Respondents to the residents' survey main selected reason was 'the train is more environmentally friendly' (50%), followed by more convenient than alternatives' (48%).



When comparing the Dartmoor Line to travel by bus, the Line reopening has meant in-vehicle journeys are 45 minutes faster between Okehampton and Crediton, and 35 minutes faster between Okehampton and Exeter. Findings show that this translates to an overall door-to-door journey time saving of up to 10 minutes for large parts of the Okehampton area, with some parts close to Okehampton station benefitting by up to 40 minutes.

The majority of respondents to both the on-train and residents' surveys rated the journey times on the Dartmoor Line as either good or very good. Stakeholders and businesses interviewed also expressed satisfaction with the current journey time of the Line, with the Line perceived to take less time than driving or travelling by bus.

However, it should be noted that 52% of the population of the Okehampton area have seen no impact on public transport journey times to Exeter Central as a result of the Line reopening.

Furthermore, whilst 40-50% of survey respondents report their journeys are faster since changing from another type of transport to using the Dartmoor Line, around a third state that the Dartmoor Line still takes about the same amount of time as their previous mode.

When asked to provide their reasons for changing mode to use the Dartmoor Line instead, 18% of residents' and 27% of on-train survey respondents stated that one of their reasons was 'shorter journeys'. Whilst this is a fairly substantial proportion of respondents, other reasons were valued more highly such as the Dartmoor Line being more convenient than alternatives and the Dartmoor Line being more environmentally friendly.

## 5.4. Improved Connectivity

*An expected outcome of the reopening of the Dartmoor Line is improved connectivity resulting from the provision of new direct rail services connecting Okehampton, Crediton and Exeter, which will reduce public transport journey times to a range of destinations.*

### Evidence assessed

The assessment of improved connectivity has been undertaken using the data sources shown in Table 11.

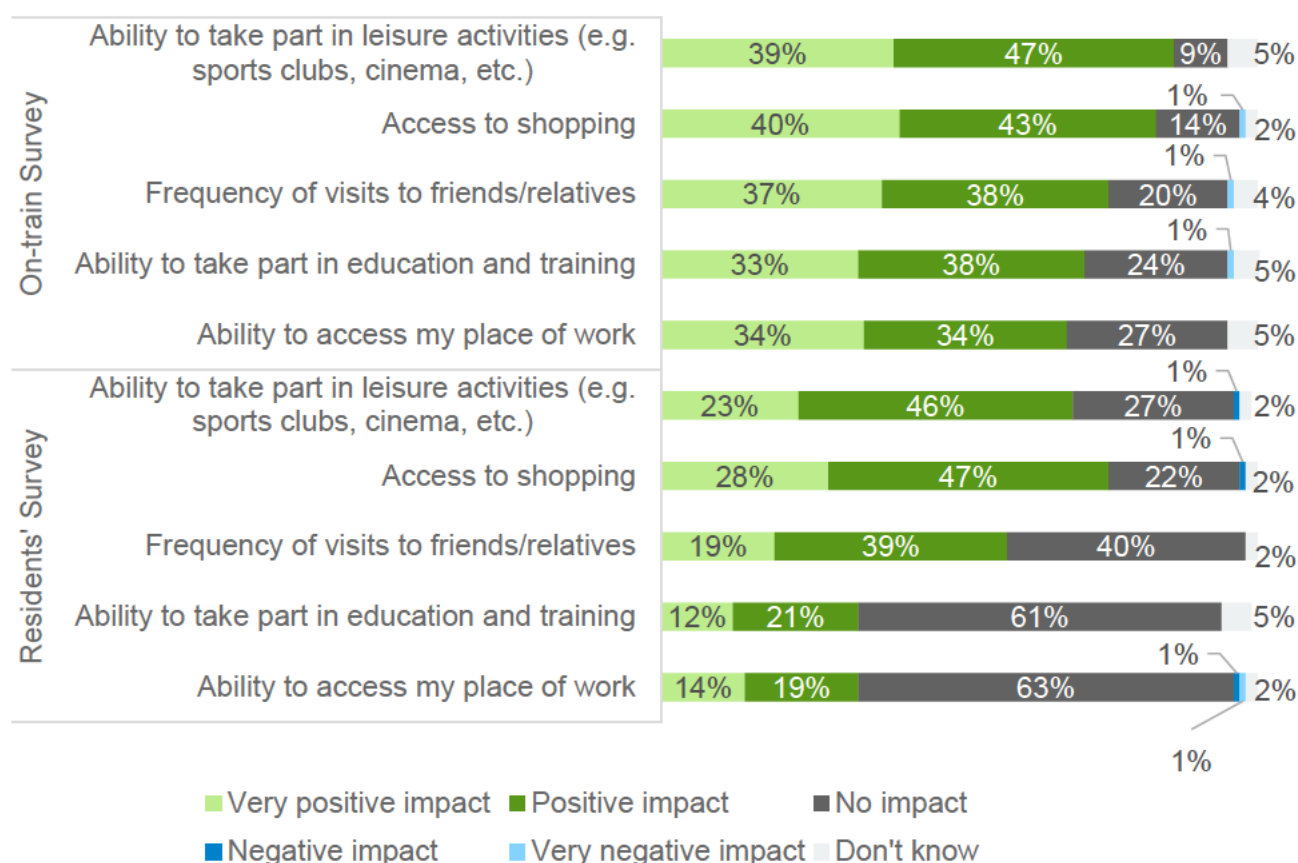
Data Sources	Analysis
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Analysis of perceived impacts of the Dartmoor Line on access to employment, education, and leisure opportunities</li> </ul>

Table 11: Assessment of improved connectivity

### Perception of improved connectivity

Respondents to the on-train survey largely perceived the Dartmoor Line as having a [positive impact on connectivity for a range of journey purposes](#), particularly for leisure activities (Figure 14). Very few respondents stated the Line had a negative impact. Whilst the on-train survey was targeted at the population of users of the Line, who by nature of their decision to use the line are likely to have a more favorable view of the Line's outcomes, these findings are also supported by the residents' survey, which included non-users. The surveys suggest that the Line is generally perceived to have a positive impact on connectivity, particularly for:

- **Leisure activities:** 86% of respondents to the on-train survey stated that the Dartmoor Line had a positive impact on their ability to take part in leisure activities, such as sports clubs, cinema and theatre visits and visiting restaurants. Similarly, 69% of respondents to the residents' survey stated that the Dartmoor Line had a positive impact on their ability to take part in leisure activities.
- **Shopping:** 83% of respondents to the on-train survey stated that the Dartmoor Line had a positive impact on access to shopping, and 75% of residents' survey respondents felt the same way.
- **Visiting friends and relatives:** 74% of respondents to the on-train survey and 58% of respondents to the residents' survey stated that the Dartmoor Line had a positive impact on frequency of visits to friends and relatives.
- **Work and education:** 71% of respondents to the on-train survey stated the Line had a positive impact on their ability to take part in education and training and 68% stated it had positive impact on their ability to access their place of work. This was higher than in the residents' survey with only a third stating the Line had a positive impact on access to both education and training, and to work (both 33%). This difference could be explained by the greater proportion of non-users in the residents' survey sample.



Source: On-train and residents' survey (users only)

Figure 14: Since the reopening of the Dartmoor Line in November 2021, to what extent, if at all, has the Line had an impact on your...? (Base range On-train Survey: 201 – 309 (On-train survey); 719 – 1,311 (Residents' survey); excluding 'not applicable')

The impact of improved connectivity on access to work and education and on tourism is discussed further in Section 8 (KEQ 2).

### Evidence summary

The Dartmoor Line reopening was expected to improve connectivity between Okehampton, Crediton and Exeter, through reducing public transport journey times. Evidence from the on-train and residents' surveys does show that the Line is perceived to have had a positive impact on connectivity for a range of journey purposes, particularly for leisure activities.

## 5.5. Increased Accessibility of Public Transport

*An expected outcome of the reopening of the Dartmoor Line is increased access to public transport resulting from the availability of rail services at the reopened Okehampton railway station. This will improve access to rail for residents and visitors in the Okehampton area as previously their nearest station was 18 miles away in Crediton.*

### Evidence Assessed

The assessment of increased accessibility of public transport has been undertaken using the data sources shown in Table 12 below.

Data Sources	Analysis
Secondary data	<ul style="list-style-type: none"> <li>Population within walking distance of Okehampton railway station, assessed using the average walk time from each Census output area within Okehampton to the station which has then been combined with population data</li> </ul>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Analysis of self-reported access to Okehampton train station</li> <li>Analysis of self-reported satisfaction with the Dartmoor Line's connections to other transport modes</li> </ul>

Table 12: Assessment of increased accessibility of public transport

### Population within walking distance of Okehampton railway station

Table 13 (represented visually in Figure 15) demonstrates that following the reopening of Okehampton railway station, **more than 10,000 people are now within a 20-minute walk from a railway station** which represents 56% of the total population of Okehampton (18,796). Before the reopening of the Dartmoor Line there was no access to rail within walking distance in Okehampton with the nearest station 18 miles away in Crediton.

Measure	Walking time to Okehampton railway station (minutes)				
	< 5	5 – 10	10 – 15	15 – 20	Total
Population	428	1,436	2,841	5,895	<b>10,600</b>
% of total Okehampton area population (18,796)	2.3%	7.6%	15.1%	31.4%	<b>56.4%</b>

Source: GIS analysis; 2021 Census

Table 13: Number of people and % of total Okehampton population by walking time band to Okehampton railway station

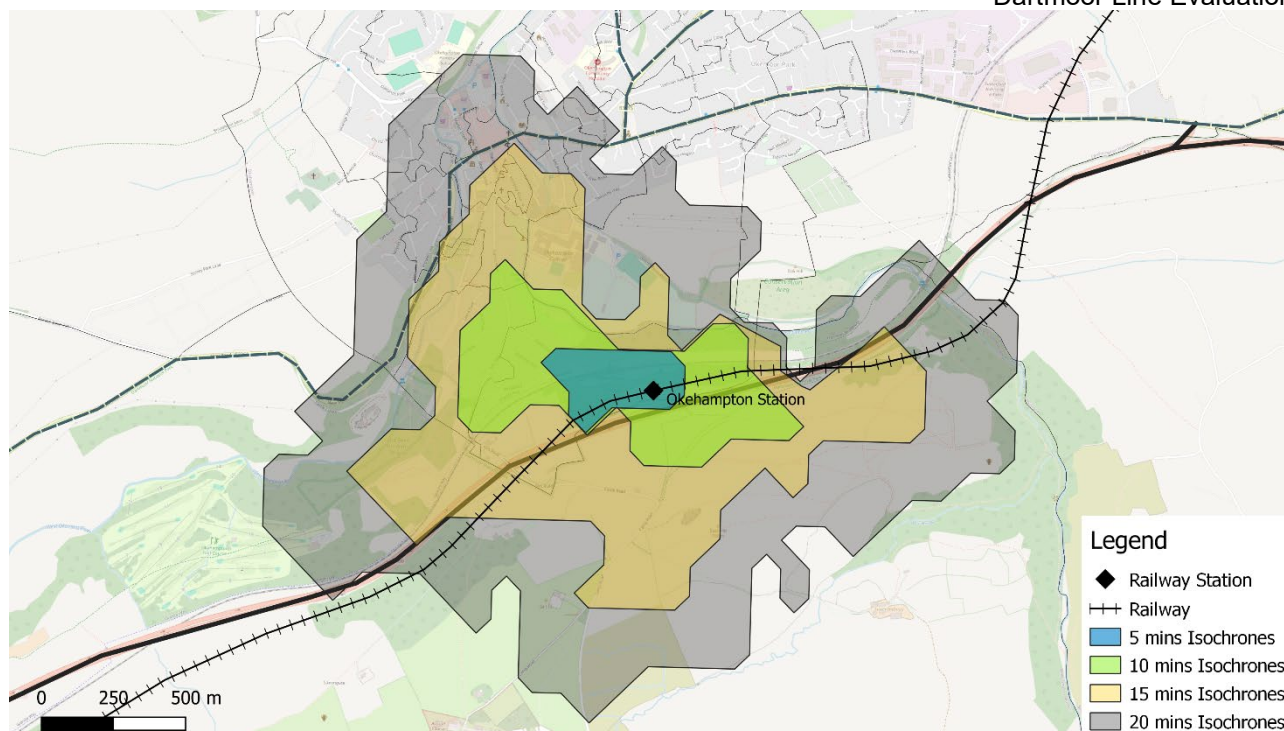


Figure 15: Map showing areas according to walking time band (< 5 min, 5 – 10 min, 10 – 15 min and 15 – 20 min) from Okehampton railway station

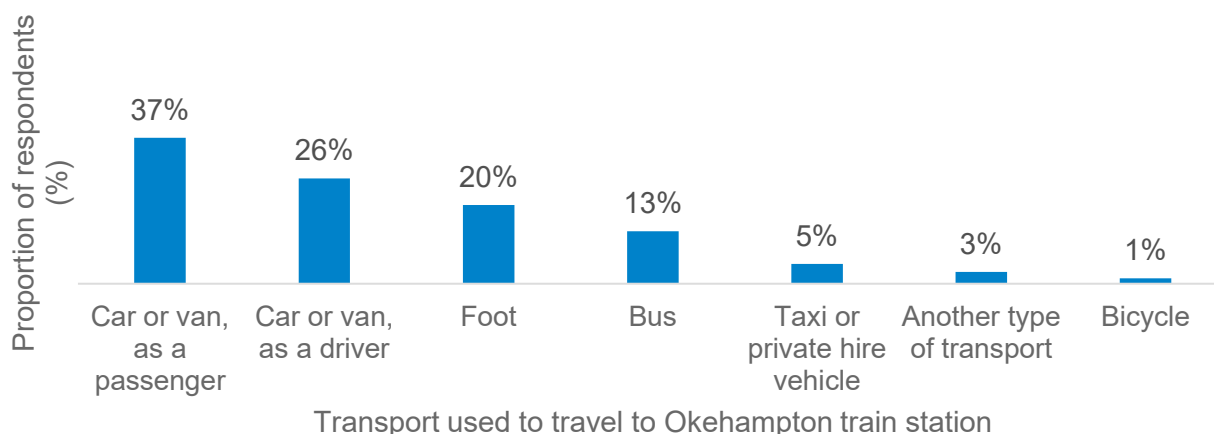
Access to rail has also been improved for those travelling to/from Okehampton station by bus and car. For bus users, the 6A service (Okehampton – Exeter) was rerouted after the Line reopening to service the station, to better integrate with the new rail services. For car users, the station has a car park which has 70 parking spaces including 4 accessible spaces for car drivers or passengers with disabilities<sup>9</sup>.

### How users access the Dartmoor Line

Just over half (55%) of respondents to the on-train survey stated that they had started their journeys at Okehampton train station at the time of completing the survey. Of these respondents, Figure 16 shows that travel to Okehampton train station was most common by car, as a driver (26%) or passenger (37%), followed by accessing Okehampton train station by foot (20%). By contrast, 13% of respondents stated that they had accessed Okehampton train station by bus and only 1% by bicycle.

Of the on-train survey respondents who started their train journey at Okehampton, around half (45%) had travelled more than 20 minutes to get there, 37% had travelled between 10-20 minutes and 18% had travelled less than 10 minutes.

<sup>9</sup> National Rail. *Okehampton*. Available at: <https://www.nationalrail.co.uk/stations/okehampton/> (Accessed November 2024).



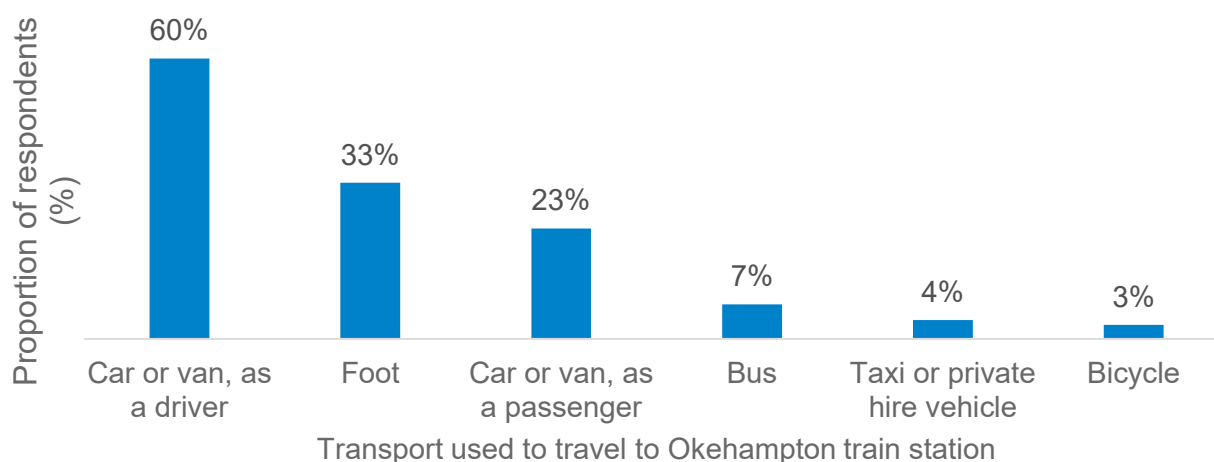
Source: On-train survey (users only)

**Figure 16: Which type(s) of transport did you use to travel to Okehampton train station, where you started your journey? (Multiple Response Question (MRQ); Base: 302)**

As noted elsewhere in this report, these on-train survey findings may be biased by the time and day of data collection and so the residents' survey, which is more reflective of the local population, may provide a better data source to understand whether these travel trends represent how local people access Okehampton train station. The small sample sizes should also be highlighted here.

Looking at the residents' survey, the majority (83%) of respondents who reported using the Dartmoor Line stated that they usually start their journeys at Okehampton train station. Of these respondents, Figure 17 shows that travel to Okehampton train station was most common by car, as a driver (60%), followed by accessing Okehampton train station by foot (33%). As with the on-train survey, only small proportions of respondents reported accessing Okehampton train station by bus (7%) or by bicycle (3%).

Of the residents' survey respondents who started their train journey at Okehampton, around 13% had travelled more than 20 minutes to get there, 55% had travelled between 10-20 minutes and 32% had travelled less than 10 minutes.



Source: Residents' survey (users only)

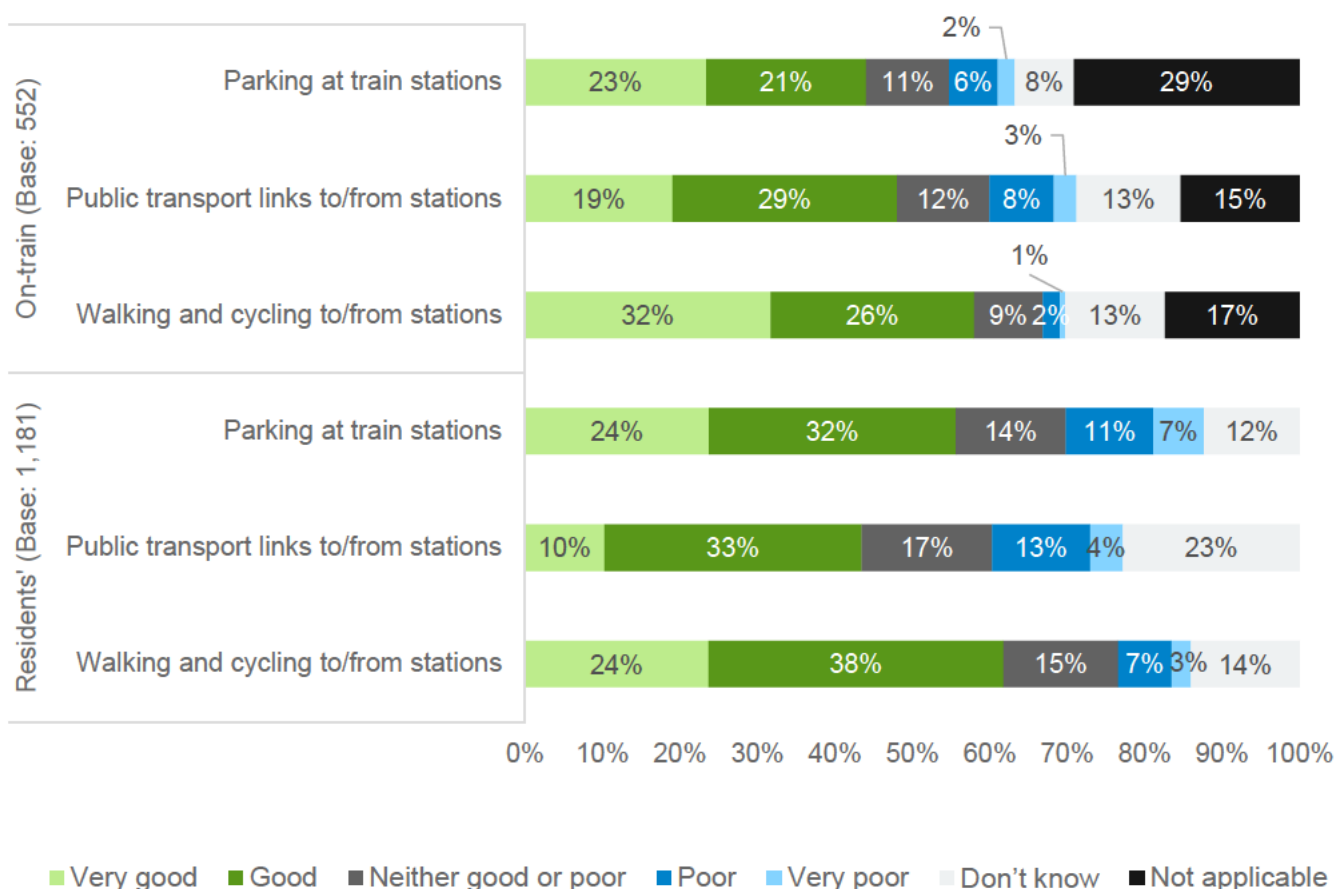
**Figure 17: Which type(s) of transport did you usually use to travel to Okehampton train station, where you usually start your Dartmoor Line journey? (Multiple Response Question (MRQ); Base: 975)**



### Perceived connection of the Dartmoor Line to other modes of transport

Across both the on-train and residents' surveys, around half of respondents felt the Dartmoor Line train stations had good connections with walking and cycling, other public transport, and good parking (Figure 18). Specifically:

- 58% respondents to the on-train survey and 62% of respondents to the residents' survey rated walking and cycling to/from Dartmoor Line train stations as either 'very good' or 'good';
- 48% of the respondents to the on-train survey and 43% of respondents to the residents' survey rated public transport connections in the same way; and
- 44% of the respondents to the on-train survey and 56% of respondents to the residents' survey rated parking in the same way.



Source: On-train and Residents' survey (users only)

Figure 18: Thinking about the Dartmoor Line, how would you rate...?

Additionally, around one in ten respondents to the on-train survey stated that they had changed to using the Dartmoor Line due to the above high-quality connections to/from stations.

The survey responses also demonstrate statistically significant variations in perceptions by different demographic groups. Of note, respondents who identified as living in a rural area in both surveys were less likely than urban respondents to rate public transport, walking, and cycling connections to the Dartmoor Line as good, which suggests that car travel is important for completing 'first-' and 'last-mile' journeys for rural residents.

Parking at stations was perceived to be good for residents who have access to a car meaning the Line is viewed as accessible for local people with the ability to drive and park at stations.

### ***Evidence summary***

Evidence shows that the reopening of Okehampton railway station has increased the accessibility of public transport in the local area. Specifically, the new rail service is accessible by:

- **Walking and cycling** – 56% of the total population of Okehampton are now within a 20 minute walk from a railway station. Survey respondents tended to rate walking and cycling connections with the Dartmoor Line as either good or very good;
- **Bus** – the 6A bus service (Okehampton – Exeter) has been rerouted to service the Okehampton railway station. Survey respondents tended to rate public transport integration with the Dartmoor Line as either good or very good; and
- **Car** – Okehampton railway station car park provides 70 parking spaces including 4 accessible spaces. Survey respondents tended to rate car parking at the Dartmoor Line as either good or very good.

Of note, self-reported rural respondents in both surveys were less likely than urban respondents to rate public transport, walking and cycling connections to the Dartmoor Line as good.

Evidence from the surveys shows that users tend to access Okehampton train station by car, as a driver or passenger, or by foot.



## 5.6. Reduced Generalised Cost of Travel

*An expected outcome of the reopening of the Dartmoor Line is a reduction in the generalised cost of travel<sup>10</sup> by public transport between Okehampton, Crediton and Exeter, due to the provision of rail services significantly reducing in-vehicle journey time compared to existing bus services. This means that the Dartmoor Line is expected to improve the value of passengers' time and, despite rail travel having a higher fare, this will be significant enough to reduce generalised travel costs. By contrast, existing bus services may take longer but offer cheaper fares than travel by train.*

### Evidence Assessed

The assessment of reduced generalised cost of travel has been undertaken using the data sources shown in Table 14 below.

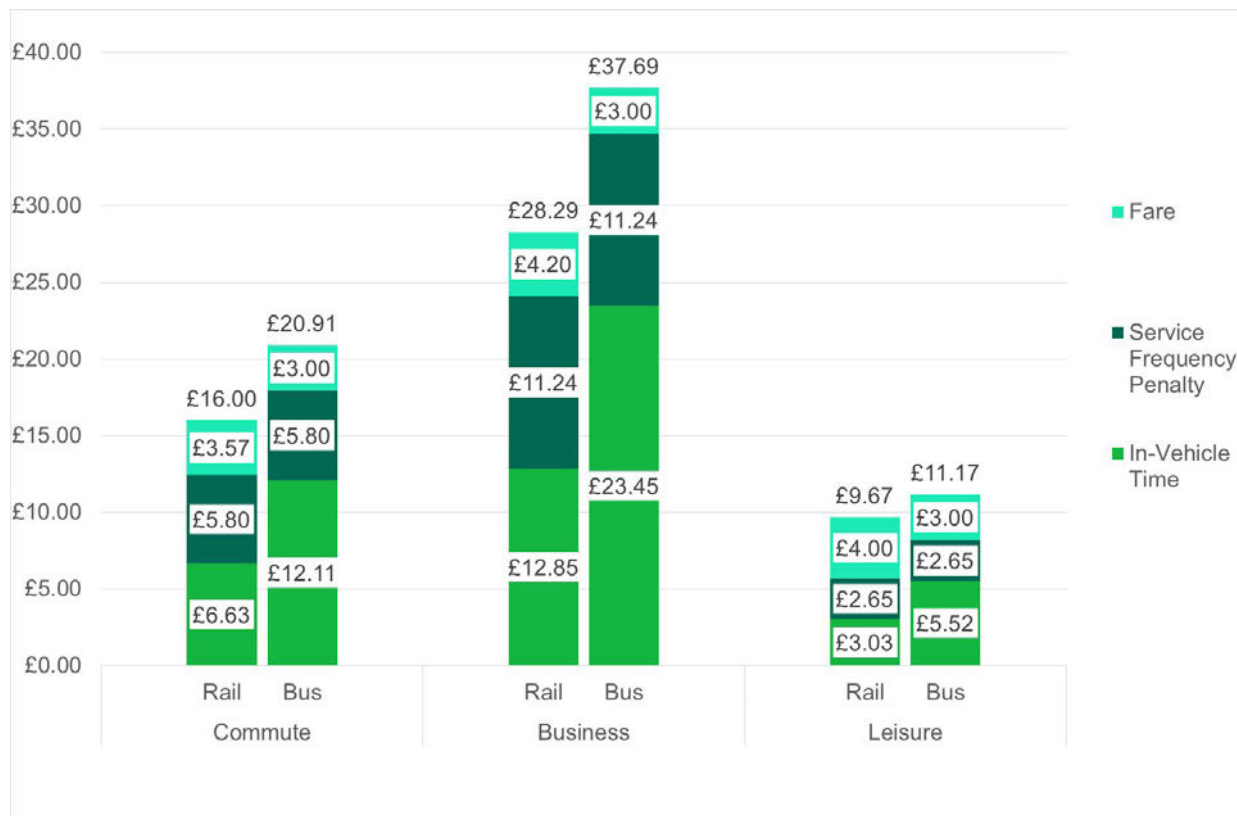
Data Sources	Analysis
Secondary data	<ul style="list-style-type: none"> <li>Comparison of the generalised cost of travel by rail and bus using fare data and converting journey times to monetary values using values of time from TAG (example calculation provided in the technical annex)</li> </ul>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Analysis of self-reported perceptions of the cost of travel on the Dartmoor Line, including perceived travel cost changes as a result of modal shift</li> </ul>

Table 14: Assessment of reduced generalised cost of travel

<sup>10</sup> The generalised cost of travel is typically defined as the sum of the monetary and non-monetary costs for travel and provides an overall measure of the perceived cost of travel. For public transport modes, the monetary costs relate to the fare and the non-monetary costs relate to the time spent travelling. To calculate the cost of time, time is converted to a monetary value using values of time from the DfT's transport analysis guidance (TAG).

### Comparison of generalised cost of travel between public transport modes

The generalised cost of travel by rail and bus has been calculated for travel between Okehampton and Exeter by journey purpose (commute, business, and leisure) as shown in Figure 19. This breaks down the generalised cost into the following components: the fare, in-vehicle time and service frequency penalty<sup>11</sup>. The latter two components have been converted to a monetary value using values of time.



Source: GWR fare data and rail timetables (rail), Stagecoach fare data and bus timetables (bus), TAG Databook (values of time)

**Figure 19: Generalised cost by journey purpose for rail and bus Okehampton to Exeter**

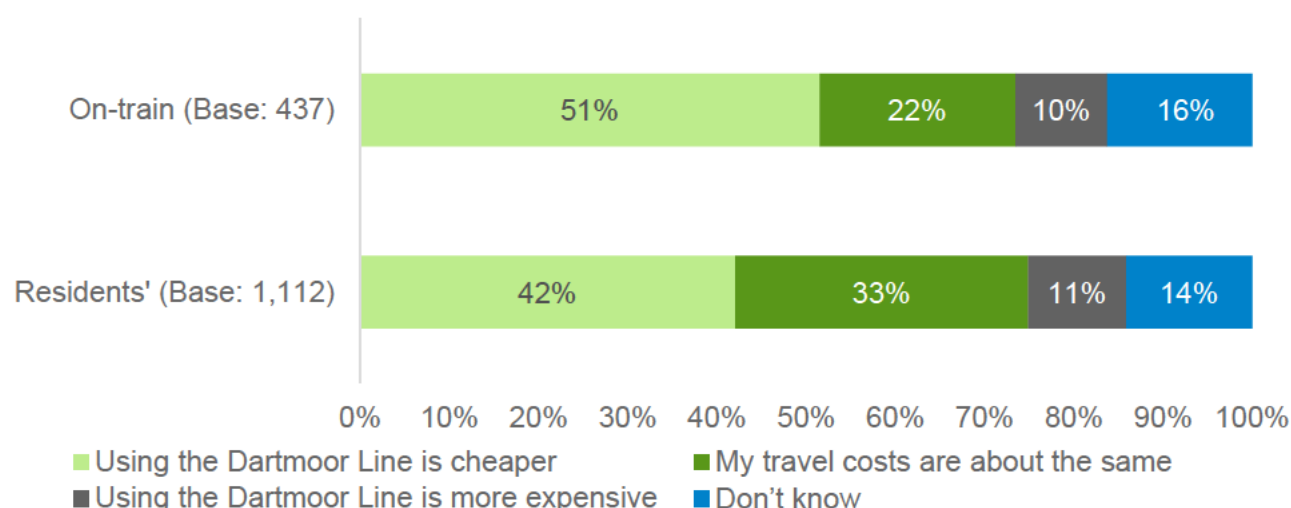
The generalised cost is more by bus than by rail for all journey purposes. This is mainly because the monetary value of the rail in-vehicle time is much lower than that of bus and this more than compensates for the rail fare being 40% more than the bus fare (£4.20 by rail compared to £3 by bus for a single fare<sup>12</sup>). [The reopening of the Dartmoor Line has therefore reduced the generalised cost of travel by public transport between Okehampton and Exeter for all users.](#)

<sup>11</sup> Train service frequencies determine how long passengers have to wait at a station and how closely they can time their departure or arrival to their ideal requirements. This time is accounted for by converting the service interval i.e. the time between departures to an equivalent journey time value using a [service interval penalty](#). The Passenger Demand Forecasting Handbook (PDFH) provides recommendations for service internal penalties.

<sup>12</sup> The majority of bus fares in England are currently capped at £2 per single journey until December 2024 under the Bus Fare Cap Grant (BFCG) including the Stagecoach service (6A) between Okehampton and Exeter. Due to the short-term nature of the BFCG, for this analysis the usual uncapped bus fare (£3) has been applied. If the £2 capped fare had been used in the analysis, the generalised cost of bus would still be higher than rail for all journey purposes.

### Perception of the cost of travel

Survey respondents who reported changing from another type of transport (including private vehicle) to using the Dartmoor Line since the Line reopening were asked what financial impact, if any, this change had had for their journeys. In line with the comparisons above showing that the generalised cost of travel by the Dartmoor Line is less than by bus, Figure 20 shows that 51% of respondents to the on-train survey reported that their journeys are now cheaper using the Dartmoor Line. This compares to 42% of respondents to the residents' survey who reported the same.



Source: On-train and residents' survey

Figure 20: What financial impact, if any, has changing from another type of transport to using the Dartmoor Line had on you?

Findings show that survey respondents are using the Dartmoor Line to replace car journeys (see Section 7), and this could therefore explain differences in survey results compared to the comparisons between the generalised cost of travel by the Dartmoor Line and bus, described above.

Stakeholder and business feedback supports this, with interviewees expressing general satisfaction with the current cost of travel on the Dartmoor Line compared to driving, especially when considering parking costs in Exeter city centre.

*"It's so much cheaper to go on the train [...] It makes economic and time sense for people to use [the train] for their work and education."*  
Community group

*"£8.00 for a return per adult is very good. I couldn't do that by car if I wanted to."*  
Conservation group

However, stakeholders also perceived the **Dartmoor Line as more expensive compared to bus**, especially when considering concessionary bus pass holders, who can travel by bus for free. Reductions in the frequency of the 6A bus service, which is operated by Stagecoach and runs between Okehampton railway station and Exeter city centre, were thought to exacerbate this, with stakeholders noting that fewer bus services mean local people are likely to get the train for trips into Exeter which will cost them more.

### **Evidence summary**

In line with the outcomes expected, the generalised cost of travel (which includes the monetary and non-monetary components of the journey) is lower for rail than for bus for all journey purposes. This is largely because the in-vehicle time by train is significantly lower than by bus. However, the perception from stakeholders is that the Line is less affordable than bus travel due to the higher fares, especially when considering concessionary bus pass holders who can travel by bus for free.

Respondents of both the on-train and residents' survey who reported changing from another type of transport to using the Dartmoor Line since the Line reopening perceived that their journeys are now more affordable. This could be due to the Dartmoor Line replacing car journeys (see Section 7), which stakeholders perceived to be less affordable than the Line, especially after considering parking costs in Exeter city centre.

## **5.7. Increased Rail User Satisfaction**

*An expected outcome of the reopening of the Dartmoor Line is an increase in satisfaction for existing rail users. This may have resulted from an increased rail service frequency (between Crediton and Exeter), provision of new rolling stock, and the ability to access new destinations by rail (e.g., Okehampton, the Dartmoor National Park).*

### **Evidence Assessed**

The assessment of increased rail user satisfaction has been undertaken using the data sources shown in Table 15.

There is currently no secondary data relating to passenger satisfaction available to analyse. Previously, the National Rail Passenger Survey (NRPS) provided data on passengers' satisfaction with rail, but this survey has not been undertaken since 2020 due to the Covid-19 pandemic and therefore not since the Line reopening.

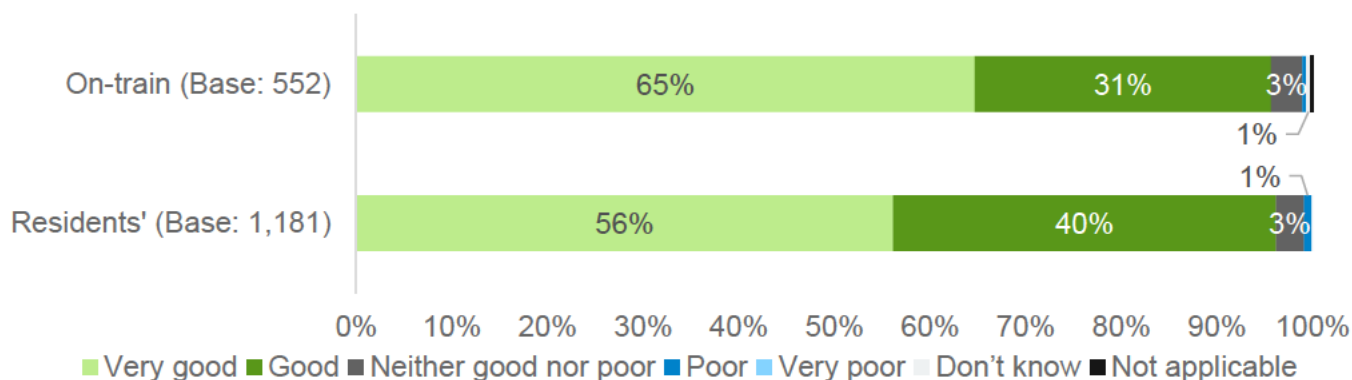
<b>Data Sources</b>	<b>Analysis</b>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Analysis of self-reported satisfaction with the Dartmoor Line</li> </ul>

**Table 15: Assessment of increased rail user satisfaction**

### Satisfaction with the Dartmoor Line

Across both the on-train and residents' surveys, **nearly all respondents rated the Dartmoor Line as 'good' or 'very good' overall** (Figure 21):

- 96% of respondents to the on-train survey rated the Line as either 'very good' or 'good'; and
- 96% of respondents to the residents' survey rated the Line as either 'very good' or 'good'.



Source: On-train and residents' survey (users only)

Figure 21: Overall, how would you rate the Dartmoor Line?

Stakeholders were unanimous in expressing overall satisfaction with the Dartmoor Line service and facilities, perceiving that it had had a positive effect on:

- improving access between Okehampton and Exeter which was felt to increase opportunities for local people and encourage tourism in the area;
- boosting the local economy through increasing footfall around Okehampton; and
- modal change, making travel cheaper and more environmentally friendly.

*"I'm very satisfied with how it's operating so far."*  
Community group

*"The Dartmoor Line has turned out to be a great success."*  
Community group

### Evidence summary

Early evidence shows that user satisfaction with the Dartmoor Line is high. Stakeholder feedback suggests that high levels of satisfaction could be due to the Line increasing access to wider rail services and new destinations for local people. Early evidence on local area benefits can be found in Section 8.

## 5.8. Increased Use of Rail Services

*An expected outcome of the reopening of the Dartmoor Line is an increase in use of rail services. This is expected to result from the provision of new rail services serving Okehampton and an increased service frequency from Crediton which will reduce journey times and the generalised costs of travel, generating new journeys and encouraging mode shift to rail.*

### Evidence Assessed

The assessment of increased use of rail has been undertaken using the data sources shown in Table 16 below.

Data Sources	Analysis
Secondary data	<ul style="list-style-type: none"> <li>Level of demand generated at new stations (Okehampton) and change in demand at existing stations (Crediton, Exeter) using rail demand data from LENNON (the passenger rail tickets sales database for Great Britain)</li> </ul>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Analysis of self-reported frequency of use of the Dartmoor Line and of rail more generally and how this compares to rail use before the scheme</li> </ul>

Table 16: Assessment of increased use of rail services

At this stage, the estimate of the level of demand generated by the Dartmoor Line does not account for the following potential impacts:

- Demand displacement:** no adjustment has been made due to the potential displacement of trips from other rail routes to the Dartmoor Line e.g. trips previously London to/from Exeter stations may now be to/from Okehampton. These trips would have happened anyway in the counterfactual and have therefore do not represent additional rail demand generated by the Line. The level of displacement has been assessed using the on-train survey data where respondents were asked how they used to travel before the Line reopened<sup>13</sup>. The survey data suggests that overall around 1% of respondents used rail previously with a slightly higher (1.3%) proportion for longer-distance trips involving an interchange at either Crediton or Exeter e.g. Okehampton – London. The highest proportion of displacement (1.8%) was for longer-distance leisure trips. These results suggest a low level of displacement has occurred due to the Line reopening and therefore the estimate of the additional rail demand generated by the Dartmoor Line may be marginally overestimated. However, it is important to note that

<sup>13</sup> For each of the journey purposes that the on-train survey respondents now use the Dartmoor Line for, respondents were asked: *How did you make this journey before the Dartmoor Line re-opened in November 2021?* Respondents were asked to select from a list of modes (car as driver, car as passenger, rail, bus etc). 893 responses across all journey purposes and flow types were provided of which 8 (0.9%) previously used rail. For longer-distance trips across all journey purposes, 1 out of 77 (1.3%) previously used rail, whilst for longer-distance leisure trips, 1 out of 55 (1.8%) previously used rail.



this approach only provides a rough estimate of the level of displacement based on a self-reported and hypothetical counterfactual scenario, therefore, these estimates are indicative and should be treated with caution. The impact of displacement on generated revenue is considered further in chapter 9.

- **Split ticketing:** It is also possible that demand across the wider rail network has been underestimated as some split ticketing (when passengers split their train journey into multiple tickets instead of buying a single ticket) could result in generated demand not fully accounted for in the Dartmoor Line analysis, e.g. journeys for Okehampton to London using split ticketing at Exeter, with the short distance Okehampton to Exeter demand accounted for the analysis, but the Exeter to London demand not considered.
- **Strike action:** the demand generated by the Dartmoor Line may have been suppressed due to the sustained strike action since the Line reopened, particularly during the first year of operation when a series of strike days resulted in no services running on the Line during at these times.

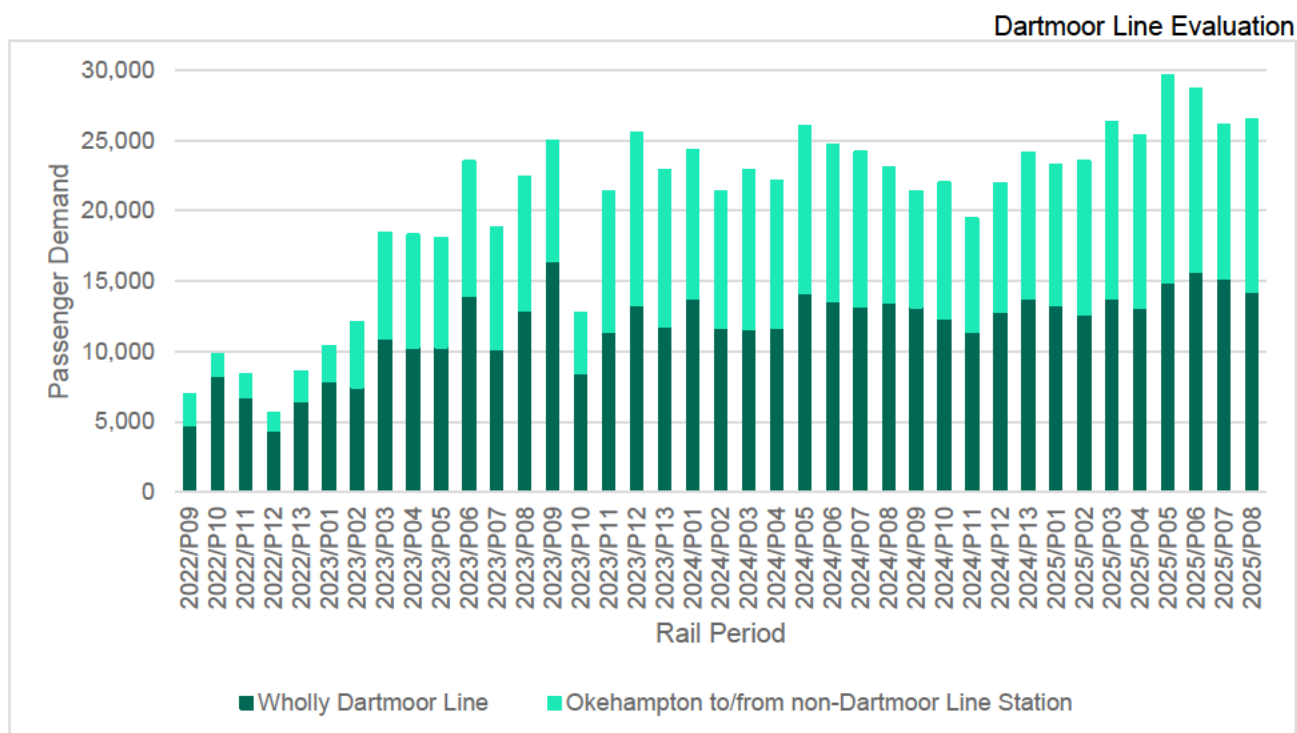
### **Rail demand data**

Between the reopening of the Dartmoor Line in November 2021 and November 2024, **around 796,000 journeys were made on the Line**. Around 456,000 of these trips (57% of the total) were made wholly on the Dartmoor Line, i.e., between Okehampton and any of the other three Dartmoor Line stations (Crediton, Exeter St David's and Exeter Central). The remaining 341,000 (43% of the total) involved travel between Okehampton station and another non-Dartmoor Line station, i.e. involving an interchange at Crediton, Exeter St David's, or Exeter Central.

The profile of trips by rail period since the Line reopened is shown in Figure 22. The marked increase in demand in rail period<sup>14</sup> 2023/P03 (June 2022) can be attributed to the increase in frequency on the Line from one train every two hours to every hour, whilst the low demand in 2023/P10 is likely due to the series of strikes that resulted in disruptions to services in December 2022. On average during the last year (2024/P09 to 2025/P08) around 24,500 trips were made on the Line each period (around 6,125 trips per week on average). Demand was highest in P05 and P06 (covering 21<sup>st</sup> July 2 to 14<sup>th</sup> September 2024) possibly reflecting greater numbers of tourists during the summary holiday season.

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<sup>14</sup> The railway calendar is split into 13 rail periods starting on the 1 April each year. Rail periods are 28 days in duration with the exception of the 1st period (P01) which starts on 1 April and the 13<sup>th</sup> period (P13) which ends on 31 March.



Source: LENNON

Figure 22: Breakdown of Dartmoor Line passenger demand by rail period (2022/P09 to 2025/P08)

To understand whether there has been any growth in passenger numbers, passenger numbers from the first year of the Line's operation (2022/P09 to 2023/P08), have been compared with passenger numbers in the previous year (2021/P09 to 2022/P08). To determine the contribution of the Dartmoor Line on observed trends, passenger numbers have also been compared across stations where there were existing rail services prior to the Line's reopening (CREDITON, Exeter St David's and Exeter Central) and a nearby station which is likely to have been minimally impacted by Dartmoor Line services but where other factors such as economic and population changes are broadly the same (i.e. a comparator station). For this analysis, Barnstaple station has been selected as the comparator station. Barnstaple station is the largest station on the Tarka Line which also serves the Exeter stations.

Comparisons show that passenger demand at Crediton grew on average by 124% in the first year of the Line's operation, whereas demand at Barnstaple grew by only 57% (note that the high growth in demand even at Barnstaple is due to the recovery in demand post-Covid with demand in the year 2021/P09 to 2022/P08 suppressed due to the pandemic). This early analysis suggests that the [Dartmoor Line may have contributed to an increased use of rail services](#). However, as noted in section 4.6, there are limitations to a simple comparator analysis e.g. it does not account for confounding factors which may be contributing to these trends.

Comparison of actual and forecast demand (as contained in the business case for the Line) on the Dartmoor Line shows that the forecasts under-estimated demand the first two full years of the Line's operation with [total demand 47% higher than forecast over this period](#). However, since 2024/P09 (November 2024) actual demand by period has typically been lower than forecast (Figure 23). The large variance in the first two years is primarily due to the forecasting methodology assuming more conservative demand ramp-up factors.



A review of the forecasting methodology and assumptions has been undertaken to explore the drivers of the differences; this analysis is provided in Appendix C.

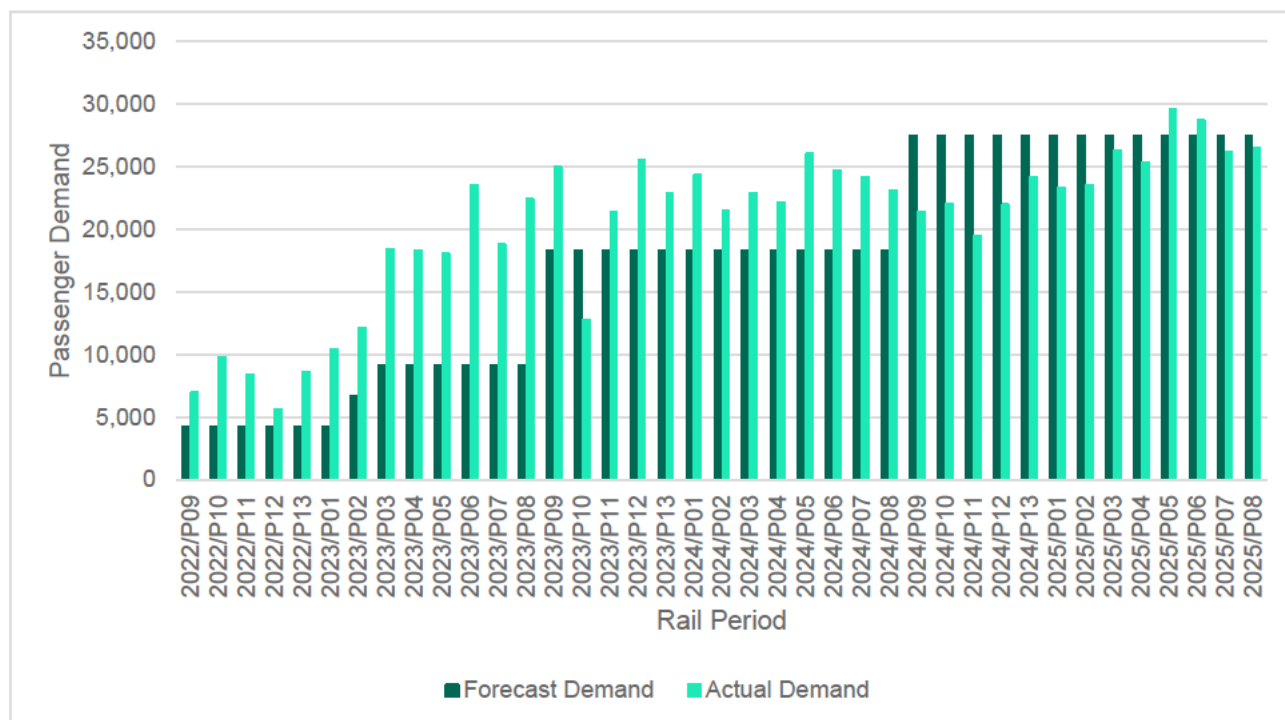
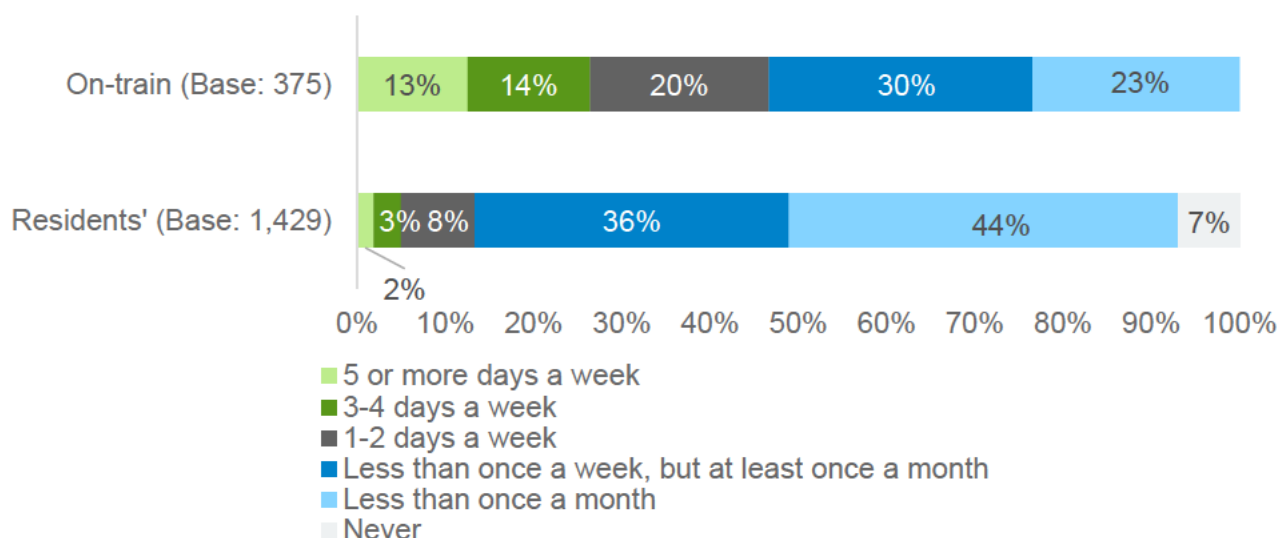


Figure 23: Comparison of actual and forecast Dartmoor Line passenger demand by rail period (2022/P09 to 2025/P08)

### Frequency of use of rail

Both surveys asked local respondents about their frequency of current train travel to understand the propensity for train travel across the region. Around half (47%) of the local respondents to the on-train survey stated that they currently travel by train at least once per week. In comparison, only 13% of respondents to the residents' survey stated this. However, it should also be noted that just 7% of residents' survey respondents reported never travelling by train, which means there was only a small proportion of non-train users in the local region (Figure 24).



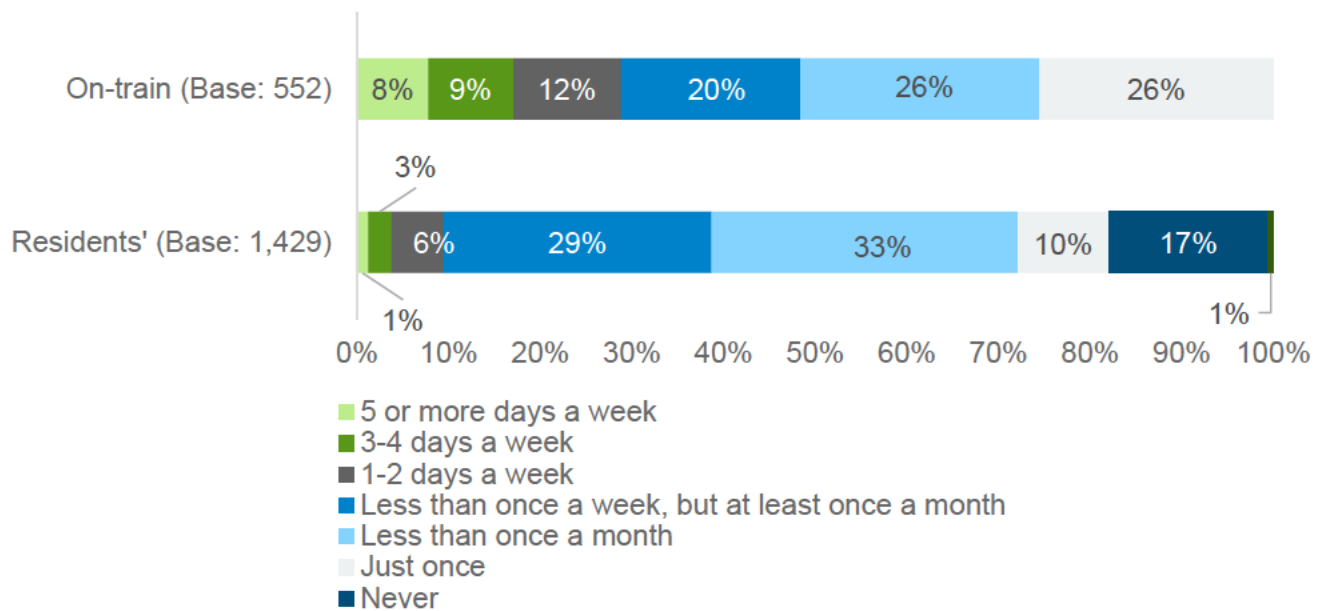
Source: On-train and Residents' survey

Figure 24: How often on average, do you currently travel by train?

When prompted on use of the Dartmoor Line in particular, unsurprisingly, a greater proportion of respondents to the on-train survey, compared to the residents' survey, reported that they use the Dartmoor Line once per week. Specifically, Figure 25 shows that 29% of respondents to the on-train survey reported that they had travelled on the Dartmoor Line at least once per week, on average, since the Line reopened. This could indicate that the Line has established a base of regular travellers in its first two years of opening.

When comparing on-train survey respondents who live near the Dartmoor Line with those who do not report living near the Line, local on-train respondents were significantly more likely to be frequent users than those who do not live locally. This difference is statistically significant and could indicate that some of the established regular users of the Line are local residents.

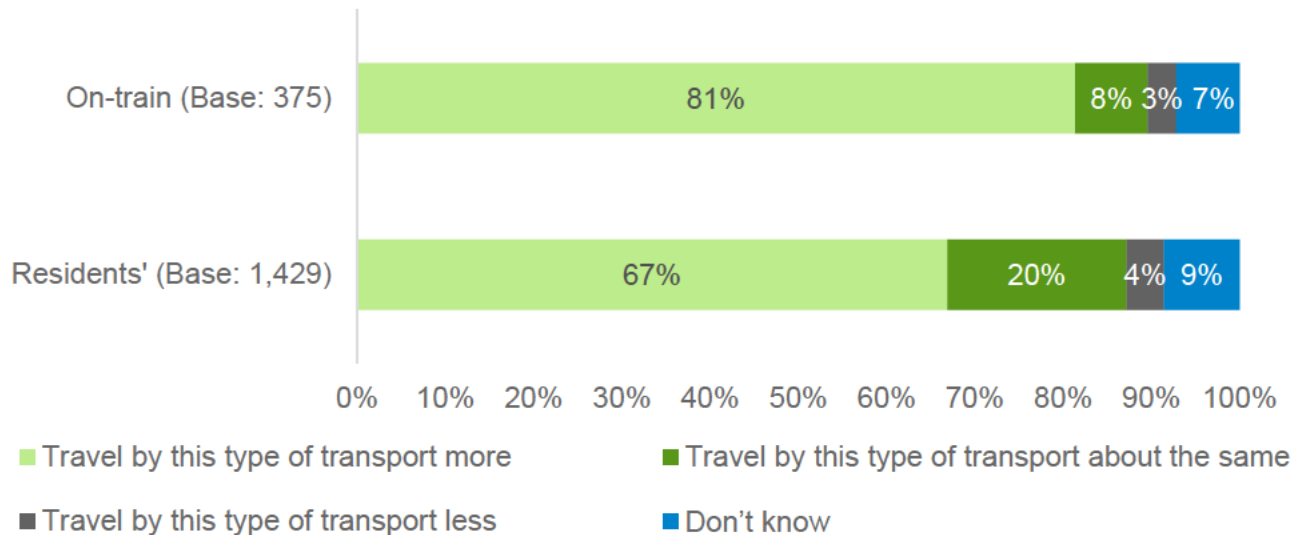
However, 10% of respondents to the residents' survey reported that they are weekly users of the Line. Recognising that residents' survey sample is more representative of the general population of Okehampton and Crediton, this is a good indicator of the overall proportion of regular rail users within the station catchment areas. This is despite only 7% of residents' stating that they are non-train users when asked about their train travel more generally.



Source: On-train and Residents' survey

Figure 25: How often, on average, have you travelled on Dartmoor Line services since the reopening of this line in November 2021?

When asked to reflect on any changes in their train use since the reopening of the Dartmoor Line, the majority of respondents to both the on-train survey (81%) and most respondents to the residents' (67%) survey reported that they now **travel by train more than before the Line reopened** (Figure 26). This finding is reflective of the proportions of frequent rail users, described above.



Source: On-train and Residents' survey

Figure 26: Do you currently undertake more, fewer, or about the same number of journeys by train, compared to the number of journeys you undertook before the reopening of the Dartmoor Line in November 2021?

Both surveys asked respondents to self-report their current main mode of travel, in addition to their main mode of travel prior to the Dartmoor Line reopening. Despite this

question being vulnerable to recall bias<sup>15</sup>, when comparing the proportions who selected 'train' as their main mode this is reflective of the self-reported increase in train travel outlined in Figure 26. Specifically:

- there was an 18% increase in reporting train as the main mode of travel in the on-train survey; and
- there was a 6% increase in reporting train as the main mode of travel in the residents' survey.

Respondents to both surveys were asked to what extent the Dartmoor Line had an impact on any new rail journeys undertaken:

- in response to the on-train survey, 67% stated the Line had influenced their decision to travel by train, around a third of whom stated the Line was the *only* reason;
- 81% of respondents to the residents' survey stated the Line had influenced their decision to travel by train and again around a third stated the Line was the *only* reason.

### **Evidence summary**

Evidence supports the assumption that the reopening of the Dartmoor Line would see an increase in the use of rail services, with around 796,000 journeys made on the Line between November 2021 and November 2024, of which 57% were made wholly between Dartmoor Line stations. This however does not account for potential impacts such as demand displacement, split ticketing and strike action.

Recognising that residents' survey respondents are more likely to represent the general populations use of the Line than other groups, evidence currently shows that only a small proportion of local people (10%) undertake rail journeys on the Dartmoor Line on a weekly basis, however, just 17% report having never used the Line.

When asked to reflect on any changes in their rail use since the reopening of the Dartmoor Line, large proportions of both on-train survey and residents' survey respondents reported that had increased their rail use and of these respondents most felt the reopening of the Line was the only reason for this change in behaviour.

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<sup>15</sup> Recall bias is a type of systematic error that occurs when participants do not remember previous events or experiences accurately or omit details

## 6. Early Impact Findings: Types of Journeys Enabled (KEQ 1.2)

### 6.1. Summary Findings

#### **KEQ 1.2: What types of journeys has the reopening of the Dartmoor Line enabled?**

The Dartmoor Line has enabled a high proportion of leisure travel with travelling to leisure destinations, visiting friends and family, and shopping the most common reasons for using the Line.

The role of the Line in enabling tourism is highlighted by the high proportion of rail users being visitors to the area, most of whom stated that the presence of the Line had influenced their decision to make their trip.

## 6.2. Journey Purpose

*It is expected that the reopening of the Dartmoor Line will enable many different types of journeys including for work, study, and leisure travel. The level of leisure travel enabled is expected to be significant given the Line's proximity to the Dartmoor National Park and high levels of existing tourism in the area, prior to the Line reopening.*

### Evidence Assessed

The assessment of the types of journeys enabled has been undertaken using the data sources shown in Table 17 below.

Data Sources	Analysis
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Observations on journey purpose from stakeholders and businesses interviewed, in addition to analysis of self-reported journey purpose from both surveys</li> <li>Analysis of self-reported influence of the Dartmoor Line on leisure trips has also been undertaken</li> </ul>
Secondary data	<ul style="list-style-type: none"> <li>Dartmoor Line ticket types have been mapped to journey purpose using LENNON data and rail industry assumptions</li> </ul>

Table 17: Assessment of types of journeys enabled

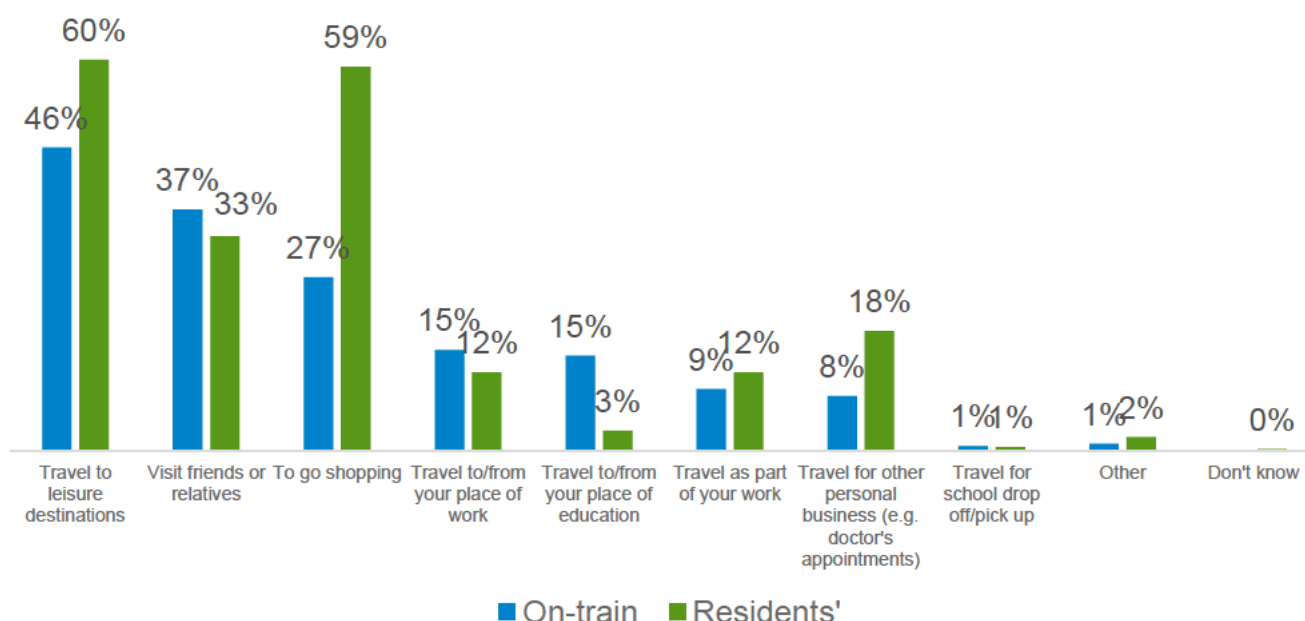
### Self-reported journey purpose

Stakeholders and businesses interviewed perceived the Dartmoor Line to be mainly used for leisure purposes, in addition to travel to school and business trips, especially between Okehampton and Exeter.

This observation is supported by both the on-train<sup>16</sup> and residents' surveys, in which users of the Dartmoor Line were asked to self-report the purpose of the journeys they had undertaken using the Line, since it's reopening in November 2021.

Travel to leisure destinations was most commonly reported as the main reason for journeys on the Dartmoor Line (46% on-train and 60% residents') as shown in Figure 27. Other popular reasons were visiting friends and relatives (37% on-train and 33% residents') and going shopping (27% on-train and 59% residents').

<sup>16</sup> Whilst data collection for the on-train survey was spread across weekdays and weekends, in addition to different times of day, it should be noted that reported journey purpose is likely to have been impacted by the time of day and day of the week that on-train respondents were approached to complete the survey.



Source: On-train and residents' survey (users only)

Figure 27: What are the main reasons for your journeys on Dartmoor Line services since the reopening of this line in November 2021? (MRQ; Base: On-train = 550; Residents = 1,181)

As shown in Table 18, mapping the survey categories to the typical journey purpose split used in the rail industry (commute, business leisure)<sup>17</sup> results in **leisure being the dominant journey purpose for both rail users and local residents** (75% in the on-train survey and 88% in the residents' survey). As noted in Table 4, the on-train survey was self-selecting with no quotas which may mean the split of journeys by journey purpose may not be a true representation of the types of journeys enabled by the Line. The residents' survey was weighted to be representative of the local population and may therefore provide a better data source to understand the types of trips enabled by the Line.

Journey purpose	On-train survey	Residents' survey
Commute	20%	7%
Business	5%	5%
Leisure	75%	88%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Source: On-train and residents' surveys

Table 18: Journey purpose breakdown by survey

### Mapping of rail demand data to journey purpose

LENNON data provides a breakdown of Dartmoor Line demand (for trips with Okehampton as the origin or destination) according to ticket type i.e., Full, Reduced and Seasons. The

<sup>17</sup> Travel to/from work/education/school has been mapped to Commute; Travel as part of your work to Business; all other categories to Leisure.



demand by ticket type has been mapped to journey purpose using standard rail industry assumptions<sup>18</sup> to estimate the types of journeys made on the Dartmoor Line since the reopening as shown in Table 19.

Journey purpose	Ticket type <sup>19</sup>		Total trips	%
	Full/Reduced	Seasons		
Commute	203,839	21,013	224,853	<b>28%</b>
Business	29,431	0	29,431	<b>4%</b>
Leisure	531,945	10,036	541,981	<b>68%</b>
<b>Total</b>	<b>765,215</b>	<b>31,050</b>	<b>796,265</b>	<b>100%</b>

Source: LENNON, PDFH

**Table 19: Breakdown of Dartmoor Line trips (defined as those with Okehampton as the origin or destination) by journey purpose and ticket type (2022/P09 to 2025/P08)**

This indicates that [around two-thirds of trips made on the Dartmoor Line are for leisure purposes](#) which is lower than in the surveys. Moreover, the proportion of commuting trips is also higher than in the surveys (Table 18). However, there are limitations to this approach which may explain the differences with the survey results:

- The mapping factors used for this analysis (which represent non-London rail flows under 25 miles) are based on a NTS sample size of around 4,650 for the whole of Great Britain. This may not necessarily accurately reflect the types of trips being made specifically on the Dartmoor Line which is likely with a higher proportion of leisure trips being made than average flows of this type due to its more rural location and tourists travelling to the Dartmoor National Park.
- The factors were derived before the Covid-19 pandemic and therefore may not accurately reflect the change in travel patterns since the pandemic, particularly changes to commuting resulting from the increase in hybrid working.

For these reasons, the [journey purpose findings from the on-train and residents' surveys may be a more accurate reflection of the types of trips the Dartmoor Line has enabled.](#)

### **[The extent of influence of the Line on leisure trips](#)**

Of the respondents to the on-train survey, a third (32%) stated that they were a visitor to the area around the Dartmoor Line rather than someone who lives, works, or studies in the local area. Of these visitors:

- the majority were visiting for leisure purposes (98%) and 7% were visiting for business<sup>20</sup>;
- a third (31%) were not staying overnight and were only in the area for a 1-day trip, a similar proportion (32%) were staying in the area for a 2 to 4-night trip, and 22% were staying for 5 nights or more. The remainder preferred not to say; and

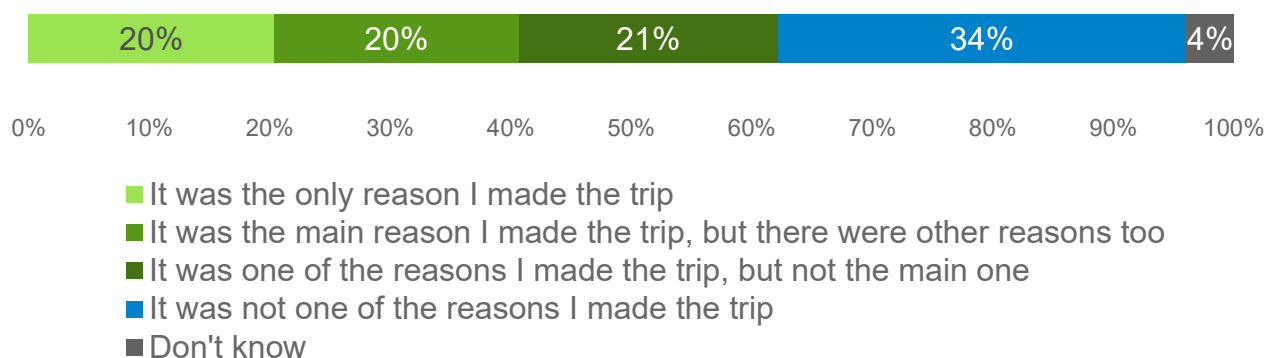
<sup>18</sup> The Passenger Demand Forecasting Handbook (PDFH) provides ticket type to journey purpose mapping for different rail flows using data from the National Travel Survey (NTS). The NTS asks passengers about their ticket type and their journey purpose.

<sup>19</sup> Refunds excluded. Full and Reduced ticket types grouped due to the absence of GWR off-peak and GWR super off-peak tickets in the Dartmoor Line.

<sup>20</sup> Multiple-response question

- half (47%) of leisure visitors reported 'walking for leisure' as an activity that they will be undertaking, or have undertaken, during their visit, whilst 42% reported 'visiting friends or family', and 37% reported 'visiting restaurants, pubs, bars, or clubs'<sup>21</sup>.

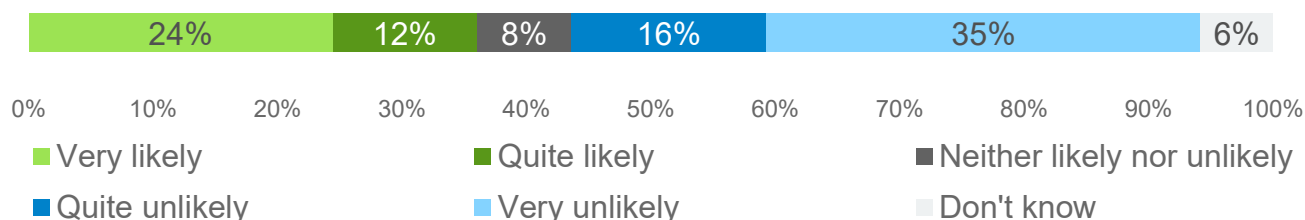
Around two-thirds (62%) of visitors to the Dartmoor Line stated that the reopening of the Dartmoor Line had influenced their decision to make their trip (Figure 28), which is evidence suggesting that the Line has positively impacted the local tourism economy.



Source: On-train survey (visitors only)

**Figure 28:** Thinking back to when you planned your visit, to what extent, if at all, did the reopening of the Dartmoor Line influence your decision to make this trip? (Base: 177)

Half (51%) of visitors to the Dartmoor Line stated that they would have been unlikely to make the trip, had there been no rail service, again suggesting that the Line has enabled tourism in the local area (Figure 29).



Source: On-train survey (visitors only)

**Figure 29:** Had the Dartmoor Line not been an option for your journey today, how likely or unlikely would you have been to make this trip? (Base: 177)

### Evidence summary

An expected outcome of the reopening of the Dartmoor Line was that it would enable many different types of journeys. Evidence suggests that the majority of journeys made on the [Dartmoor Line are for leisure purposes](#), rather than business or commuting trips.

Of the respondents to the on-train survey who reported being a visitor to the area, a high proportion stated that the [presence of the Line had influenced their decision to make their trip](#) and that they would have been [unlikely to make the trip, had there been no rail service](#). This indicates that the Line has enabled tourism in the local area for some people.

<sup>21</sup> Multiple-response question

## 7. Early Impact Findings: Impact on Other Modes (KEQ 1.3)

### 7.1. Summary Findings

#### **KEQ 1.3: What impacts has the reopening of the Dartmoor Line had on the usage of other transport modes?**

There is evidence that the Dartmoor Line has resulted in modal change: both rail users and residents report increases in the use of rail and walking, and decreases in the use of car and bus since the Line reopened.

Compared to other bus services, there has been a notable decrease in use of the bus service between Okehampton and Exeter since the Dartmoor Line reopened. Engagement with the local bus operator suggests the Line reopening is one of the reasons for the observed decrease, but other factors include the impact of the Covid-19 pandemic.

The fall in bus patronage has led to a reduction in off-peak bus service frequency and this may have further reduced bus usage, in addition to having a negative effect on residents in Okehampton who are dependent on bus travel.

Whilst up to half of rail users and residents report using car less than before the Line reopened, this is not reflected in local traffic counts with the main road between Okehampton and Exeter showing an increase in traffic relative to other roads in the area.

Despite the influence of the Line on car use frequency not being clear, early evidence shows that a small proportion of residents might be reducing the number of vehicles owned or used by their household, as a result of the Line.

## 7.2. Modal change

*An expected outcome of the reopening of the Dartmoor Line is modal change from other modes such as car and bus to rail. This is because rail may offer advantages compared to other modes including a faster journey time, greater levels of comfort, being more affordable, and being more environmentally friendly.*

### Evidence Assessed

The assessment of modal change has been undertaken using the on-train and residents' surveys as shown in Table 20. There is no appropriate secondary data that would provide an assessment of modal change. For instance, whilst the NTS provides trends in personal travel, the sample size within the study area would be insufficient to derive robust findings on modal change over the time-period being considered.

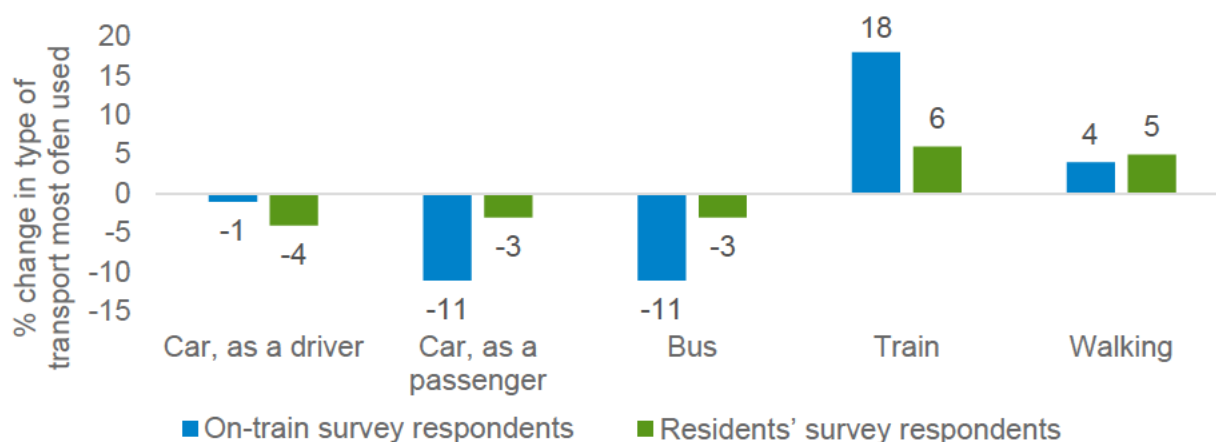
Data Sources	Analysis
On-train survey Residents' survey	<ul style="list-style-type: none"> <li>Comparison of self-reported most common mode of transport before and after Dartmoor Line reopening</li> </ul>

Table 20: Assessment of modal change

### Reported modal change

The majority of respondents to both surveys reported [modal change since the reopening of the Line](#), with 78% of residents' survey respondents and 79% of on-train survey respondents noting they had changed from another type of transport to using the Dartmoor Line.

Travel by car as a driver remained the most common transport mode used after the Dartmoor Line reopened in the on-train and the residents' survey, with only very small decreases in self-reported personal use of car as main mode of travel (Figure 30). By contrast, feedback captured in response to both surveys does indicate an increase in the use of rail and walking, and decreases in use of bus and car, as a passenger.



Source: On-train and residents' survey

Figure 30: Percentage change in type of transport most often used since reopening of the Dartmoor Line (On-train base: 374; residents' base: 1,429)

The impacts of modal change on bus and car usage are discussed in the following sections.

### 7.3. Reduced bus usage

*A potential unintended outcome of the reopening of the Dartmoor Line is reduced bus usage on the Okehampton – Exeter route. While this was not an objective of the scheme, this may result from the faster journey times, perception of greater levels of comfort, and better facilities such as greater luggage storage on trains.*

#### Evidence Assessed

The assessment of reduced bus usage has been undertaken using the data sources shown in Table 21.

Data Sources	Analysis
Secondary data	<ul style="list-style-type: none"> <li>Comparison of local bus patronage data before and after Dartmoor Line reopening using data provided by Stagecoach</li> </ul>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Self-reported impact of the Dartmoor Line on frequency of bus usage</li> </ul>

Table 21: Assessment of reduced bus usage

#### Local bus patronage

To attempt to identify any reduction in bus demand due to the reopened Line, it has been necessary to compare any changes in bus patronage in the Okehampton area against a comparator area that is unlikely to have been impacted by the Dartmoor Line. The Sidmouth – Exeter route has been selected as the comparator on the basis that Sidmouth is broadly similar in size and has a comparable level of bus service to Exeter as Okehampton. Table 22 shows there has been an **overall reduction in bus passengers between 2017/18 and 2022/23 on both routes but there was a larger decrease (46%) between Okehampton and Exeter than between Sidmouth and Exeter (25% decrease).**

Route	Concessionary passengers	Non-concessionary passengers	All passengers
Okehampton - Exeter	-53%	-44%	<b>-46%</b>
Sidmouth – Exeter	-40%	-12%	<b>-25%</b>

Source: Stagecoach

Table 22: Change in total bus passengers boarding/alighting, 2017/18 to 2022/23 (Monday to Saturday services only)

The overall reduction on both routes can be attributed in part to the reduction in bus patronage nationally since the Covid-19 pandemic. Whilst there has been recovery since the end of lockdown restrictions, bus boardings remain under 90% of pre-Covid levels in



Great Britain outside of London as at November 2023<sup>22</sup>. However, the marked difference between the two routes indicates that there are other factors driving the fall in demand on the Okehampton – Exeter route.

This could be linked to the reduction in the level of frequency of the 6A bus service which is operated by Stagecoach and runs between Okehampton railway station and Exeter city centre. Whilst the service has been largely maintained in the peak period, there has been a reduction in off-peak service frequency since late 2022. The timetable changes were designed to facilitate integration between the 6A and other bus services with rail services at Okehampton station. The operator has attributed the reduction in off-peak frequency to a range of reasons including the fall in bus demand post-Covid, and the reopening of the Line which has potentially resulted in passengers using rail instead of bus.

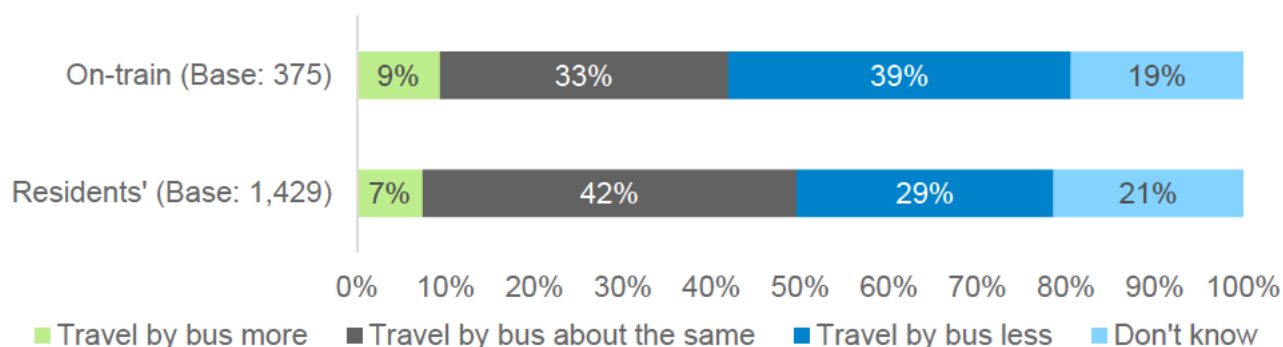
Local news evidence suggests that this reduction in the level of frequency of the 6A bus service may have negatively impacted elderly residents living in Okehampton who rely on the bus to travel for local trips into the town centre. Specifically, local news suggests that some elderly residents now use taxis or community transport instead of the bus, due to the reduced level of service<sup>23</sup>.

Evidence from stakeholder interviews supports this. Stakeholders expressed concern that the reduced 6A bus service is having a negative financial impact on local residents, particularly those who would have made journeys into Okehampton using a concessionary bus pass and who now may need to pay for other modes of travel, such as taxi.

### Impact on frequency of self-reported bus usage

Figure 31 shows that around a third of respondents to both the on-train and residents' surveys reported travelling less by bus now compared to before the reopening of the Dartmoor Line. Specifically:

- 39% of respondents to the on-train survey stated they now travel less by bus, whilst under a tenth (9%) reported travelling more by bus; and
- 29% of respondents to the residents' survey stated that they now travel less by bus, whilst under a tenth (7%) reported travelling more by bus.



Source: On-train and residents' survey

<sup>22</sup> Domestic Transport Usage by Mode, DfT, November 2023

<sup>23</sup> Okehampton Times. *Okehampton bus cuts leave elderly feeling more isolated*. Available at: <https://www.okehampton-today.co.uk/news/okehampton-bus-cuts-leave-elderly-feeling-more-isolated-571777> (Accessed November 2024).

**Figure 31: Do you currently undertake more, fewer, or about the same number of journeys by bus compared to the number of journeys you undertook before the reopening of the Dartmoor Line in November 2021?**

These findings are in line with the changes in type of transport most often used since reopening of the Dartmoor Line (Figure 30), and also support the observed fall in local bus patronage evidenced in Table 21. However, notable proportions of survey respondents report no change in their bus travel (on-train: 33%; residents: 42%).

### **Evidence summary**

Evidence shows that there has been a reduction in bus usage between Okehampton and Exeter since the reopening of the Dartmoor Line. Engagement with the local bus operator suggests [the Line is one of the reasons for the observed reduction](#), but other factors include the impact of the Covid-19 pandemic.

The fall in bus patronage has led to a reduction in off-peak service frequency and this may have further reduced bus usage too. Stakeholders note that reductions in bus service frequency may be having a negative financial impact on concessionary bus pass holders who now may need to pay for other modes of travel for the journeys they undertake.

However, some survey respondents reported no change in their bus usage and a minority reported an increase in bus use. This could be due to the Line generating bus trips to/from train stations, facilitated through improved integration between bus and rail services. As highlighted in Section 5, the integration of Dartmoor Line train stations with the wider public transport network was rated positively by respondents to both the on-train and residents' survey. An expected outcome of this improved integration is improved access to rail services for people in the Okehampton area, which can open up further opportunities. Early indications of these wider benefits are described in Section 8.

## **7.4. Reduced car dependency and usage**

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*An anticipated outcome of the reopening of the Dartmoor Line is reduced car dependency and usage between Okehampton and Exeter, resulting from car users switching to rail to avoid road congestion, the parking costs and for ease and convenience.*

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### **Evidence Assessed**

The assessment of reduced car dependency and usage has been undertaken using the data sources shown in Table 23.

<b>Data Sources</b>	<b>Analysis</b>
On-train survey Residents' survey Stakeholder interviews	<ul style="list-style-type: none"> <li>Self-reported impact of the Dartmoor Line on frequency of car usage and on vehicles owned or used</li> </ul>



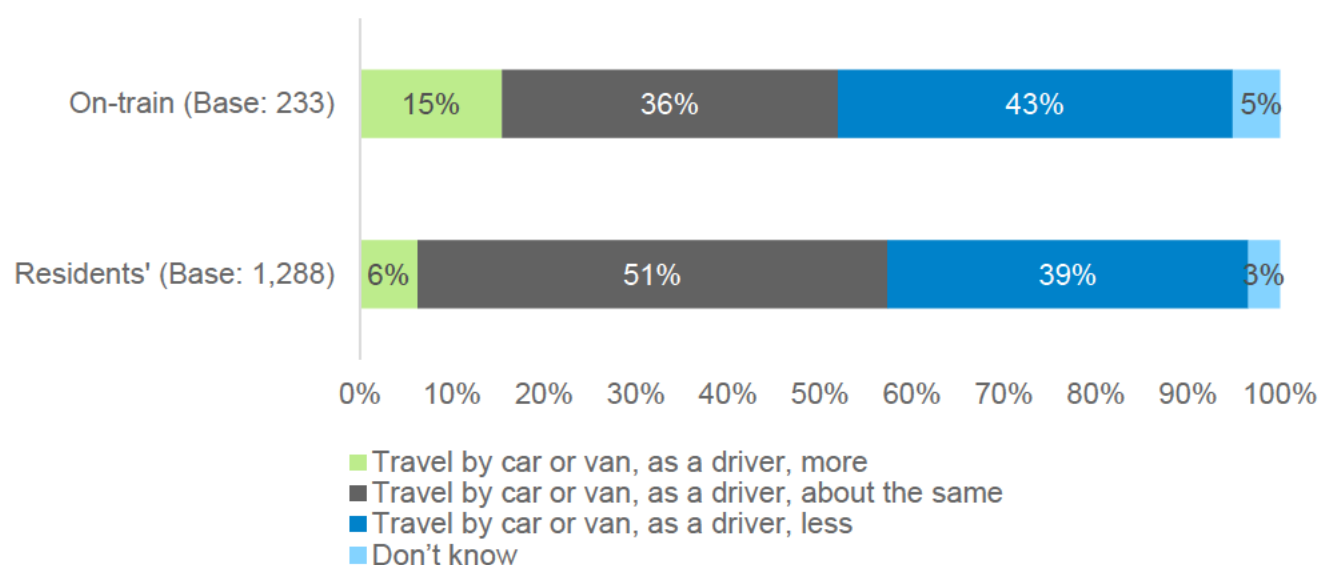
Secondary data	<ul style="list-style-type: none"> <li>Local road traffic counts before and after the reopening of the Dartmoor Line from WebTRIS<sup>24</sup></li> </ul>
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Table 23: Assessment of reduced bus usage

### Impact on frequency of self-reported car usage

Figure 32 shows that respondents to both surveys tended to report that they **travelled less or about the same by car or van, as a driver**, now compared to before the reopening of the Line. Specifically:

- 43% of respondents to the on-train survey stated they now travel less by car or van as a driver, whilst 36% travel at about the same frequency and 15% travel more.
- 39% of respondents to the residents' survey stated that they now travel less by car or van as a driver, whilst half (51%) stated they travel at about the same frequency and under a tenth (6%) reported travelling more.



Source: On-train and residents' survey

Figure 32: Do you currently undertake more, fewer, or about the same number of journeys by car, as a driver, compared to the number of journeys you undertook before the reopening of the Dartmoor Line in November 2021?

Despite this self-reported change, journeys by car or van as a driver remain the most common transport mode. Additionally, changes in use of a personal vehicle could be due a range of other factors including rising motoring costs and increased home-working following the Covid-19 pandemic.

Respondents who travel by **car or van, as a passenger** also stated that travel less in this way, or at about the same frequency, **now compared to before the reopening of the Line**. Specifically:

<sup>24</sup> National Highways. *Traffic Information System*. Available at: <https://webtris.highwaysengland.co.uk/> [Accessed November 2024]

- 36% of respondents to the on-train survey stated they now travel less by car or van as a passenger, whilst 41% travel at about the same frequency and 9% travel more.
- 29% of respondents to the residents' survey stated that they now travel less by car or van as a passenger, whilst half (52%) stated they travel at about the same frequency and under a tenth (5%) reported travelling more.

Business interviewees have provided examples of modal shift away from car use as a result of the reopening of the Dartmoor Line, including:

- pupils travelling to the special education school in Okehampton switching from taxi to rail;
- those travelling for business meetings at other offices travelling by rail, rather than by car; and
- Okehampton residents choosing to travel to Exeter for an evening out travelling by rail rather than driving.

Stakeholders suggested that local people may be motivated to travel by train rather than car since the reopening of the Dartmoor Line, as the Line is more affordable and quicker than car travel, especially when also considering parking. For certain trips, such as going out socially for the evening, the train may also be more convenient than car.

*"[Local people] can have dinner and a drink [in Exeter] and then come back home again without having to drive or park."  
Arts/cultural organisation*

### ***Impact on self-reported vehicles owned or used***

Respondents to the residents' survey were asked if they had reduced the number of vehicles owned or used by their household since November 2021, and whether the reopening of the Dartmoor Line influenced their decision to do so. 6% reported that they had reduced the number of vehicles owned or used by their household and of these around a half (47%) stated the reopening of the Line had influenced their decision.

### ***Local road traffic counts***

Changes in road traffic on the A30 (the main road running between Okehampton and Exeter) have been compared with routes that are unlikely to have been directly impacted by the Dartmoor Line using WebTRIS data. This is to understand whether the reopening of the Line has had an impact on local traffic levels. The comparator group consists of the A38 south of Exeter and the A30 east of Exeter: they are in the same area of Devon as the A30 and connect into Exeter but are not on the Okehampton – Exeter corridor (Figure 33).

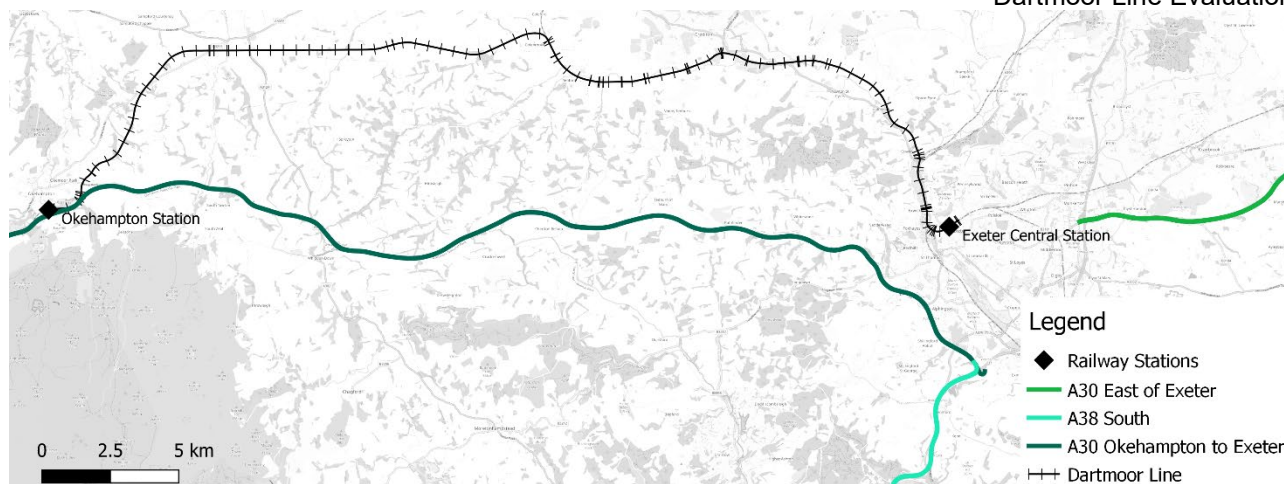
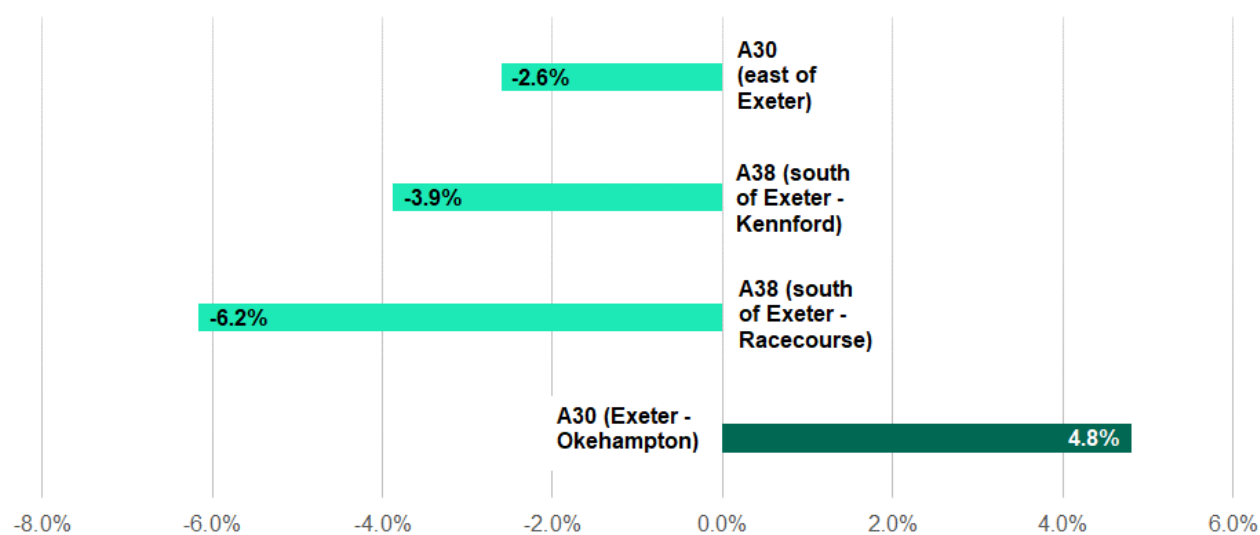


Figure 33: Location of A30 (Okehampton – Exeter) and comparator routes (A30 east of Exeter and A38)

Figure 34 shows that traffic on the A30 between Okehampton and Exeter increased on average by nearly 5% between 2019 and 2023 whereas there has been a reduction on the comparator routes over the same period. However, the increase in traffic on the A30 may represent wider regional trends as it is one of the main routes between Devon and Cornwall, and the rest of the country. Furthermore, there is no onwards rail connection from Okehampton into Cornwall. This may mask any reductions in local car trips, used, specifically those between Okehampton and Exeter, as self-reported in the surveys, despite car remaining the most common mode used. The period over which the data has been analysed includes the Covid-19 pandemic which significantly impacted road travel during 2020 and 2021 due to various travel restrictions and lock downs<sup>25</sup>; this may also have affected trends in the traffic on the A30. There may also be other confounding factors which are not accounted for in the simple comparison, such as rising motoring costs<sup>26</sup>.



Source: National Highways traffic counts (WebTRIS)

Figure 34: Percentage change in annual average daily traffic (AADT) 2019 to 2023 by traffic count location

<sup>25</sup> UK Government. *Travel behaviour, attitudes and social impact of COVID-19*. Available at: <https://www.gov.uk/government/publications/covid-19-travel-behaviour-during-the-lockdown> (Accessed November 2024).

<sup>26</sup> RAC. *The rising cost of motoring*. Available at: <https://www.rac.co.uk/drive/features/the-rising-cost-of-motoring-2022/> (Accessed November 2024).

### ***Evidence summary***

Early evidence shows that since the reopening of the Dartmoor Line there have been self-reported changes in car travel frequency. Specifically, up to half of survey respondents report using car less frequently compared to before the reopening of the Dartmoor Line, however, this could be due a range of other factors including rising motoring costs and increased home-working following the Covid-19 pandemic.

However, this is not reflected in local traffic counts with the main road between Okehampton and Exeter showing an increase in traffic relative to other roads in the area.

Despite the influence of Line on car use frequency not being clear, early evidence does show a small proportion of respondents to the residents' survey reducing the number of vehicles owned or used by their household, with around half of these respondents attributing the reopening of the Line to this decision.

Additionally, an expected outcome of the reopening of the Dartmoor Line was that a move away from car to rail would improve ease and comfort of journeys for people in the Okehampton area. Insights from stakeholder interviews suggest that this may be another factor as to why people travel by the Line rather than by car as well as the financial savings, especially when considering parking costs. Improving the ease and comfort of journeys is expected to open up further opportunities for people in the Okehampton area. Early indications of these wider benefits are described in Section 8.

## 8. Early Impact Findings: Benefits for Local Area (KEQ 2)

### 8.1. Summary Findings

#### **KEQ 2: To what extent has the Dartmoor Line delivered against the anticipated benefits for the local area?**

The surveys and interviews with stakeholders and local businesses provide early insight into the impacts on the local area.

A positive impact of the Line reopening is a perceived boost to tourism and increased access to leisure opportunities in the Okehampton area, with a reported increase in footfall for local retail and hospitality businesses, providing a benefit to the local economy. The Line reopening was also felt to facilitate leisure and tourism elsewhere, by improving access to airports and the national rail network from Okehampton.

Additionally, the improved connectivity as a result of the Line reopening is perceived to have had a positive impact on the ability to access employment by improving travel costs to Exeter for residents in Okehampton and the surrounding areas. Similarly, there has been positive impact on the ability to take part in education and training, with students in Okehampton now having greater access to Exeter University and sixth-form colleges in Exeter. Despite these positive perceptions, there was some concern that increasing the choice in educational institutions for young people was having a negative impact on Okehampton Sixth Form College due to lower pupil enrolments and subsequent financial strain.

There is also some evidence of the Line reopening influencing residents' decision to move home and jobs.



## 8.2. Evidence Assessed

As set out in Chapter 3, the focus of this early impact evaluation is on transport outcomes with socio-economic outcomes (KEQ 2) to be assessed in detail in a later evaluation study. However, early evidence of such outcomes, including the impact of the Dartmoor Line on the local area, tourism and access to education and employment, has been gathered from the surveys, and interviews with stakeholders and local businesses.

## 8.3. Early Impact Findings

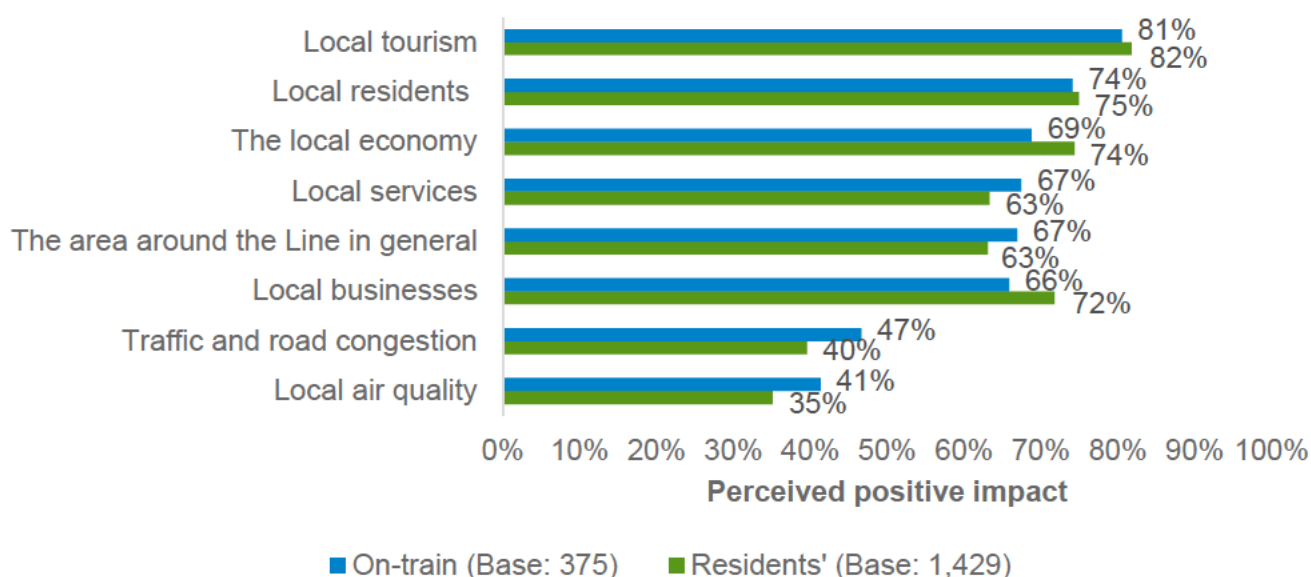
### Overall impacts on local area

In both surveys, respondents were asked to what extent, if at all, they perceived the Dartmoor Line reopening as having an impact on several factors relevant to the local area.

Overall, the Dartmoor Line was generally considered to have had a positive impact on the local area. Figure 35 shows the proportion of respondents selecting 'positive impact' and 'very positive impact' in response to both surveys.

The **greatest perceived impact was on local tourism**, with 81% of on-train survey respondents reporting a positive impact of the Line reopening on tourism, and a similar proportion (82%) of residents' survey respondents reporting the same.

This was followed by the Line reopening being perceived as having a **positive impact on local residents** (around three-quarters reported a positive impact in both surveys) and **the local economy** (around seven in ten reported a positive impact in both surveys).



Source: On-train and residents' survey

Figure 35: Since the reopening of the Dartmoor Line in November 2021, to what extent, if at all, has the Line had a **positive** impact on...?

Stakeholders and businesses also reported optimism with regards to the Dartmoor Line reopening on the local area, particularly with respect to education, employment, tourism, and the economy. These views are outlined in the remainder of this section.



### **Impact on tourism and access to leisure opportunities**

The perceived **positive impact on tourism**, as shown in Figure 35, was echoed by the stakeholders and local businesses interviewed.

*“A lot of people [...] come [to us] on the train. If you ask any of the employees generally, they'll say yes, the trains had a big impact on the visitors.”*

Firstly, interviewees felt that the Line reopening had contributed to increased tourism *within* Okehampton, with local businesses such as shops, cafes, and cultural attractions perceived to be experiencing increased footfall, boosting the local economy.

Additionally, the Line reopening was perceived to have improved access to airports and the national rail network, facilitating leisure and tourism *elsewhere*, beginning in Okehampton.

As noted in Section 5 (KEQ 1), the surveys suggest the improved connectivity resulting from the reopening of the Dartmoor Line also has had a perceived **positive impact on ability to take part in leisure activities, access shopping and visits friends and relatives**.

### **Impact on employment and education**

As noted in Section 5 (KEQ 1), the surveys suggest the improved connectivity resulting from the reopening of the Dartmoor Line has had a perceived **positive impact on the ability to access employment** (68% on-train and 33% residents).

Discussions with stakeholder and businesses support these survey findings. Stakeholders and businesses commented that the Line has enabled faster and more affordable commutes to Exeter, broadening the choice of employment opportunities. This was perceived to have created more opportunities for employment for residents in Okehampton and the surrounding areas, particularly residents without access to a car.

The surveys also show that the Dartmoor Line has had a perceived **positive impact on ability to take part in education and training** (71% on-train and 33% residents).

Again, these findings are largely supported by stakeholders and local businesses with the Line reopening perceived to have increased the choice in educational institutions for young people in Okehampton, including Exeter College, which offers a wider range of A-level courses than local institutions, and Exeter University. However, this has had a negative impact on Okehampton Sixth Form College which has reported lower pupil enrolments and subsequent financial strain. This may lead to fewer courses being offered in future.

*“Running a sixth form with that few numbers, you've got some classes with just one pupil in. It's just not viable.”*

*Education establishment*

### **Impact on residents' location of residence and employment**

In addition to providing feedback on the perceived local impacts of the Dartmoor Line reopening, respondents to the residents' survey were asked explicitly if they had moved home or changed jobs since the reopening of the Line.

Just 15% of residents said they had, in fact, moved home since the Line reopened in November 2021, of which one-third (33%) reported that the reopening of the Line had influenced this decision.

Looking at the demographic information provided by residents who reported moving home since November 2021, 71% reported currently living in Okehampton and 26% reported currently living in Crediton, with the remaining 3% living in or around the Dartmoor National Park<sup>27</sup>. This could suggest that these residents had moved *to* the area around the Dartmoor Line since November 2021, rather than moving *away*.

In terms of changes to employment, a similar proportion (13%) of residents' survey respondents reported having changed their employment. Of these residents, 12% stated that the reopening of the Line had influenced their decision to change employment.

### **Evidence summary**

Early evidence suggests that the Dartmoor Line is beginning to deliver the anticipated benefits for the local area in terms of improving tourism and access to employment and education opportunities.

Eight in ten respondents to both the on-train and residents' survey felt that the Line reopening was positively impacting local tourism. This was supported by discussions with businesses and stakeholders who noted that they had observed increased footfall at local businesses such as shops, cafes, and cultural attractions, as a result of the Line. The Line reopening was also felt to facilitate leisure and tourism elsewhere, by improving access to airports and the national rail network from Okehampton.

As reported in Section 5, respondents to both surveys also felt that the Line reopening was positively impacting ability to access employment and take part in education and training. Again, stakeholders and businesses interviewed supported this, noting that the Line reopening had enabled faster and more affordable journeys to Exeter, which broadens the employment, education and training opportunities available to local people. Despite these positive perceptions, there was some concern that increasing the choice in educational institutions for young people was having a negative impact on Okehampton Sixth Form College due to lower pupil enrolments and subsequent financial strain.

There is also some evidence of the Line reopening influencing residents' decision to move to the local area and change jobs.

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<sup>27</sup> Residents were only invited to complete the residents' survey if they lived around Okehampton or Crediton train station and so this finding is somewhat biased by the survey methodology.

## 9. Early Impact Findings: Cost-effectiveness of the Dartmoor Line (KEQ 3)

### 9.1. Summary Findings

#### **KEQ 3: Has the Dartmoor Line been cost-effective?**

An assessment of operating costs and revenue generated in 2023/24 indicates that the Dartmoor Line is creating an estimated annual operating surplus of £0.85m.

Whilst this provides an early indication of the subsidy requirement of the Line, a fuller picture will only be possible when the operating costs and revenue associated with the Line can be assessed over an extended time period and the demand has fully matured.

### 9.2. Evidence Assessed and Methodology

#### ***Key evaluation questions***

To address KEQ 3 i.e. whether the Dartmoor Line has been cost-effective, the following sub-questions have been assessed:

- KEQ 3.1: How much does the Dartmoor Line cost to operate?
- KEQ 3.2: What are the local and longer distance revenues generated by the Dartmoor Line?
- KEQ 3.3: How do the operational costs and revenues compare to those forecast in the business case?
- KEQ 3.3: What is the subsidy requirement of the Dartmoor Line?

### Evidence assessed

The questions above have been addressed using the data sources and analysis shown in Table 24.

KEQ	Data source	Analysis
3.1	Secondary data	<ul style="list-style-type: none"> <li>Collation of annual operating costs incurred by GWR, the train operator running services on the Dartmoor Line</li> </ul>
3.2	Secondary data	<ul style="list-style-type: none"> <li>Level of revenue generated at new stations (Okehampton) and additional revenue generated at existing stations (Crediton, Exeter) using LENNON rail revenue data</li> <li>Okehampton station car parking revenue</li> </ul>
3.3	Secondary data	<ul style="list-style-type: none"> <li>Comparison of operating costs (KEQ 3.1) and generated revenue (KEQ 3.2) against those forecast in the Dartmoor Line Full Business Case</li> </ul>
3.4	Secondary data	<ul style="list-style-type: none"> <li>Comparison of operating costs (KEQ 3.1) versus generated revenue (KEQ 3.2)</li> </ul>

Table 24: Assessment of cost-effectiveness of Dartmoor Line

### Cost assessment methodology

For KEQ 3.1, annual operating costs incurred by GWR have been collated for the financial year 2023/24. This provides the best representation of typical ongoing annual costs since the Line reopened in 2021 as this was the first full year in which the service frequency on the Line increased to hourly (which came into effect in May 2022). These costs include:

- staff costs (train drivers and guards)
- rolling stock lease costs due to the additional trains required to run the Dartmoor Line
- other variable costs according to vehicle mileage including fuel and materials
- variable track access charges (VTAC) which are paid by train operators for the use of NR's track and stations to cover the costs of maintaining and renewing the rail network.

These costs can be all allocated to Dartmoor Line as there is no through running of services onto other routes: costs cover services running to Exeter St Davids or Central, including the shunt move to Exmouth Junction for the latter.

While there has been some strike action since the Line reopened and during financial year 2023/24 any impact on day-to-day operating costs is likely to be marginal (for example small fuel savings) and therefore no adjustments to the cost estimates presented below have been made.

The operating cost analysis only considers the day-to-day operating costs of running the Line and excludes any consideration of the initial capital construction cost.

### Revenue assessment methodology

For KEQ 3.2, the additional revenue generated by the Dartmoor Line has been estimated by analysing LENNON data for the financial year 2023/24 for the following routes:

- local i.e. wholly on the Dartmoor Line:
  - Okehampton to/from Exeter
  - Okehampton to/from Crediton
  - Crediton to/from Exeter
- longer distance:
  - Okehampton to/from all other stations.

For the Crediton to/from Exeter route, only the additional revenue generated due to the doubling of service frequencies between Crediton and Exeter due to the reopening of the Line has been included. This has been estimated by firstly calculating what revenue on the Crediton to/from Exeter route in 2023/24 would have been in the absence of the Dartmoor Line i.e. the counterfactual. This has been done by growing revenue in 2019/20 on the Crediton to/from Exeter route by the average of the revenue growth between 2019/20 and 2023/24 on all other Tarka Line stations except Crediton to/from Exeter (as all other Tarka Line have not benefitted from the increase in service frequency). The difference between this counterfactual revenue and outturn revenue on the Crediton to/from Exeter route in 2023/24 has then been attributed to the impact of the additional Dartmoor Line services.

The generated revenue estimate has been adjusted to account for potential revenue displacement from other rail routes to the Dartmoor Line, the revenue from which would have been collected anyway in the counterfactual. As discussed in section 5.8, the on-train survey data suggests that the level of displacement could be up to around 2% on longer-distance routes e.g. Okehampton – London. The generated revenue on these routes has therefore been adjusted by this amount to account for the displacement. To reflect the uncertainty in the survey data as the basis for the level of displacement, further sensitivity tests in which the revenue on the longer-distance routes is reduced by 5% and 10% have also been undertaken. As per the demand analysis, the revenue estimate however has not been adjusted to account for the potential revenue impact of split ticketing and strike action.

### 9.3. Early Impact Findings

#### *Annual operating costs*

The Dartmoor Line annual operating costs for 2023/24 are estimated to be £1.74m with the breakdown as shown in Table 25.

Cost element	Cost £k (2023/24)
Staff	■
Rolling stock lease	■
Fuel	■
Materials	■
VTAC	■
Station (Okehampton)	■
Train cleaning	■
<b>Total</b>	<b>1,738</b>

Source: GWR

**Table 25: Dartmoor Line operating costs (2023/24)****Annual generated revenue**

Table 26 provides the breakdown of revenue generated by the Dartmoor Line by route in 2023/24. This is presented:

- with no adjustment for revenue displacement from other rail routes: £2.76m
- with a 1.8% reduction in revenue on Okehampton <> other station routes (based on on-train survey data): £2.72m
- with a 5% reduction in revenue on Okehampton <> other station routes (sensitivity test): £2.65m
- with a 10% reduction in revenue on Okehampton <> other station routes (sensitivity test): £2.53m.

Route	Generated revenue £k (2024P01-2024P13)		
	Full/ Reduced	Seasons	Total
Okehampton <> Exeter	394	9	<b>403</b>
Okehampton <> Crediton	17	2	<b>19</b>
Crediton <> Exeter	88	0	<b>88</b>
Okehampton <> other stations	2,221	26	<b>2,247</b>
<b>Total (no adjustment for displacement)</b>	<b>2,720</b>	<b>37</b>	<b>2,757</b>
<b>Total (1.8% reduction in revenue on Okehampton &lt;&gt; other stations routes)</b>	<b>2,680</b>	<b>37</b>	<b>2,716</b>
<b>Total (5% reduction in revenue on Okehampton &lt;&gt; other stations routes)</b>	<b>2,609</b>	<b>36</b>	<b>2,645</b>
<b>Total (10% reduction in revenue on Okehampton &lt;&gt; other stations routes)</b>	<b>2,498</b>	<b>34</b>	<b>2,532</b>

Source: LENNON, on-train survey analysis

**Table 26: Dartmoor Line generated revenue (2024P01-2024P13) including adjustment for revenue displacement**

Additionally, the revenue from the car park at Okehampton station in 2023/24 is estimated to be £53k<sup>28</sup>. The total revenue generated (rail and parking) by the Dartmoor Line in 2023/24 is therefore estimated to be £2.81m assuming no revenue displacement and £2.59m with 10% revenue displacement on Okehampton <> other station routes.

<sup>28</sup> Based on charge of £2 per day and assuming full daily occupancy (73 spaces) all year based on observations by GWR



In future years, the revenue generated could be expected to grow as a result of additional demand on the Line: evidence suggests it could be up to four years before the demand at a new station or new service reaches its full potential<sup>29</sup>.

### **Comparison of costs and revenue against business case forecasts**

The estimated operating costs and revenue in 2023/24 set out above have been compared against those forecast in the Dartmoor Line Full Business Case (FBC).

The analysis of operating costs has been limited to the items for which a like-for-like comparison can be undertaken. This shows that fuel and VTAC costs are in line with forecast whereas staff and rolling stock lease costs are less than half the forecast. This is attributable to using fewer additional train crew than expected and cascading existing GWR fleet rather than leasing new units respectively.

On the revenue side, the actual revenue generated by the Dartmoor Line in 2023/24 is estimated to be 65% higher than forecast (over £1m). This is primarily linked to demand being higher than forecast at FBC stage (as discussed in section 5.8) and a higher-than-expected average yield resulting from greater levels of longer-distance travel including to/from London.

However, firm conclusions on the accuracy of the operating cost and revenue forecasts are limited at this early stage with the analysis based on a single year of data and other cost uncertainties. For example:

- rolling stock costs may increase significantly in future years when fleet replacement is required
- other operating costs including GWR overhead costs such as marketing are not included
- maintenance and renewal costs are likely to increase in future as assets age.

A fuller picture will therefore only be possible when operating costs and revenue can be compared over a longer time period. More details on the analysis and the reasons for the differences are provided in Appendix D.

### **Financial sustainability**

Analysis of the revenue generated by the Dartmoor Line (£2.59m assuming a 10% revenue displacement on longer-distance routes) against annual operating costs (£1.74m) in 2023/24 indicates **the Line is estimated to be creating an annual operating surplus of £0.85m and therefore no requirement for operating subsidy.**

It is important to note that this analysis provides only a snapshot of one year of revenue and cost data. As discussed above, it is likely that the revenue generated will continue to grow as demand on the Line matures and therefore the revenue may increase relative to costs in future. However, operating costs may also increase in future, particularly as the new rolling stock will incur higher leasing charges and potentially VTAC, and the track begins to age and requires more maintenance. Therefore, the level of operating surplus identified at this early stage may not be necessarily sustained in future.

**A fuller picture of financial sustainability will only be possible once the demand has fully matured and when costs and revenue associated with the Line can be assessed over an extended time period, e.g. as part of the 5-year post-opening evaluation.**

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<sup>29</sup> PDFH v6 Table B9.7: Lags for new station and services

***Evidence summary***

The Dartmoor Line annual operating costs and generated revenue are estimated to be £1.74m and £2.59m respectively in 2023/24. This indicates that the Dartmoor Line is creating an estimated annual operating surplus of approximately £0.85m with no requirement for operating subsidy. However, there are significant caveats around this analysis and the longer-term financial sustainability of the Line will only be known once demand has fully matured and the costs and revenue associated with the Line can be assessed over an extended time period.

## 10. Early Impact Findings: Project Delivery

### 10.1. Summary Findings

#### **KEQ 4: Was the Dartmoor Line delivered to time and to budget?**

The Line was delivered in just under the forecast 8-month construction period. The final cost of the Line is expected to be approximately £51m compared to the forecast cost of £56.6m. The delivery of the Line to time and within budget has been attributed by key stakeholders to the application of Project SPEED developed by NR to help deliver rail infrastructure projects sooner and at a reduced cost, and cross-industry collaboration.

### 10.2. Evidence Assessed and Methodology

#### ***Key evaluation questions***

To address KEQ 4 i.e. whether the Dartmoor Line was delivered to time and to budget, the following sub-questions have been assessed:

- KEQ 4.1: How did the outturn project timescales compare to forecast?
- KEQ 4.2: How did the outturn capital cost compare to forecast?

#### ***Evidence assessed***

The questions above have been addressed using the data sources and analysis shown in Table 27.

KEQ	Data source	Analysis
4.1 & 4.2	Secondary data	<ul style="list-style-type: none"> <li>Comparison of outturn project timescales and capital cost against what was forecast in the FBC</li> </ul>
4.1 & 4.2	Stakeholder interview (NR programme directors)	<ul style="list-style-type: none"> <li>Discussions of factors that aided and hindered the Dartmoor Line being delivered on time and to budget</li> <li>Discussion of project delivery lessons learned</li> </ul>

Table 27: Assessment of project delivery of Dartmoor Line

### Assessment methodology

The proposed project schedule and key milestones set out in the FBC<sup>30</sup> have been compared against the outturn project timescales. Similarly, the Anticipated Final Cost (AFC) of the Line set out in the FBC has been compared against outturn capital costs as set out in the latest cost validation point data provided by NR. Both elements have been discussed with NR officials involved in the delivery of the Line.

## 10.3. Early Impact Findings

### Outturn timescales and costs against forecast

As discussed in the FBC, initial estimates suggested a scheme of this scope would have a capital cost of £89.4m using a conventional delivery approach and take at least two years to complete. However, by using Project 'SPEED' principles (see below) and alternative approaches, the approved AFC stated in the FBC was £56.6m with an 8-month delivery timescale. This was to deliver the scheme in three stages of infrastructure upgrades to provide:

- Stage 1: capability for a two-hourly passenger service (£36.4m)
- Stage 2: capability for an hourly passenger service (£12.4m)
- Stage 3: capability for freight services (£7.8m).

The AFC included a contingency of £14.9m to account for the risk and uncertainty inherent in project (26% of total cost).

Project costs were monitored through a cost validation programme with validation points every 6 to 8 weeks during construction. Each validation point involved a reassessment of the risk and contingency leading to a revision of the AFC. At the point the infrastructure entered into service, the AFC had fallen to £46.3m. Since then, there have been some cost challenges. These have largely been related to ecology vegetation management issues including the requirement for several ecology licences due to the presence protected species such as dormice and newts. This changed the project delivery methodology following the initial introduction of the train service which was not foreseen at the project outset. At the time of this report, final accounts are still being completed but it is expected that the **final cost of the scheme will be approximately £51m. The project was therefore delivered within budget.**

With respect to project timescales, work on the Line started on 27<sup>th</sup> February 2021 and lasted for nearly 8 months. This involved acquisition of the railway, planning and consents,

<sup>30</sup> Dartmoor Line Okehampton – Full Business Case, Version A02 November 2020

ecological licensing, procurement, design, material delivery, construction and driver training. The infrastructure entered into service on 31<sup>st</sup> October 2021 with a two-hourly passenger service starting from 17<sup>th</sup> November 2021. **The Stage 1 project was therefore delivered on time. The hourly service began on 15<sup>th</sup> May 2022 five months ahead of schedule.**

Key stakeholders involved in the delivery of the Line attribute it being opened on time and within budget to a number of factors:

- **Following Project SPEED principles:** The SPEED (Swift, Pragmatic, Efficient, Enhancement, Delivery) initiative began in June 2020 as part of the government's Covid-19 recovery plan. Its aim is to deliver public investment projects faster and for less money. The approach is based around 11 key themes, with two key factors being the increasing the use of innovative construction methods and removing complexity from the planning processes. The Dartmoor Line was its first application.
- **Development of a minimal viable product (MVP):** a key principle of the SPEED approach is MVP which provides a framework for scoping and undertaking a project against the minimum requirements to meet the objectives of the project. For the Dartmoor Line to be viable from a revenue perspective, the MVP needed to be an hourly service between Okehampton and Exeter which met customers' basic aspirations and requirements. It did not however need to be 'gold-plated' with additional and potentially unnecessary features meaning it could be delivered more quickly and at a lower cost.
- **Streamlining of the business case process:** the scheme moved straight to FBC stage without a Strategic Outline Case or Outline Business Case which accelerated the approvals process.
- **Reduced procurement timescales:** the use of framework contracts where possible in the construction of the Line reduced the procurement period.
- **Partnership approach.** Seamless partnership and cross-industry collaboration was seen as key to the efficiency delivery of the scheme. This involved a range of stakeholders including the DfT, NR and GWR, and local partners including Devon County Council, DRA, DCRP and OkeRail. Many of the local partners such as DRA and DCRP had been involved in a long-running campaign to reopen the Line.
- **Local expertise:** the presence of scheme partners with railway knowledge at a local level facilitated leadership to make rapid decisions and to improvise, adapt and overcome obstacles and challenges.

The development and construction of the Dartmoor Line has led to best practice and key learning points including the application of Project SPEED and the approach to ecology being shared across the wider industry.

### **Evidence summary**

At the FBC stage, the Dartmoor Line was forecast to take 8 months to deliver and cost £56.6m. The Line was actually delivered in under 8 months and the final cost is expected to be approximately £51m. The project was therefore completed on time and within budget. This has been largely attributed to the first use of innovative Project SPEED principles and cross-industry collaboration.

# 11. Summary and Next Steps

## 11.1. Summary

This early impact evaluation has presented a range of evidence suggesting that the reopening of the Dartmoor Line has had positive impacts on transport users and local residents and businesses:

- The Line has improved connectivity between Okehampton, Crediton and Exeter, reduced public transport journey times and costs, and increased accessibility of public transport in the Okehampton area. This has facilitated leisure travel and tourism in particular, and increased accessibility to work and education, especially for those with without a car.
- There is an increased use of rail in the local area since the reopening of the Dartmoor Line with rail users and residents reporting that they now travel by rail more frequently. Demand has so far outperformed the demand forecasts for the Line. There are also high levels of satisfaction with the Line amongst rail users and residents.
- There is early evidence of modal shift resulting from the Line with a reported reduction in the frequency of use of car and bus since the Line reopened. Demand on the bus service between Okehampton and Exeter has decreased which can be partly attributed to the impact of passengers now travelling by rail instead of by bus.
- The transport improvements have also delivered benefits to the local area. The boost to tourism in the Okehampton area has led to benefits for the local economy with a reported increase in footfall in retail and hospitality businesses. The Line has also improved access for Okehampton residents to employment and education in Exeter.

There may however have been some negative impacts due to the reopening of the Line:

- The Line may be one of the reasons for the observed reduction in bus demand between Okehampton and Exeter, which has led to a marginal reduction in off-peak service frequency. However, it has not been possible to separate this from wider COVID-19 impacts on travel demand, and new bus timetables have also been designed to align with rail services at Okehampton station.
- While improved access to education in Exeter represents a benefit for Okehampton residents, it has also potentially led to falling enrolment at the sixth form college in Okehampton which may impact the viability of some courses offered there.



From a financial performance and sustainability perspective, there are early indications that the Line is creating an annual operating surplus.

## 11.2. Further Evaluation

This evaluation has assessed the early transport-based impacts of the Dartmoor Line over the two years since its reopening. As noted in Table 3, any early trends identified through this study may not necessarily be sustained in future and so this evaluation cannot conclusively attribute the benefits to rail users and impacts on the area to the Line. There will also be value in examining the impacts of the Line beyond the study area defined for this evaluation including across the wider West Devon and North Cornwall region. Therefore, there is a need for further evaluation of the impacts of the Line at a later date (e.g., 5-year post-opening) to increase confidence in the findings of this study.

In a future evaluation, the secondary data analysis undertaken as part of this study should be revisited and longer-term trends established. There should also be further surveys of rail passengers and residents, and interviews with stakeholders and businesses to determine whether the behaviours and views reported in this study are the same or have changed. A value-for-money evaluation that includes detailed analysis of costs (including operations, maintenance and renewals) and revenue over an extended time-period will determine whether the Line's initial operating surplus is sustained in the long-term. A future value-for-money evaluation would also be expected to analyse wider socio-economic outcomes in more detail than in this early impact study. These will include access to education, employment, community and healthcare, and the impact on tourism, the labour market, the local economy, and housing. As per the transport-based outcomes, this will require primary data collection through rail user and household surveys, interviews, and secondary data analysis (see below).

Additionally, once socio-economic impacts have been given sufficient time to be realised, an economic evaluation should be undertaken, comparing costs of the Dartmoor Line against the benefits realised.

## 11.3. Recommended Data Collection

For future evaluation of the Dartmoor Line, it is recommended that the secondary data collected to evidence the transport-based outcomes for this study is continued to examine longer-term trends. This will also allow trends to stabilise following the Covid-19 pandemic which may have distorted travel patterns in the short-term.

In addition, the following data should be collected and analysed:

- data on personal injury reported road accidents (Stats19) on roads in the study area to examine accident trends
- crowding levels on Dartmoor Line services, particularly during peak periods; and
- car park occupancy data at Okehampton station to identify whether there are any capacity constraints which could reduce rail demand and/or create parking issues on surrounding roads.

As well as traditional sources of rail demand data (e.g., LENNON), there may be merit exploring the use of mobile network data (MND) to inform a future evaluation. MND provides a novel source of source of information to assess travel patterns across all modes. A key strength of the data is the ability to assess changes in rail /car mode share

with comprehensive temporal and spatial disaggregation. MND also offers the potential to assess changes to station catchments, rail passenger volumes, journey times, and pattern of travel by time of day and day of week. The data has known weaknesses but continues to be the subject on on-going development and improvement.

To evidence the socio-economic outcomes identified in the logic model in Figure 5, Table 28 proposes indicative measures and data sources and collection methods.

<b>Outcome</b>	<b>Indicative Measure</b>	<b>Indicative Data Source / Data Collection Method</b>
Improved access to healthcare and community services in Exeter	<ul style="list-style-type: none"> <li>Travel to health care / community facility: mode share, distance travelled, area travelled from</li> </ul>	<ul style="list-style-type: none"> <li>Health care /community facility data</li> <li>Patient / user surveys</li> </ul>
Improved access to education and high-quality skills training in Exeter	<ul style="list-style-type: none"> <li>Proportion of people aged 16+ continuing to further/higher education and/or vocational training</li> <li>Travel to school/college: mode share, distance travelled</li> <li>School/college catchment areas</li> </ul>	<ul style="list-style-type: none"> <li>Local authority demographic data (ONS)</li> <li>Data held by schools/colleges/local education departments</li> <li>Student surveys</li> </ul>
Housing growth in Okehampton, Crediton and Exeter	<ul style="list-style-type: none"> <li>Number of new dwellings</li> </ul>	<ul style="list-style-type: none"> <li>Local authority housing statistics data (ONS)</li> </ul>
Increased visitor travel to key attractions	<ul style="list-style-type: none"> <li>Footfall at tourist attractions</li> </ul>	<ul style="list-style-type: none"> <li>Footfall data by attraction</li> <li>User surveys</li> </ul>
Improved access to wider customer markets	<ul style="list-style-type: none"> <li>Average earnings</li> <li>Total jobs</li> <li>Gross value added (GVA) / GDP per capita</li> </ul>	<ul style="list-style-type: none"> <li>Average earnings (ONS)</li> <li>Local authority labour market profile data (ONS)</li> <li>Local GVA (ONS)</li> </ul>
New and expanded local businesses	<ul style="list-style-type: none"> <li>Number of local businesses</li> </ul>	<ul style="list-style-type: none"> <li>Local GVA (ONS)</li> </ul>
Better access to labour market	<ul style="list-style-type: none"> <li>Proportion of and total local residents in employment</li> <li>Applications for jobs from wider area</li> </ul>	<ul style="list-style-type: none"> <li>Local authority labour market profile data (ONS)</li> <li>Employee surveys</li> </ul>
New retail, offices and industries	<ul style="list-style-type: none"> <li>Number of commercial planning applications</li> </ul>	<ul style="list-style-type: none"> <li>Local authority commercial planning application counts (ONS)</li> </ul>

Table 28: Indicative socio-economic outcomes measures and data sources