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Windsor Strategic Station Plan: Rail Passenger Survey



by Dr Nikolas Thomopoulos, Ms Astha Guragain, Dr Alex Hagen-Zanker © 2024

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About the authors

Dr Nikolas Thomopoulos is an Associate Professor in Transport at the Department of Tourism & Transport, School of Hospitality and Tourism Management, University of Surrey. He is the Institute for Sustainability Co-Leader for the Sustainable Transport & Mobility Programme.

Ms Astha Guragain is a Research Assistant at the Department of Tourism & Transport, School of Hospitality and Tourism Management, University of Surrey. She is a recent MSc graduate from the London School of Economics and Political Sciences (LSE), specialising in local economic development.

Dr Alex Hagen-Zanker is an Associate Professor in Infrastructure Systems at the School of Sustainability, Civil and Environmental Engineering, University of Surrey. He is the Director of Learning & Teaching and specialises in Geographic Information Systems (GIS) analysis.

Report Summary¹

Passenger journeys by rail have been increasing in the UK during the past 40 years, except during the COVID-19 global pandemic period (Figure 2). This report aims at providing the rail user perspective as input to the Windsor Stations Strategic Plan, which focuses on future improvements. This has been addressed through a survey of 420 respondents conducted between 22nd February 2024 and 2nd March 2024 at Windsor & Eton Central (WNC) and at Windsor & Eton Riverside (WNR). The survey was completed both on paper and online. The information collected through the survey included details about current travel, future station preferences and socio-demographics. Future station preferences focused on these four categories: Accessibility, User Friendliness, Community & Visitors and Facilities to meet Network Rail needs.

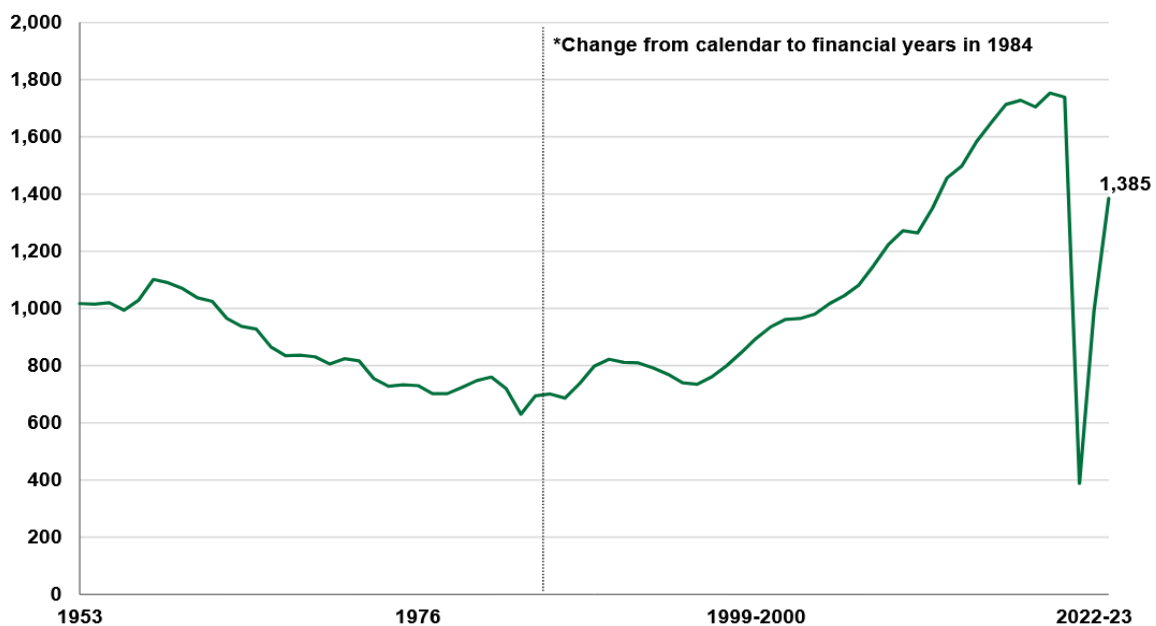


Figure 2: Passenger rail journeys (in millions) in Great Britain between 1953 and 2023 (DfT, 2024²)

Sample

Over 500 responses were collected through this survey. 420 fully completed responses by those aged 18 or over are included in the analysis. There is a good gender balance in the sample and there are more respondents from WNR compared to WNC. This is mainly due to the weather conditions and rail service disruptions faced during the survey data collection days. However, the overall sample characteristics are as anticipated, namely evenly balanced between commuters and tourists from both the UK and overseas. Tourists from overseas travelled from the following countries, clearly demonstrating the international profile of visitors to Windsor:

¹ In case of any queries or to request access to the full report, please contact the lead author: Dr Nikolas Thomopoulos (N.Thomopoulos@surrey.ac.uk).

² DfT (2024) Rail Factsheet: 2023, Official Statistics, London: Department of Transport.

- Angola
- Australia
- Brazil
- Chile
- Czechia
- France
- Germany
- Ireland
- Italy
- Mexico
- The Netherlands
- New Zealand
- Poland
- Saudi Arabia
- Spain
- USA

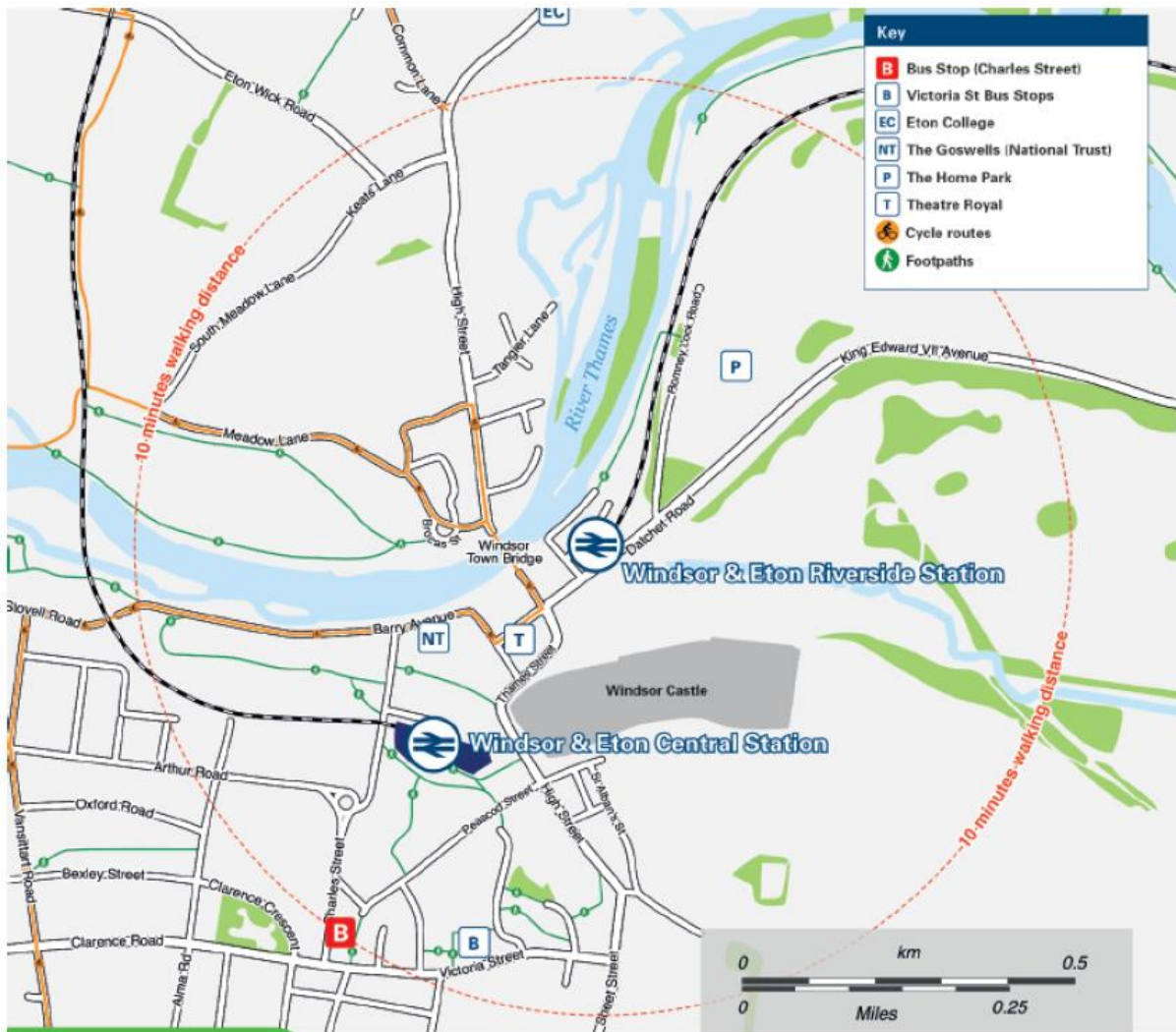


Figure 5: Location of the two rail stations in Windsor (SWR, 2022³)

Findings

Windsor rail stations (Figure 5) are used by both commuters and visiting tourists. As anticipated, WNR is used more for commuting and WNC is used more for tourism (Figure 9). 65% of survey respondents use Windsor rail stations due to a lack of alternatives. Around 50% of survey respondents purchase

³ SWR (2022) Station Travel Plan: Windsor & Eton Riverside Station, South Western Railway.

their ticket through the ticket office or an automated ticket machine. Around 40% purchase their ticket through a mobile phone (Figure 12).

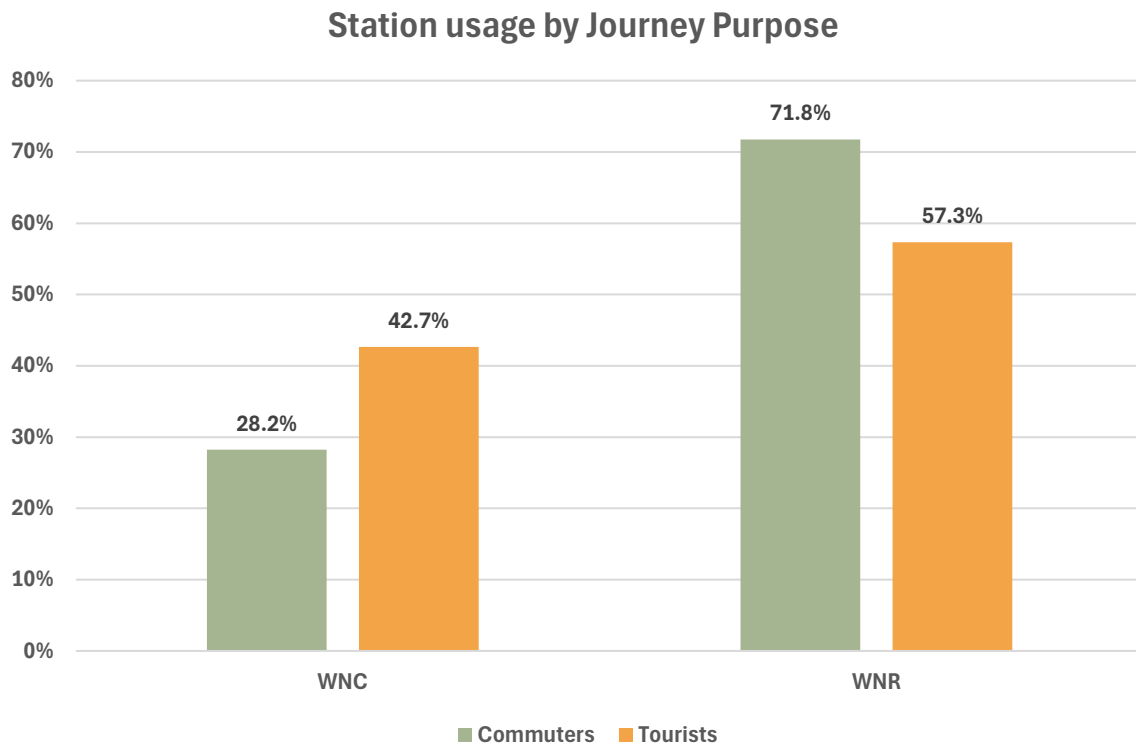


Figure 9: Journey purpose by station N=420 (WNC | WNR)

Accepting diverse payment methods to purchase tickets appears to be a common demand across demographics: *“An extra few ticket machines and seating would be useful”* or *“The opportunity to use Apple Pay to tap for travel”* or *“Make ticket machines take cash again, this disadvantages certain communities”*. Tourists visiting Windsor appear to have similar needs, so all payment options should be on offer: *“Make getting tickets more accessible for tourists”*.

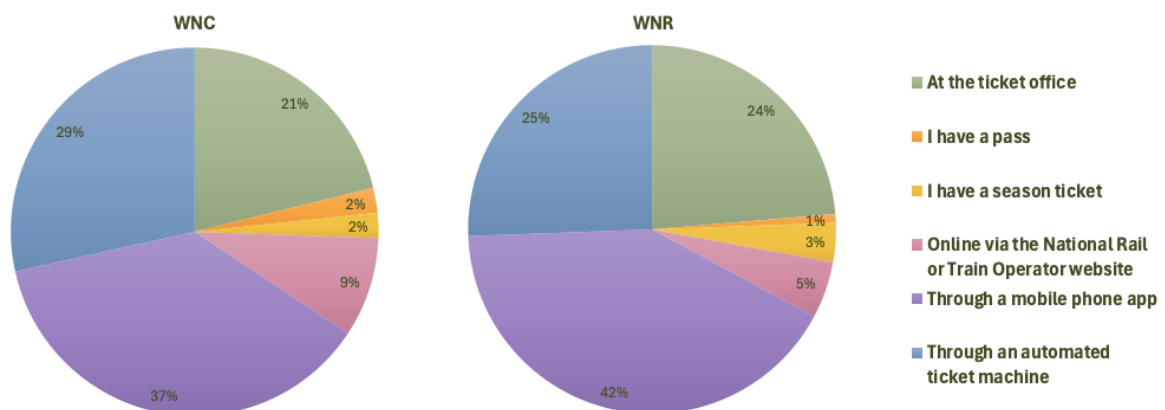


Figure 12: Ticket purchase method at each Windsor rail station

Available connections with other transport modes (e.g. buses, underground), low environmental impact, rail service frequency and safety (e.g. rare travel incidents) have a positive influence on more than 60% of survey respondents. Rail service reliability is also a quite important factor for rail

passengers traveling via Windsor, although accounting for slightly less than 60%. Figure 14 is based on Saud and Thomopoulos (2021)⁴ and offers an innovative illustration of the whole passenger journey from home to their travel destination, including the Windsor station travelled and the transport mode used to continue their travel afterwards. In conjunction with the geo-spatial analysis, these offer useful insights to station managers, rail service providers, transport planners and local authorities.

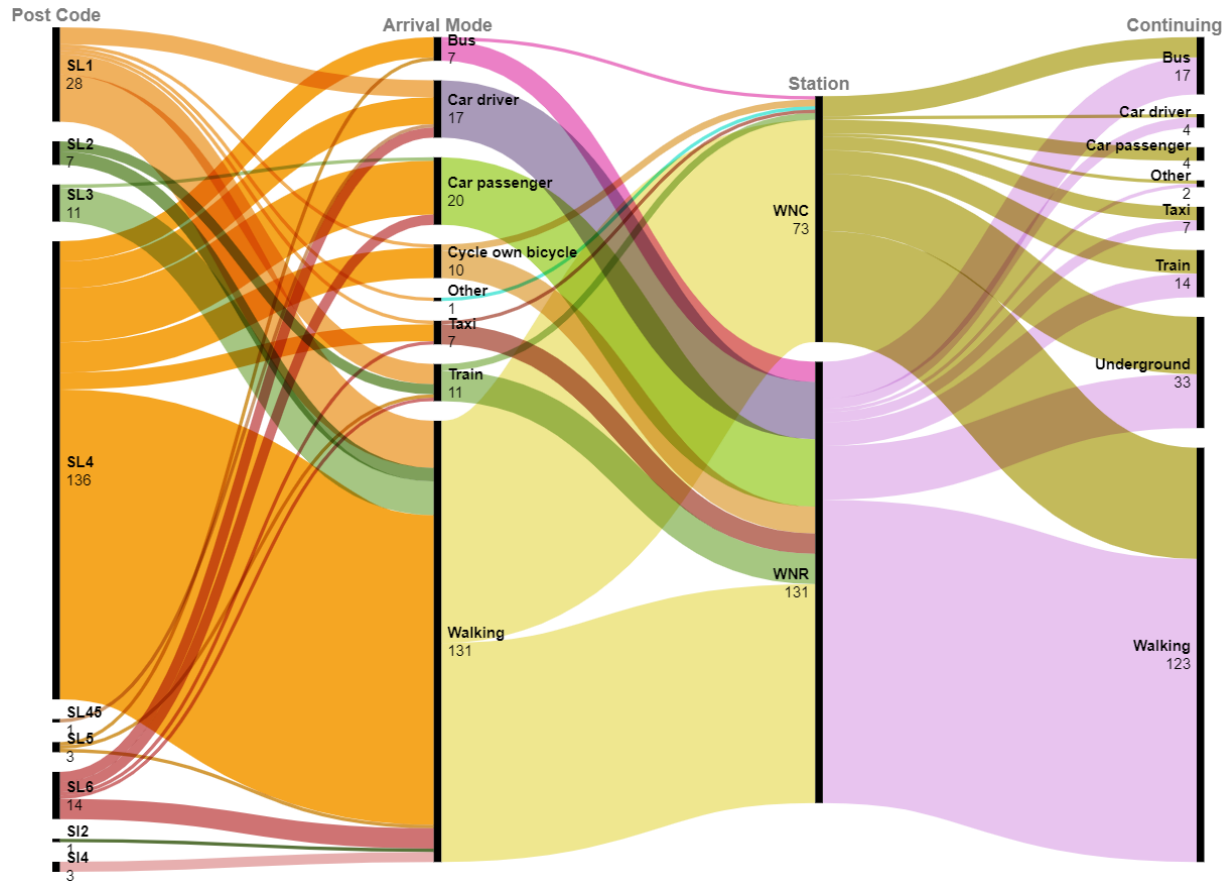


Figure 14: Trip-chaining travel overview via WNC and WNR (Based on: Saud and Thomopoulos, 2021)

Given that tourists constitute a considerable proportion of rail users in Windsor, their needs should be also taken into account when deciding whether and what future improvements to make. These range from more shops (e.g. coffee), toilet and waiting facilities: *“A sheltered hut with warming for more seating during the colder months would be a good idea”*, to more pictures of the King, more flowers and more direct rail services to London: *“The little coffee shop was fine but not much of a range and that would be my only complaint”*.

More importantly, a number of transport improvements have been stressed by respondents with variable experience of using Windsor rail stations: *“I have been using WNR for over 30 years”*. Getting to the rail stations appears to be a challenge for certain respondents, so suggestions vary from cycling facilities: *“Bicycle accessibility improvements would be brilliant”* to bus improvements: *“Buses that goes to nearby towns, that would be amazing”* and *“My main difficulty with travel from this station is how difficult it is to get here from Maidenhead - a town within the same Borough - on public transport. A reliable bus route connecting more of the Borough would be really great.”*

⁴ Saud, V., Thomopoulos, N. (2021) Towards inclusive transport landscapes: Re-visualising a Bicycle Sharing Scheme in Santiago Metropolitan Region, *Journal of Transport Geography*, 92, pp. 1-16. DOI: 10.1016/j.jtrangeo.2021.103004.

SSP input

The following points constitute key input for the Windsor SSP:

Accessibility: 49% of respondents agree that sheltered bus stops and 59% agree that more frequent connecting public transport services (e.g. buses) are required near the rail station, while 56% of respondents agree that accessible drop-off and pick-up points are required for cars and taxis. 60% of survey respondents would not support stations offering more car parking space or EV charging options (63%).

User friendliness: There is unanimous support for better toilet facilities and improved accessibility for those with disabilities at both stations. The travel experience of rail users could be enhanced if an integrated Park & Ride (54%) ticket or a unified app service (59%) were offered. Integrating ticket options with local offers and discounts would be welcomed by survey respondents.

Community & Visitors: Since this survey was conducted during a period with cold and rainy weather, the majority of respondents (70%) would like rail stations to have additional and improved waiting spaces e.g. benches, shelter, heating. At the same time, rail users are keen (62%) to benefit from local offers.

Facilities: 68% of respondents would value more device charging facilities at rail stations. It is of particular interest that 32% of respondents strongly agree with such plans, especially if the energy provided is renewable. Likewise, 69% would like to have more plants and flowers at the station, with 31% of respondents strongly supporting this option.

An upcoming challenge is how to prioritise rail station user input based on the survey findings. For example, it is crucial to specify whether accessibility, user friendliness or facilities are more important in the current SSP. One way of addressing this is by using SUMINI (Thomopoulos and Grant-Muller, 2013⁵), which is a Multi-Criteria Analysis method. Such approaches can aid stakeholders and decision makers to reach consensus and utilise user input, while following the required decision making processes and regulations.

Overall, this report has designed and applied an appropriate approach for two rail stations in order to support the Windsor SSP. Findings are comparable between both Windsor rail stations, since no major differences have been found between WNC and WNR. As explained in the full report, this approach can be evaluated and used to inform future SSPs in collaboration with Network Rail.

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⁵ Thomopoulos, N., Grant-Muller, S. (2013) Incorporating equity as part of the wider impacts in transport infrastructure assessment: an application of the SUMINI approach. *Transportation*, 40, pp.315-345.