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Impacts of, and likely travel behaviours during, a 14 day closure



Minimising the impact of service alterations



Information needs & communications preferences

Executive Summary

Executive Summary (1)

1. Ipsos conducted quantitative research to assess passenger preferences and tolerances for service alterations during blockades for infrastructure projects

This research project was conducted online through the lpsos Online Panel. A total of 3,000 members of the panel (aged 16-75) in Great Britain took part between 11th and 23rd August 2021.

Quotas were set by gender, age and working status in order to achieve a representative sample of specific groups of rail user. These rail users must have travelled by rail any time from March 2019 until August 2021 and not rule out travelling by rail in the future. Quotas were also set by Government Office Region. The sample was weighted by these quotas to ensure representation.

2. Perceptions of planned engineering works tended to be negative

Rail travellers had polarised opinions when it came to how well rail companies and organisations deliver infrastructure projects. Whether works are planned or unplanned was not always clear to travellers. On the whole rail travellers viewed engineering works negatively, either due to a misattribution to unplanned works / disruption or because they were not associated with infrastructure enhancement (i.e. helping build new lines / upgrading).

Most rail travellers had experienced some form of disruption pre-COVID-19 (either planned or unplanned). The impact of this disruption was largely arriving late at their destinations, missing onward connections and incurring additional travel costs.

3. Passengers preferred engineering works to be scheduled at times that impact them least but this varies for different passengers

Completing engineering work during the night is most preferred by passengers, followed by weekends. Weekday work is least favoured by most. Over half of passengers think that work during weekdays should be minimised with as few closures as possible across Monday to Friday. However, this view is not universal and one in five would like to see more work completed during the week so that there are fewer weekend closures.

Executive Summary (2)

4. Opinion was divided over short versus longer blocks of work

When rail travellers were asked to balance the number and length of closures, passenger preferences were divided over whether to schedule engineering works in short blocks, for example, over two-day weekends, or longer blocks of time which impact week days, including long weekends or week-long or fortnight closures.

As a standalone preference, rail travellers leaned towards multiple short-closures on the weekend (70% acceptable one weekend per month for a year compared to 62% for 7 consecutive days).

But given a direct choice between a single closure for 21 consecutive days and 30 non-consecutive days spread out over a year, passengers favoured the 21 day block (43% versus 30%). Leisure travellers were more likely to choose the longer consecutive closure and, correspondingly, weekly commuters preferred to avoid weekday disruption.

More generally, frequent travellers - particularly weekly rail users - tended to favour two-day weekend blockades over longer closures which impacted on weekday travel.

5. Longer closures became more tolerable if the impact was mitigated with faster train replacement services in general

Preferences were influenced by the type of replacement service and people's additional journey time during periods of disruption. For example, long weekend closures affecting Mondays/Fridays, or nine or 16 day blocks are more acceptable to passengers if mitigated with faster replacement journeys, more direct journeys, and/or rail replacement services instead of buses.

Providing access to refreshments and toilets had a small impact on how acceptable passengers find longer blocks of engineering works, but much less so than the type of replacement service and additional journey time.

6. Travellers strongly preferred a rail rather than bus replacement service

In line with previous research, a bus replacement service was extremely unpopular and rail travellers would prefer a replacement train service (even if it means a slightly delayed journey). A replacement train service was therefore more popular than bus regardless of whether it occurred less frequently or the journey was longer.

The tolerance towards replacement services – whether bus or rail – increases if the journey is direct rather than diverted, or minimises the additional journey time.

Access to amenities like toilets, protection from poor weather, attendant staff and good lighting were all considered important during service alterations.

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Executive Summary (3)

7. Most commuters would expect to have <u>some</u> flexibility to work from home during a 14 day block of engineering works affecting work days

Two in three passengers commuting by train to work or education would expect to work from home at least some of the time if faced with future line closures of 14 consecutive days. However, a significant minority (28%) would still need to travel to their place of work or education every day.

The main impacts passengers would expect of a two-week period of engineering works largely depended on the reasons for travel - if the travel can be easily changed or alternative arrangements made then it was seen more as an inconvenience. However, for a core group that need to travel, a 14 day block of works was expected to have a negative impact on their work-life (including needing to reschedule travel, lost pay or having to be delayed getting into work).

8. Communications on closures / works was seen as a key mitigating factor

Communicating clearly and with advance warning when it comes to planned engineering works was mentioned as a priority (unprompted) to minimise the impact of disruption on passengers. Most travellers wanted to be told the basics, such as length and time of disruption and potential alternative routes.

A month's notice was the optimum lead-in time when it came to giving advance notice of a planned engineering / maintenance blockade.

1. Background and methodology

Background and objectives

The Department for Transport (DfT) commissioned Ipsos to conduct quantitative research to assess passenger preferences and to lerances for service alterations during blockades for infrastructure projects. The overall aims of the project were:

- To create a robust passenger evidence-base to inform decisions about the delivery of future infrastructure works including passenger preferences and ranges of tolerance for different models of service alteration, blockade durations, disruption patterns and travel alternatives.
- Inform the development of communications with passengers about service alterations ahead of and during infrastructure works.

At the outset it posed the following research questions:

- 1. What are passengers' preferences and "tolerances" for different models of service alteration during planned infrastructure works, and how do they "trade-off" different options?
- 2. What are passengers' information needs and communication preferences ahead of infrastructure works?
- 3. What has been the impact of COVID-19 on current and future travel choices for work and leisure, and how these correlate with choices and alternatives selected during periods of service disruption on the railways?
- 4. What are peoples' general attitudes and opinions of the rail industry in relation to disruption owing to infrastructure enhancements, and how much do they know about railway maintenance and who is responsible?

A qualitative phase of research preceded the quantitative phase and some of the headline insights from this work were used to inform the design of the research materials. The findings of the qualitative research are produced under separate cover.

Research Methodology



This research project was conducted online through the Ipsos Online Panel.

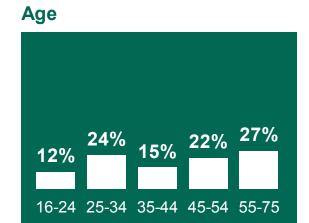
A total of 3,000 members of the panel (aged 16-75) in Great Britain took part between 11th and 23rd August 2021. The UK government had lifted their 'work from home' recommendation and most other COVID-19 restrictions by this period.

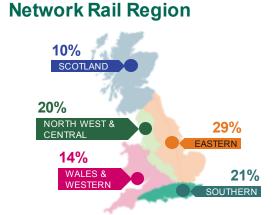
Quotas were set by gender, age and working status in order to achieve a representative sample of specific groups of rail user. These rail users must have travelled by rail any time from March 2019 until August 2021 and not rule out travelling by rail in the future. Quotas were also set by Government Office Region. The sample was weighted by these quotas to ensure representation.

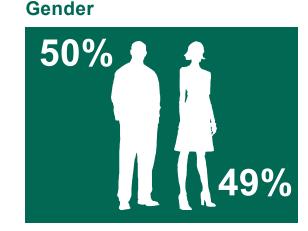
Findings in this report are based on all responses as well as groups of particular interest, for example, commuters, leisure travellers, frequent and infrequent rail users. Information on the definitions and sample sizes for these groups, along with some additional analysis of rail travel patterns and scheduling preferences, are provided in the appendices.

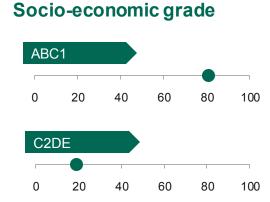
When comparing the responses of different groups, the data has been significance tested at a confidence interval of 95%. Arrows up or down illustrate that responses for that group are significantly different to the total sample.

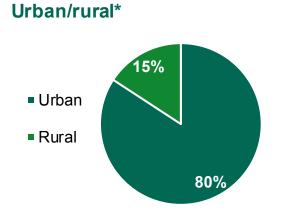
Respondent profile

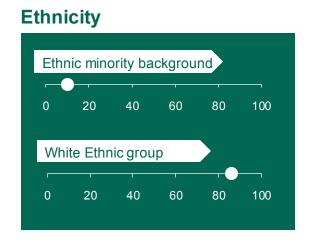


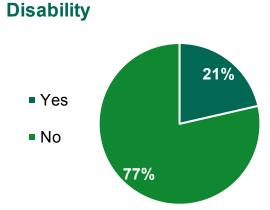


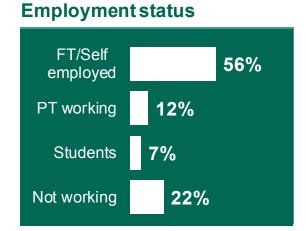








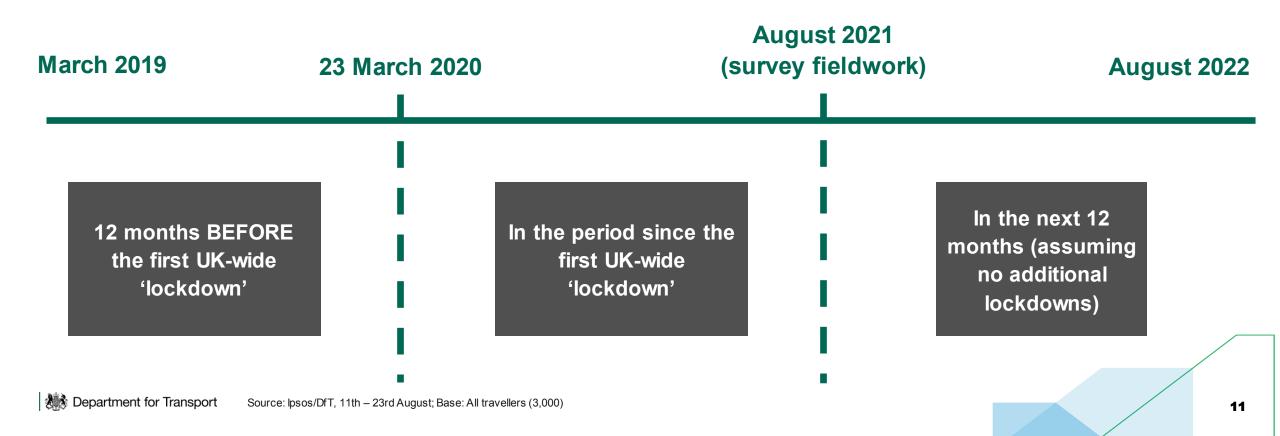




^{*}Urban rural definition based on the ONS file from August 2020: https://geoportal.statistics.gov.uk/datasets/ons-postcode-directory-august-2020/about

Definition of timeframes used during survey

Given the survey asked about the regularity of rail travel and associated behaviour, it was necessary to clearly define the periods of time being asked about to enable respondents to be as accurate as possible in their responses. Considering the disruption to 'regular' behaviour caused by the pandemic, respondents were asked to think about their travel patterns and behaviour.



Respondents routes through the survey

Most questions in this survey were asked of all respondents but for some of the sections exploring preferences, different question approaches were used based on how frequently people had travelled by rail. For people who had used the railway **at least once a month** either before the pandemic (in the year prior to 23 March 2020) or during pandemic lockdown restrictions (i.e. between 24 March 2020 and the end of fieldwork for this project on 23 August 2021), preferences were explored using both survey questions and a conjoint exercise (an advanced analytical technique explained further on slides 30-32). Survey questions alone were used to explore the views of less frequent users i.e. those who had travelled by rail **less frequently than once a month** during both of these time periods. Each page of the report clearly indicates the type of respondent at the top for clarity.

All rail travellers

Total sample: all who have travelled by rail any time from March 2019 until August 2021 and do not rule out travelling by rail in the future

Frequent travellers

Travelled by rail at least once a month (n=1518)

Less frequent travellers

Travelled by rail less than once a month (n=1399)

Preferences for service alterations explored through:

Conjoint exercise and survey questions

Survey questions

2. Attitudes & experiences of rail disruption

Attitudes & experiences of rail disruption

Research Question 5:

 What are peoples' general attitudes and opinions of the rail industry in relation to disruption owing to infrastructure enhancements, and how much do they know about railway maintenance and who is responsible?

Respondent definitions

All rail travellers = Everyone who had travelled in the last two years by rail and did not rule out doing so in the future

Frequent travellers = Those who travelled at least monthly by rail either before, or during the pandemic

Less frequent travellers = Those who *did not* travel by rail monthly either before, or during the pandemic

Overall Findings:

- Just over half (52%) rated the rail infrastructure as good in Great Britain although this was driven by the views of those from Greater London (60% rated infrastructure as good). The railways themselves were largely seen as well-run and reliable (50% agreed they were well run and 53% agreed they were reliable) but views were less positive that they provided good value for money or delivered infrastructure efficiently (48% disagreed that the railways provide good value for money and 41% disagreed that the railways delivered infrastructure efficiently).
- Most had experienced some form of disruption during their travel by rail pre-lockdown (74%). Around one in ten (9%) said they experienced disruption most times they travelled—and these were people who travelled most often by rail (commuters and those who travelled weekly).
- The distinction between planned and unplanned works tended to be unclear for most travellers and when they described the type of disruption they had experienced most were referring unplanned disruption (75%) rather than planned (39%).
- The most common reported impacts of disruption were arriving late at destinations and missing connecting trains.

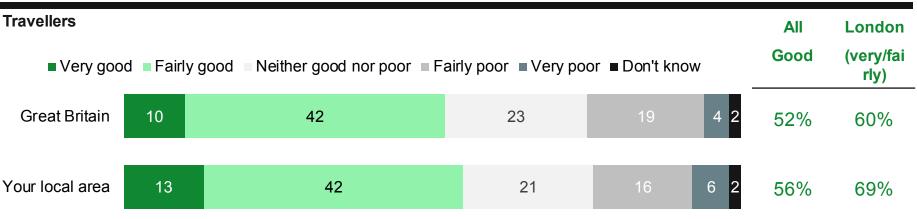
Local rail infrastructure was rated more positively than in Great Britain as a whole, although experience in London drives this view

Ratings of rail infrastructure were more positive among train users living in London (than average) both for Great Britain (60% versus 52% good) and their local area (69% versus 56% good).

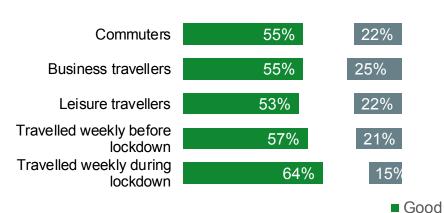
Conversely, Wales (35% poor versus 22% overall) and the South West (31% poor) were more likely to rate their areas' infrastructure as poor.

Commuters generally were more likely to rate the infrastructure in GB as good (55% compared to 52% overall) and this was also true of those who travelled weekly, both before (57%) and during (64%) the Covid-19 pandemic. There was also an age split – younger people were generally more positive towards the railways (62% of 16-24 and 57% of 25-34 year olds) whereas those in the older age groups were more negative).

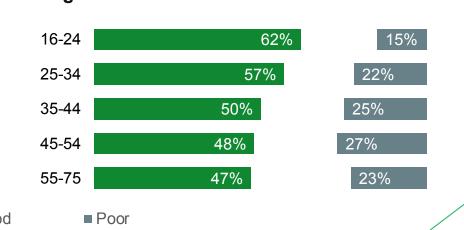
There were no other significant regional differences.



Breakdown of Great Britain infrastructure ratings by travel type



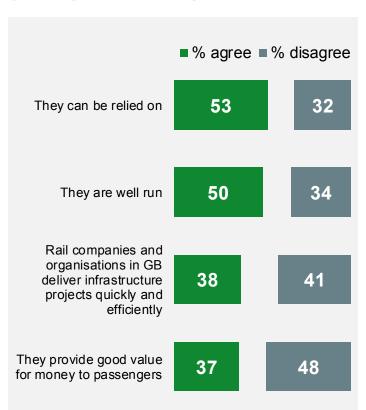
Age breakdown of Great Britain infrastructure ratings

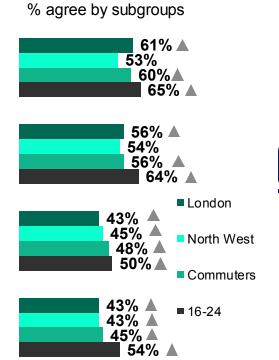




Railways were seen as well run and reliable but not necessarily as offering value for money to passengers

Q. On a scale of 0-10, where 0 means you strongly disagree and 10 means you strongly agree, to what extent do you agree or disagree with these statements about the railways in Great Britain





Who was more likely to be positive?



Those living in London were more likely to be positive about the railways and were more likely to agree with all of the statements about them. Those living in the North West, as well as Londoners, were more likely to agree that the railways provide value for money.



Young people (16-24) generally had a more positive outlook towards the railways compared to other age groups. Two-thirds (64%) agreed that they were well run and could be relied on (65%) and over half (54%) thought they provided good value.

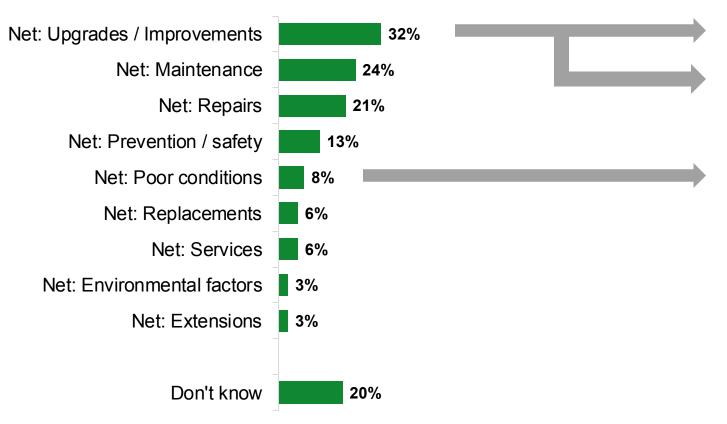


It is commuters who were more likely to think the railways are well run (56%) compared to other types of users. They were also more likely to say they could be relied on (60%) and provide value for money (45%).

% agree 6-10 on agreement scale. % disagree 0-4 on agreement scale



A third thought (unprompted) the main reasons for planned engineering works were for upgrades and two in five mentioned either maintenance or repairs



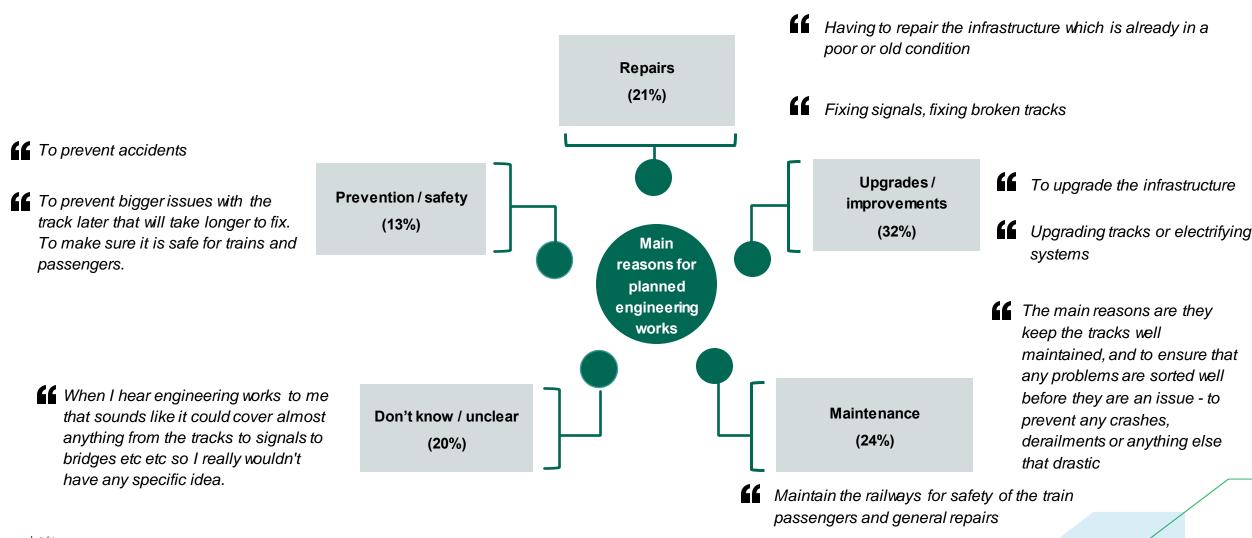
Most of the comments relating to upgrades and improvements are non-specific and broad. For example, 28% reference upgrades or improvements to the lines, infrastructure or tracks and 22% reference overall maintenance of the railways.

Overall 'wear and tear' was commonly cited as the main reason for planned engineering works.

(Nets are aggregated groups of sentiments put into themes)



Some illustrations of what passengers said about the reasons for planned engineering works

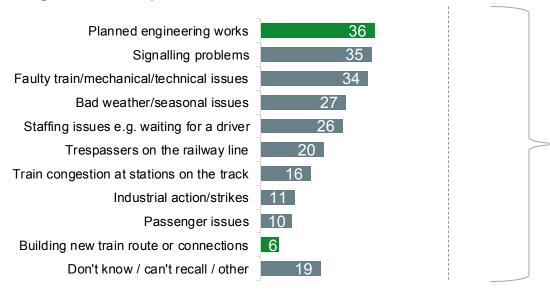


Three-quarters experienced some form of train disruption when travelling pre-lockdown

Frequency of disruption or alterations before the first UK-wide lockdown



Reasons given for disruption or alteration



75% referenced unplanned disruption

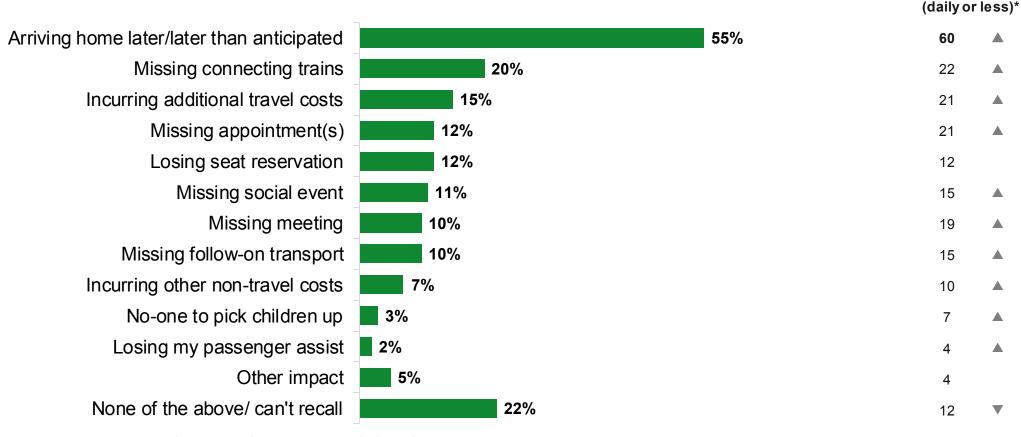
39% referenced planned works

Those living in Greater London were much more likely to remember planned works being the reason for disruption (48%)



The most common impact of pre-lockdown disruption was arriving at destinations later than anticipated

On average people experienced more than one impact of disruption to their train journey. Most impacts were mentioned more frequently by commuters.





Source: lpsos/DfT, 11th - 23rd August; QDISRUPTION4: Thinking again about the disruptions and alterations that you experienced on your train journey(s) in the 12 months before the first UK-wide lockdown that is between March 2019 and 23 March 2020. Which, if any, of the following did you experience when you made the train journey(s) that were impacted by disruption? Base: All travellers who experienced a disruption in 12 months before lockdown (2.215)

Commuter

3. Service alteration preferences

Contents for service alteration preferences

3.1

Preferences for timing of blockades



Advanced analytics

3.2.1. The approach

3.2.2.Scheduling preferences: weekdays, weekends and long weekends



Preferences on the length of closures

choices

3.3.1 Advanced analytics: scheduling preferences for length of closures and impact of additional journey time and type of replacement service on



Replacement services



3.1 Preferences for timing of blockades

Preferences for timing of blockades

What times and seasons did rail travellers prefer for blockades and engineering works?

Respondent definitions

All rail travellers = Everyone who had travelled in the last two years by rail and did not rule out doing so in the future

Frequent travellers = Those who travelled at least monthly by rail either before, or during the pandemic

Less frequent travellers = Those who *did not* travel by rail monthly either before, or during the pandemic

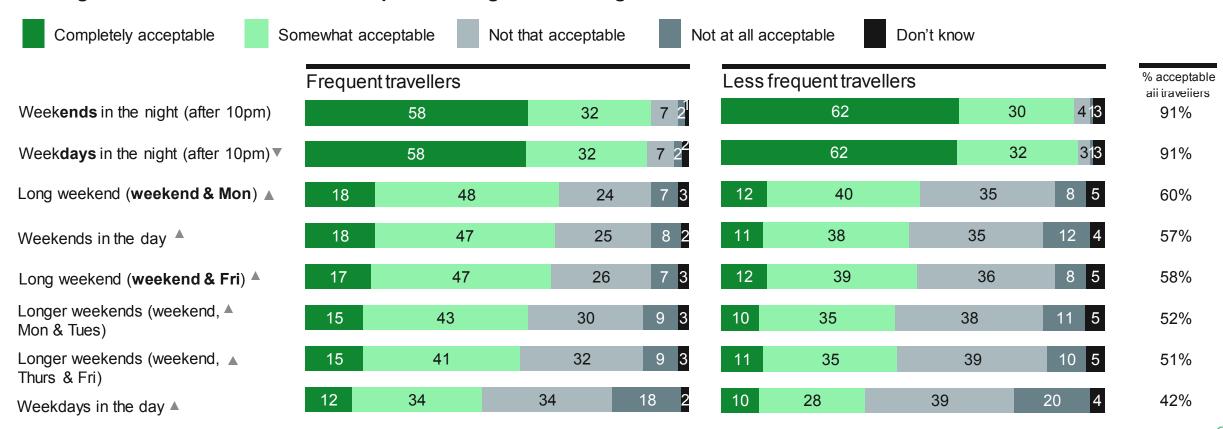
Overall Findings:

- Night-time blockades, either on the weekdays or the weekends, were overwhelmingly seen as a more acceptable time for disruption (90%). There was a drop-off in acceptability for works that occur during the day-time and across weekends or long weekends.
- Half (53%) feel that weekday disruption should be minimised but 21% disagree and think that more work should be done in the week so that there are fewer weekend closures.
- When considering scheduling preferences alongside other characteristics (conjoint analysis), weekend only closures were still preferred when compared to long weekends or weekday only closures for both commuter and leisure travellers (assuming all other service alteration characteristics are the same). However, 3-day long weekends are equally as tolerable for passengers as 2-day weekend only closures if a direct train replacement service is possible with a longer closure.
- Frequent travellers were more likely to find engineering works during all holiday periods more acceptable, although Christmas and New Year works polarise opinions more.
- All passengers thought summer was the least acceptable season (34% unacceptable). This was particularly the case for less frequent travellers (41% unacceptable).



Night-time (after 10pm) was the most acceptable period of the day for planned engineering works amongst all railway travellers

% of frequent, and less frequent, travellers who think it is acceptable to have planned engineering works that require changes to the train services to take place during the following times



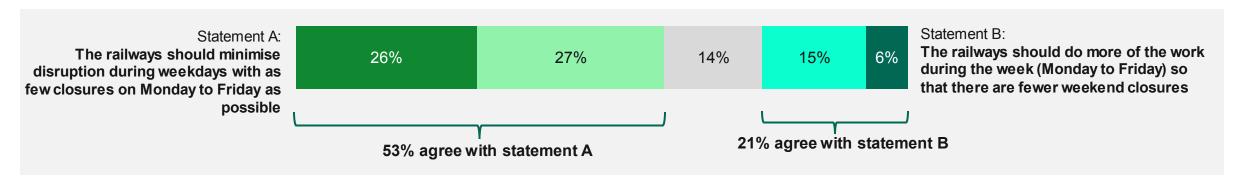
[▲] Indicate significant differences of completely/somewhat acceptable between frequent and frequent travellers



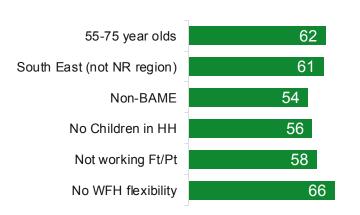
Source: lpsos/DfT, 11th – 23rd August; Q.SEASONAL. How acceptable, if at all, do you think it is for planned engineering works hat require changes to the train services to take place during the following times? Base: All who travelled monthly either before or during the pandemic (1,601); Q.SERVICEALT2. How acceptable, if at all, do you think it is for planned engineering works that require changes to the train services to take place during the following times? Base: All who did not travel monthly either before or during the pandemic (1,399). Chart figures have been rounded.

Just over half of rail travellers preferred minimising weekday disruption. Two fifths of those who had some flexibility to work from home preferred some weekday disruption.

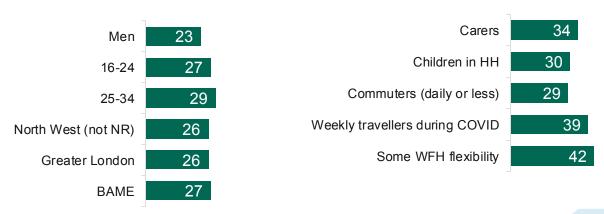
Q: Which one of the following statements about when planned engineering works should be scheduled is closest to your views

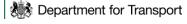


% Of those that agreed more with minimising weekday disruption:



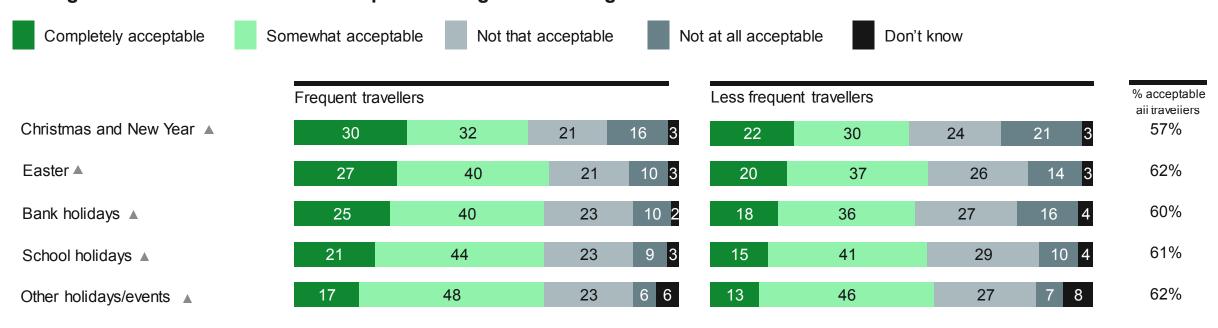
% Of those that agreed more with fewer weekend closures:





Frequent travellers were more likely to find works during holiday periods 'acceptable', although Christmas and New Year tended to polarise opinion more than at other times

% Of frequent, and less frequent, travellers who think it is acceptable to have planned engineering works that require changes to the train services to take place during the following times



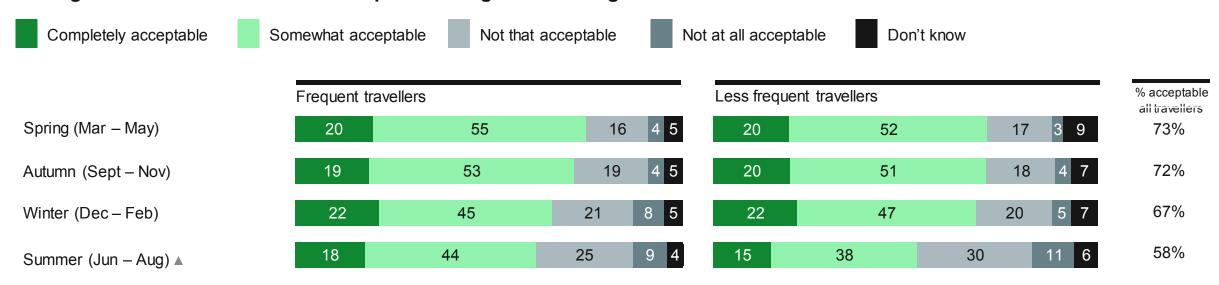
[▲] Indicate significant differences of completely/somewhat acceptable between frequent and frequent travellers



Source: lpsos/DfT, 11th – 23rd August; QSEASONAL. How acceptable, if at all, do you think it is for planned engineering works that require changes to the train services to take place during the following times? Base: All who travelled monthly either before or during the pandemic (1,601); QSERVICEALT2. How acceptable, if at all, do you think it is for planned engineering works that require changes to the train services to take place during the following times? Base: All who did not travel monthly either before or during the pandemic (1,399). Chart figures have been rounded.

There was little difference between seasons when it comes to acceptability of works, although summer was considered least acceptable, particularly among less frequent travellers

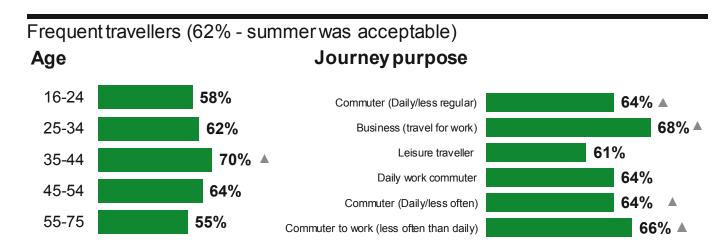
% of frequent, and less frequent, travellers who think it is acceptable to have planned engineering works that require changes to the train services to take place during the following times



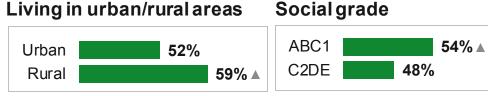
[▲] Indicate significant differences of completely/somewhat acceptable between types of travellers



Profile of groups that were more likely to think that planned engineering work during Summer was acceptable



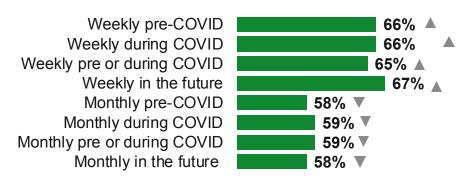
Less frequent travellers (53% - summer was acceptable)



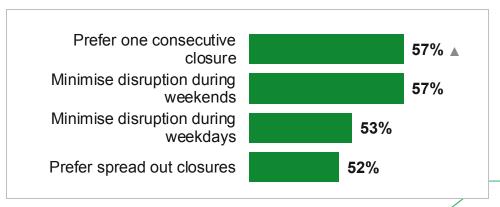
Travelled by rail



Frequency of travel



Engineering work preferences



Source: lpsos/DfT, 11th – 23rd August; Q.SEASONAL. How acceptable, if at all, do you think it is for planned engineering w orks that require changes to the train services to take place during the follow ing times? Base: All w ho travelled monthly either before or during the pandemic (1,601); Q.SERVICEALT2. How acceptable, if at all, do you think it is for planned engineering w orks that require changes to the train services to take place during the follow ing times? Base: All w ho did not travel monthly either before or during the pandemic (1,399)



Department for Transport

3.2. Advanced analytics

3.2.1. Summary of approach

Understanding blockade preferences using conjoint analysis

Conjoint analysis is an advanced analytic technique that aims to describe how people make complex decisions. It is based on the assumption that people make decisions based on a number of factors which they CONsidered JOINTly and that they trade-off some factors for others.

For this research a conjoint exercise was used to explore frequent rail user preferences for different models of service alteration during engineering works (people who travelled by rail at least monthly either before or during lockdown restrictions. See slide 12 for further details). Using conjoint made it possible to examine people's preferences for different models of service alteration when considering a number of different factors at once e.g. frequency, timing, duration, type of replacement services, amenities etc. The attributes of service alterations which were tested and preferences (different levels of the corresponding attribute) for different options within these are shown below.

Scheduling of works

- Week days only (Mon - Fri)
- Weekend only (Sat-Sun)
- Extended Standard Weekend (Fri - Mon)
- Weekends including Bank holiday weekends (Sat-Mon)
- Both week days and weekends

Length of closure

- 1 day
- 2 days
- 3 days
- 4 days
- 9 days (one week and both weekends)
- 16 days (two weeks and three weekends)

The number and frequency of closures

- Once a month for a year
- Once every two months for a year
- Once every three months for a year
- Once every two months for two years
- Once every two months for two years
- Once every three months for two years

Additional journey time

- 15 mins
- 30 mins
- 45 mins
- 60 mins

Available changes or replacements services

- Direct train with strict speed restrictions
- Train diverted and stops at additional stations
- A replacement bus that stops at a few local stations and then goes direct to your final destination
- A replacement bus that stops at all the stations along the route between where you get on and your destination

Available bus facilities on replacement services

- No refreshments available while waiting for bus / No toilet on Bus
- Refreshments available while waiting for bus / No toilet on Bus
- Refreshments available while waiting for bus / Toilet on Bus



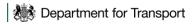
Conjoint analysis - Travel scenario presented to regular train users

Respondents were asked to consider the following scenario and then presented with three options for the service alterations with each option displaying a different combination of attribute characteristics (see next slide), enabling a number of characteristics to be considered at the same time.



Network Rail, the organisation that owns, operates, develops and maintains railway infrastructure in England, Wales and Scotland including track, bridges and tunnels, is going to have to schedule planned maintenance work on the railway. This work is fundamental to maintaining a safe network for rail passengers and will start within the next two to three months, affecting a route on which you travel. For this exercise imagine that the journey you make on this route takes up to an hour and you regularly make this journey 2-3 times per week.

We will now present you with several options on each screen relating to how the planned disruption could be organised. For each selection, shown on a separate screen, please select the one option which would be most preferable to you.



Conjoint analysis exercise

An example of options presented is shown below. Respondents were asked to select their preferred option out of three scenarios, or if they found them all unacceptable they could answer 'none of these'. The combination of levels was systemically varied across each attribute so that the trade-offs that participants used in their choices could be identified. As such, no three scenarios presented were ever the same. This made it possible to measure respondents' preferences within the context of a number of factors at one time, representing the real-life decision-making environment more accurately.

Conjoint exercise example:

Which, if any, of the following service disruptions would be the most acceptable to you when planning to make a journey by rail?

Scheduling of works

Length of closure

Number and frequency of closures

Additional journey time

Revised service

Bus facilities

Week days only (Mon - Fri)

4 days

Twice in a year

30 minutes

Train diverted and stops at additional stations

N/A

Long weekend (3-4 days between Friday and Monday) but not a bank holiday

3 days

Once every two months for a year

15 minutes

A replacement bus that stops at all the stations along the route between where you get on and your destination

No refreshments available while waiting for bus / No toilet on Bus

Both weekdays and weekends

16 days (two weeks and three weekends)

Once in a year

45 minutes

Direct train with strict speed restrictions

N/A

None of these



3.2.2 Scheduling preferences: weekdays, weekends and long weekends

Comparing regular train user preferences for scheduling works

A conjoint analysis provides the opportunity for people to consider preferences for different combinations of characteristics of engineering works simultaneously.

In this section, findings from the conjoint exercise are used to explore preferences for blockades scheduled at weekends, on weekdays or across longer weekends (3 or 4 days).

The preference share for each of these options is displayed. The preference share is the percentage of respondents who would prefer each of the four options when compared directly against each other.

The table opposite shows that weekend only closures were preferred when compared to long weekends or weekday only closures (assuming all other service alteration characteristics are the same).

| | Option 1 | Option 2 | Option 3 | Option 4 |
|----------------------------------|---|--|--|--|
| Scheduling of works | Weekends only (Sat – Sun) | Week days only (Mon – Fri) | Long Weekend (3 – 4 days between Friday and Monday) but not a bank holiday | Long weekend (3 – 4 days between Friday and Monday) but not a bank holiday |
| Length of closure | 2 days | 2 day | 3 days | 4 days |
| Number and frequency of closures | Once every month for a year | Once every month for a year | Once every month for a year | Once every month for a year |
| Additional journey time | 30 minutes | 30 minutes | 30 minutes | 30 minutes |
| Revised service | A replacement bus that stops at all the stations along the route between where you get on and your destination | A replacement bus that stops at all the stations along the route between where you get on and your destination | A replacement bus that stops at all the stations along the route between where you get on and your destination | A replacement bus that stops at all the stations along the route between where you get on and your destination |
| Bus facilities | No refreshments available while waiting for bus / No toilet on Bus | No refreshments available while waiting for bus / No toilet on Bus | No refreshments available while waiting for bus / No toilet on Bus | No refreshments available while waiting for bus / No toilet on Bus |
| Preference share (%) | 35% | 17% | 18% | 15% |

None of these = 14%

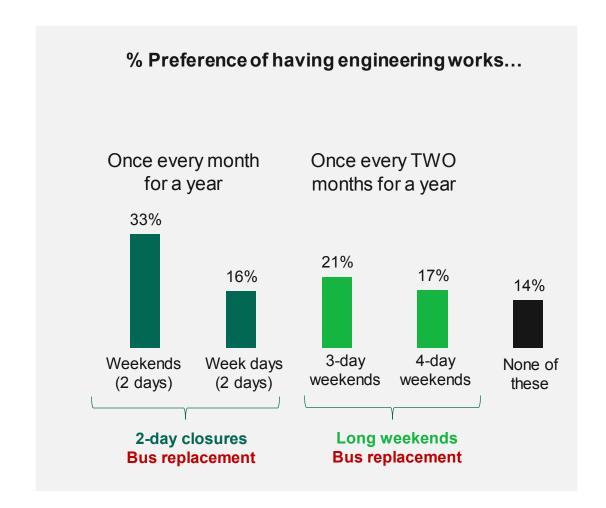


Frequent travellers preferred weekend closures, even if those happen more regularly than long weekend options

The chart opposite shows the variance in preference share for the same scenario as the previous slide, whilst altering the number of closures required for the project. This reflects the reality that shorter blockades would require more closures to complete the same amount of work. In this example, two-day closures would be scheduled every month, with three to four-day closures once every two months.

There was still a clear preference for closures which take place at weekends (Saturday and Sunday) once per month for a year (33%) – even though they would take place more frequently than the longer weekend options.

There was only a very small shift in preference share towards long weekend blockades even if they are scheduled less frequently (up to 21% for three-day weekends and 17% for four-day weekends). However, both of these options were more preferred than a weekday closure (2 days, once every month for a year) which was the least preferred option (16%).

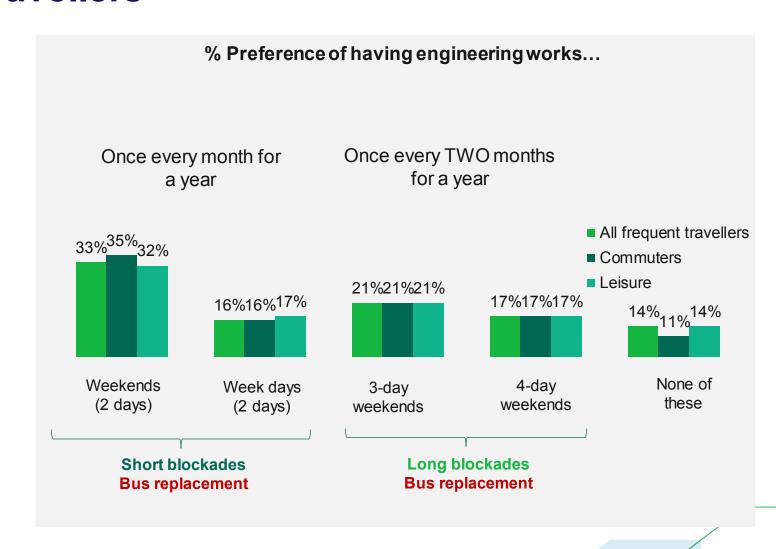


Preferences regarding scheduling of works were the same for commuters and leisure travellers

The preference share for two-day closures (scheduled every month) and three to four-day closures (scheduled once every two months) was broadly the same for all types of travellers (i.e. both commuters and regular leisure travellers).

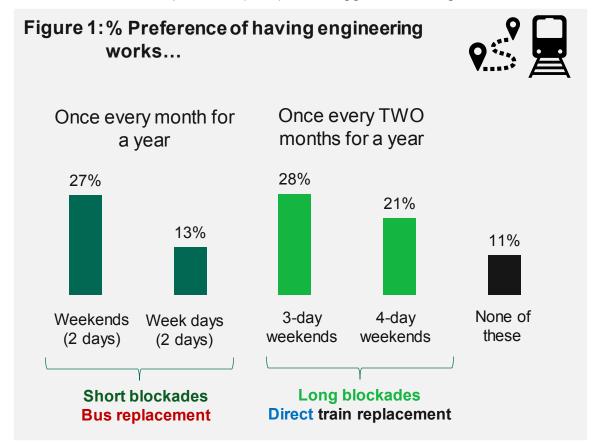
Commuters slightly preferred short 2-day weekend closures every month for a year (35%) compared to leisure travellers who tend to have more flexible travelling arrangements (32%).

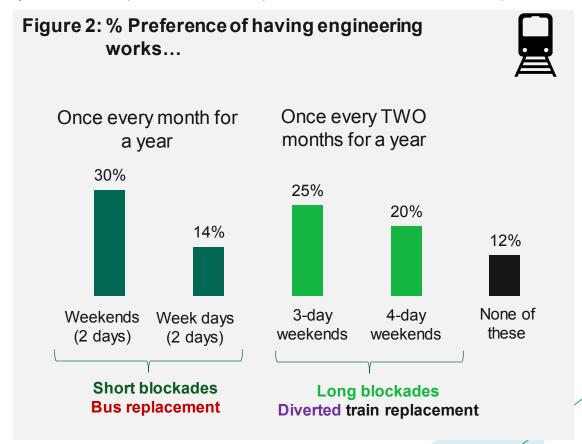
Leisure travellers were marginally more accepting of short week-day closures than commuters (17% vs 16%), however this was still the least preferred option for everybody.



Having a direct train replacement made 3-day weekend closures equally as tolerable as weekend only closures

The charts below show the difference that the type of replacement service makes to this scenario. **Figure 1** shows the preference for three day closures over a long weekend *with a direct replacement rail service* were in line with two-day weekend closures with a bus replacement service (28% versus 27%). **Figure 2** shows a diverted rail replacement service also slightly increased the preference share for 3 or 4 day weekend blockades (25%) - two day weekend closures with a bus service were still more preferred (30%). This suggests that longer weekend closures may be more acceptable where rail replacement services are a viable option.





3.3 Preferences for length of closures

Preferences for length of closures

What length of closure did rail travellers prefer for blockades and engineering works?

Respondent definitions

All rail travellers = Everyone who had travelled in the last two years by rail and did not rule out doing so in the future

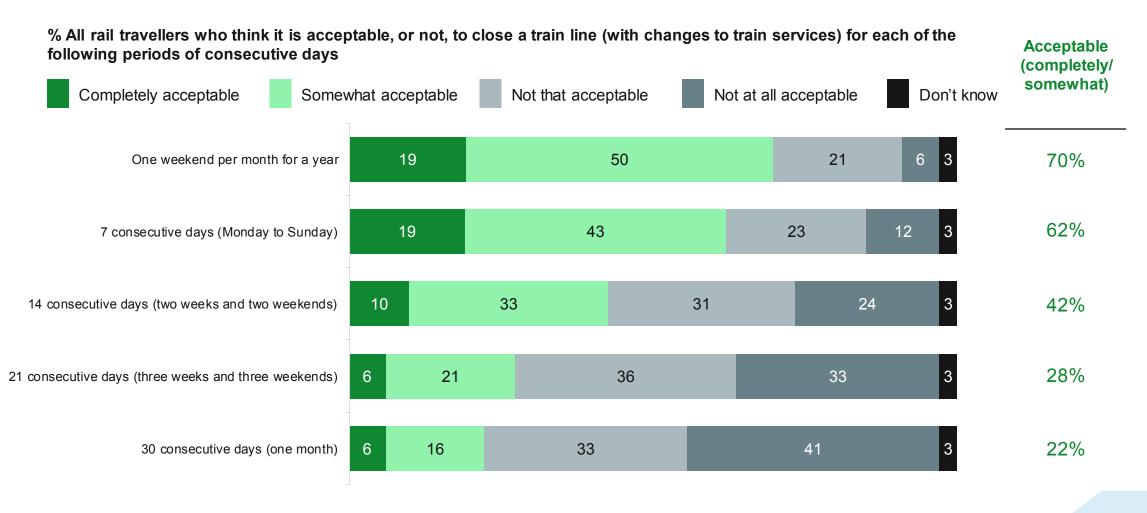
Frequent travellers = Those who travelled at least monthly by rail either before, or during the pandemic

Less frequent travellers = Those who *did not* travel by rail monthly either before, or during the pandemic

Overall Findings:

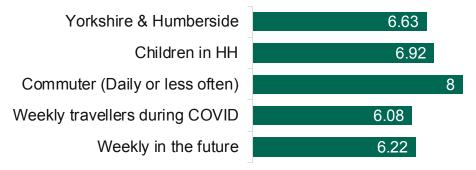
- The acceptability of engineering works decreased as the number of days the train line is impacted increased. Nine consecutive days (on average) was the maximum closure considered acceptable.
- But when asked to rank different options for blocks of works, opinion was divided over preferences between more frequent shorter closures, fewer closures lasting longer, or one long closure.
- Furthermore, when asked to compare two options directly, more users preferred a single closure for 21 consecutive days (43%) than 30 nonconsecutive days spread out over a year (30%). Groups most likely to prefer short closures were: younger, commuters, carers and those with children.
- Frequent travellers (via the conjoint exercise) preferred regular short weekend blockades (31%) versus longer nine or 16 day closures (17% and 13%) when all other service characteristics are the same.
- But, longer blockades became more acceptable if: a) a replacement train (rather than a bus for shorter blockades) was available, or, b) if additional journey times were shorter than during two day weekend closures, regardless of whether there was a replacement bus or train service. This suggests that if it is possible to arrange better or faster replacement services during longer closures, there is some scope to make them more appealing to passengers.

Longer closures were generally viewed as less acceptable



On average, 9.5 days was the maximum number of consecutive days that rail travellers found acceptable to close a train line with changes to train services

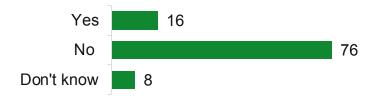
Average maximum consecutive days to close a train line with changes to train services so that planned engineering works can be undertaken, amongst subgroups with less tolerance



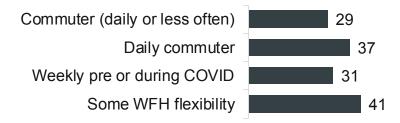
Change in commuter patterns:

Those who expected to be weekly travellers in the future wanted on average fewer days closed (6.22). The difference between the preferences of weekly travellers (either during COVID or the in the future) and all rail passengers is stronger (difference of -3.31) than commuters (difference -1.53) or leisure travellers (+0.17)

% Of those who said their views on maximum acceptable times changed due to the COVID-19 pandemic?



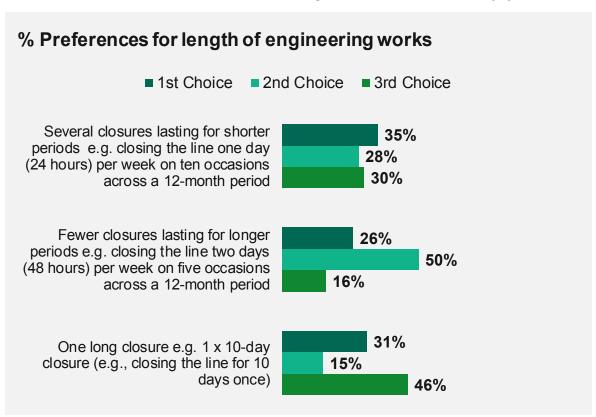
% Of travellers who were significantly more likely to have changed their views





Several closures, each for short periods of time, was ranked first by most but a long blockade was first preference for almost as many.

Q: Here are some options for how planned engineering works that require changes to train services might be scheduled. Please rank the options from best (1) to worst (3) for your train travel by selecting the bubble



Opinion was split when comparing first choice options for different lengths of engineering works: several closures for a short period of time (e.g. 24 hours) was ranked first by over a third (35%) but almost as many (31%) chose one long closure (e.g. 10 days) as first choice. However, the greatest preference share when taking first and second choices into account was for fewer slightly longer closures (e.g. 48 hours).

Who was more likely to prefer which types of closures?



Even among those who worked from home entirely during lockdown there was no consensus: 36% preferred several shorter closures and 34% a long closure.

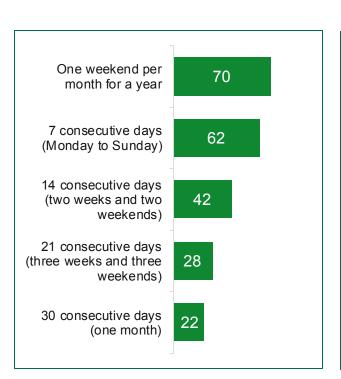


Commuters were split between those who preferred several closures (34%) or one long closure (32%). Daily commuters to work had a slightly stronger preference for several shorter closures (37%).

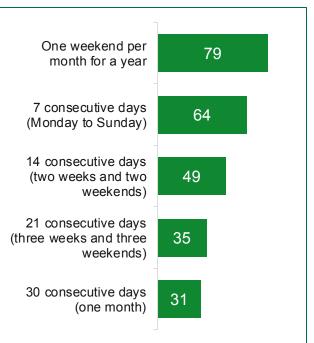
Those commuting daily, who travelled during the lockdown and had flexibility to work from home, were more likely to find all closure lengths acceptable

% of those who said either completely acceptable and somewhat acceptable to close a train line (with changes to train services) for each of the following periods of consecutive days

All rail travellers



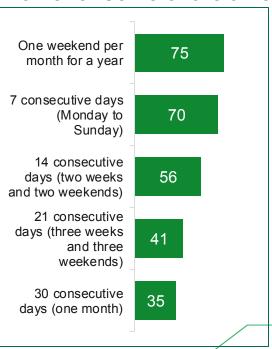
Daily work commuter



Weekly rail travellers during COVID

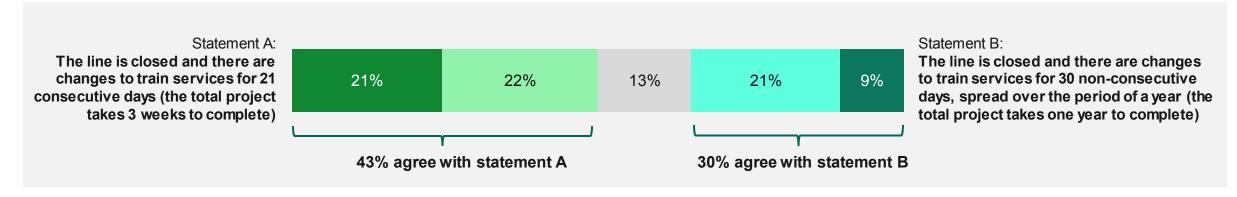


Able to work/study from home for some of the time

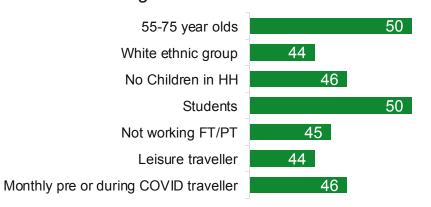


More rail travellers preferred a single closure for 21 consecutive days than 30 non-consecutive days spread out over a year

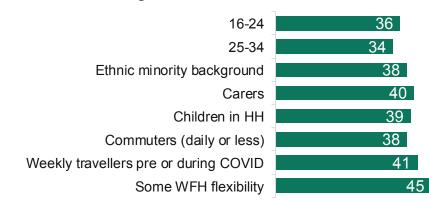
Q: Which option for scheduling a planned engineering works project you prefer?*

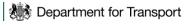


% Of those that agreed more with consecutive closure



% Of those that agreed more with non-consecutive closure





3.3.1 Advanced analytics: preferences for length of closures and impact of additional journey time and type of replacement services on choices

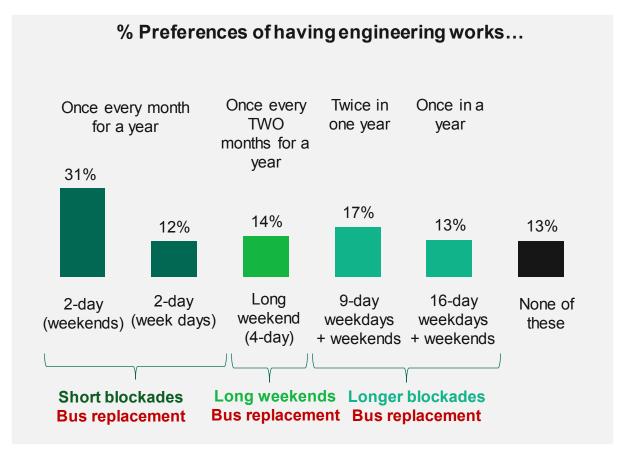
Frequent travellers preferred to have regular short weekend blockades over an entire year, than less frequent longer blockades

In this section, findings from the conjoint exercise are used to explore preferences for different blockade durations scheduled over weekdays and weekends (or both). The following options were compared:

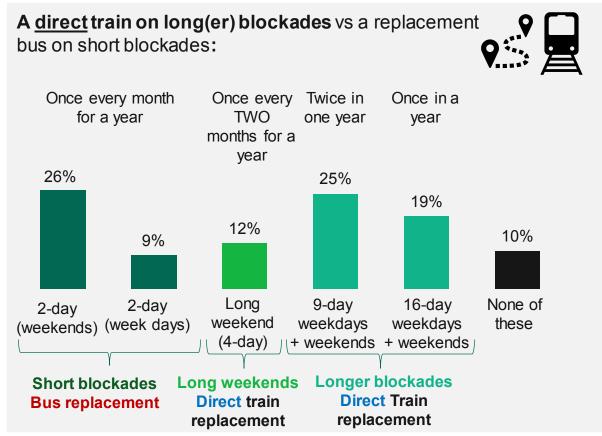
- 1. 2 day blockades, on weekends only, once a month for a year
- 2. 2 day blockades, on weekdays only, once a month for a year
- 4 days blockades, on long weekends, once every two months for a year
- 4. 9 day blockades, both weekends and week days, twice a year
- 5. 16 day blockades, both weekends and week days, once a year

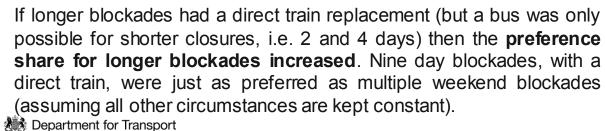
For the purpose of this analysis, additional time journey (30 mins) and replacement services (bus replacement for all stops with no refreshments or toilet) were kept consistent across all options.

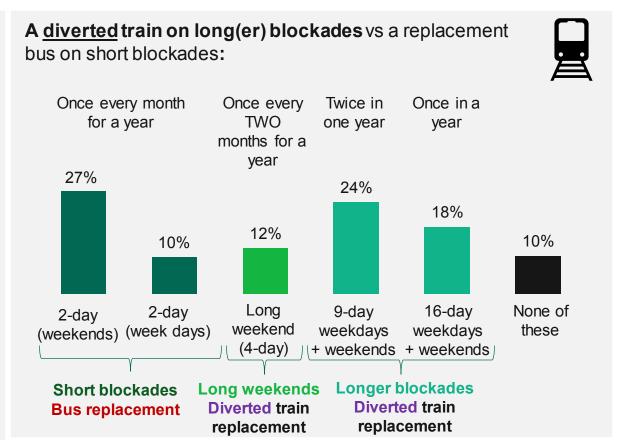
Frequent travellers preferred a **2** day weekend closure (even if scheduled for every month for a year) compared to a longer blockade. However, two nine-day blockades in one year was slightly more preferred than bi-monthly four-day long weekend closures), one 16-day closure, or monthly two-day closures during the week (17% versus 14%, 13% and 12% respectively.



A replacement train slightly increased the acceptability of longer blockades

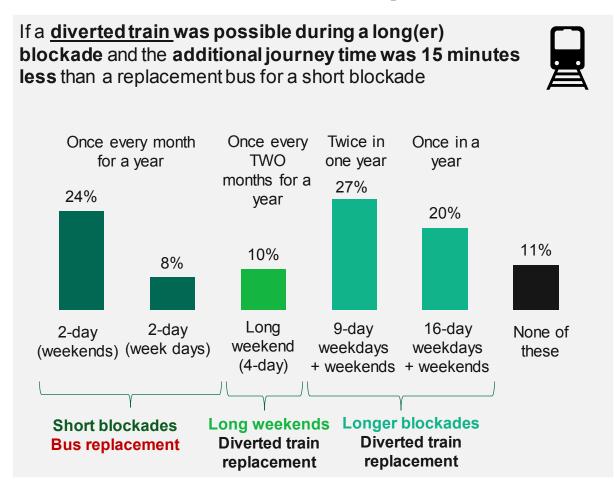




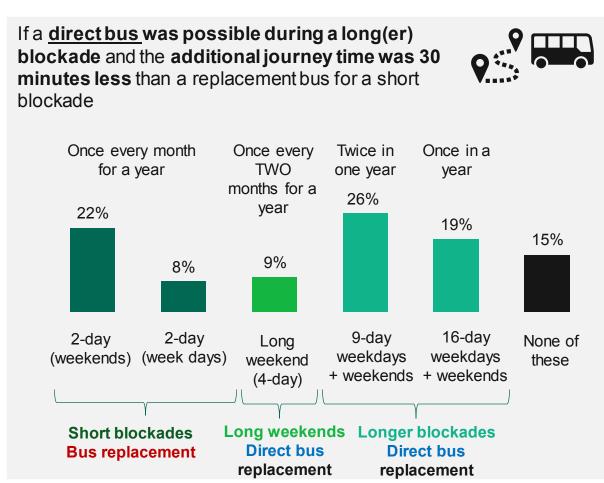


If longer blockades had a diverted train replacement (but a bus was still only possible for shorter closures, i.e. 2 and 4 days) then **the preference share for longer blockades increased**, but only slightly. Nine day blockades, with a diverted train, were on a par with preference for multiple weekend blockades (assuming all other circumstances are kept constant).

Minimising the additional journey diversion time made longer blockades more acceptable



The option of two 9-day blockades was slightly more preferrable than multiple 2-day weekend closures if a diverted train which reduced additional journey time was possible (27% versus 24%).



The option of two 9-day blockades was also slightly more preferred than multiple weekend closures if a quick and more direct replacement bus was offered for the former, but where shorter blockades had a longer, less direct, bus service (26% versus 22%).

Availability of refreshments and toilets had a slight impact in improving the acceptability of longer blockades

If no amenities (refreshments in the waiting area and toilets on replacement buses) were offered in bus replacement **services** during short blockades and long(er) blockades: Once every month Twice in Once every Once in a for a year TWO one year vear months for a year 31% 17% 14% 13% 13% 12% 9-day 16-day Long 2-day 2-day None of (weekends) (week days) weekend weekdays weekdays these (4-day) + weekends + weekends Long weekends Longer blockades Short blockades Bus replacement Bus replacement **Bus replacement**

The absence of amenities on replacement services made minimal impact on the acceptability of long blockades.

No Amenities

If all amenities (refreshments in the waiting area and toilets on replacement buses) were offered in bus replacement services during longer blockades vs no amenities during short blockades: Once every month Once every Twice in Once in a **TWO** for a year one year year months for a year 29% 22% 16% 12% 11% 11% Long 9-day 16-day None of 2-day 2-day (weekends) (week days) weekend weekdays weekdays these (4-day) + weekends + weekends Short blockades Long weekends Longer blockades **Bus replacement Bus replacement Bus replacement** No Amenities **No Amenities Amenities**

Even if all amenities were offered over long closures (9 and 16 days), weekend blockades were still preferred by frequent travellers – although the provision of amenities made such blockades slightly more tolerable.

No Amenities

No Amenities

3.4 Replacement services

Replacement services

What replacement services preferences did rail travellers prefer for blockades and engineering works?

Respondent definitions

All rail travellers = Everyone who had travelled in the last two years by rail and did not rule out doing so in the future

Frequent travellers = Those who travelled at least monthly by rail either before, or during the pandemic

Less frequent travellers = Those who *did not* travel by rail monthly either before, or during the pandemic

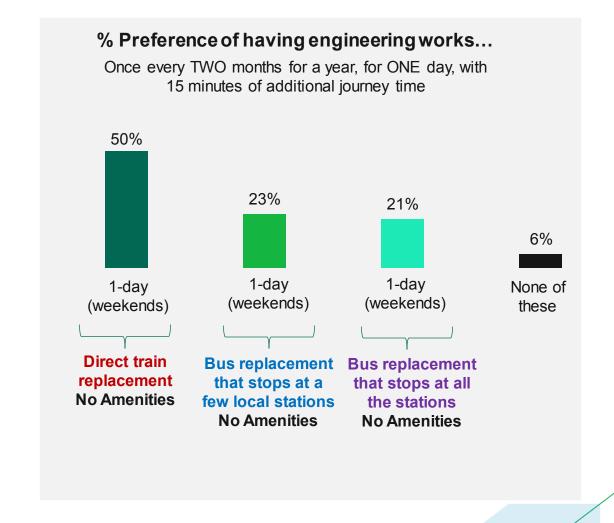
Overall Findings:

- Regular and less regular travellers both preferred a delayed/slower train service over a replacement bus service, even if the former took longer or occurred less frequently.
- A more palatable option would be a replacement coach that would go <u>directly</u> to their final destination (22% preference share).
- There was, however, a strong preference for either a delayed/slower train or direct coach replacement when compared to the option of a bus replacement service.

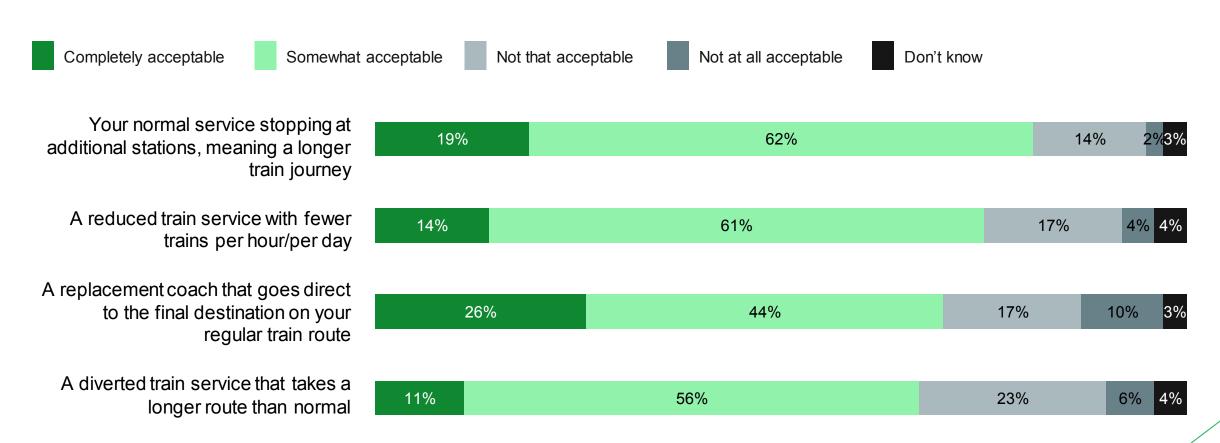


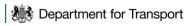
A replacement bus service, regardless of how direct, was much less preferred than a direct train with speed restrictions

The chart opposite shows that a replacement train service is preferred by frequent travellers during engineering works (50%) when compared directly with a bus replacement service. There is little difference in preference between a more direct or stopping bus replacement bus service in this scenario (23% versus 21%).

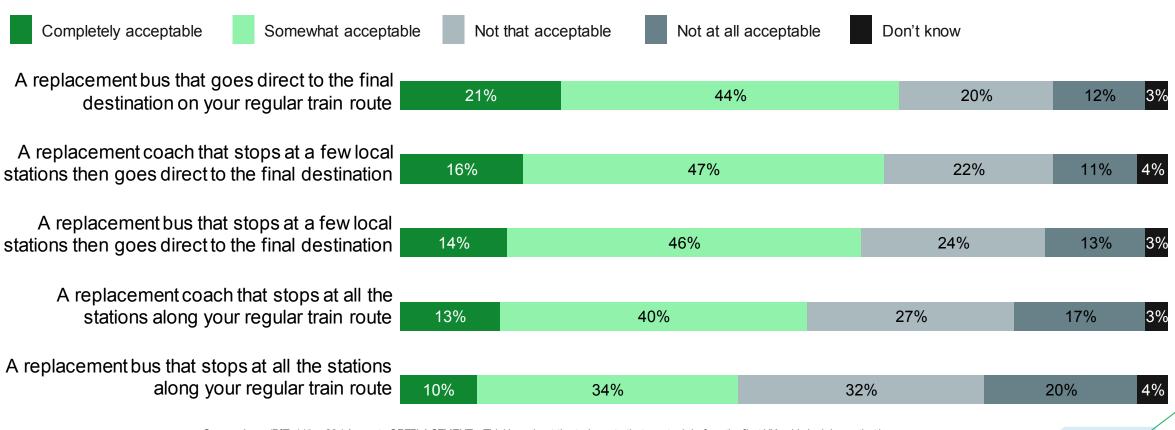


Train replacement services are seen as most acceptable, even if journey times are longer but one quarter would find a direct coach completely acceptable



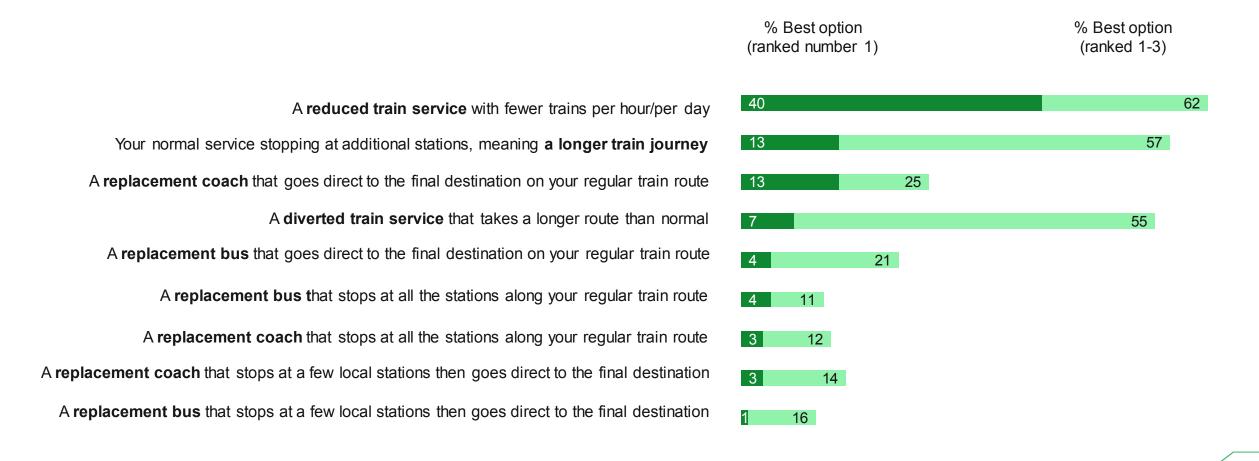


Replacement services were more acceptable where journeys are more direct





A reduced train service was the strongly preferred option for less frequent travellers compared to diverted or replacement services





Of those who preferred a reduced train service, more were female, 45 to 75 year olds and from higher social grades

% All who travelled less than monthly for work or education before or during the pandemic



More women (43%) than men (37%) said that having a reduced train service with fewer trains per hour/day would be the best option as a replacement service.



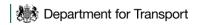
Those who are 45 to 54 (45%) and 55 to 75 (44%) were much more likely than younger age groups to prefer a reduced train service with fewer trains per hour/day (16-24 year olds: 28%, 25-34 year olds: 25-34, 35-44 year olds: 38%).

ABC1

Travellers from higher social grades were also more likely than those in lower social grades to prefer reduced train services (42% vs 33%).



There were no significant differences across Network Rail regions. Across government regions, there were also no significant differences with the exception of the South West (49%) which was much more likely to prefer reduced train services than East Midlands (34%) and Wales (19%).



4. Impact of, and likely travel behaviour during, a 14 day closure

Impact of, and likely travel behaviour during, a 14 day closure

What was the impact of a longer blockade and likely traveller behaviour?

Respondent definitions

All rail travellers = Everyone who had travelled in the last two years by rail and did not rule out doing so in the future

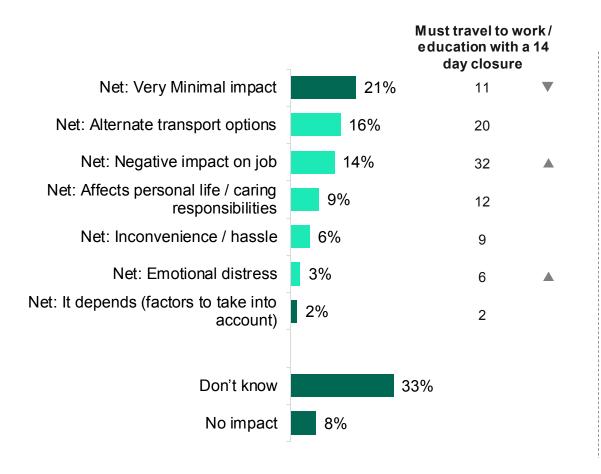
Frequent travellers = Those who travelled at least monthly by rail either before, or during the pandemic

Less frequent travellers = Those who *did not* travel by rail monthly either before, or during the pandemic

Overall Findings:

- Most passengers (67%) commuting to work or education would expect to work or study from home at least some of the time in the event of a 14 day block of engineering works.
- Over a quarter (28%) of frequent travellers would still need to travel to their place of work or education every day during a two week blockade. This was highest among women (32%), and those aged between 16 and 24 (34%). Similarly, people from an ethnic minority background were less likely to be able to work from home for the whole closure period (13%). People who would needed to travel to work every day felt were most likely to feel a 14 day closure would have a negative impact their job (32% vs 14% for all frequent travellers).
- The expected impact of disruption from a closure over 14 consecutive days depended on: how flexible the reason for travel was and what alternative services were in place to mitigate the impact. A third (30%) mention some sort of disruption to their life, or having to use alternative travel options that may be worse (16%).

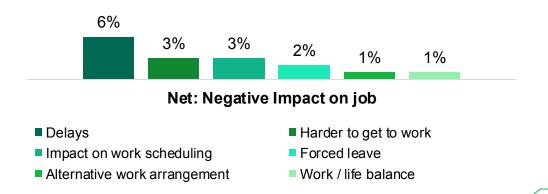
Expected impacts of a 14 day line closure included being left with poor travel alternatives, or negative impacts on work and personal lives



30% described some sort of disruptive impact on their life due to planned engineering works going on for 2 weeks.

But there was a substantial number (33%) who said they didn't know or that it would depend (2%).

Breakdown of negative impact on job



(Nets are aggregated groups of sentiments from single-code responses)



Expected impacts of a 14 day closure can be categorised as causing inconvenience or having critical impact

- Inconvenience covered a wide variety of different experiences. Some were able to make alternative arrangements and others were able to reschedule the trip that would be impacted. Time and cost were the biggest impact for this group.
 - I'm retired so I can work around the maintenance schedule

Possibly delay leisure trip to go shopping, sightseeing, would look to rearrange at a different time if possible

I think it would have minimal impact. One would just look to see if activities could be rescheduled.

- It would make everything more complicated take longer and cost the same.
- A **critical impact** covers those that absolutely had to get into work regardless of disruption or experience child care issues / issues with children getting into school. The availability of replacement services / rearrangements was seen as key to how big an impact the engineering works would have.
- Main problem is caring responsibilities I can't be away for too long and need to know reliably when I will get back. Additional costs and time are a problem. If I am travelling for holiday / to visit relatives I can rearrange, so no problem, but if for business or to an event in set dates then this becomes a big problem for me.
- I already have a long commute, and further extensions would make regular travel impracticable. I'd need to take annual leave or risk facing disciplinary action at work.



The impact of a longer blockade was heavily mitigated by how flexible the reasons for travel were. Most, but not all, leisure travel was seen as more flexible



It wouldn't have much of an impact on me as I don't rely on trains to get to work. I tend to use the trains for leisure or to visit other work premises, dates can be changed for these events.



It would not have any impact on me personally. I use the train device purely for leisure so I could use an alternative service. I can be very flexible unlike someone who has to work so they need specific times routes



Not much, I'd work from home or reschedule social stuff

Some exceptions....



Would have a big impact if these changes clashed when traveling to a concert. I can plan around work during this period



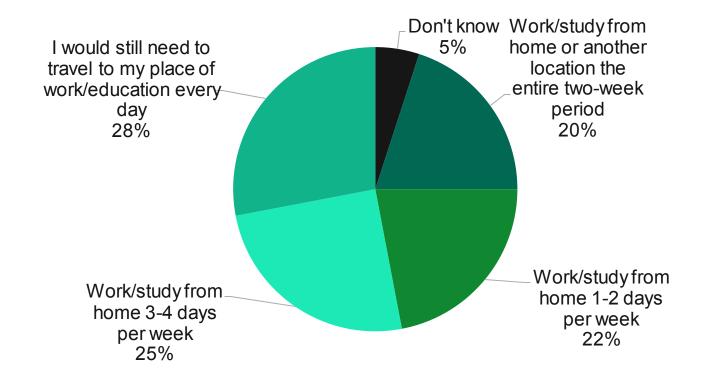
I book trips a long time in advance. It would be very frustrating to lose time out of a trip

Over a quarter of frequent travellers said they would still need to travel to work/education every day during a two week blockade

% All who travelled for work or education before or during the pandemic or will do in the future

Q: Imagine that there are planned engineering works that require changes to train services for two weeks (affecting weekdays and weekends for 14 consecutive days) and these are going to are going to take place on a train route you use.

Thinking about travelling to your place of work or education during these planned engineering works which, if any, of the following would you be able to do during the two week period?





Amongst the frequent travellers who said they would still need to travel to their place of work or education, more were female, from an ethnic minority background and young



Just over half of men (52%) vs two fifths of women (39%) said they would be able to either work from home for the full 14 day period. A third (32%) of women said they would still need to travel to their place of work/education every day.



Non-ethnic minority frequent travellers were a lot more likely to be able to work from home for the whole two weeks than frequent passengers from ethnic minority backgrounds (22% vs. 13%).

At the same time, ethnic minority frequent travellers were a lot more likely than non-ethnic minority frequent travellers to say they could work from home 1-2 days per week (33% vs. 20%).



Travellers aged 16 to 24 were least likely to be able to work/study from home or another location for the whole two weeks (11% vs. 20% all frequent travellers), and were more likely than 25 to 44 year olds to have to travel to their place of work/education (34%, vs. 24% of 25-34 and 23% of 35-44 year olds).

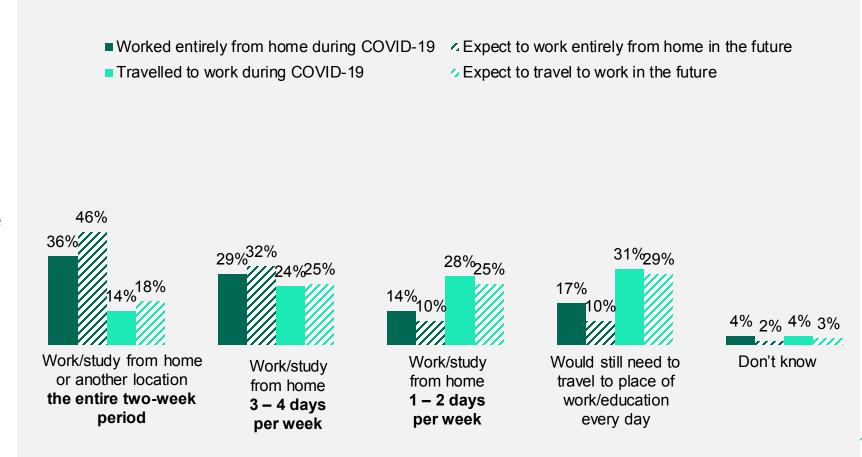


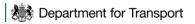
Passengers living in rural areas were more likely to still need to travel to their place of work/education (36%, vs. 26% urban and 28% average).



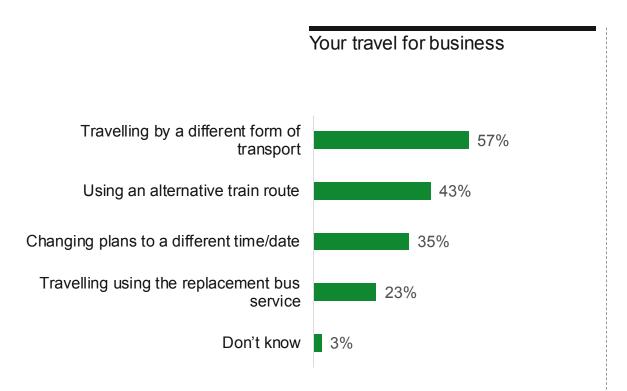
Travellers who were able to work from home during the pandemic were more likely to be able to also to do so if faced with a two week blockade in the future

If faced with a two blockade in the future, people who worked entirely from home during COVID-19, were much more likely to work/study from home (or another location) for the whole two weeks of disruption. Equally, those that expect to work entirely from home in the future were more certain they'd have this flexibility.





During a two week blockade, both business and leisure travellers would most likely consider using a different mode of transport. Leisure travellers were more likely to change change their travel plans than business travellers



A train journey to visit friends, relatives, to go on holiday, shopping or other leisure purposes



5. Minimising the impact of service alterations

Minimising the impact of service alterations

What actions can be undertaken to minimise the impact of blockades on rail users?

Respondent definitions

All rail travellers = Everyone who had travelled in the last two years by rail and did not rule out doing so in the future

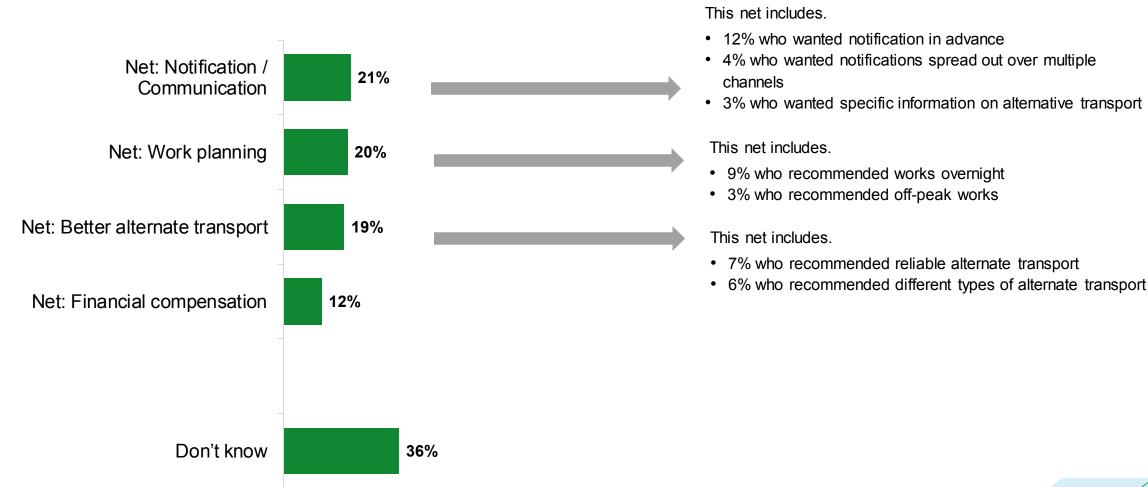
Frequent travellers = Those who travelled at least monthly by rail either before, or during the pandemic

Less frequent travellers = Those who *did not* travel by rail monthly either before, or during the pandemic

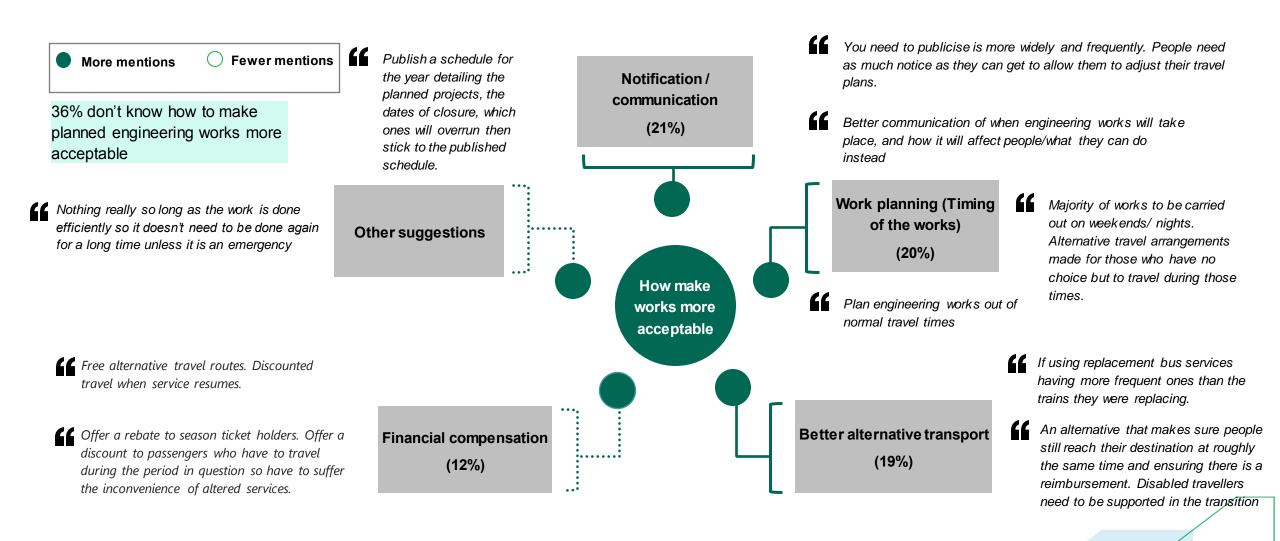
Overall findings:

- **Early communication** about engineering work was seen as key to allowing travellers to mitigate the impact of it on their travel plans (21% mentioned this unprompted).
- When prompted, the reliability of the replacement service offered alongside finding out about the works before starting their journey were ranked as most important characteristics (each 29%).
- The basic amenities: access to the toilets (68%) and cover from poor weather (62%) were essential/important mitigations for most rail travellers, along with staff in attendance (64%) and adequate lighting (56%).
- Toilets on replacement buses were seen as important regardless of the length of journey.
- Other amenities did not generate the same strength of feeling.

One third could not suggest how planned engineering works could be made more acceptable. Recommendations from those that could were varied



Communications, work planning and the availability/ frequency of replacement services were key to making works more acceptable

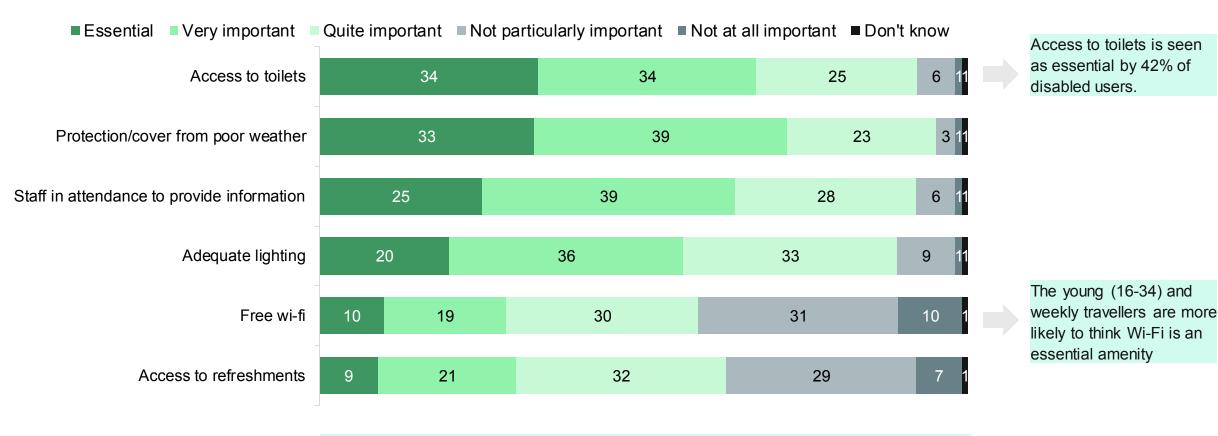


The reliability of replacement services and communication about disruptions were consistently seen as the most important factors

| | Most important (ranked number 1) | Important (ranked 1-3) | |
|---|----------------------------------|---------------------------|--|
| Reliable replacement services (they leave and arrive on time) | 2 9 | 54 | |
| Finding out about the disruption before I start my journey | 2 9 | 49 | |
| Frequency of replacement services | • 8 | 3 6 | |
| Being able to sit or stand comfortably | • 6 | • 21 | |
| Clear communication of my alternative travel options during the disruption | · 5 | 3 2 | |
| Receiving a discount so the journey costs less than when there is no disruption | • 5 | • 21 | |
| Replacement services being accessible for all rail users | · 4 | • 14 | |
| Minimising the number of times I have to change train or bus | · 3 | 2 5 | |
| Minimising waiting times at stations/bus-stops | . 3 | • 20 | |
| Finding out what the benefits of the work will be for my train travel when it is finished | . 1 | • 7 | |
| | | | |

| Å | ⊗ ⊗ ••••••••••••••••••••••••••••••••••• |
|------------|---|
| Commuters | Leisure travellers |
| 30 | 2 9 |
| 2 2 | 30 |
| • 12 | • 7 |
| • 7 | • 6 |
| • 5 | • 5 |
| • 5 | • 5 |
| • 5 | • 4 |
| • 4 | · 3 |
| • 4 | · 3 |
| · 2 | 1 |
| | |

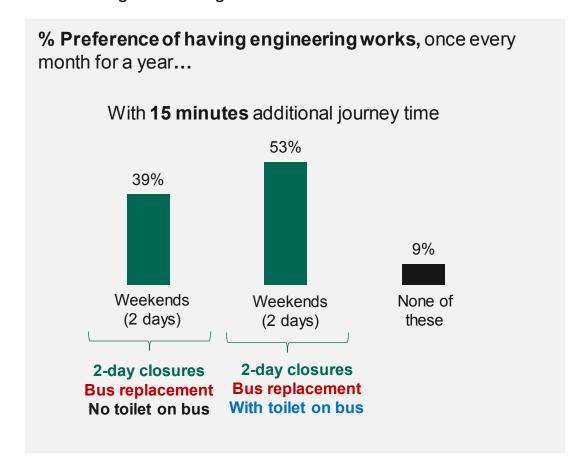
Access to toilets and protection from the weather were seen as universally important

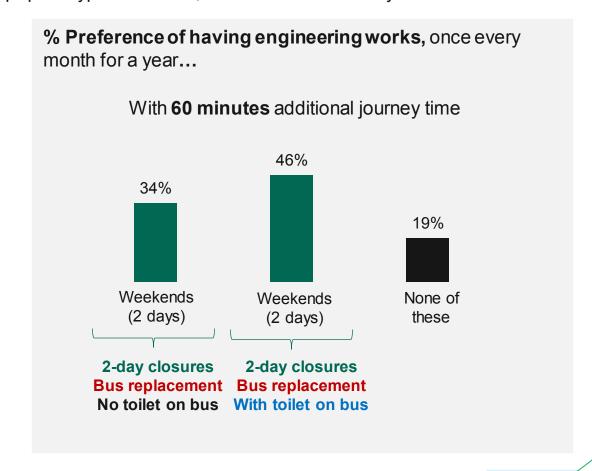


There were very few gender differences on the amenities. For adequate lighting, men and women both viewed this as essential with no gender distinctions. Slightly more women (95%) think staff attendance is at least important compared to men (91%).

For replacement buses, access to toilets was seen as important regardless of the journey length

Toilets on replacement buses were seen as important regardless of the length of journey, and other amenities did not generate the same strength of feeling. This effect was observed even on the most popular type of closure, i.e. short weekend only blockades:





6. Information needs & communications preferences

Information needs & communications preferences

Research Question 2:

What are passengers' information needs and communication preferences ahead of infrastructure works?

Respondent definitions

Pre-lockdown travellers = Those who travelled by rail in the 12 months before the first UK-wide 'lockdown', between March 2019 -23 2020

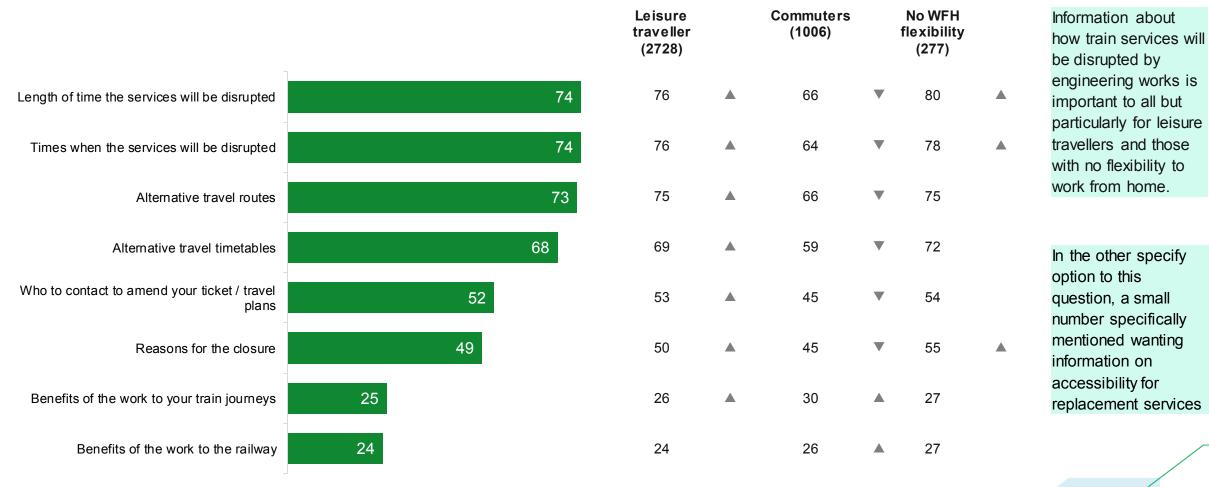
During lockdown travellers = Those who travelled by rail from 24 March 2020 – to the 23rd August (at the latest the questionnaire states yesterday)

Future = How rail travellers think they would behave in the future

Overall Findings:

- Most travellers wanted information about **how long a service will be disrupted/what times service will be disrupted** (74% for both), the **potential alternative routes (73%)** available to them and **associated timetables for altered services** (68%).
- Information provision at stations was most preferred (71%), via boards or announcements, as well as email updates (59%) and information on train websites (55%). However, passengers selected a broad range of communication channels as ways they would like to find out about planned engineering works, possibly reflecting the importance placed on finding out about the works.
- Most passengers preferred at least a month's notice for any information regarding disruptions (73%).
- Information and communication preferences did not vary much between different groups of passengers. Unlike the other elements.

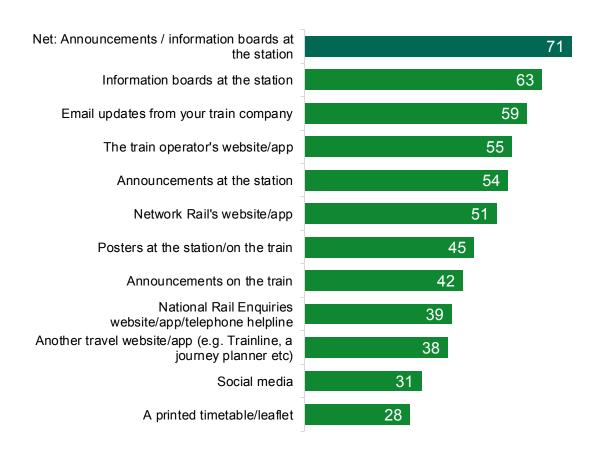
A majority wanted information on the immediate practical elements of the disruption (e.g. scheduling, options for travel alternatives) rather than the benefits of the work to the railways



Department for Transport a train route you use? Base: All rail travellers (3,000)



Information provision at stations was most preferred (via boards or announcements), as well as from email updates and train websites but a broad range of channels were selected.

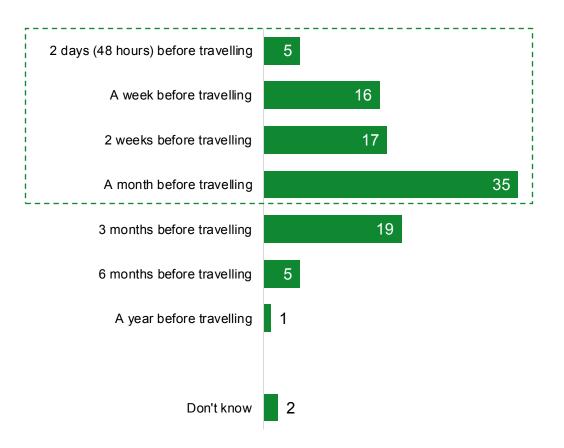


Some of the channels were more popular with certain subgroups but information boards at stations and email updates remained the two most popular communication channels for most with the exception of the following:

- **Announcements at the station** were the second most popular channel for 16-24 year olds (59%), the West Midlands (57%), Greater London (58%), Southern – Network Rail region (61%), ethnic minority background respondents (55%), commuters (55%) and weekly travellers pre or during lockdown (51%).
- Slightly more 55-75 year olds (33%) or those with a disability (34%) than average preferred printed leaflets. However, it is important to note that the top two suggestions were the most popular channels for almost all subgroups.

Rail users selected an average of ocmmunication channel preferences

At least a month's notice was the most popular time frame for information



73% wanted at least a month notice for information

21% wanted at least a weeks notice for information

Commuters, 16-24 year olds and those who travel weekly were more likely to think that at least a week in advance was acceptable compared to all rail users. 24% of commuters wanted to receive information at least a week in advance, 26% of weekly travellers (pre or during COVID), and 31% of 16-24 year olds

45 days was the average preference for notice period

Rail users in the North East and South West were more likely than others to say they would like more than a month's advanced notice of engineering works.

Thank you.

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Appendix

1. Additional analysis: Past, current & future rail behaviours

Past, current & future rail behaviours preferences

Research Question 3:

What were travel behaviours before COVID-19 and during the pandemic including the number of journeys made, trip purpose and mode choice?

Research Question 4:

What has been the impact of COVID-19 on current and future travel choices for work and leisure, and how these correlate with choices and alternatives selected during periods of service disruption on the railways?

Respondent definitions

Pre-lockdown travellers = Those who travelled by rail in the 12 months before the first UK-wide 'lockdown', between March 2019 and 23 March 2020.

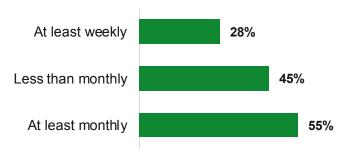
During lockdown travellers = Those who travelled by rail from 24 March 2020 – to the 23 August 2021 (at the latest the questionnaire states yesterday)

Overall Findings:

- Overall, the number of train journeys had dropped by a third (33%) from pre-lockdown levels and those rail users who travelled during lockdown were travelling less often.
- Pre-lockdown, four in five rail users (85%) used the railway for leisure purposes. Just under a third (31%) used the railways for commuting purposes.
- There was a core group of rail users who travelled by train on a weekly basis pre-lockdown (28%) and maintained this through lockdown (26%). These users were more likely to be younger (57% 16-34), urban-living males (87% and 64%) and more likely to be high income (33% vs 26%).
- There were certain core groups that disproportionality continued to travel weekly during lockdown, including:
 - Those with children
 - Travellers of ethnic minority backgrounds
 - Carers
- Pre-lockdown (i.e. before March 23rd 2020) two in five rail users travelled at least weekly (28%) – this is expected to reduce to just over one in five in the future (22%). More people expected to travel less than monthly in the future as well (48%).
- Leisure travel was projected to rebound to pre-pandemic levels (74%). Travel for commuting has decreased during lockdown (17% down from 28%) and future plans indicate it is unlikely to return to the same level (23%).

Over half of pre-lockdown rail users were getting the train at least monthly for both leisure and work

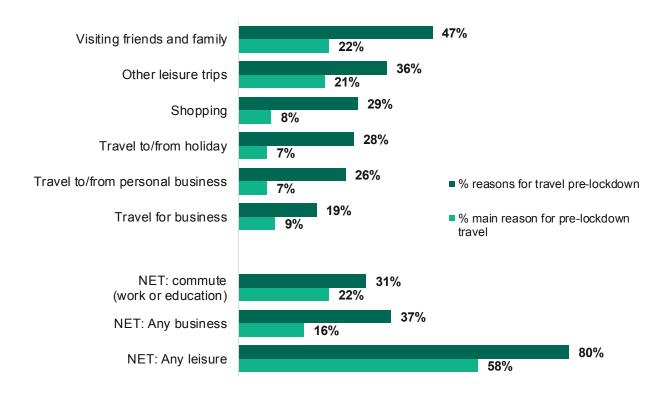
Frequency of travel



Q. How often did you typically travel by rail (not including underground or metro services...in the 12 months BEFORE the first UK-wide 'lockdown'?

Over half of rail users (55%) were travelling by train at least monthly and over a quarter (28%) were doing so at least weekly. When it comes to the reasons for travel four in five travelled by train for leisure reasons (80%) whilst just under one in three (31%) commuted to a place of work or education.

Reason for travel (overall and main reason for travel)



Q. Which of these types of journey, if any, did you make by rail in the 12 months BEFORE the first UK-wide 'lockdown', that is between March 2019 and 23 March 2020?/ Q. Which ONE of these types of journey did you make by rail most often in the last 12 months BEFORE the first UK-wide 'lockdown'?



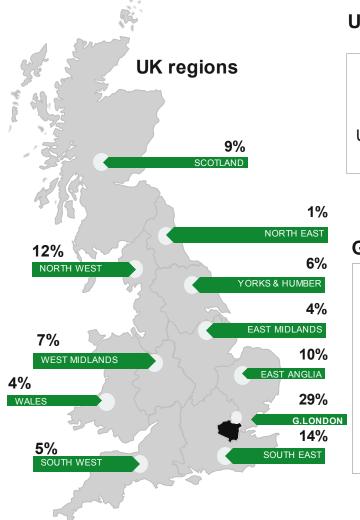
Train users travelling at least weekly pre-lockdown were more likely to be younger, male and urban-based

Of those travelling weekly prelockdown, males were much more likely to be travelling when compared to females.

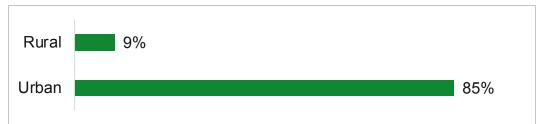
Those in urban areas were more likely to be travelling at least weekly compared to those in rural areas.

The 25-34 age group were travelling the most weekly pre-lockdown with the highest rate of **36%**.

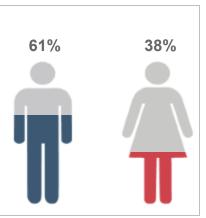
A third of the weekly travellers lived in Greater London.



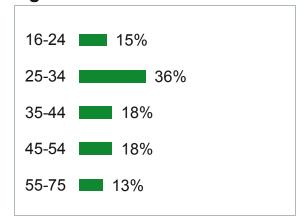
Urban vs rural



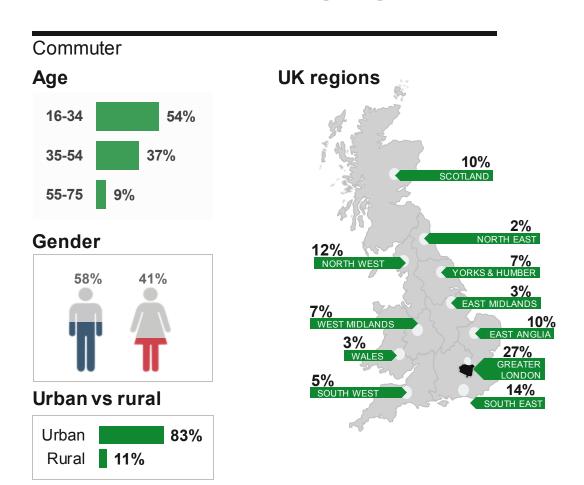
Gender

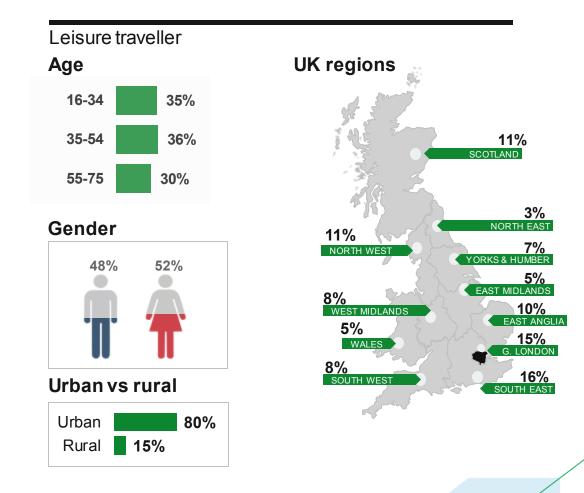


Age



Pre-lockdown, commuters were more likely to be younger, urban-based and male. While leisure travellers were more evenly spread across age groups and gender



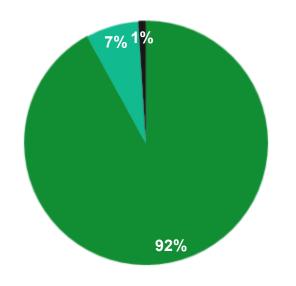


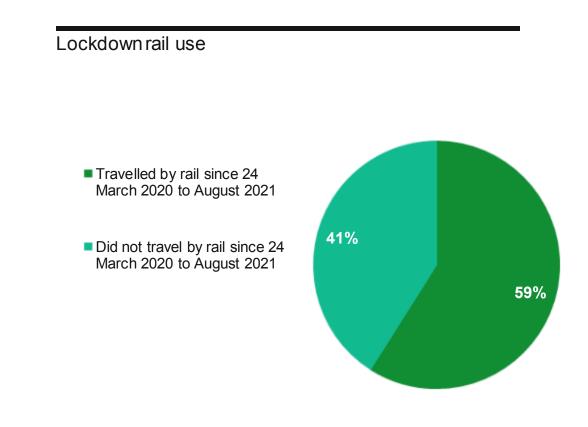


Almost a third of pre-lockdown rail users had not travelled by rail between the first UK wide lockdown and August 2021 (when the survey was conducted)

Pre-lockdown rail use

- Travelled by rail in the past 12 months before the first UK wide lockdown
- Did not travel by rail in the past 12 months before the first UK wide lockdown
- Can't remember

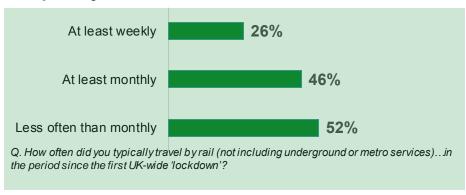






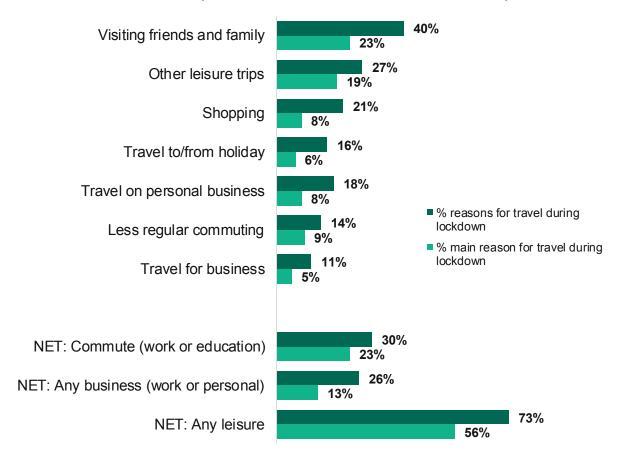
And those who were travelling by rail during lockdown tended to travel less frequently than before the pandemic

Frequency of travel



The frequency of travel during lockdown declined from most travelling 'at least monthly' to most travelling 'less often than monthly'. Whilst there was a drop in overall volume of travel during this period, the reasons for travel have remained the same. The main reason for travel has also remained broadly the same, however we see a small rise in those who travelled for health appointments (from 2% to 5%).

Reason for travel (overall and main reason for travel)



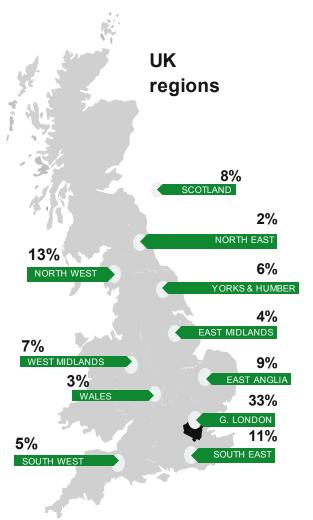
Q. What types of journeys have you made by rail in Great Britain SINCE the first UK-wide lockdown, that is between 24 March 2020 and Yesterday? / Q. Which ONE of these types of journey did you make by rail most often SINCE the first UK-wide lockdown, that is between 24 March 2020 and yesterday?



Those who were travelling 'at least' weekly were still more likely to be younger, urban based and male

While weekly travel across all sub groups has dropped over lockdown, the profile of travellers was the same as pre-lockdown:

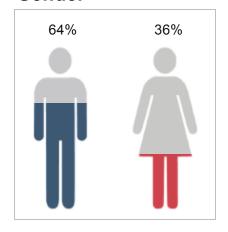
- Males were even more likely to be travelling at least weekly than females when compared to prelockdown levels.
- Younger age groups (16-44) were still significantly more likely to be travelling 'at least weekly' compared to those aged 45 and above.
- Greater London weekly travellers were still significantly more likely to be travelling at least weekly compared to those living in other regions. This was 20% higher than the next region (North West – 13%).



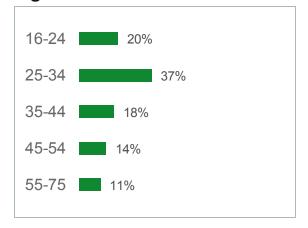
Urban vs rural



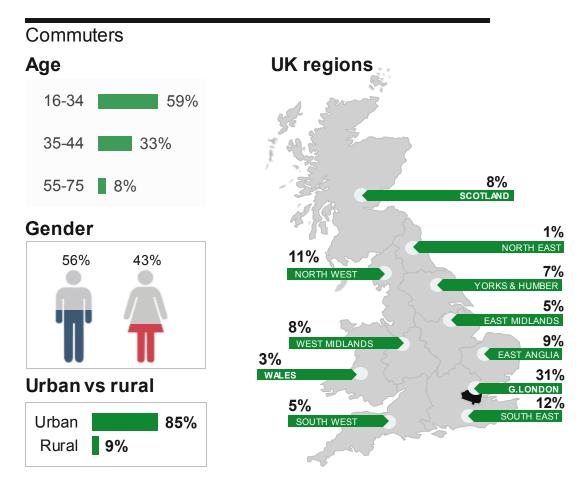
Gender

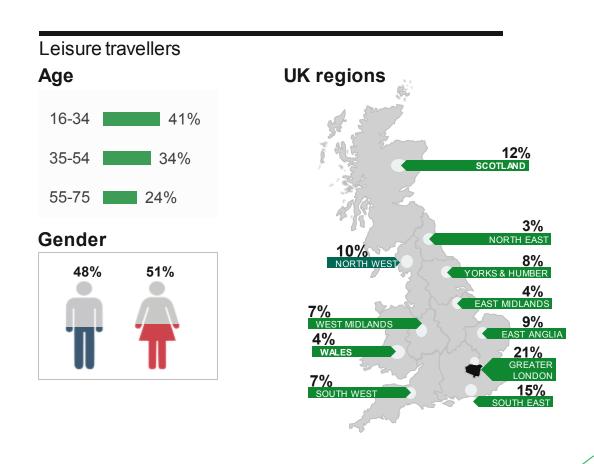


Age



The profile of commuters and leisure travellers remained largely the same as pre-lockdown commuters and leisure travellers albeit at a reduced volume





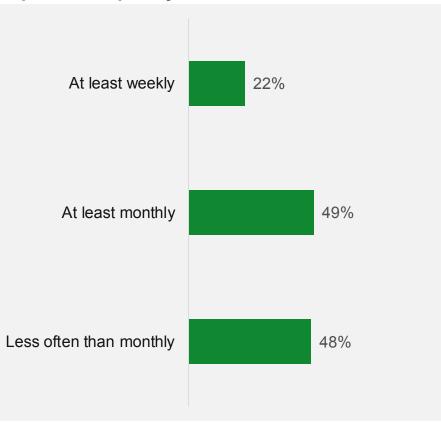


Slightly fewer travellers expected to travel by train weekly in the future compared to before the pandemic

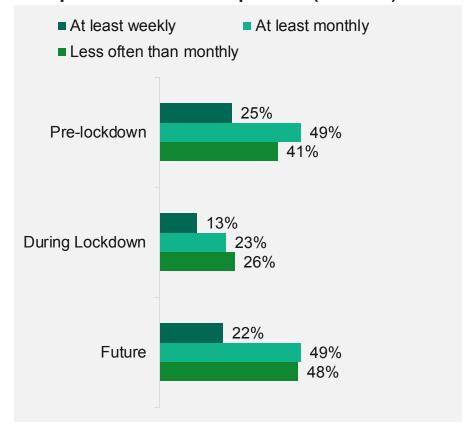
Pre-lockdown (i.e. March 23rd 2020) **25% travelled at least weekly** – this is expected to reduce to 22% in the future.

Whilst expected travel 'at least monthly' in the future was consistent with prelockdown levels, around half of respondents (48%) expected to travel less often than monthly.

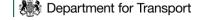
Expected frequency of travel



Comparison across time periods (rebased)



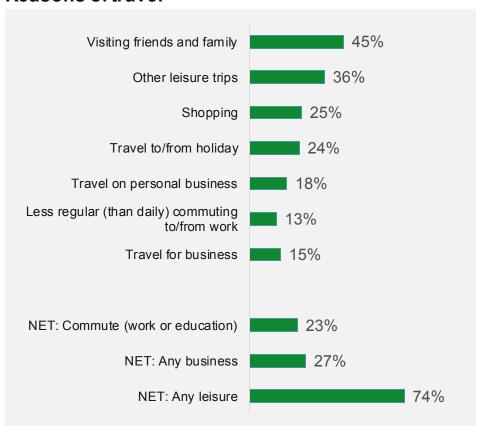
Source: lpsos/DfT, 11th – 23rd August; QFUTUREUS EFREQ. You said that you expect to travel by rail in the next 12 months. How often do you expect to travel that w ay? Base: All w ho expect to travel by rail in the next 12 months (2,850) QFREQUENCY. How often did you typically travel by rail (not including underground or metro services)...in the period since the first UK-w ide 'lockdown', that is between 24 March 2020 and yesterday? Base: All w ho travelled by rail in the 12 months before the first UK-w ide lockdown (2,750). QFREQUENCY. How often did you typically travel by rail (not including underground or metro services)...in the 12 months BEFORE the first UK-w ide 'lockdown', that is between March 2019 and 23 March 2020?. Base: All w ho travelled by rail during lockdown (1,505).



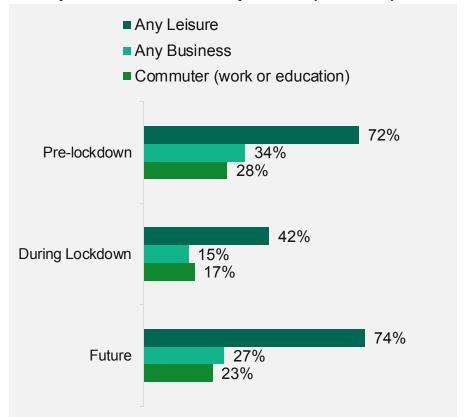
The proportion of rail travellers who expect to use the train for leisure in the future is in line with pre-pandemic use.

Likely reasons for travel in the future put visiting friends and family (45%) at the top followed by other leisure trips (36%). When comparing over the three time periods, leisure remained the most popular reason for travel despite it decreasing during lockdown. Commuting levels dipped during lockdown and based on the survey responses were deemed unlikely to return to pre-pandemic levels.

Reasons of travel



Comparison across time periods (rebased)



Source: lpsos/DfT, 11th – 23rd August; QTYPESFUTURE. Still thinking again about the NEXT 12 months, w hich of these types of journey do you expect to make by rail? Base: All w ho expect to travel by rail in the next 12 months (2,850) QLOCKDOWNTYPE. What types of journeys have you made by rail in Great Britain SINCE the first UK-w ide lockdown, that is between 24 March 2020 and Yesterday? Base: All those w ho travelled in the pandemic (1,723) QTYPESPRE. Which of these types of journey, if any, did you make by rail in the 12 months BEFORE the first UK-w ide 'lockdown', that is between March 2019 and 23 March 2020? Base: All w ho travelled by rail in the 12 months before the first UK-w ide lockdown (2,728)

Comparison chart has been rebased in order to make the three time period comparable.



Travel periods comparison

The UK wide lockdown has largely affected travel and will continue to do so in the future

The public have travelled via rail a lot less since the beginning of lockdown (92% travelled by rail before lockdown and 59% during lockdown) and they plan to travel less frequently by rail in the future (25% travelled weekly pre-lockdown and 22% expect to do so in the future. This can be seen through the rise of less frequent travel (41% pre-lockdown vs 48% expect to in the future), whilst weekly travel has slightly decreased.

The reasons that rail users travelled has also changed. There has been a decrease in those who are commuting for work or education during the pandemic (28% vs 17%). This is in line with Government lockdown measures of closing schools and encouraging 'work from home'. Leisure travel also saw a decrease during lockdown (72% vs 42%) but project future behaviour indicated it will recover and potentially increase compared to prelockdown levels (72% vs 74%).

The profile of those using rail on a weekly basis has not changed pre and post lockdown, despite the group using it less during the lockdown period. Those who were younger, urban based males indicated that they had to travel during lockdown due to not being able to work from home.

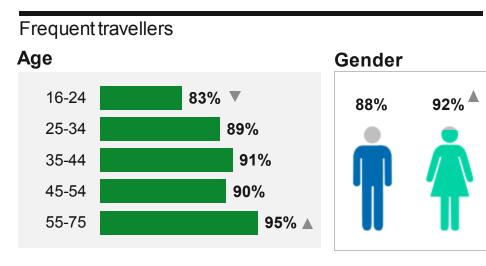
2. Additional analysis: Scheduling preferences

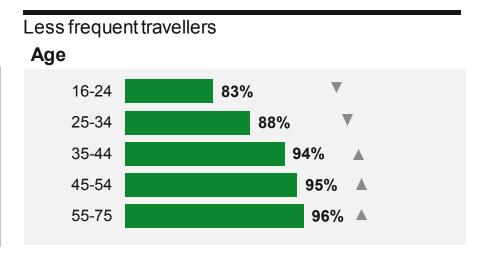
Analysis of rail travellers who said works during weekday night-time (after 10pm) were completely/somewhat acceptable

Tended to be from older age groups (across frequent and less frequent travellers).

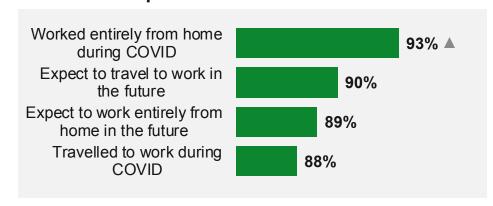
Amongst frequent travellers, there were more women than average (90%) and they tended to have worked entirely from home during covid.

Amongst the less frequent travellers, there were fewer people than average (94%) who expected to travel to work in the future, or travelled to work during the pandemic. No significant differences were observed across gender.

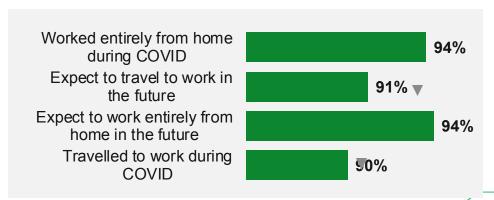




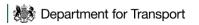
Travel to work patterns



Travel to work patterns



▲ ▼ Indicate significant differences compared with the average

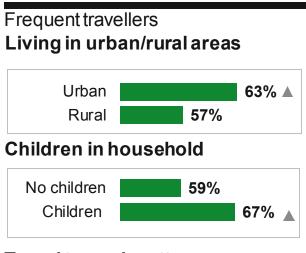


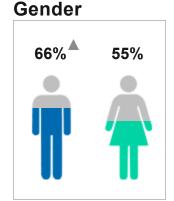
Analysis of those frequent travellers who thought that planned engineering work during Christmas and New Years is acceptable

More than two in five (63%) frequent travellers living in urban areas and two-thirds of those with children in households (67%) thought that work during Christmas and New Years was acceptable.

Significantly more travellers living in the East of England 69%) agreed that work during this period was acceptable whilst commuters were also more likely to say this period was acceptable (66%).

Finally, regardless of how travellers used the railway before or during COVID (or expect to do so in the future), future regular travellers were more likely than monthly travellers to think work could occur at Christmas and New Year.

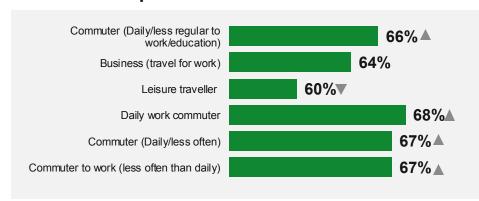




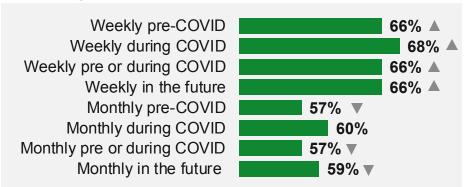


% acceptability to have works during Christmas and New Years:
69% of the East of England 61% of England
62% of Wales
62% Scotland

Travel to work patterns



Frequency of travel



▲ ▼ Indicate significant differences compared with the average



Source: lpsos/DfT, 11th – 23rd August; Q.SEASONAL. How acceptable, if at all, do you think it is for planned engineering w orks that require changes to the train services to take place during the following times? Base: All w ho travelled monthly either before or during the pandemic (1,601); Q.SERVICEALT2. How acceptable, if at all, do you think it is for planned engineering w orks that require changes to the train services to take place during the following times? Base: All w ho did not travel monthly either before or during the pandemic (1,399)

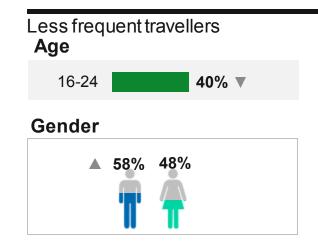


Analysis of less frequent travellers who thought that planned engineering work during Christmas and New Year is acceptable

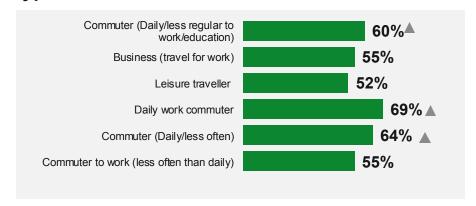
Less frequent travellers aged 16 to 24 were less likely to agree that planned engineering works during Christmas and New Year was acceptable.

Those from the East of England region and daily commuters were more likely to agree (similar to frequent travellers), as were a greater proportion of males (58% vs 48% female).

A significantly higher proportion of those who preferred to minimise disruption during weekdays also agreed with works during Christmas and New Year.

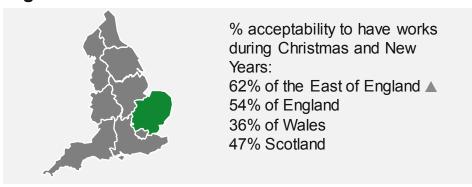


Types of traveller

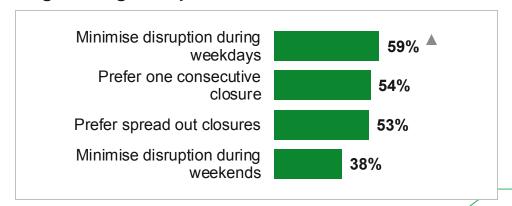


▲ ▼ Indicate significant differences compared with the average

Region



Engineering work preferences

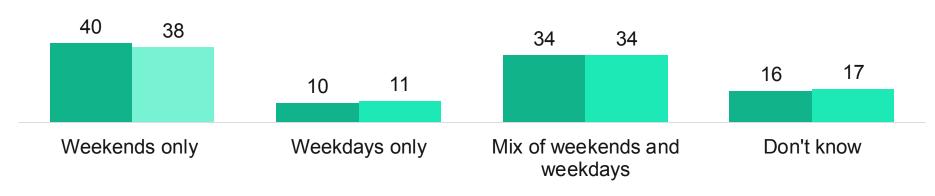




Opinion was divided on weekend versus weekday line closures regardless whether scheduled for several one day closures, or fewer two day closures. Weekends were most preferred but followed closely by a mix of weekday and weekends.

% Of those who did not travel monthly either before or during the pandemic

- Option A: Several closures lasting for shorter periods
 (e.g. closing the line one day (24 hours) per week on ten occasions across a 12-month period)
- Option B: Fewer closures lasting for longer periods
 (e.g. closing the line two days (48 hours) per week on five occasions across a 12-month period)





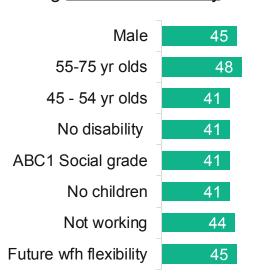
Profile of those who preferred several closures lasting for shorter periods

Option A: Several closures lasting for shorter periods e.g. closing the line one day (24 hours) per week on ten occasions across a 12-month period

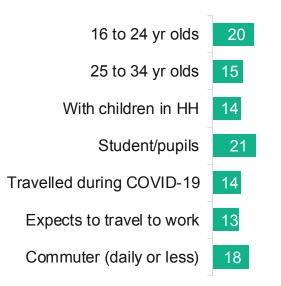
The groups of rail users shown below are those with a significantly higher preference for each option when compared to all rail users

% Of those who did not travel monthly either before or during the pandemic

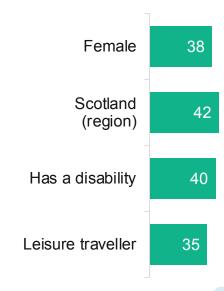
Significantly prefer these closures during the weekends only



Significantly prefer these closures during the weekdays only



Significantly prefer these closures during a mix of weekends and weekdays



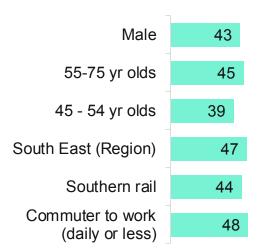
Profile of those who preferred fewer closures lasting for longer periods

Option B: Fewer closures lasting for longer periods e.g. closing the line two days (48 hours) per week on five occasions across a 12-month period

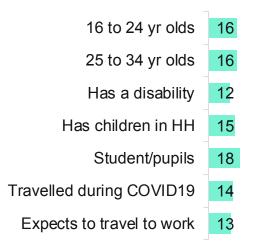
The groups of rail users shown below are those with a significantly higher preference for each option when compared to all rail users

% Of those who did not travel monthly either before or during the pandemic

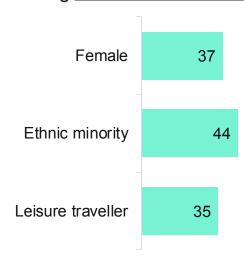
Significantly preferred these closures during the weekends only



Significantly preferred these closures during the weekdays only



Significantly preferred these closures during a mix of weekends and weekdays





3. Base sizes and crossbreak definitions

Crossbreak Definitions and Base sizes

| Subgroup | Description | Base size |
|--|---|-----------|
| Pre-lockdown travellers | those who travelled in the 12 months before the first UK-wide 'lockdown'. | 3000 |
| Lockdown travellers | Those who travelled since the first UK-wide 'lockdown'. | 3000 |
| Future travellers | Those who are thinking of travelling again in the next 12 months. | 3000 |
| Daily commuters | Those who travelled daily or less regular to/from work in the 12 months before the first UK-wide 'lockdown', since the first UK-wide 'lockdown', or are thinking of travelling again daily or less regular to/from work in the next 12 months. | 1006 |
| Business travellers | as those who travelled in the 12 months before the first UK-wide 'lockdown, since the first UK-wide 'lockdown', or are thinking of travelling in the next 12 months for the purposes of work/business. | 671 |
| Leisure travellers | as those who travelled in the 12 months before the first UK-wide 'lockdown, since the first UK-wide 'lockdown', or are thinking of travelling in the next 12 months for the purposes of visiting friends, travel to/from holiday, shopping and other leisure trips. | 546 |
| Worked from home during COVID | Those who worked from home entirely during COVID. | 855 |
| Travelled to work during COVID | Those who travelled to work during COVID. | 1311 |
| Expect to travel to work in the future | Those who expected to travel to work in the future. | 1845 |

Additional analysis of the conjoint exercise: best and worst case scenario

The most and least preferred blockade scenarios amongst frequent trains users

The table opposite compares the most and least preferred combinations of service alteration characteristics.

Ideally, frequent rail users would prefer planned engineering and maintenance work to be scheduled:

- At weekends;
- For the shortest time possible (both in terms of length and number/frequency);
- With the minimal knock-on impact to their journey time; and
- Retaining the direct train service with speed restrictions.

Conversely, preference dropped to 58.7% in the worst case scenario, which was:

- Having scheduled works during week days
- With 4-day closures
- Added journey times of 60 minutes
- A replacement bus that stopped at all the stations
- Plus offering no refreshments in the waiting area or a toilet on the bus

| e | Overall best case scenario for a blockade according to all frequent rail users | Overall worst case scenario for a blockade according to all frequent rail users |
|---|--|---|
| Scheduling of works | Weekends only (Sat - Sun) | Weekdays only (Mon - Fri) |
| Length of closure | 1 day | 4 days |
| Number and frequency of closures | Once every two months for a year | Once every month for two years |
| Additional journey time | 15 minutes | 60 minutes |
| Revised service | Direct train with strict speed restrictions | A replacement bus that stops at all the stations along the route between where you get on and your destination |
| Bus facilities | N/A | No refreshments available while waiting for bus / No toilet on Bus |
| Average preference/ acceptability of blockade (%) | 92.4% | 58.7% |