

Title: Minimum Service Levels for Passenger Rail IA No: DFT00469 RPC Reference No: NA Lead department or agency: Department for Transport Other departments or agencies: Department for Business and Trade	Impact assessment (IA)
	Date: 4 December 2023
	Stage: Final
	Source of intervention: Domestic
	Type of measure: Secondary Legislation
	Contact for enquiries: RailMinimumServiceLevels@dft.gov.uk
Summary: Intervention and Options	RPC Opinion: Awaiting Opinion

Cost of Preferred (or more likely) Option (in 2019 prices)

Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status Qualifying Provision
NQ	NQ	NQ	

What is the problem under consideration? Why is government intervention necessary?

Strike action on the passenger rail network can lead to disproportionate disruption to members of the public who rely on rail services to attend work and access other essential services.

Government intervention is needed in the sector to establish a minimum level of service on passenger rail networks in the event of a strike which corrects for the externality that is imposed (further information in paragraph 19) on users and the wider economy. It aims to create a fair balance between workers' and unions' ability to influence pay and conditions through strike action and the ability of the public to get to work and access essential services, as well as the potential impact on the wider economy. Non-regulatory options have also been explored, with details below. However, these will not effectively meet the policy objectives due to the lack of incentives for the sector to engage with reducing strike disruption.

What are the policy objectives and the intended effects?

Objective:

This policy seeks to reduce the adverse impacts of rail strike action on users, to access work and essential services, and on the wider economy, whilst maintaining workers' ability to take strike action.

Intended effects:

The framework established by primary legislation, i.e. the Strikes (Minimum Service Levels) Act 2023 ('the Strikes Act') enables the Secretary of State for Transport to make regulations for Minimum Service Levels (MSLs) for transport services in the event of strike action.

The regulations will set out the MSLs that employers could issue work notices against, to deliver on a strike day. Following the procedure set out in the Strikes Act, employers can issue a work notice specifying the workers needed to work on a strike day in order to provide the MSL, ensuring that the ability of workers to strike is fairly and proportionately balanced with the ability of the travelling public to make essential journeys.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Option 0 (do nothing): There are no additional restrictions on transport workers' ability to take strike action, as compared with current arrangements. The level of services currently provided on the transport network will vary during strike action depending on the nature and extent of the action, with full and multiple day network closures possible in worst-case scenarios. The continuation of the status quo would mean continued impacts on commuters, the wider economy, and people's ability to make essential journeys.

Option 1: Voluntary MSLs (non-Regulatory option): MSLs are introduced into the rail sector on a voluntary basis with the Government setting out expectations for their introduction through non-statutory guidance.

This option is unlikely to be effective due to uncertainties in its ability to deliver MSLs. It is considered unlikely employers and trade unions would reach agreements on MSLs as their incentives do not align. For these reasons, regulatory options have been considered in this impact assessment because they provide a legal framework for the setting of MSLs during strike action, though it should be noted that employers have the statutory discretion whether to issue a work notice as a result of strike action under the Strikes Act.

Option 2 (included as Option 1 in the consultation): Design a regulatory MSL framework based on existing timetable arrangements.

Option 3 (included as Option 2 in the consultation): Design a regulatory Priority Route Map of the heavy and light rail network across Great Britain on which MSLs must be provided. Within this option there are two sub-options that prioritise different aspects:

- **Option 3a:** Design a Priority Route Map prioritising hours of service.
- **Option 3b:** Design a Priority Route Map prioritising geographical coverage of service.

Option 2 and Option 3 have been discarded following a public consultation and with engagement with rail stakeholders (further details on this can be found in paragraphs 30 to 33). In summary, due to the highly complex nature of the rail industry a "one size fits all" approach is unlikely to be suitable for all strike scenarios. Option 4 therefore provides a hybrid approach utilising both options 2 and 3 (both set out in the consultation), adapting it to the nature of strike actions and incorporating the complexity of service provision in rail.

Option 4 (preferred option): Design an MSL level framework that combines aspects of options 2 and 3 and implements different service levels depending on the type of services affected by strikes.

For this option, passenger rail services that could be impacted by strikes are grouped into three categories. Each category has its own MSL, which is appropriately flexible and deliverable for employers. This is to account for different strike scenarios, such that an appropriate MSL can be in place whether just one type of employer is subject to strike action (e.g. a train operator) or several (e.g. a train operator and an infrastructure manager), so each type of employer will be able to issue work notices to deliver their respective MSL.

The three categories of listed services, each with their own MSL, are as follows:

- Category A – train operation services (for carriage of passengers by railway);
- Category B – infrastructure services;
- Category C – light rail services.

Option 4 is the preferred option because it provides a more targeted and appropriate response to strike action. The legislative nature of this option will also ensure that it is effective in meeting its objectives. It is the option which is the most suitable for the rail industry as it can be adapted depending on the strike scenario.

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** January 2029

Does implementation go beyond minimum EU requirements?

No

Are any of these organisations in scope?

Micro
Yes

Small
Yes

Medium
Yes

Large
Yes

What is the CO₂ equivalent change in greenhouse gas emissions?
(Million tonnes CO₂ equivalent)

Traded:
NQ

Non-traded:
NQ

I have read the Impact assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: _____ **Huw Merriman** _____

Date: _____ **4 December 2023** _____

Summary: Analysis & Evidence

Policy Options 1, 2, 3, and 4

Description: The below impacts apply to options 1-4

FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: NQ	High: NQ	Best Estimate: NQ

COSTS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	NQ	NQ	NQ	NQ
High	NQ		NQ	NQ
Best Estimate	NQ		NQ	NQ

Description and scale of key monetised costs by 'main affected groups':

Within the impact assessment only familiarisation and administrative costs incurred by businesses and unions have been monetised.

Reasons why costs are predominantly non-monetised is considered in the main Costs and Benefits section of the paper.

Other key non-monetised costs by 'main affected groups'

Description and scale of key monetised costs by 'main affected groups' All policy options are anticipated to impose broadly similar types of costs on Government, business, unions and transport workers, although the magnitude of such costs will vary by options, with the most interventionist options (i.e. options 2, 3 and 4) associated with higher costs.

Government:

- Increased funding due to cost of running additional services (direct/indirect – will depend on contractual arrangements)

Businesses (transport operators and infrastructure managers):

- Administrative and familiarisation (direct)
- Increased costs due to cost of running additional services (direct)

Unions:

- Administrative and familiarisation (direct)
- Impacts from a reduction in bargaining power. For example, a potential fall in membership (direct)

Transport sector workers:

- Loss in utility resulting from the restricted ability to take strike action and the reduced collective bargaining power of their unions partially offset by pay for those working on strike days (direct)

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	NQ	NQ	NQ	NQ
High	NQ		NQ	NQ
Best Estimate	NQ		NQ	NQ

Description and scale of key monetised benefits by 'main affected groups'

NA

Other key non-monetised benefits by ‘main affected groups’

As with costs, benefits are likely to take a similar form under each option but are likely to be greater under option 4 than options 1, 2 and 3. This is because option 4 is expected to be more effective to implement MSLs. This option is also more likely to be associated with reduced negative impacts of strikes, which will materialise as benefits to consumers, businesses and government.

Consumers (rail users):

- Reduced negative impacts on access to workplaces or ability to earn a living (direct)
- Reduced overall negative impacts of strikes on (passenger) user experience, e.g., journey times (direct)
- Reduced negative impacts of strikes on access to private and family life, education, and health (direct)
- Change in transport costs for consumers, for example reduced likelihood of needing to pay for alternative means of travel (direct)

Government:

- Increased revenue from running more services (direct/indirect – will depend on contractual arrangements)
- Change in tax receipts from business and wider economy (indirect)

Businesses (transport operators and infrastructure managers):

- Increased revenue from running more services (direct/indirect)
- Reduced negative business impacts associated with strikes (direct)

Wider Impacts:

- Reduced negative impact of strikes on peoples’ livelihoods, wider economy, environment (including reduced pollution from passengers who, in the absence of MSLs, might need to use higher polluting modes), and other transport modes (indirect)
- Reduced negative long-term impacts on the rail sector (indirect)

Key assumptions/sensitivities/risks

Discount rate (%)

NA

The working assumption for the purpose of assessing the costs and benefits is that option 0 will not raise aggregate service levels and option 1 is unlikely to. The remaining options are expected to raise service levels, however, option 4 is expected to more effectively implement MSLs compared with options 1, 2 and 3. Within the costs and benefits sections, we have conducted sensitivity analysis on some of the assumptions for familiarisation and administrative costs. Estimating costs and benefits is challenging let alone estimating this over time, and a discounted stream of costs and benefits has not been undertaken for this impact assessment. Demand on the rail network is still evolving post-COVID-19.

BUSINESS ASSESSMENT

Direct impact on business (Equivalent Annual) £m: NQ			Score for Business Impact Target (qualifying provisions only) £m:
Costs: NQ	Benefits: NQ	Net: NQ	
			NQ

1.0 Policy Rationale

Definition of the rail sector

1. This impact assessment will firstly provide background information for passenger rail, including how heavy rail systems and light rail systems are used across Great Britain.
2. 'Heavy rail' and 'light rail' do not have a single agreed definition but are used to refer to services that operate over certain types of railways. For example, heavy rail is commonly understood as meaning the national rail network and light rail is generally understood to refer to tram services and light metro systems that operate across the United Kingdom (UK), although some underground systems can sometimes be categorised differently. For the purposes of this document, heavy and light rail are grouped as follows:
 - Heavy Rail includes the mainline network (as referred to on the Office for Rail and Road (ORR) website¹) and the services that operate over it.
 - Light Rail includes underground railways (including the London Underground), light metro and tramways (as referred to on the ORR website) and all services that operate over them.²
 - Light rail outside of London includes the following systems: Blackpool Trams, Edinburgh Trams, Glasgow Underground, Manchester Metrolink, Nottingham Express Transit, Sheffield Supertram, Tyne and Wear Metro, West Midland Metro.
 - Light rail inside of London includes the following systems: London Underground, Docklands Light Railway, and London Trams
 - For the purpose of this Impact Assessment (and the regulations), London Overground and the Elizabeth Line are treated as Heavy Rail.
3. Open Access Operators, sub-contractors, station services and heritage railways, which include museum railways or tourist railways, and international services and charter services are not in scope of the policy and so have not been included in this impact assessment.
4. 'Surface rail' typically includes all heavy rail and some light rail, however the exact definition of this term varies according to the source. Where surface rail is referenced in this document, please see the footnotes for further detail on what is included.

Background on the rail sector³

5. **The transport system supports all sectors of the economy and is a crucial enabler for economic growth.** It plays a key role in the economy of Great Britain by providing connectivity for transport users. In the UK in 2019,⁴ the average person in England travelled

¹ Office for Rail and Road. Railway networks. <https://www.orr.gov.uk/about/who-we-work-with/railway-networks>

² <https://www.orr.gov.uk/about/who-we-work-with/railway-networks/light-rail-tramways#:~:text=Light%20rail%20is%20an%20urban,in%20tunnels%2C%20and%20in%20streets.>

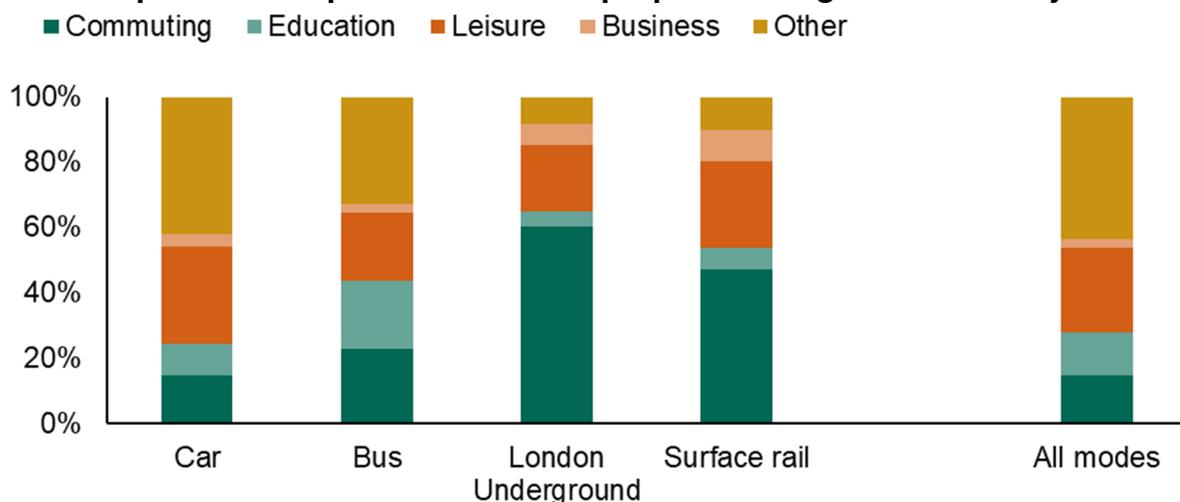
³ Due to data availability most statistics included for Light Rail outside of London are for England only, whereas the legislation will cover all of Great Britain including some Scottish systems.

⁴ Data from 2019 has been used here to describe key elements of the rail sector. More recent data has been heavily affected by the Covid pandemic, which led to substantial impacts on the transport sector, particularly through a reduction in usage. Post-Covid data reflects a short-term recovery position of the sector, and therefore it is expected that pre-Covid data will provide a better description of the rail sector over the longer-term, for which the proposed legislation is expected to apply. It should be noted that there are limitations to this approach because the impacts of the pandemic on the rail sector are not expected to be limited only to the short-term. More information on rail can be found in the following sources: Rail Factsheet: 2020 - GOV.UK (www.gov.uk); Rail factsheet: 2022 - GOV.UK (www.gov.uk); Light Rail and Tram Statistics: England 2019/20 (publishing.service.gov.uk); Light rail and tram statistics, England: year ending March 2022 - GOV.UK (www.gov.uk); Office for Rail and Road Data Portal.

6,500 miles.⁵

6. **Public transport is critical for the everyday lives of citizens in Great Britain.** Demand for public transport is a derived demand: it is necessary for people to go to work, visit family and friends, travel to important appointments and destinations. In 2019, an average of 97 public transport trips were made per person in England, covering 1,106 miles and 77 hours of travelling.⁶ Rail (including London Underground) is among the most commonly used public transport modes, covering around one third of trips made and around two thirds of distance covered by public transport in 2019.⁷
7. **Rail is particularly important for commuting.** Although the majority of commuting trips were made by car in 2019, an estimated 12% of commuting trips were made by rail (including surface rail⁸ and London Underground) in 2019 in England. As demonstrated in Figure 1 below, a relatively high proportion of rail trips were made for commuting in 2019 in England. For light rail, on average between 2012 and 2019 commuting was the most common journey purpose, with 42% of stages⁹ travelled in England (excluding London Underground) travelled for this purpose. The splits for purpose of travel are different for light rail systems inside and outside of London, with commuting accounting for 54% of stages travelled for the former compared to 30% for the latter.¹⁰ For England outside of London specifically, commuting, leisure, and shopping were the most common uses of light rail, as shown in Figure 2 below.¹¹ For light rail in Scotland (Glasgow Underground and Edinburgh Trams), the Scottish Household Survey shows that on average 37% of travel between 2015 and 2021 was for the purpose of commuting (see Figure 3).¹²

Figure 1. Proportion of trips made for each purpose in England in 2019 by mode.¹³



⁵ DfT (2022). National Travel Survey. Table NTS0303. Average number of trips, stages, miles and time spent travelling by main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021>. This figure is the sum of all modes of transport.

⁶ DfT (2022). National Travel Survey. Table 0303. Average number of trips, stages, miles and time spent travelling by main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021> This figure covers the following modes as set out in the table: Bus (including Bus in London, Other local bus and Non local bus), London Underground, Surface Rail, and other public transport (air, ferries, and light rail).

⁷ DfT (2022). National Travel Survey. Table 0303. Average number of trips, stages, miles and time spent travelling by main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021>

⁹ National Travel Survey: 2020 notes and definitions - GOV.UK (www.gov.uk) NTS table 0409a - trip consists of one or more stages. A new stage is defined when there is a change in the form of transport or when there is a change of vehicle requiring a separate ticket.

¹⁰ For these statistics, where London is included, this refers to Greater London and so includes the DLR and Croydon Tramlink

¹¹ The data for England are only for residents in an area where a light rail system operates.

¹² The data for Scotland does not include any trips by people not based in Scotland.

¹³ DfT (2022). National Travel Survey. Table 0409. Average number of trips (trip rates) and distance travelled by purpose and main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021>. Note: "Other" includes "shopping", "other escort",

Figure 2. Purpose of stages travelled by Light Rail Systems in England outside of London, 2012-2019 average.¹⁴

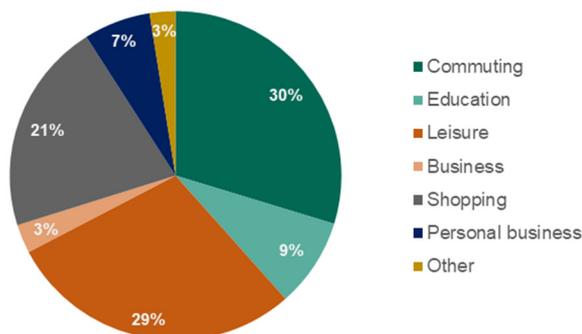
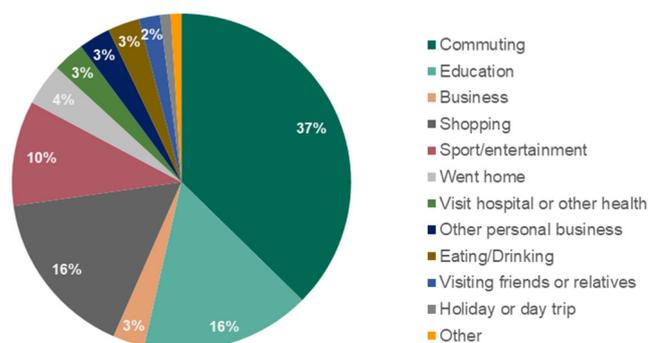


Figure 3. Purpose of stages travelled by Light Rail Systems in Scotland (Glasgow Subway and Edinburgh trams), 2015-2021 average.¹⁵



8. Commuting by rail is particularly important in London, where rail’s share in commuting trips is greatest. In 2019, 24% of people commuting to work in London used national rail¹⁶ and a further 24% used London Underground, light rail, and tramway as their primary mode of transport.¹⁷ Notably, for London Underground specifically, 60% of trips were for commuting.¹⁸ A higher proportion of light rail travel in London (excluding London Underground) was for commuting purposes (54%) compared to the rest of England, for which commuting only accounted for 30% of light rail travel.¹⁹

"personal business", and "other including just walk". "All modes" includes "walk", "pedal cycle", "car/van", "motorcycle", "other private transport", "bus in London", "other local bus", "non-local bus", "London Underground", "surface rail", "taxi/minicab", "other public transport".

¹⁴ DfT (2022). National Travel Survey: Light rail and tram statistics (LRT), Table LRT0401a, based on number of stages travelled per person

¹⁵ Figures are based on the Scottish Household Survey (2015-2021), data used is not published. Light rail systems included are Glasgow Underground and Edinburgh Trams. Data is based on the Scottish Household Survey travel diary, where people are interviewed about the previous day’s travel. This means that some journeys, such as outbound trips on holiday are likely to be missed as people won’t be taking the survey while on holiday. Data also does not include any trips by people not based in Scotland. This could have a particularly high impact on the on the holiday figures. Data for Scotland has been aggregated across 2015-2021 due to small sample size.

¹⁶ National rail refers to all other railway systems excluding underground, light railways systems and trams.

¹⁷ DfT (2022). Transport Statistics Great Britain. TSGB0109: Usual method of travel to work by region of workplace.

<https://www.gov.uk/government/statistical-data-sets/tsgb01-modal-comparisons>

¹⁸ DfT 92022). National Travel Survey. Table 0409. Average number of trips (trip rates) and distance travelled by purpose and main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021>. Note: "Other" includes "shopping", "other escort", "personal business", and "other including just walk". "All modes" includes "walk", "pedal cycle". "car/van", "motorcycle", "other private transport", "bus in London", "other local bus", "non-local bus", "London Underground", "surface rail", "taxi/minicab", "other public transport".

¹⁹ DfT (2022). National Travel Survey: Light rail and tram statistics (LRT), Table LRT0401a, based on number of stages travelled per person

- 9. For surface rail in particular, average journey length is longer than for most modes.** Of all travel in England in 2019, surface rail accounted for 2% of trips and 10% of distance travelled,²⁰ implying that the average trip length for surface rail is longer than the average across other modes. This means that for some journeys there may not be viable alternative options for rail users as they tend to travel longer distances which cannot be easily replaced by other modes of transport.
- 10. Rail also plays a role in access to education.** Figure 1 indicates that an estimated 7% of surface rail²¹ trips and 5% of London Underground trips are made for the purpose of accessing education.²² For light rail in England²³ specifically around 9% of stages (both inside and outside of London) travelled are for education (excluding London Underground).²⁴ For light rail in Scotland a higher proportion of travel is for the purpose of accessing education at 16%.²⁵
- 11. Use of rail for leisure travel is another of the most common passenger uses.** In 2019, 26% of all surface rail passenger trips were made for leisure purposes. For London Underground, leisure accounted for 20% of all trips made in 2019 as shown in Figure 1.²⁶ For light rail, leisure accounts for 23% of stages travelled in England as a whole (excluding London Underground). Leisure accounts for a higher proportion of light rail travel outside of London at 29% compared to 17% for within London (both excluding London Underground).²⁷ These types of trips contribute to local economies by supporting expenditure in sectors such as retail, hospitality, and tourism.
- 12. Weekday rail usage tends to be concentrated during the morning and evening periods, reflecting the high share of rail trips that are for commuting.** Figure 4 below depicts the proportion of heavy rail passenger arrivals and departures by hour for major cities, excluding London, demonstrating that rail use is highest between 7-10 am and between 4-7 pm. This is also the case for London, where, of the over one million passengers travelling to central London by surface rail on a typical weekday, over half²⁸ arrived between 7-10 am. On weekends, rail use is more evenly spread across the day. Further detail on the timing of rail trips can be found in the 2022 Rail Factsheet.²⁹

²⁰ DfT (2021). National Travel Survey. NTS0303: Average number of trips and distance travelled by main mode: England, from 2002. <https://www.gov.uk/government/statistics/national-travel-survey-2021>.

²¹ In the National Travel Survey, 'surface rail' captures national rail and does not include light rail. See <https://www.gov.uk/government/statistics/national-travel-survey-2021/national-travel-survey-2021-notes-and-definitions>.

²² DfT (2022). National Travel Survey. Table 0409. Average number of trips (trip rates) and distance travelled by purpose and main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021>

²³ Here the light rail in England statistic includes both the light rail systems outside of London, in addition to the light rail systems within London: DLR and Tramlink

²⁴ DfT (2022). National Travel Survey: Light rail and tram statistics (LRT), Table LRT0401a, based on the number of stages travelled per person

²⁵ Figures are based on the Scottish Household Survey (2015-2021), data used is not published. Light rail systems included are Glasgow Underground and Edinburgh Trams. Data is based on the Scottish Household Survey travel diary, where people are interviewed about the previous day's travel. This means that some journeys, such as outbound trips on holiday are likely to be missed as people won't be taking the survey while on holiday. Data also does not include any trips by people not based in Scotland. This could have a particularly high impact on the on the holiday figures.

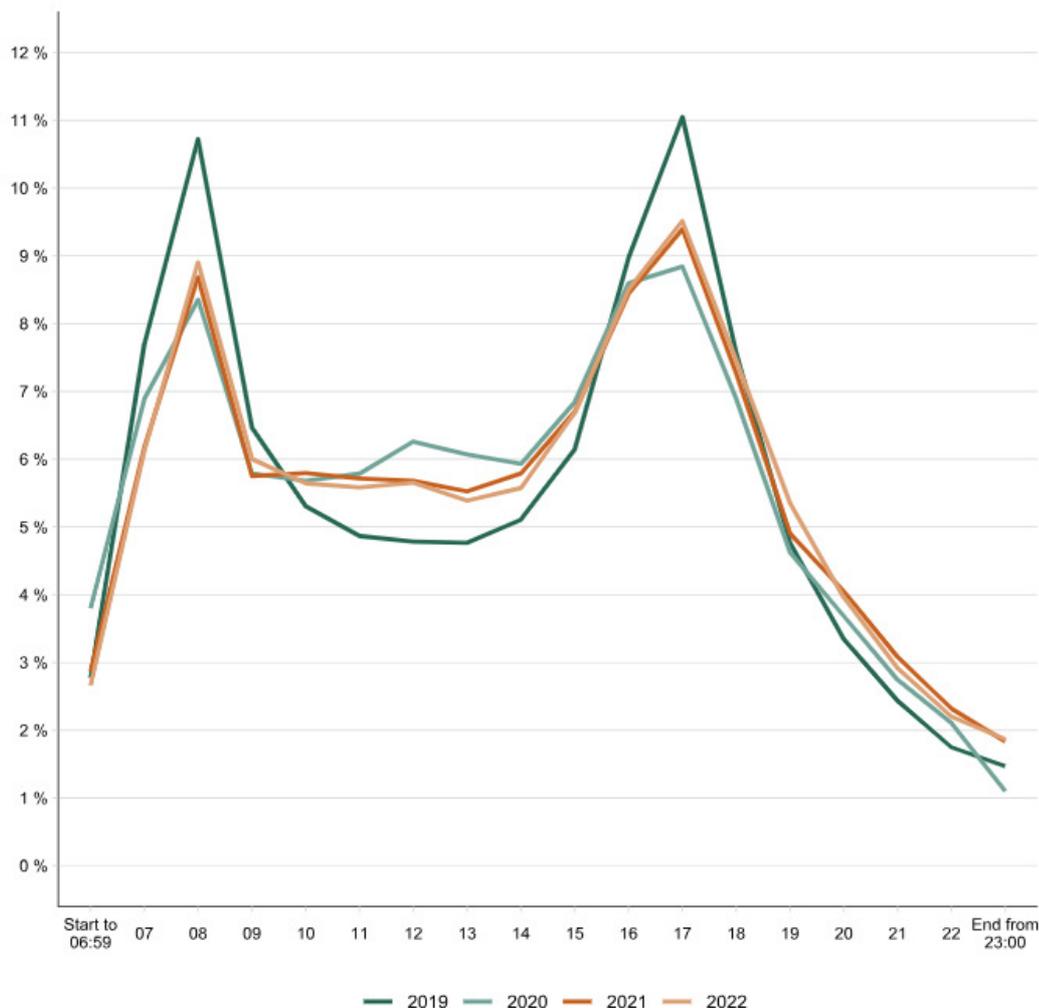
²⁶ DfT (2022). National Travel Survey. Table 0409. Average number of trips (trip rates) and distance travelled by purpose and main mode: England, 2002 onwards. <https://www.gov.uk/government/statistics/national-travel-survey-2021>

²⁷ DfT (2022). National Travel Survey: Light rail and tram statistics (LRT), Table LRT0401a, based on number of stages travelled per person

²⁸ The %s vary each year, 'over half' refers to 2019 only.

²⁹ Rail factsheet: 2022 - GOV.UK (www.gov.uk)

Figure 4. Proportion of Passenger Arrivals and Departures by Hour, Regional Major Cities: Autumn 2019, 2020, 2021 and 2022.³⁰



13. Rail use is also heavily concentrated around London. Prior to the COVID-19 pandemic, around 120 trips per person per year were made by surface rail or London Underground on average by London residents, compared with an average of around 30 trips per person per year across England.³¹ Figure 5 below shows the number of heavy rail passenger journeys per region of the UK.³² For heavy rail in 2019-20, around 60% of rail passenger journeys in Great Britain started or ended in London. For light rail and underground the picture is similar, with 91% (1.5 bn) of 2019/20 passenger journeys in Great Britain accounted for by light rail and underground systems within London (London Underground, Docklands Light Railway and London Trams), driven in particular by the number of journeys on the London Underground. However, this is largely due to greater demand for transport overall, due to a higher population density. Looking only at light rail in England outside of London, the Manchester Metrolink and Tyne and Wear metro systems accounted for the highest proportion of journeys of the six relevant light rail systems at 37% (44m) and 28% (33m) of journeys respectively.³³

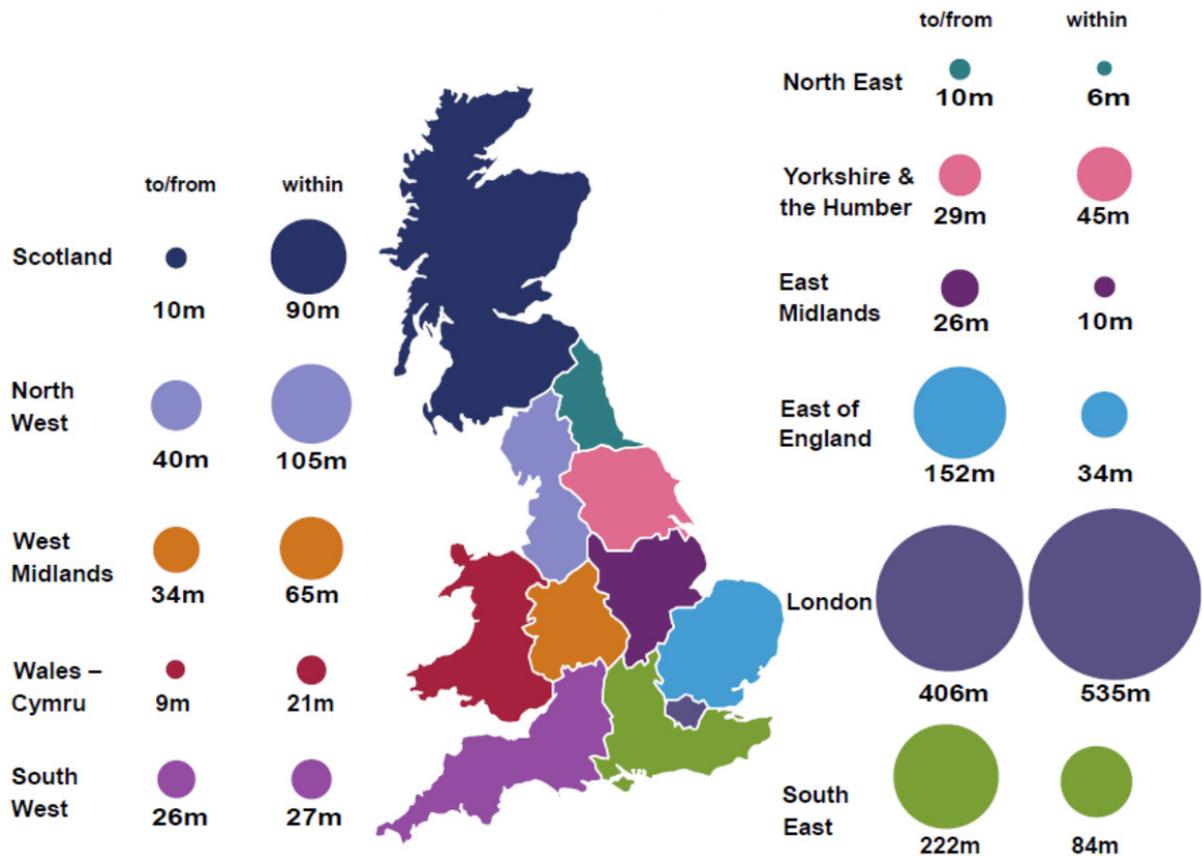
³⁰ DfT (2023). Rail passenger numbers and crowding on weekdays in major cities in England and Wales: 2022. <https://www.gov.uk/government/statistics/rail-passenger-numbers-and-crowding-on-weekdays-in-major-cities-in-england-and-wales-2022/rail-passenger-numbers-and-crowding-on-weekdays-in-major-cities-in-england-and-wales-2022>

³¹ DfT (2022). National Travel Survey. Table 9903. Average number of trips (trip rates) by main mode, region and Rural-Urban Classification: England, 2018/2019. <https://www.gov.uk/government/statistics/national-travel-survey-2021>

³² Office for Rail and Road (2020). Regional Rail Usage, 2019-20. <https://dataportal.orr.gov.uk/media/1933/regional-rail-usage-2019-20.pdf>

³³ Light rail and tram statistics. England: year ending March 2022 - GOV.UK (www.gov.uk)

Figure 5. Heavy rail passenger journeys within and to/from other regions in Great Britain, 2019-20.³⁴



14. **Rail employs thousands and delivers economic benefits to Great Britain.** The rail sector directly employs around 240,000 people³⁵ and generates substantial wider economic impacts by connecting people and goods across the country, opening job opportunities, and supporting productivity and growth.

15. **The transportation of freight by rail delivers vital benefits to the British economy.** Of the 120 billion tonne-miles of domestic freight moved within the UK in 2019, 9% was moved by rail.³⁶ A report commissioned by the Rail Delivery Group found that in 2018/19, rail freight contributed £2.45bn to the UK economy.³⁷

Problem under consideration and rationale for intervention

16. Workers in Great Britain can take strike action against their employer.³⁸ Strike action is designed to impose a cost on the employer and in some cases the wider economy, to encourage the employer to resolve workers' grievances.

17. Strike action on the railways also has an impact on rail users' lives and livelihoods. It leads to adverse personal and financial impacts for some rail users and generates wider social,

³⁴ Office for Rail and Road (2020). Regional Rail Usage, 2019-20. <https://dataportal.orr.gov.uk/media/1933/regional-rail-usage-2019-20.pdf>

³⁵ DfT (2019). The Rail Sector in Numbers (2019).

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/787082/rail-sector-in-numbers.pdf

³⁶ Department for Transport (2020). Transport Statistics Great Britain. Table 0403. <https://www.gov.uk/government/statistical-data-sets/tsqb04-freight>

³⁷ Rail Delivery Group (2021). The role and value of rail freight in the UK. <https://www.raildeliverygroup.com/media-centre-docman/12807-2021-04-role-and-value-of-rail-freight/file.html>

³⁸ GOV.UK, Taking part in industrial action and strikes, <https://www.gov.uk/industrial-action-strikes/your-employment-rights-during-industrial-action> (accessed 21 June 2022)

economic and environmental impacts on Great Britain and its economy. A recent survey of rail users about the impacts of recent strikes on heavy rail³⁹ found that the majority of those who had planned to travel by rail during a strike week (81%) had their journey(s) impacted in some way. Nearly half of those who had planned to travel (47%)⁴⁰ reported at least one impact on work and working arrangements including being unable to get to their place of work (32%), having to change working hours (12%), having to work less than planned (9%), having to change working days (7%), and being unable to work at all (4%). Of those who had planned to travel, around a quarter (27%) reported disruption to social plans or time with family. Nearly one in five of those who had planned to travel in a strike week (18%) reported that it was already not feasible to make alternative arrangements during rail strikes. This figure rises to one in four among those who had planned to travel for education and those who had planned to travel for healthcare in a strike week (25% and 26% respectively).⁴¹

18. The same survey found that 17% of all respondents reported at least one type of negative financial impact as a result of the strikes (personal loss of earnings, loss of business earnings, increased travel costs, additional childcare costs, or other impacts). This compares with 9% of respondents who reported at least one type of positive financial impact (saving on travel costs, saving on childcare costs, other).⁴² In December, a report by the Centre for Economic and Business Research (Cebr) estimated that rail strikes between June 2022 and January 2023 would result in a loss of UK economic output of around £500m due to people outside of the rail sector not being able to work.⁴³ Applying Cebr's analytical approach to cover strike action until June 2023 would suggest a loss of UK economic output of around £700m.⁴⁴ This impact does not include the direct loss of output from workers on strike.⁴⁵ Several sectors have also highlighted the impact on trade as a result of rail strikes, claiming multi-billion-pound losses in revenue on strike days, e.g. UK Hospitality.⁴⁶

19. Whilst a substantial number of users bear the impact of strike action, they are neither party to any dispute nor have any avenue to have their interests represented, other than through complaints, claims for refunds. The impact of strike action on these parties represents a negative externality which is not reflected in the interests of employers or trade unions. Government intervention is considered appropriate in sectors where strike action imposes significant negative externalities of this kind.

³⁹ DfT (2023). Rail Strikes: Understanding the impact on passengers – summary findings. Note – findings from the survey relate to strike weeks detailed in the report but may differ to future strikes should the nature of the strike differ (e.g., union involved, day in question and number of adjacent strike days). <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers/rail-strikes-understanding-the-impact-on-passengers-summary-findings>

⁴⁰ The question allowed multiple responses, so the percentage for each work impact does not sum to the total (47%).

⁴¹ DfT (2023). Rail Strikes: Understanding the impact on passengers – summary findings.

⁴² DfT (2023). Rail Strikes: Understanding the impact on passengers – summary findings.

⁴³ [Eight months of strike action to have cost the UK economy at least £1.7bn, adding to existing recessionary pressures - CEBR](https://cebr.com/reports/eight-months-of-strike-action-to-have-cost-the-uk-economy-at-least-1-7bn-adding-to-existing-recessionary-pressures/)

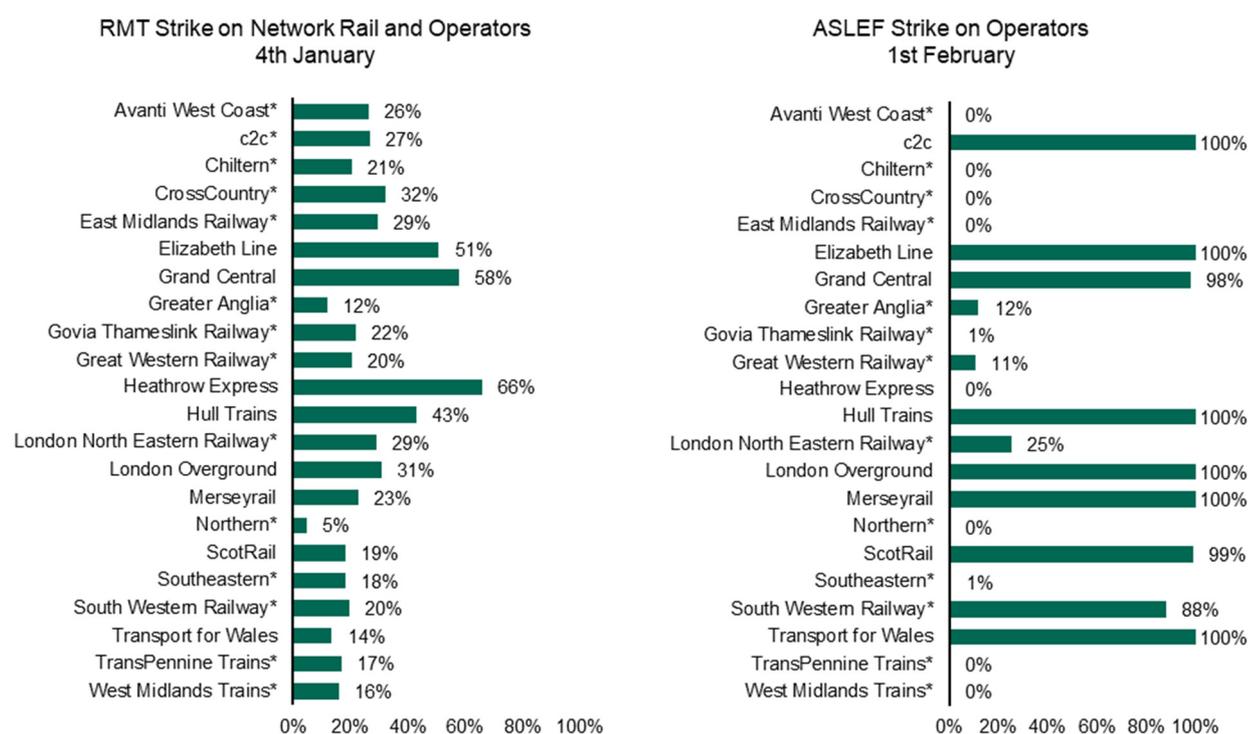
⁴⁴ The estimated loss of UK economic output (~£700m) from June 2022 to June 2023, based on an estimate of the average loss per strike day, accounts for 8 additional strike days between January and June 2023. This estimate is subject to uncertainty as it is based off an estimate of the average loss per strike day. CEBR's report provides further detail on their approach. Cebr (2022). <https://cebr.com/reports/eight-months-of-strike-action-to-have-cost-the-uk-economy-at-least-1-7bn-adding-to-existing-recessionary-pressures/>

⁴⁵ Cebr (2022). <https://cebr.com/reports/eight-months-of-strike-action-to-have-cost-the-uk-economy-at-least-1-7bn-adding-to-existing-recessionary-pressures/>

⁴⁶ UK Hospitality. <https://www.ukhospitality.org.uk/news/631630/>. Reported impact on trade revenue on strike days is likely to overstate economic impact given that no consideration is given to lower costs and/or the displacement of expenditure to other sectors and/or non-strike days.

20. The government wants to mitigate the impacts of the frequent disruption due to strikes. Department for Transport's (DfT's) records show that from June 2022 to August 2023, there has been 38 days of strike action on operators and/or Network Rail that have led to widespread disruption on the rail network.⁴⁷ Figure 6 provides two indicative examples of estimated strike day service levels for recent strikes on the national rail network by the National Union of Rail Maritime and Transport Workers (RMT) and Associated Society of Locomotive Engineers and Firemen (ASLEF) unions, respectively. It shows the number of services run during the RMT strike on Wednesday 4 January and during the ASLEF strike on Wednesday 1 February compared with typical (i.e., normally timetabled) services run. On aggregate across the whole network, around 20% of (normal timetabled) services ran on 4 January 2023, while around 40% ran on 1 February 2023. However, both charts demonstrate that service levels varied considerably across operators on these strike days, with this particularly the case in the chart depicting the ASLEF strike on 1 February 2023 (there is also variation within operators). These are examples of service levels during strikes and not representative of all recent strike days, nor are they a prediction of the level of service that may result from potential future strikes. They are, however, representative of some of the most common types of strike that have occurred since June 2022, and illustrate the extent of negative externality imposed by rail strikes on rail users who are not party to the labour market disputes within the sector.

Figure 6. Services run during recent strike days as percentage of typical services run.⁴⁸



*Operator staff on strike (depot drivers and Island Line drivers only at South Western Railway during 1st February ASLEF strike)

21. In addition to strike actions on heavy rail, there have also been recent strikes, albeit to a lesser extent, among light rail, including London Underground. These have included 8 strikes on London Underground over the period from March 2022 to March 2023, most of

⁴⁷ Internal unpublished Department for Transport data.

⁴⁸ Industry insight provided by Network Rail. For more detail, see Annex E. For further information on recent rail performance, see [ORR – Passenger Rail Performance](#)

which were network wide strikes which have often resulted in complete closure. For light rail outside of London there has been significantly less strike action than for other types of rail. However, there are still some notable recent examples such as the West Midlands Metro strike in Autumn 2022 when 18 strike days were served.⁴⁹ Notably, there has been considerably more planned strike action that has later been cancelled following negotiations. Recent examples include in May 2023 when Manchester Metrolink staff voted to strike on 10 and 11 June over pay, and one day of strike action taken on Nottingham Express Transit in November 2021. In both cases, strike action was suspended early or not taken after the related pay dispute was settled. It is not possible to anticipate the number of future strike actions on light rail based on past announcements, resolved disputes, or otherwise.

22. The negative externalities arising from reduced passenger service levels due to strike action in parts of the rail sector are considered to be disproportionate and constitute a market failure. The role of passenger rail in enabling a wide range of economic and social activities means that the impact of any disruption in services will be widespread. Evidence of this includes:
- a. Depending on their nature, some strikes can result in removals of service provision, either across the whole rail network or in specific network or geographical locations. For example, during RMT strikes on the national rail network affecting train operating companies (TOCs) and Network Rail, only around 20% of (normally timetabled) services tend to run, with services distributed unevenly across the network and with some routes completely closed. This is illustrated by the variation in service levels across operators in Figure 6 above, and by the Network Rail map in Figure 7 below for the RMT strikes in January 2023. Although network coverage will vary under different strikes scenarios for different parts of the rail sector, this demonstrates the potentially substantial impact of strikes on service levels, including the complete closure of some routes. The considerable impacts of strike action are often distributed unevenly across passengers, with certain routes and lines more disrupted than others. In addition, recent strikes have resulted in a reduction in hours of operation of the network, meaning that no services have run during some parts of the day. For example, as indicated in Figure 7, the recent RMT strikes in January 2023 resulted in services running between 07:30 and 18:30 only. In cases where strikes result in no available rail service, and where there is little or no feasible alternative transport mode, strikes may cause serious disruption to people's lives and the economy. The disruption to individuals includes not being able to travel to a workplace, to access educational settings or healthcare appointments, or missing leisure activities. This usually leads to knock-on impacts on the wider economy.
 - b. Whilst there are alternative transport modes to rail, they may not be available to some people and/or impose significant additional costs and challenges (e.g. longer journey times or additional financial costs). Those who commute by rail tend to have less access to a car compared with those who commute by other modes. The National Travel Survey found that in 2019, of those in England whose primary mode of commute was rail (including underground, metro, light rail,

⁴⁹ Information on the number of strike days served was provided by West Midlands Metro.

trams), 31% did not have access to a car, and around 45% for London specifically. This was especially true for those travelling by ‘underground, metro, light rail and tram’, for which 50% in England overall do not have access to a car. This was higher for London alone at 53%, whereas for England outside London the figure was 24%. By comparison around 13% of commuters across all modes in England did not have access to a car in their household.⁵⁰ The lack of car availability for rail commuters in London may be offset to some extent by the availability of alternative public transport modes for those that are unable to travel by rail due to strikes and do not have access to a car. The Department’s survey on impacts of rail strikes in 2022 found that some people took alternative modes of transport during strike weeks,⁵¹ while the most common answer among respondents when asked what they would do if further strikes were announced was to “stay at home and not travel at all” (31% of all respondents).⁵²

- c. Although the COVID-19 pandemic has increased resilience through greater ability to work from home, this is not the case for all workers. Many, including key workers in critical sectors such as health, education, and hospitality, are unable to work remotely. A recent Office for National Statistics (ONS) survey indicates that 39% of workers are unable to work from home.⁵³

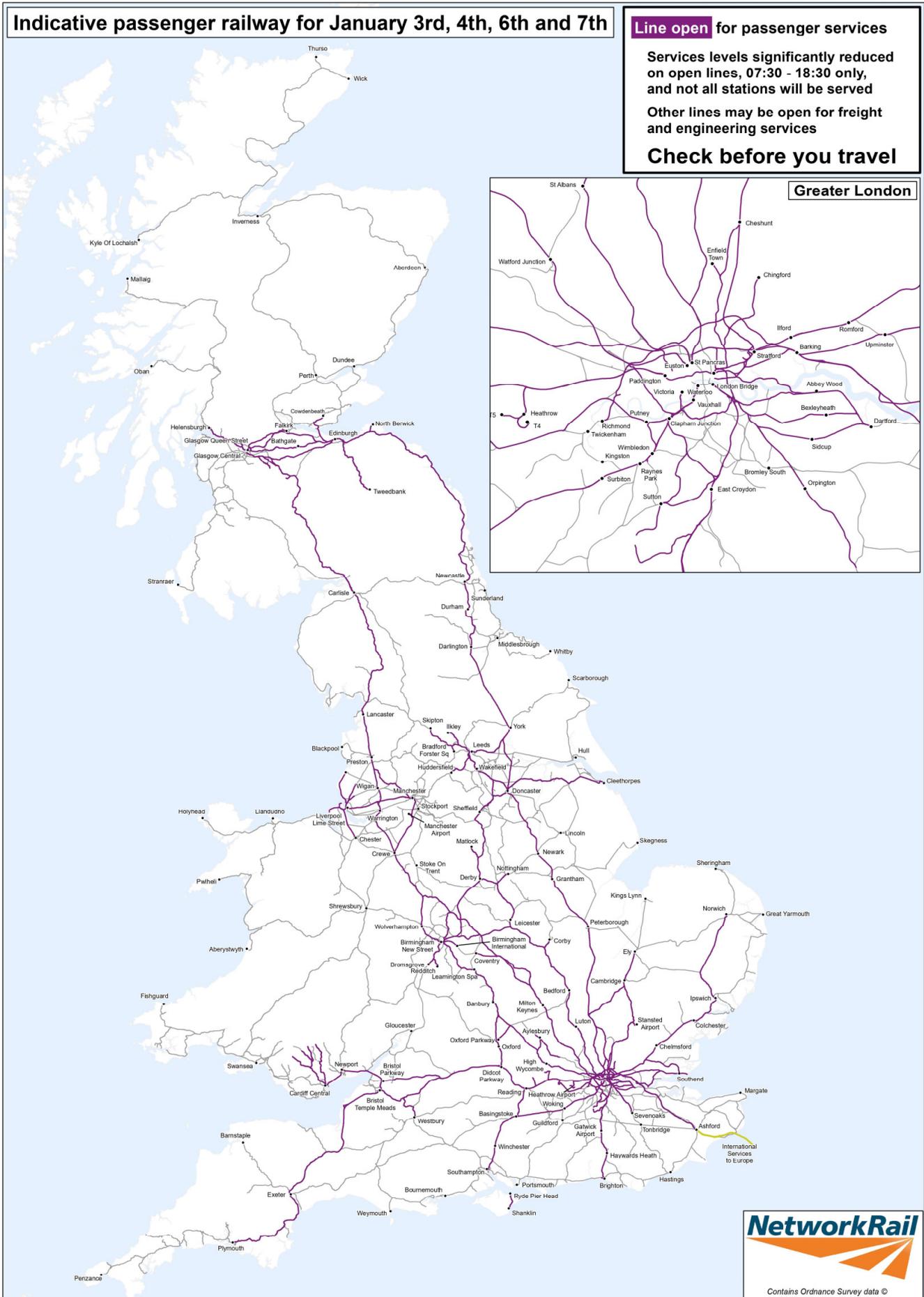
⁵⁰ National Travel Survey: Access to a car/van for those who usually commute by rail, 2019. <https://www.gov.uk/government/collections/national-travel-survey-statistics>

⁵¹ Rail Strikes: Understanding the Impacts on Passengers – Summary Findings. <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers/rail-strikes-understanding-the-impact-on-passengers-summary-findings> “Some took alternative modes of transport during a strike week such as bus or coach (8% of those who had planned to make a rail journey), taxi/minicab (4%), or other forms of public transport (4%), while 2% cycled or walked. However, the largest proportion switched to private transport: car, motorcycle or van (13%).”

⁵² Rail Strikes: Understanding the Impacts on Passengers – Full Report. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1150225/rail-strikes-understanding-the-impact-on-passengers-full-report.pdf

⁵³ ONS (2023). Public opinions and social trends, Great Britain: working arrangements, 17-29 May edition. <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/publicopinionsandsocialtrendsgreatbritainworkingarrangements>

Figure 7. Indicative Passenger Railway for RMT strikes in January 2023.⁵⁴



⁵⁴ Network Rail.

Policy objective

23. This policy aims to reduce the adverse impacts of passenger rail strike action on users' access to their place of work and to essential services, and on the wider economy, whilst balancing the ability of workers to take strike action.
24. The primary legislation – the Strikes (Minimum Service Levels) Act 2023 – provides employers in relevant sectors (including transport) with the power to issue work notices to specify the staff reasonably required and the work they are required to undertake to deliver minimum levels of service (MSL) once secondary legislation is in force. The secondary legislation for the relevant sector will specify the scope of the MSL and what the MSL will be. This policy sets out what the MSLs will be for passenger rail services in the regulations, and how this will operate in practice.

Political commitments

25. The policy is based on the 2019 Conservative manifesto⁵⁵ commitment to operate a minimum service during certain transport strikes which stated:

“We will require that a minimum service operates during transport strikes. Rail workers deserve a fair deal, but it is not fair to let the trade unions undermine the livelihoods of others.”

Options considered

Option 0 (do nothing):

26. Transport workers retain the ability to take strike action to the same extent as with current arrangements. The level of services provided on the transport network will vary during strike action depending on the nature and extent of the action, with full and ongoing network closures possible in worst-case scenarios. Given the wide disruptions to passengers and the wider economy, this option is not sustainable.

Option 1: Non-regulatory option (e.g. voluntary MSLs).

27. MSLs are introduced into the rail sector on a voluntary basis with Government setting out expectations for their introduction through non-statutory guidance. The level of service specified by MSLs will be mutually agreed between employers and their trade unions, and the associated level of service contained within the agreement.
28. Experience of strike action on the heavy rail sector has demonstrated how achieving a non-regulatory arrangement is challenging and uncertain as to what outcomes will be reached in terms of levels of service provided. Given this, it could not be reasonably expected that a voluntary agreement on MSLs could be reached.

⁵⁵ [GE Manifesto Wales English SCREEN FINAL.pdf \(conservatives.wales\)](#)

29. The consultation included three options on the implementation of MSLs. These included:

Option 2 (corresponding to option 1 in the consultation document) – Design an MSL framework based on existing timetable arrangements.

30. For this option the consultation considered whether the pre-existing timetable for the named strike day could be adjusted to reflect the MSL which would be set based on evidence from consultation and other appropriate sources, such as corridors that are used by high volumes of people to get to work or access key services. This approach would allow the MSL to take account of different travel patterns and passenger needs across different days of the week and in different parts of the country, as well as days where there are particular needs for increased level of services, such as around key sporting events, as these considerations can be captured in the way in which timetables are currently prepared.

Option 3 (corresponding to option 2 in the consultation document) – Design a Priority Route Map of the heavy and light rail network across Great Britain upon which minimum levels of service must be provided.

31. Within option 3 there are two sub-options that prioritise different aspects. The separation of the two aspects reflects a choice in relation to prioritising one or the other, given the same level of staffing requirements to deliver the MSL:

Option 3a (corresponding to option 2a in the consultation document) – Design a Priority Route Map focused on increased hours of service.

32. This would involve designing a new Priority Route Map for strike day services, specifying routes to reflect requirements in terms of frequency of service or the length of time of operation of particular services. Priority lines would be identified based on a range of factors, including evidence of high volumes of people getting to work, or accessing key services. Under this option, the MSL would be designed to operate for as long a period as reasonably possible compared to previous strike days (approximately 11 hours of service), recognising that this would likely result in less geographical coverage compared to Option 3b.

Option 3b (corresponding to option 2b in the consultation document) – Design a Priority Route Map focused on increased geographical coverage of service.

33. This option would also involve designing a new Priority Route Map for strike day services. Similar to option 3a, routes would be specified to reflect requirements in terms of frequency of service or the length of time of operation and priority lines would be identified based on a range of factors, including evidence of high volumes of people getting to work, or accessing key services. The intention for this option would be to design the route map based on as broad geographical coverage as possible (for example, to maximise the number of stations across Great Britain that have services running), recognising that this would likely result in reduced hours of service or levels of service compared to option 3a.

Option 4 (preferred option):

34. Design an MSL framework that combines aspects of the options set out in the consultation (options 2 and 3 in this impact assessment) and implements different service levels depending on the type of services affected by strikes. Further information on the justification and implementation of this option can be found in paragraphs 46 to 75. The regulations specify the services which are in scope. For each category of service, the employers who provide those services and are in scope of the regulations are also specified. This is set out below.

Category A – train operation services (for carriage of passengers by railway):

35. For Category A, the MSL is calculated as the equivalent of 40% of the number of passenger trains that were planned during that strike period, as set out in the National Rail Timetable (NRT). The MSL has been linked to the NRT as this is a clear, public, identifiable source for employers, passengers and trade unions to use to identify the level of service required. The NRT will also reflect planned reductions to normal services e.g. to undertake infrastructure maintenance or upgrades. The MSL refers to services in the public timetable whereas operators use a more detailed 'working timetable' that includes for example moving empty trains from the depot to the first station to start a passenger service.

36. Where only part of the infrastructure is available, for example due to strike action, and a train is therefore not able to operate its service as timetabled in the NRT (for example the origin or destination station is closed, or part of the route is replaced by bus services) then this would still be considered a service for the purposes of the 40% calculation for issuing work notices. TOCs would not be expected to staff the full route, as they are required under the Act to only specify employees as reasonably necessary to deliver the MSL. This MSL does not apply to train operating services that are delivered by open access operators.

37. For Category A, the employers who are in scope of the regulations are operators who provide passenger services:

- i. under franchise agreements awarded by the Secretary of State or Welsh or Scottish Government
- ii. as an operator of last resort in England, Scotland or Wales
- iii. under agreements with a passenger transport executive or local transport authority
- iv. under agreements with Transport for London (or their subsidiaries).

38. This therefore excludes open access operators and chartered services, or any sub-contractors of the train operating companies.

Category B MSL – infrastructure services:

39. This MSL prioritises specified rail routes. Rail infrastructure employers will be able to issue work notices during strike action to keep the track within those routes operational during strike periods. The hours of operation are 06:00 to 22:00. These hours are more restricted than normal operating hours but offer longer operating hours than has been delivered in recent strike action. This MSL also covers some enabling infrastructure, i.e. parts of the track that enable the infrastructure to operate even though passenger trains may not run

over them when in use. This includes loops, sidings, and lines into train maintenance and freight depots. This is limited to any lines that are situated within a 5-mile radius of the relevant route listed.

40. The scope of the infrastructure services covered by this MSL is an exhaustive list of services that are required to ensure that the track can operate. For example, these include urgent track maintenance but would not include longer term ongoing maintenance. The exhaustive list is set out below:

- a. reactive maintenance of any part of a network;
- b. the exercise of day-to-day control over train movements over or along any track comprised in a network;
- c. the operation or reactive maintenance (or both) of a railway signalling system or of any other railway communication equipment;
- d. the operation or reactive maintenance (or both) of railway crossings, including level crossings, overbridges, underbridges and tunnels;
- e. the control of electrical conductor rails or overhead lines, of any supports for such rails or lines, and of any electrical substations or power connections used or to be used in connection with such rails or lines, and the provision of electrical power by such rails or lines;
- f. the provision or operation (or both) of services for the response to, and resolution of, incidents on or about the railway including services for the recovery or repair of locomotives or other rolling stock in connection with any accident, malfunction or mechanical or electrical failure;
- g. the provision or operation (or both) of services for keeping track free from, or serviceable notwithstanding, obstruction (whether by snow, ice, water, fallen leaves or any other natural or artificial obstacle or hindrance) or for removing any such obstruction;
- h. any of the following services for plant, equipment or machinery used in carrying on any of the activities specified in sub-paragraphs (a) to (g)—
 - i. provision;
 - ii. operation;
 - iii. reactive maintenance;
- i. services provided for the purpose of reactive maintenance or stabling (or both) of rolling stock used in carrying on any of the activities specified in sub-paragraphs (a) to (h);

41. For Category B, the employers who are in scope of the regulations are infrastructure managers of network services, as well as those who deliver all of the relevant services on behalf of the infrastructure manager. This therefore excludes sub-contractors who only deliver some of these services on behalf of the infrastructure manager.

Category C MSL – light rail services:

42. The policy approach for light rail services is that the MSL will be set as a specified percentage of the timetable (40%) to run as compared to a non-strike day, including infrastructure services and train operating services for the running of the following light rail systems:

- Blackpool Tramway;

- Edinburgh Trams;
- Glasgow Subway;
- Manchester Metrolink;
- Nottingham Express Transit;
- Sheffield Supertram;
- Tyne & Wear Metro;
- West Midlands Metro;
- London Underground;
- Docklands Light Railway; and
- London Trams.

43. For Category C, the employers who are in scope of the regulations are therefore in line with the systems listed above.

44. **Evidence base to inform this policy position.** In order to assess the balance of the ability of rail workers to strike with the ability of passengers to make essential journeys, we have considered evidence on usage of rail and impacts of strikes in relation to work, education, health, leisure, and economic damage. This included assessing evidence from the National Travel Survey on usage of rail for different purposes,⁵⁶ data from the Department's survey on impacts of strikes,⁵⁷ and evidence provided by external organisations on the impacts of strikes, such as Cebr,⁵⁸ who have published estimates on impacts of strikes on the economy due to people not being able to get to work. This evidence indicated that rail strikes have resulted in the most significant impacts on work and the economy. In developing the policy approach to delivering MSLs, we considered evidence on the impacts on workers and the benefits to users associated with geographical coverage, hours of operation, and the overall service level. This evidence has been aligned to inform specific elements of the policy design as follows:

- To inform the development of the Priority Route Map (as defined by a list of routes in regulations), as displayed in Figure 8 below, we considered evidence on total usage of different routes and specific evidence on rail use for commuting using MOIRA⁵⁹ and other demand data obtained directly from operators. We also considered how availability of alternatives to rail vary by geography, including using data from the Census⁶⁰ and National Travel Survey⁶¹ on car availability and use of different transport modes for commuting. We have mapped routes on the rail network against indicators of rail usage and commuting by rail. We also considered evidence on the locations of health and education sites in relation to the rail network, which showed a dispersion of these sites across the network and indicated that access to health and education are also likely to be supported by prioritising areas where rail is most used. To understand

⁵⁶ Department for Transport (2023). National Travel Survey: Trips by purpose and mode. <https://www.gov.uk/government/statistics/national-travel-survey-2022>

⁵⁷ Department for Transport (2023). Rail strikes: understanding the impact on passengers. <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>

⁵⁸ Centre for Economics and Business Research (Cebr) (2023). <https://cebr.com/reports/eight-months-of-strike-action-to-have-cost-the-uk-economy-at-least-1-7bn-adding-to-existing-recessionary-pressures/>

⁵⁹ MOIRA is a rail industry model, which contains confidential TOC data on timetables, revenue and demand at a rail flow level (mostly station to station flows).

⁶⁰ ONS (2022). Census 2021: Travel to work, England and Wales.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/traveltoworkenglandandwales/census2021> ; ONS (2013). Census 2011. Method of travel to work. <https://www.nomisweb.co.uk/census/2011/qs701ew> ; Scotland's Census 2011. Method of Travel to Work. <https://www.scotlandscensus.gov.uk/search-the-census#/topics/location> [Accessed June 2023]; ONS (2023). Census 2021: Car or van availability. <https://www.ons.gov.uk/datasets/TS045/editions/2021/versions/1>

⁶¹ Department for Transport (2023). National Travel Survey: Mode of Travel. <https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons>

the impacts on workers, we considered evidence provided by stakeholders (from both operators and infrastructure providers) on the staff requirement to deliver the pre-existing strike management strategy and how this might vary if MSL legislation had greater geographical coverage.

- To inform the assessment of hours of operation of the network, we considered evidence on the pattern of rail usage across the day and usage of transport for different purposes by time of day. These demand profiles, as also shown in Figure 4, included normal patterns of travel and profiles gathered during recent strike days. We have used this alongside the pattern of services on different types of strike days and on normal (non-strike) days to understand what the impacts on users would be of increasing or decreasing the hours of operation of the network during strikes. We have compared this against evidence provided by stakeholders through the consultation and further engagement on the staffing requirement associated with different hours of service.
- To inform the assessment of expected service levels for train operations for heavy rail operators and for light rail systems under MSLs, we have assessed data on service levels and wider impacts during past strikes. We have considered evidence provided by operators through the consultation and further engagement on the staff requirement associated with different levels of service for different types of workers, and considered how this compares to the impacts on users of different service levels. We have also considered at what level an MSL would need to be set to deliver benefits to passengers against existing strike arrangements and balanced this against the impacts on rail workers, in line with the aims of the policy.

45. Analysis based on the evidence described above has been used to design MSLs (as for instance described by the indicative Priority Route Map in Figure 8) and also to assess the costs and benefits. The detailed analysis is presented in Section 2 of this impact assessment.

Justification of Option 4 (Preferred option)

46. The voluntary option (option 1) has been ruled out on the basis that it carries major risks of being ineffective both in terms of reaching an agreement on the MSL and the level of service that would be provided on the strike day. Further, there is a risk this option would suffer from the same underlying problems associated with strike action, i.e. that insufficient regard would be given to protecting the travelling public and wider economy.

47. The two options included in the consultation (options 2 and 3) were also ruled out as stand-alone options based on responses from the consultation and stakeholder engagement, and our understanding of how strikes work in practice. This was based on the differing views from train operating services and infrastructure providers as to which option is more suitable. This demonstrates that due to the highly complex nature of the rail industry there is no 'one size fits all' approach which will be suitable for all strike scenarios.

48. Option 4 is a hybrid of options 2 and 3 which takes into consideration the views of the industry and complexities of individual services within the rail sector and how they can be impacted by strikes. These considerations will make it more realistic and feasible for the

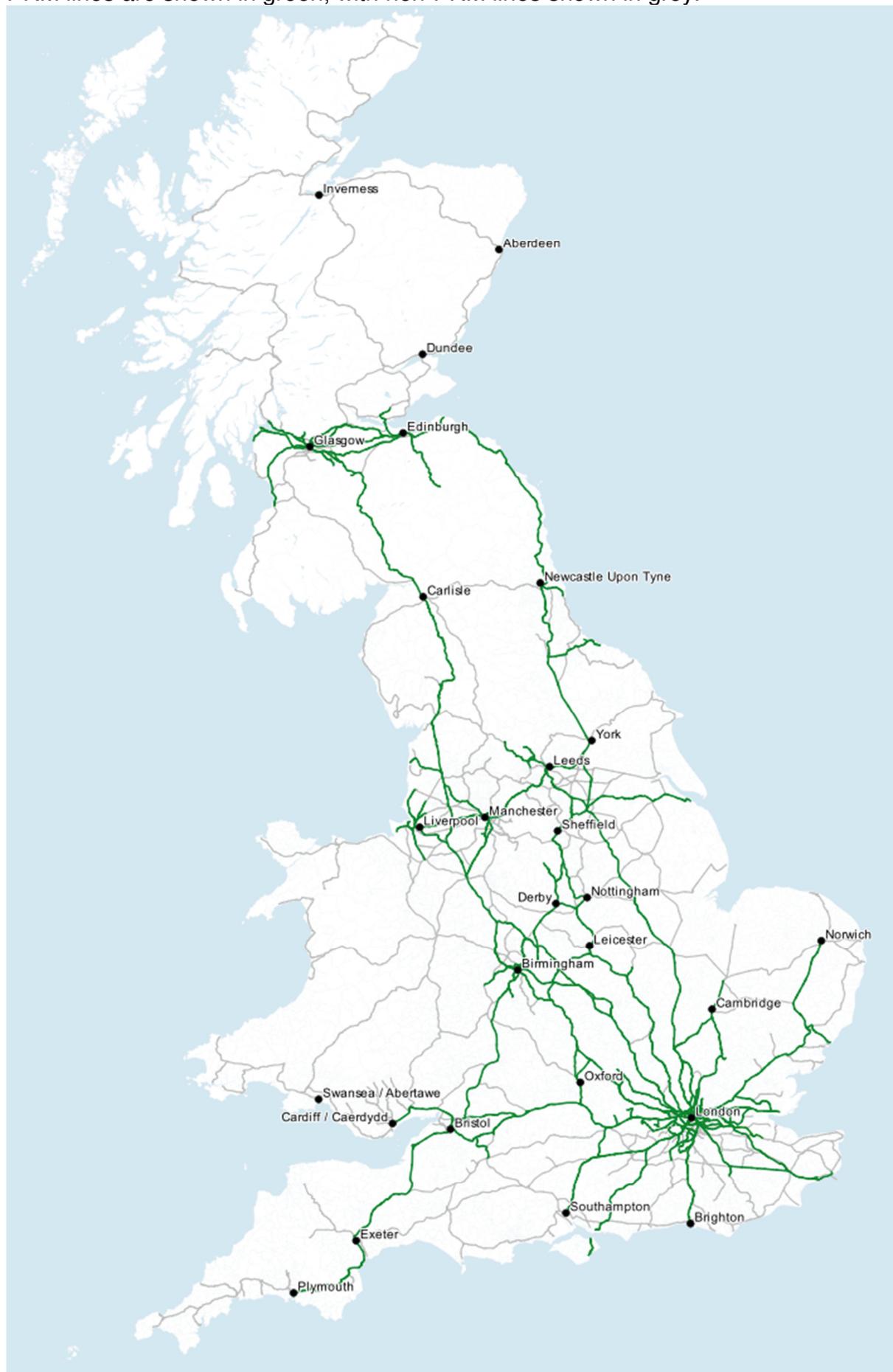
industry to implement the policy. There were several reasons for the need for a hybrid approach utilising both options set out in the consultation. Firstly, whilst not all stakeholders responded to the proposals, comments received from those who did respond, and from our programme of engagement with industry, suggested that the majority of employers in train operating services supported the percentage of timetable approach, while infrastructure services providers were more likely to support the Priority Route Map approach. Options were considered around basing the timetabling approach to cover peak periods of travel and major events. For major events, a higher than 'normal' service level is usually required which does not meet the legitimate aims of setting an MSL. Targeting peak periods was also rejected, as further analysis showed that service provision does not always align with passenger usage, therefore it is not entirely straightforward to link service levels with usage.

49. In addition, stakeholder engagement has made clear that due to the highly complex nature of the rail industry a "one size fits all" MSL approach is unlikely to be suitable. Strikes in different rail services have very different effects on the network, as has been seen by the differing impacts of recent strikes and a more holistic view of the network and operations (i.e. option 4) is more appropriate to deliver the intended outcomes of the policy. For instance, a signallers' strike affecting infrastructure services presents very different strike planning considerations than a drivers' strike affecting train operating services. It would not be feasible for an infrastructure provider to deliver a percentage of the usual timetable in the event of a signallers' strike, as they are not directly responsible for providing passenger train services. Equally, applying the MSL in the form of a Priority Route Map (defined by a list of routes in regulation) for all services would likely be disproportionately restrictive on certain geographies for strikes not affecting rail infrastructure where the whole network could remain open.
50. In the initial version of options as presented in the consultation, the Priority Route Map was explored as an approach to be applied to heavy rail and light rail systems alike, as described above. However, findings from the consultation responses and stakeholder engagement indicated that although the Priority Route Map approach is appropriate for heavy rail systems, it would not be appropriate for light rail. One reason is that whereas in heavy rail systems the management of infrastructure and rolling stock are often owned by separate entities, this distinction does not typically apply to light rail. Equally, many of the light rail systems in the UK often consist of a handful of train lines, making prioritisation impractical.
51. Following further consultation with industry we have excluded some options which we considered during the consultation. A specific MSL for station services will not be included. Our evidence in relation to the need for a station services MSL is not definitive, in part because recent strikes that have affected station services have also affected other services. However, our analysis indicates that including an MSL for station services may not deliver significant benefits for delivery of services on strike days, partly because the delivery of station services has less direct links to the number of services that can operate as compared with infrastructure and train operations services. Industry has also set out that contingent staff can be utilised more easily at stations as compared to train operations and infrastructure where, for example, requirements for certain competencies can restrict the usage of contingent staff. Given this, and the operational flexibility (safety, security and accessibility considerations) required to operate station services, there is a risk that any strictly defined MSL for stations services may hinder the delivery of increasing passenger

journeys during strike action. Station services will also be excluded from the light rail services MSL based on similar reasons and on grounds of consistency.

52. Responses to the consultation did not provide a clear conclusion on what percentage to set the train operations MSL for both heavy and light rail. Some respondents indicated a preference for a low percentage while others indicated that they would prefer a high percentage. Following further engagement with industry and assessing the level of service that operators have achieved during strike action across June 2022 to August 2023 (data on this can be found in Figure 6 and Table 1) this level was set at 40% of timetabled services. Setting this MSL for heavy rail train operation services at 40% would represent an increase in passenger journeys compared with what is typically achieved during recent strike periods. This would also limit the number of staff required to work under work notices on strike dates, although impacts could vary (see paragraphs 105 to 110 for a more detailed assessment on this). Therefore, this level of 40% is appropriate as it aims to balance the ability of rail workers to strike with the ability of passengers to make essential journeys.
53. For light rail, the 40% level was identified as appropriate and proportionate in balancing the aim of MSLs to provide an improvement on the current typical level of service on strike days, with the ability of workers to strike. Operational considerations were also taken into account, in particular findings from stakeholder engagement indicated that a service level below 40% would not be workable for many light rail systems.
54. These regulations do not apply to open access operators (OAOs) and subcontractors delivering relevant services, so they cannot issue work notices in the event of strike action. For OAOs, after analysing the responses to the consultation and further engagement with industry, the decision was taken to exclude these operators from the scope of services for MSLs as there is extremely limited history of strike action and it was not deemed proportionate to include them within the scope of the policy. Subcontractors delivering relevant services (other than subcontractors who deliver all the network services for an infrastructure manager) are also excluded from the scope of these regulations. There are a broad range of sub-contractors that operate within the rail industry where MSLs would have varying impacts, and it would not have been reasonable or proportionate to include this broad range of commercial entities into scope of these regulations.
55. Finally, no distinct MSL is included for maintenance services. Instead, services required for maintenance of the track (excluding longer term work) is captured within the infrastructure services MSL, and train maintenance delivered by train operators required for enabling the carriage of passengers by railway (e.g. fuelling the train) is included in the train operating services MSL.
56. An important aim in developing the policy to deliver MSLs in passenger rail is to ensure, as far as possible, that it is operationally viable and works in practice, to deliver benefits for passengers. We have developed our policy design based on the evidence used from consultation and from other sources. One way of presenting the outcome of this exercise is set out in Figure 8 below. The final geographical definition of the Priority Route Map is defined in regulations as an exhaustive list of routes. This will be supplemented by an indicative map set out in guidance.

Figure 8. Indicative map of priority routes for an infrastructure MSL.
PRM lines are shown in green, with non-PRM lines shown in grey.



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Implementation of Option 4

57. Option 4 will be implemented via regulations specifying three categories of rail passenger services, using powers within the Strikes (Minimum Service Levels) Act 2023 (the Act) for the Secretary of State for the relevant sector (defined as Transport Services within the Act) to do so. Once the regulations for passenger rail services are in force, if a trade union gives notice of strike action, the relevant employer(s) can issue a notice (known as a work notice) ahead of the strikes to specify the workforce reasonably required, and the work they have to undertake, to secure the MSL set out in the regulations for that strike period. Each service will have different corresponding levels of staffing that will be required to deliver the MSL.
58. Under the Act the work notice must identify the persons required to work and specify the work that they will carry out. Work notices must not include more persons than are reasonably necessary to achieve the MSL. The employer must consult on the number of persons and the work to be specified in the work notice with the relevant union(s) and have regard to any of their views before issuing the work notice. The employer must consult with the union or unions which have given a notice of strike action to the employer for the period in which the work notice is intended to cover. Employers, when producing a work notice, must not have regard to whether a worker is or is not a member of a union, when or whether they have taken part in trade union activities or used trade union services, or whether the union has raised an issue with the employer on their behalf when producing work notices.
59. A work notice must be issued to the trade union no later than 7 days prior to the strike day unless a later day is agreed between the employer and the union. The work notice can be varied unilaterally by the employer up to the end of the 4th day before the first strike day to which the work notice relates, unless a later day is agreed with the relevant union(s). Before varying a work notice, the employer must consult the union(s) about the variation (so far as it relates to the number of persons to be identified and the work required) and have regard to any views expressed by the union(s) in response. A work notice cannot be varied or withdrawn after this point.
60. Whilst notifying workers is not a legal requirement under the Act, employers should do this as a matter of routine practice, to help the worker to understand what is expected of them and to help the employer deliver the minimum level of service on the strike day. We therefore expect that employers would provide each relevant worker with an individual notification, containing the information that they are identified in a work notice and that they are required to comply with it. This should explain the work that they will be required to do during the strike action and, in general terms, the potential consequences if they do not comply with the terms of the work notice (although this need not be decided beforehand, as any disciplinary action would be a matter for further consideration and due process). This notification should happen as soon as reasonably practicable after the work notice has been given to the trade union. The entire work notice would not be sent to individual workers as this contains other workers' personal data. There will be further guidance on work notices issued by the Department of Business and Trade to support this process.

61. A work notice may apply to one or more strike days. Where a strike takes place over more than one day, each day is to be treated as a separate strike day. The Act does not authorise a disclosure of information, in respect to work notices, that would contravene data protection legislation.
62. Neither the minimum service level regulations, nor the Trade Union and Labour Relations (Consolidation) Act 1992 (the parent Act), require employers to issue work notices and for MSLs to be utilised. Instead, the parent Act gives employers (under section 234C) the ability to issue work notices to secure MSLs during strikes for the relevant services, where MSLs for those services are set out in regulations. The regulations therefore set out the MSLs which facilitate the use of the power provided under section 234C of the parent Act, for in-scope employers to issue work notices to unions. This power is discretionary and there are no statutory consequences (under the parent Act or the regulations) if the employer chooses not to use it.
63. Where an employer does issue a work notice to a trade union the parent Act requires that that union must take “reasonable steps” to ensure that all members of that union who are identified within the work notice comply with the notice. Whilst the parent Act does not impose a specific penalty, such as a fine, for any failure to do so, the parent Act does provide that failure to comply will mean that the union does not maintain statutory protection from proceedings in tort brought by the employer in relation to an act done by the union to induce a person to take part, or to continue to take part, in a strike. Such proceedings could include the employer seeking damages (up to the value of a statutory cap) from the union or an injunction to prevent the strike action taking place. These obligations are all provided for in the parent Act and are not affected by the regulations.
64. Where an employee is made aware that they are identified in a work notice, the employee would need to comply with the requirements of that work notice. While neither the parent Act nor the regulations impose a specific penalty, such as a fine, for any failure to do so, the employee would lose the automatic protection from unfair dismissal under the parent Act if they fail to comply with the work notice. Again, these obligations are all provided for in the parent Act and are not affected by the regulations.
65. The minimum service level regulations set out the extent to which a work notice can list workers and the roles they are required to carry out. Neither the regulations nor their parent Act, provide any obligation to employers to achieve the minimum service level.

Preparation of Work Notices for Passenger Rail Services

66. Relevant rail employers in relation to the services specified in the regulations (set out in paragraphs 35 to 43) will be able to issue work notices under the three categories of services, in order to specify the staff reasonably required (and the work they must undertake) to deliver the relevant MSL. The MSLs are summarised as follows:
67. **Percentage of timetable implementation for category A services.** This MSL specifies that train operation services should be delivered to provide 40% of the TOC’s passenger rail services during a strike period. This is based on the services specified for the strike

period in the National Rail Timetable for that operator.

68. **Priority Route Map implementation for category B services.** The routes specified in the regulations and shown in the indicative Priority Route Map will likely be the only routes open across the network where there is a strike that impacts all infrastructure services (given the level of resourcing that could be required to operate the whole Priority Route Map). The MSL is comprised of its geographical coverage and hours of operation, which is set at 06:00 – 22:00.
69. **Application of an MSL to category C light rail services.** for light rail services is that train operation services and infrastructure services should be delivered to provide 40% of the operator's timetable compared to a non-strike day. In contrast to the heavy rail policy approach, the light rail approach does not utilise a Priority Route Map approach, as findings from stakeholder engagement indicated that this would not be appropriate for light rail, as no one system is alike, and these systems are localised within particular cities/regions. The rationale for the different approach for light rail is tied to the unique features of those systems, including the closed nature and comparative use patterns, as well as feedback from industry.
70. In considering the implementation of the regulations, the Department has sought to understand the potential impacts on employers of planning for and issuing work notices which relate to the passenger rail services MSLs as part of its continued engagement with industry. Certain employers set out current processes and timescales for strike planning, and indicated how this could be adapted to accommodate issuing work notices.
71. Under the parent Act, employers who choose to issue work notices will be subject to several obligations and requirements, including that work notices must be issued no later than 7 days before the earliest date of strike action, unless a later date is agreed between the employer and the trade union. In the passenger rail industry, trade unions often provide notice of strike action very close to the 14-day minimum notice period.⁶² The Department therefore expects passenger rail employers who wish to issue work notices will typically have 7 days from notice of strike action to the deadline for issuing a work notice. In this time, employers will need to undertake a number of steps, including: assess which employees are reasonably necessary to deliver the MSL and what work they must do (taking into account availability of wider staff resource on the particular strike days); consult with the trade union(s) and have regard to their views; and prepare to issue work notices to the trade union(s) and notify individual employees, keeping appropriate record keeping and data management.
72. Given the volume of tasks and time constraints, the Department therefore expects that employers who wish to make use of work notices will need to undertake preparatory work to familiarise themselves with the regulations and guidance before choosing to issue a work notice. Such employers may also scenario plan for different strike scenarios (e.g. depending on which groups of employees take strike action), assess potential staffing levels that may be required to deliver those services, what work would need to be

⁶² For example, [RMT](#) recently announced a strike on among members at DfT operators on 26th August 15 days in advance [Accessed 5th November 2023], and [ASLEF](#) recently announced a strike among members at DfT operators on 30th September 2023 15 days in advance [Accessed 5th November 2023].

undertaken, and develop processes (perhaps after discussion with relevant unions) for preparing and issuing work notices when strike action is announced.

73. Employers may also face sector-specific challenges when preparing work notices, in addition to the requirements set out in the Act (on which see below). For example, as part of current strike day planning, most train operators that can issue work notices under the Category A MSL of the regulations submit a revised timetable bid to Network Rail, which is considered and agreed by Network Rail alongside the bids of other operators. Other factors impacting planning and issuing work notices may also include sector-specific resource constraints – e.g. when planning for engineering work overlaps with strike planning – and constraints on diagramming and rostering, which may be operational in nature or as the result of collective bargaining agreements between employers and trade unions which vary considerably across the passenger rail industry. Such processes are likely to put additional time and resource constraints on employers who choose to issue work notices.
74. Employers are not, however, required to issue work notices under the parent Act (see paragraph 62). The use of work notices, and so any impacts for the employer as a result of issuing work notices, is therefore at each employer’s discretion. Similarly, if an employer chooses to issue a work notice but employees listed on the work notice nonetheless take strike action, it is at the employer’s discretion whether any further action should be taken against the union for failure to take reasonable steps or any disciplinary action against employees. Undertaking any impact on employers as the result of enforcement is therefore subject to how that employer chooses to exercise their discretion.
75. The scope of which employers can issue work notices under the regulations, and which services work notices can relate to, is set out in paragraphs 35 to 43. Guidance on issuing work notices will be published by the Department for Business and Trade. DfT will also publish sector-specific guidance providing key information for passenger rail employers who wish to issue work notices. The Department will continue to engage with industry as the guidance is prepared.

2.0 Costs and Benefits

76. This section describes the potential costs and benefits that may arise as a result of introducing minimum service levels (MSLs) in passenger rail relative to the relevant counterfactual. Where possible, we have endeavoured to provide a quantitative assessment of the expected costs and benefits associated with higher service levels due to the operation of MSLs during strike action. We have considered the likely impacts that MSLs would have in different strike scenarios. These scenarios are based on recently observed strikes, which have often affected multiple services (infrastructure and train operations at the same time).

Option 0 – Do Nothing

77. The ‘Do Nothing’ option involves a continuation of the status quo in relation to strikes. This means that strikes will continue to present the risk of significant disruption to rail users, as seen from recent strikes which have resulted in substantially reduced services on strike days. Some of the main detrimental impacts of strikes include disruption to rail users, impacts on revenue for businesses and Government, disruption to planned maintenance, and impacts on the wider economy and rest of the transport network. Evidence in relation to these impacts is presented in the comparison of options below.

Counterfactual

78. The costs and benefits assessed within this impact assessment will vary in impact depending on which rail mode is in question and the counterfactual that these costs and benefits are assessed against. Strike action across the rail sector varies in nature and type. Differences depend on the background of the dispute, which can include the economic, social, and political landscape, or relate to a localised issue for example, a small group in one business taking strike action in response to the employer taking disciplinary action against one employee. The ONS publishes time series data on the number of working days lost due to labour disputes over time, for the whole economy⁶³ and by industry (including for the transport, storage, information and communication sector).⁶⁴ Although this does not directly identify the frequency of disputes in the rail sector, it provides an indication of the distribution of strikes over time in the wider transport sector, demonstrating that there is considerable variation in the frequency of labour disputes, and therefore, strikes, over time. In particular, it indicates that there can be periods during which a very large number of working days are lost, but also periods where relatively few working days are lost due to labour disputes. This variability means that it is not possible to provide a robust estimate on the number of strike days over a given period. Any such estimate of the frequency of strikes, and indeed the type of such strikes, would be arbitrary and subject to such considerable uncertainty that it would be misleading to use as the basis for in depth analysis of costs and benefits. Instead, a scenario-based approach has been taken to assess the costs and benefits associated with specific types of strike. Also, the analysis of

⁶³ ONS (2023). Labour Disputes, UK.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/bbfw/lms>

⁶⁴ ONS (2023). Labour Disputes by sector, UK.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/workplacedisputesandworkingconditions/datasets/labourdisputesbysectorlabd02>

different strike scenarios uses different relevant counterfactuals as set out in more detail below.

79. Where possible we have provided a quantitative assessment of the impact of MSLs that are set compared to the counterfactual. Full monetisation is not provided for the majority of costs and benefits due to the challenges associated with providing an estimate of the likely frequency and type of future rail strikes, hence the use of relevant scenarios. In some cases, there is limited evidence available to quantify the impacts, such as on the utility for passengers associated with having more services on strike days or the disutility to workers associated with impacts on their ability to strike.
80. In cases where quantification is not possible, we will describe the impacts in terms of costs and benefits relative to the counterfactual of option 0.

Heavy Rail

81. For Heavy Rail, the impact assessment will consider the impacts of MSLs in different strike scenarios. These scenarios are based on recently observed strikes on the heavy rail network, which have included three broad categories of strikes. These are where infrastructure services have been affected, strikes where train operations services have been affected, and strikes when both infrastructure and train operations services have been affected. While the approach to MSLs treats infrastructure and train operations, the analysis of the impacts of MSLs anchors around these two types of strikes to demonstrate the likely impacts of MSLs under common strike scenarios.
82. For each scenario, the counterfactual will be defined as the impact on the operators that are affected directly by the strike. The service levels presented below provide an indicative assessment of the impact of the different strike scenarios. For strikes involving Network Rail (i.e. the infrastructure manager and operator) service levels are presented for all train operators due to the impact on infrastructure availability. For strikes that affect TOCs only, service levels are presented only for those TOCs that were directly affected by the strikes.
83. There are variations in strike impacts across TOCs due to strikes, which are due to a variety of factors, including (a) the routes that are prioritised as part of Network Rail's Key Route Strategy (KRS) during strikes, (b) the complexity of operations of an employer, which will determine the extent to which they can operate services with reduced staff, and (c) whether a TOC is a driver controlled or driver only operator or whether guards are required. The importance of each of these factors will vary across strikes due to the different category of workers taking strike action.
84. Table 1 below sets out the combinations of strike action in each scenario. These scenarios are not exhaustive – there are other combinations of services that could be affected in a single scenario, and strikes can also occur at a more local level, which would lead to different impacts. For example, previous rail strikes have affected single operators only and have resulted in less significant impacts on aggregate industry service levels. Localised strikes, for example, that affect single operators or only parts of the network, are expected to be similarly impacted by MSLs as national level strikes, but only for those operators or regions that are affected by the strike. The scenarios presented in this IA are therefore broadly representative of the likely impacts of different types of strikes. There may be some

different impacts of MSLs for localised strike actions, as these can sometimes more easily be mitigated, for example through using relevant contingent workforce from other train operating companies, and these localised disputes may be resolved more easily. However, we have not captured in detail within this IA the many different potential local scenarios that MSLs may apply to given that there are unlimited potential permutations and types of strikes that could occur. The scenarios presented below capture the main types of national level strikes that have taken place since June 2022 and therefore capture the most considerable strikes for which MSLs are most likely to have the largest impacts. These scenarios are broadly aligned to the MSLs detailed above but also consider strikes by different groups that have been observed within each of the high-level scenarios above which have led to differences in service levels. It is not possible to provide an assessment of the likelihood or frequency of future strikes of these types occurring due to the variability in frequency and type strike action over time, as set out in paragraph 78 above.

Table 1: Indicative counterfactual scenarios for national strikes in Heavy Rail.⁶⁵

	Scenario	Average service level %
1	Infrastructure strike	20%
2a	Train operations (excl. drivers) strike	30%
2b	Train operations (incl. drivers) strike	5%
3a	Infrastructure + train operations (excl. drivers) strike	20%
3b	Infrastructure + train operations (incl. drivers) strike	5%

Light Rail

85. For light rail, the impact assessment will consider the impacts of the implementation of a 40% MSL for light rail systems. This has been explored in further detail in paragraph 69.

86. Light rail includes underground railways, light rail and tramways and all services that operate over them. For this analysis, light rail systems inside and outside of London have been considered separately. This is due to several factors, for example, the regularity and impact of strikes to date has been lower for systems outside of London. The smaller number of strikes for systems outside of London means there is limited information to help determine what would occur during a strike in the absence of an MSL. However, it is generally understood that strikes often result in a complete shutdown of the system, although there are exceptions to this, such as the West Midlands Metro strike in Autumn 2022 when a reduced level of service was run. Similarly for London Underground there was

⁶⁵ Service level estimates are based on data provided by Network Rail during strikes between June 2022 and June 2023.

a non-network-wide strike in 2022.

87. Also, journey purposes are different with commuting making up a lower proportion on average for systems outside of London.⁶⁶ There are also substantial differences in the number of passenger journeys, with London accounting for the majority of light rail trips, meaning the overall impact of strikes by London systems would typically be higher. Passenger demographics may also differ somewhat for the two groups. For example, whilst usage is lower for ethnic minorities both inside and outside London, the difference is greater for the latter, with individuals from white backgrounds travelling an average of 10.4 stages per year compared to 6.1 for those from ethnic minorities.⁶⁷ A lower proportion of Londoners from ethnic minorities travel at least once a week by Underground at 37%, compared to white Londoners at 43%,⁶⁸ a relatively smaller difference. This will affect how the impacts are distributed. In addition, the overall level of impact may differ if some groups of passengers are more likely to be able to delay travelling. There may also be differences in worker demographics, although there is limited data on this.

Light rail outside London

88. For light rail outside of London, the impact assessment considers the impacts of MSLs that are set out for strikes affecting light rail systems as a whole, regardless of whether these are infrastructure operational strikes.

89. The MSLs for light rail apply for light rail staff only. It should be noted that there are some interactions between Network Rail infrastructure and light rail systems. However, these are not considered within this analysis. Some of these interactions take the form of Network Rail signal-controlled level-crossings, meaning that in the instance of certain Network Rail strikes there will be parts of these light rail systems that will be unable to run. However, they will not cause a complete shutdown of these systems. In addition, the majority of interactions primarily affect parts of the routes serving the outer ends of the system, or 'suburbs' as opposed to the city centre. In the event of previous Network Rail strikes that impacted these routes, even where there was a skeleton signalling system crew in operation, these routes were not considered high priority routes and were shut down during the strike action.

90. The counterfactual will be defined as the impact on the systems that are affected by the strike. The systems taken into consideration are the following: Blackpool Trams, Edinburgh Trams, Glasgow Underground, Manchester Metrolink, Nottingham Express Transit, Sheffield Supertram, Tyne and Wear Metro, and West Midland Metro. For the purpose of this analysis the impacts have been aggregated across these systems, with impacts presented on a by day basis. It is unlikely that all light rail systems would be on strike at the same time, as strikes on light rail systems have not been coordinated in the past.

⁶⁶ DfT (2022). [National Travel Survey: Light rail and tram statistics \(LRT\), Table LRT0401a, based on number of stages travelled per person](#)

⁶⁷ [Light rail and tram statistics \(LRT\) - GOV.UK \(www.gov.uk\) LRT0401](#) – This stat is an average across 8 years (2012 to 2019). Data on ethnicity and disability is not yet published but will be included in the next published version of the light rail statistics (currently planned for September 2023).

⁶⁸ [Travel in London: Understanding our diverse communities 2019](#) – To note this data is taken from Travel in London report published in 2019, but the data is dated 2016/17. Proportion of Londoners using different types of transport at least once a week.

91. Whilst there is some overlap of unions in the light rail sector it is not entirely consistent, and there are different levels of unionisation. Negotiations with trade unions are primarily done at a local level for light rail rather than being sector wide. In addition, varying local labour markets will affect bargaining power and negotiations, as well as the likelihood of strikes. The estimates on revenue and cost impacts per day are intended to give an indication of scale of the impact for one day of strike action for each system.
92. There has been relatively little strike action for light rail outside London, when compared to the other rail modes. As a result of this there is limited information to draw on to assess the impact of strike action on service levels, and therefore determine an appropriate counterfactual. Based on the limited previous strike action it is understood that often when strikes do occur it has resulted in a complete shutdown of the system, although there are notable exceptions such as the West Midlands Metro strike in Autumn 2022 when 18 days were served.⁶⁹
93. There is uncertainty around the service level for future strikes. They could be similar to previous strikes where there is no service level during strike days, equally they may result in different service levels. Stakeholders have indicated that there will be varying levels of impact on service levels dependent on which types of staff are on strike, and the overall level of unionisation. For example, there is a requirement for near or full staffing of 'control room' staff in order to run services, meaning if these staff are on strike, it is unlikely that a service will be able to run. This is quite similar to heavy rail control room staff. In contrast systems may still be able to run some level of service if some (but not all) drivers are on strike. The overall impact of strikes by system will vary depending on their characteristics, notably some of these systems are much larger than others. For example, Manchester Metrolink accounted for approximately 33% of passenger revenue and 47% of vehicle km in 2022/23, as compared to Blackpool which accounted for 3% of both revenue and vehicle km.^{70,71} In addition the impact for the areas the individual systems operate in will vary depending on the level of unionisation, and availability of alternative sources of transport which also differs by system. There will also be variation depending on the different purpose of travel splits for the systems, for example the impact will look different for a system for which the largest proportion of travel is commuting compared to one for which it is leisure. Finally, the impact will vary depending on the timing of the strike. Usage differs somewhat by day of the week and by time of the year. There is also some seasonal variation, although this varies significantly by system. For example, Blackpool has much higher patronage during summer months than winter months, with this reflecting the nature of the system. In contrast the seasonality is much less marked for other systems, although across all systems demand may be much higher on 'event days'. This is notable as planned strike days have often coincided with these days. For example, strikes were planned for the 10th and 11th June 2022 during Parklife, for Manchester Metrolink, although they were later cancelled.
94. Based on the limited evidence available to date, and that a complete shutdown of systems often occurs when strike action does take place, a counterfactual of no services running on a strike day in the absence of an MSL has been adopted. This counterfactual represents a

⁶⁹ Information on the Autumn 2022 strike was provided by West Midlands Metro

⁷⁰ [Light rail and tram statistics, England: year ending March 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/light-rail-and-tram-statistics-england-year-ending-march-2022)

⁷¹ These percentages are based on the total passenger revenue and vehicle km for all light rail systems outside of London including systems in Scotland: Edinburgh Trams and Glasgow Underground.

'worst case scenario'. This means that the assessment of the impacts of introducing a MSL may be an overestimate. This is mitigated somewhat by the inclusion of scenarios in the estimate of impacts on costs and revenue.

Light Rail inside London

95. For Light Rail inside London, the impact assessment considers the impacts of MSLs on network-wide strikes on the London Underground, London Overground, Docklands Light Railway, and London Trams.
96. Light rail in London refers to services operated by subsidiaries of Transport for London (TfL) for which the Category C MSL in the regulations will cover. London Overground and the Elizabeth Line differ in that they are operated by the private sector under separate agreements and have significant amounts of their infrastructure managed by Network Rail, akin to the rest of heavy rail. The operational and maintenance services for these rail services are primarily outsourced to third-party providers. London Overground and the Elizabeth Line are treated as heavy rail in the regulations. The impact on London Overground is considered in the Light Rail inside London section due to cost and revenue data being only available for combined Rail (London Overground, London Tram, and Docklands Light Railway) instead of broken down by specific mode.
97. During train operation services strikes or infrastructure strikes, the MSL will be set as a percentage of the operator (TfL)'s non-strike day timetable. Hence, this impact assessment will consider impacts on all London services assuming all services will have the same percentage of services implemented due to MSL.
98. The impact assessment for light rail inside London uses service levels of past network-wide strikes on London Underground as its counterfactual. The London Underground data is also used to determine a counterfactual for network-wide strikes on London Tram and Docklands Light Railway, assuming that a network-wide strike on all the modes will see similar impacts on demand levels. This section does not capture the impacts of heavy rail strikes. The impacts of heavy rail strikes on Elizabeth Line and London Overground can be found in figure 6 and are captured within the heavy rail section of this impact assessment.
99. Table 2 below outlines the impact of different strikes on London Underground since the beginning of 2022. Most strikes in 2022 and 2023 have been network-wide strikes, with change in demand on network-wide strike days ranging from -84% to -96% compared to an equivalent day pre-COVID-19. Out of the 8 strike days from 2022 and 2023, 7 were network-wide strikes meaning very limited services were run. On a network-wide strike day, demand was on average 89% lower than on a similar non-strike day.⁷² On the one non-network-wide strike day seen in 2022, the impact on demand seemed to be negligible.

⁷² DfT internal analysis based on London Underground demand figures provided by TfL. Similar publicly available data can be found here: [Daily domestic transport use by mode - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/daily-domestic-transport-use-by-mode)

Table 2. List of London Underground strike days since beginning of 2022⁷³

Strike day ⁷⁴	Impact	London Underground Service Levels ⁷⁵	London Underground Demand (Daily tap number)	Demand in comparison to pre-pandemic	Demand in comparison to a similar non-strike day
01/03/2022	Network wide	0%	352,292	-96%	-93%
03/03/2022	Network wide	0%	366,141	-96%	-94%
06/06/2022	Network wide	Data not available	1,260,996 ⁷⁶	-84%	-74%
21/06/2022	Network wide	Data not available	312,784	-96%	-94%
19/08/2022	Network wide	Data not available	533,845	-93%	-91%
10/11/2022	Network wide	Data not available	903,520	-90%	-87%
25/11/2022	Part of network	Data not available	7,132,479	-27%	6%
15/03/2023	Network wide	0%	806,053	-91%	-88%

100. Demand on London Underground was on average 11% of a similar non-strike day based on usage measured by entry and exit data from tube stations data. This could be partly due to some Elizabeth Line passengers being included in the tap figures resulting from the methodology of how the data is collected.⁷⁷ The average reduction in demand was calculated by looking at number of taps on the London Underground in comparison to the average of similar days of the previous and following month. This method was adopted to minimise the impact of pandemic recovery on the demand figures. It is also important to note that, strikes can also have an impact on service level and demand of the day before and after the actual strike day.

101. After consultation with TfL on service levels, specific data was shared for 3 of the past network-wide strike days. Discussion and engagement with TfL has led us to the conclusion that London Underground saw 0% service levels on most network-wide strike days. For reference, average network-wide service level for all days of the week in 2022/23 has been around 90% of scheduled services.⁷⁸

102. Therefore, the available service level data of the 3 network-wide strikes suggests that a 0% service level (no service) on a network-wide strike day would be a reasonable level to assume. As a result, 0% service level is considered a reasonable counterfactual for analysis. This will be applied to other modes in London (Docklands Light Railway and London Trams) as a best estimate due to lack of appropriate equivalent data.

⁷³ Calculation based on Industry insight provided by TfL.

⁷⁴ Details of strike days, unions, dispute, and impact from answers to a public FOI request on TfL website: [FOI request detail - Transport for London \(tfl.gov.uk\)](https://www.tfl.gov.uk/foi/request-detail)

⁷⁵ London Underground Service Level data provided by TfL.

⁷⁶ The entry and exit number for 6th June 2022 is notably larger than the other days, however we have been unable to retrieve service level on this day to identify the reason to the increased demand figure. From public qualitative evidence available, this strike is also identified as a network wide strike. [FOI request detail - Transport for London \(tfl.gov.uk\)](https://www.tfl.gov.uk/foi/request-detail). To also note this was a Monday after the platinum jubilee holiday weekend.

⁷⁷ Information on methodology of data collection can be found on [COVID-19 domestic transport data: methodology note - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/108422/COVID-19_domestic_transport_data_methodology_note.pdf) where it is explained that 'Both Tube and Elizabeth line share ticket halls in central section stations such as Tottenham Court Road, Bond Street, Farringdon and Whitechapel – therefore either service can count as a single entry/exit against that station'.

⁷⁸ Average service level internally calculated using underground service level data published by TfL : [Underground services performance - Transport for London \(tfl.gov.uk\)](https://www.tfl.gov.uk/foi/request-detail)

Options 1, 2, 3 and 4

103. For option 1, MSLs would be voluntarily reached (noting the implementation challenges referenced above), while these would be implemented via secondary legislation (regulations) in options 2, 3 and 4.
104. For options 1–4, our assumption is that MSLs would, on average, raise service levels and reduce disruption on strike days compared with the counterfactual although we note this is a simplification and the extent to which this is the case will depend on the particular circumstances of strike action. For option 1, the higher service levels (if achieved) would lead to the same types of impacts as for options 2-4. However, as this option is less likely to be effective, the scale of the impacts will be lower (and may lead to no impacts on service levels) for this option compared to options 2-4. The details around the service levels that would be set under these options, except for the preferred option as set out in Table 3 have not been established therefore it is not possible to provide quantified estimates of the expected costs and benefits of each option. Aside from potential differences in administrative costs, if implemented, in theory options 1, 2, 3 and 4 could result in the same level of service so costs and benefits have been assessed for all options together. However, we note that the likelihood of these benefits being realised under option 4 will be highest because it is expected to be the most effective in implementing MSLs in the rail sector and achieving the objective of the policy. For this reason, we anticipate that costs and benefits, to different parties to varying degrees, are likely to be largest in magnitude for option 4 as implementation of the MSL is tailored to the different categories of service that make up the passenger rail sector, therefore resulting in additional costs compared to the other options, whilst also more likely to generating benefits to passengers and the wider economy.

Option 4 service levels for analysis

105. The regulations will set out that different MSLs will be set for the three different categories of service, as specified in paragraphs 35 to 43. To understand the potential impacts of MSLs we have considered recent strikes on the heavy rail network, as set out in the counterfactual scenarios in Table 1 above. Since June 2022, there have been three broad categories of strikes that have been observed on the heavy rail network. These include strikes where infrastructure services have been affected, strikes where train operations services have been affected, and strikes when both have been affected. While the approach to MSLs treats infrastructure and train operations separately, our analysis of the impacts of MSLs anchors around these types of strikes. The expected service levels under MSLs for each of these strike scenarios, as well as for a light rail strike, are set out in Table 3 below.
106. For heavy rail strikes affecting heavy rail infrastructure services, a Priority Route Map (as defined by routes in regulation) will operate, alongside a list of services as set out in paragraph 38. In this analysis we assume that the Priority Route Map will allow up to around 60% of the normal (i.e. an appropriate and relevant timetabled service) number of trains to run. This is based on information provided by industry at consultation and must be treated as high-level and somewhat uncertain. In addition, there would be no services in some parts of the network and some services may be truncated because only part of the network that they operate on will be open.

107. For strikes that affect train operating services, a percentage of the number of trains planned for in the normal timetable will be delivered. This will be set at 40% of a relevant normal day timetabled service.
108. For a strike affecting both infrastructure and train operation services, where both the train operations and infrastructure MSLs are engaged at the same time, the final service level will be driven by the combination of the extent of the network’s infrastructure that is open and the 40% of train operating services that run on the routes that are open. For this analysis we estimate that this will result in an overall service level of around 25% of normal number of trains.
109. There is a risk that excluding station services from the MSLs regime will reduce the positive impact of MSLs where a strike on stations services coincides with strikes on train operations services and/or infrastructure services. However, the extent to which this would impact on the delivery of the MSLs for train operations services and infrastructure services would vary depending on the nature of the strike. We have, therefore, not provided estimates of service levels for these types of strikes under MSLs.
110. For strikes that affect light rail systems, 40% of a normal timetable will be delivered across services in the systems regardless of whether the strike affects train operations, infrastructure, or both. The Priority Route Map approach will not be applied to light rail systems. However, strike action relating to the infrastructure network may be more constraining, so that even though operators intend to operate on the strike day, they will not be able to do so, as there will be no path or relevant core staff to run the infrastructure. For the purpose of the analysis on costs and benefits, a 40% service level with MSLs has been used. This is based on the best available evidence, also noting that this may not be fully representative of all strike scenarios.

Table 3: Strike scenarios and outcomes for a national strike

Description	MSL proposal	Estimated service levels
Strike affecting infrastructure services only, no strike on train operating services	Infrastructure service providers deliver the services required to keep the lines specified on the Priority Route Map open for the hours specified by the MSL. Train operating services will then be able to provide as much service as practicable on all the priority lines.	60% ⁷⁹
Strike affecting train operating services only, no strike on infrastructure services	Train operating services deliver a percentage of non-strike day timetable for their services.	40%
Combined strike affecting both infrastructure and train operating services	A percentage of non-strike day timetable for those operators who are subject to a strike notice runs on Priority Route Map.	25%

⁷⁹ The regulations will not set this figure for this type of strike, however the priority route map is expected to delivery approximately 60% of a normal timetable. This estimate indicates the maximum service level that could be delivered based on the extent of the network that would be operational.

Strikes affecting light rail systems, resulting from strike on both infrastructure and operating strikes	A percentage of non-strike day timetable to be applied to infrastructure, operating and station services as a whole.	40%
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Summary

111. Impacts for this section have been classified as direct insofar as they are unavoidable first order consequences of an increase in service levels during strikes, as per Regulatory Policy Committee (RPC) guidance.⁸⁰ Second order impacts have been classified as indirect. With regards to costs and benefits of delivering more services, we have classified these as direct for the parties who directly incur the additional costs and/or collect the additional revenue receipts. If these direct impacts have secondary funding implications for other parties, they have been classified as indirect. In some cases, this is a notable difference between heavy rail (which tends to be operated by private companies contracted with Government) and light rail systems (where the majority are publicly owned and over half publicly operated), though the particulars of these arrangements are subject to various contractual arrangements which remain subject to change. We have also treated benefits of increased rail services as a direct benefit to rail users, this is based on the assumption that not all rail users will have other substitute modes of transport available to them. Some of these costs and benefits can be classified as economic transfers which would not be treated additively in a formal cost benefit analysis.

112. The structure of the rail sector in Great Britain is complex and consists of multiple organisations and stakeholders, train operating companies, rolling stock leasing companies and rail infrastructure managers. These organisations and stakeholders have differing responsibility and accountability for running the rail network and delivering services to passengers. As franchising authorities under the Railways Act 1993 the Secretary of State, Scottish Ministers and Welsh Ministers have legal duties to let franchises to train operating companies to run train services in Great Britain. Network Rail is the infrastructure manager for most of the rail network and is an arm's length body, funded by the Department for Transport. Some train services are also operated under concession agreements by regional transport authorities such as London Overground and Merseyrail.

113. These arrangements can and have changed over time, for example, to mitigate the financial impacts from COVID-19 and the related lockdowns the Government took on the cost and revenue risk from 14 Train Operating Companies (TOCs) under Emergency Measure Agreements (EMA), these were later replaced with the National Rail Contracts (NRCs). This means that, in practice since the start of the pandemic, under these contractual arrangements, the costs (as well as the loss of revenue) associated with the current processes of delivering of services during strike action are borne by the Department for Transport. For heavy rail operators delivering services under agreements with other public bodies, similar considerations and complexities, such as who will bear the cost of the implementation of the passenger rail services MSLs will apply and these agreements will vary. There is also variation amongst light rail operators in their arrangements, for example Sheffield Supertram, is currently operated by Stagecoach under a concession agreement with South Yorkshire Passenger Transport Executive (SYPTTE). From 2024 this will transfer

⁸⁰ [RPC case histories - direct and indirect impacts. March 2019 - GOV.UK](#)

to a subsidiary of the South Yorkshire Mayoral Combined Authority (SYMCA).

114. This demonstrates that not only are the arrangements in the rail sector complex but also these arrangements have and will evolve over time for example, due to the introduction of Great British Rail (GBR). In the George Bradshaw address the Transport Secretary noted that new Passenger Service Contracts will be introduced with cost and revenue risk being transferred back to the TOCs , in appropriate circumstances.⁸¹
115. Given the complex and varying arrangements in place within the rail sector it in some cases it is not possible to comment on the impacts on specific organisations and stakeholders within the sector. Instead, in this impact assessment we have set out the costs and benefits to the different groups, noting where possible whether they are likely to fall on the public or private sector depending on the contractual arrangements in place. In general, passenger train operating companies will face the same impacts resulting from the introduction of MSLs. However, as set out in paragraph 3 above, Open Access Operators in the heavy rail sector are not in scope of the train operation services MSL but are likely to benefit from increased infrastructure availability during strikes where the infrastructure services MSL is used by infrastructure managers.
116. A number of costs and benefits have been quantified, but not monetised, and have also been qualitatively explained with evidence. The main barrier to full monetisation is the inability to provide robust scenarios for the future number and types of strikes occurring over a given time period. Given the considerable variability in frequency and types of strikes in the rail sector over the last few years, and compounded by the wider economic and political challenges around cost of living, full monetisation of main costs and benefits would require the use of many arbitrary and highly uncertain assumptions, and as such would be likely to present a misleading assessment of costs and benefits of the policy. Instead, a scenario-based approach is taken whereby quantified impacts associated with single-day strikes are provided for recent common strike scenarios. Monetised estimates of familiarisation costs have been provided.
117. The consultation responses were limited in providing further evidence on the impacts on MSLs. We have, therefore, used data from Network Rail on service levels and industry revenue and costs data to assess the impact on operational costs and revenue implications for both businesses and Government against the counterfactual. For the impacts that relate to reduced utility of union membership and ability to take strike action, given the lack of research or other evidence, we are limited in what we can quantify so have instead provided a qualitative explanation of these impacts.
118. Table 4 below summarises the relevant groups we have identified as potentially being impacted by MSLs. We have also aimed to describe the impacts in terms of the costs and benefits (relative to the counterfactual of option 0), even though in certain cases it may not be possible to quantify or monetise.

⁸¹ Department for Transport (2023). George Bradshaw address 2023. <https://www.gov.uk/government/speeches/george-bradshaw-address-2023>

Table 4: Summary of costs and benefits of introducing MSLs in rail⁸²

Group	Costs	Benefits
Government	Increased funding due to cost of running additional services (direct/indirect – will depend on the contractual arrangements in place) ⁸³	Increased revenue from running more services (direct/indirect) ⁸⁴ Change in in tax receipts to Government from business and wider economy (indirect)
Businesses ⁸⁵ – transport operators and infrastructure managers	Administrative and familiarisation costs (direct) Increased costs of running more services (direct)	Increased revenue from running more transport services during strikes (direct) Reduced negative business impacts associated with strikes (direct)
Rail users	N/a	Reduced negative impacts of strikes on user experience (direct) Reduced negative impacts on access to workplaces or ability to earn a living (direct) Change in transport costs for consumers (direct) Reduced negative impacts of strikes on access to private and family life, education, and health (direct) ⁸⁶
Unions	Administrative, familiarisation and compliance costs (direct) Impacts from a reduction in bargaining power (direct)	N/a
Rail workers	Loss in utility resulting from the restricted ability to take strike action partially offset by pay for those working on strike days (direct)	
Wider Impacts	N/a	Reduced negative impact of strikes on businesses, livelihoods, wider economy, environment, and other transport modes (indirect) Reduced negative long-term impacts on the rail sector (indirect)

Costs

Costs to Government

Increased funding due to cost of running additional services

119. MSLs will result in a higher level of services during strike action relative to option 0. One of the implications of increased rail services on strike days will be running additional

⁸² Paragraph 111 explains that these impacts have been classified as direct/indirect using RPC guidance. [RPC case histories - direct and indirect impacts, March 2019 - GOV.UK](#)

⁸³ Whether these are direct costs (e.g. increases operations costs of running a service) or indirect costs (e.g. increased public funding of private operators and Network Rail) depends on the contractual arrangements in place.

⁸⁴ Similar to the distinction on 'increased funding due to cost of running additional services'. Whether the government benefits directly from increased revenue depends on the contractual arrangements in place with the government benefiting directly when operating the services and indirectly when delivered through other contractual arrangements.

⁸⁵ Note that these businesses are a mixture of both private and public or publicly-contracted businesses.

⁸⁶ For our analysis we have considered these impacts as a direct benefits on the basis that many people do not have access to alternative means of travel on strike and therefore are directly affected if they are unable to travel by train. For other users, these impacts could be considered indirect where these impacts result from a choice not to travel by alternative transport modes.

services which will result in additional costs incurred by Government. Whether these are direct costs (e.g. increased operation costs of running a service) or indirect costs (e.g. increased public funding of private operators and Network Rail) depends on the contractual arrangements in place. Below we have estimated the impacts on costs against the counterfactual set out in paragraphs in 78 to 102 for the different types of strikes and different rail systems. This impact assessment also assesses the potential increase in revenues (paragraphs 175 to 188). An increase in revenue could offset the potential increase in costs, the extent of this offset depends on several factors including the level of potential revenue increase compared to cost increase. This is further explored in the revenue impact sections.

Heavy Rail operating costs

120. Indicative figures have been produced to illustrate the impact of MSLs on operational costs across the rail network. Data for annual operational costs for passenger services⁸⁷ has been used to calculate an average operational cost figure per day (see Table 5). Whilst more recent data is available, these figures are from 2019-20, and converted to 23/24 prices, as these are a better representation than years that were not disrupted by the pandemic. Figures were not available for Great Britain and so the data presented below relates to England only. These figures do not include rolling stock as this will not vary on a day-to-day basis⁸⁸.

Table 5: Operating costs for passenger services (22/23)

Cost	Annual (£m)	Daily (£m)
Staff Costs	3500	9.5
Diesel fuel costs	200	0.6
Other operating costs	3900	10.7
Total	7600	20.8

121. Table 6 summarises the impact of MSLs on day-to-day running costs across the rail network. Although a linear relationship between costs and service level has been assumed for illustrative purposes, in reality this relationship is more complex. For example, running 60% of the timetable does not equate to requiring 60% of staff. However, without further evidence it is not possible to produce more detailed analysis. This is explored further qualitatively below.

122. Table 6 presents figures, from high level internal analysis, for several strike scenarios and how this would compare with the introduction of MSLs. In the 'With MSL' scenarios, it is assumed that the overall service provided across the network are those as presented in Table 3.

Table 6: Impact of MSLs on daily costs (£m, 2023/24)⁸⁹

Scenario	Without MSLs	With MSLs	Impact of MSLs
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⁸⁷ A financial overview of the rail system in England, National Audit Office. <https://www.nao.org.uk/wp-content/uploads/2021/04/A-financial-overview-of-the-rail-system-in-England.pdf>

⁸⁸ Rolling stock leases are agreed on a long-term basis therefore rolling stock cannot be repurposed, or leased, on a day-to-day basis. For this reason, industrial action does not impact rolling stock costs and so they are not included in this analysis.

⁸⁹ This table is using the counterfactual service levels explained earlier in the document. Including or excluding drivers refers to whether or not drivers are striking in the counterfactual scenario.

1. Infrastructure	4.2	12.5	8.3
2a. Train Operations (excl. drivers)	6.2	8.3	2.1
2b. Train Operations (incl. drivers)	1.0	8.3	7.3
3a. Infrastructure + train ops (excl. drivers)	4.2	5.0	0.8
3b. Infrastructure + train ops (incl. drivers)	1.0	5.0	3.9

123. Table 6 highlights that imposing MSLs would, as expected, increase costs compared with the counterfactual for strike action in all scenarios. The linear relationship assumed between operational costs and service levels is used to give a sense of scale in relation to service levels. In reality, certain operational costs will not scale linearly. Fuel costs are likely to be broadly linear with service levels. But other costs, such as staff costs, will not be linear with staff costs being dependent on the type of strike action. For example, strike action involving drivers only will mean that all workers not on strike will still need to be paid but service levels will be very low, due to the absence of drivers.

124. Track access charges are not included in the 'other operational costs' section of Table 5.⁹⁰ Track access charges can be both fixed and variable⁹¹ and so there will be some variation with service levels for variable track access charges. Whilst fixed costs will remain unchanged, an increase in service levels on strike days from MSL will represent a more cost-effective use of resources.

Light Rail outside of London operating costs

125. Indicative figures have been produced to illustrate the impact of MSL on operational costs on strike days on light rail systems. These are based on commercial data (confidential and not published) previously supplied to the Department for Transport on costs for 6 out of 8 of the light rail systems. The data is broken down by fixed, semi-fixed, and variable costs. Data from January 2022 – March 2022 has been used to estimate the annual and daily operating costs for light rail systems, and from this the difference in costs on a strike day with a MSL, as compared to without, has been estimated.

126. The figures have been adjusted for inflation (using GDP deflator data), following transport analysis guidance⁹², to 2022/23 prices. Due to data not being available for all systems the figures are based on 6 of the 8 systems only and adjusted to account for the costs of the remaining 2 systems.

127. While the cost impacts for all systems are considered together here it should be noted that for light rail systems, some are publicly owned and operated whilst others are privately operated through concession contracts granted by local authorities, with some private operators taking the 'revenue risk' meaning that impacts revenue and costs will more

⁹⁰ This is because track access charges are paid by TOCs to Network Rail and so represent a transfer within the industry.

⁹¹ Network Rail's track access charging framework – Office for Rail and Road. <https://www.orr.gov.uk/sites/default/files/2021-10/pr23-charges-framework-user-guide.pdf#:~:text=The%20fixed%20track%20access%20charge%20%28FTAC%29%20recovers%20a.funded%20through%20direct%20network%20grant%20payments%20from%20funderns.>

⁹² <https://www.gov.uk/guidance/transport-analysis-guidance-tag>

directly affect the private operators in these cases.

128. Table 7 below shows estimates of annual and daily operating costs for light rail systems outside London.

Table 7: Costs for Light Rail systems outside of London (2022/23)

Costs	Annual (£m)	Daily (£m)	Cost per vehicle km (£)
Fixed Costs	163.6	0.4	5.9
Semi-Fixed Costs	144.2	0.4	5.2
Variable Costs	52.5	0.1	1.9
Total	360.3	1.0	13.1

129. For the purpose of this impact assessment, it has been assumed that fixed costs will not be significantly impacted by strike days because they don't vary with the service level provided, with the impact on costs deriving from changes to semi-fixed and variable costs on strike days. Due to limited evidence, it has been assumed that the relationship between service levels and semi-fixed and variable costs is linear. However, in reality, certain costs under these categories will not scale linearly. In particular staff costs will not be directly proportional to service level as this will depend on the type and extent of strike action. In addition, in the scenario that only a proportion of staff are participating in strike action, but that this results in a complete shutdown of the system, the staff who were not participating, but are now unable to work, will still be paid.

130. Relative to the counterfactual, operating costs are estimated to be £216,000 higher assuming one day of strike action for each light rail system. This is presented in Table 8 below. In the instance that there were to be multiple systems experiencing strike action at once, the level of impact would vary depending on which systems are affected, as light rail systems vary significantly in size. For example, if 2 of the 8 systems were affected by strikes, the impact for a day of strike action could range between £16,000 and £140,000, or for 4 of the 8 systems between £36,000 and £180,000. There will also be variations in terms of the proportion of impact to private operators compared to the impact on government funding, depending on whether the systems experiencing strikes are privately or publicly run, and the exact nature of the contracts for privately-run systems.

Table 8: Operating cost impact for light rail systems outside London

	Without MSLs (£)	With MSLs (£)	Impact of MSLs (£)
Operating costs associated with MSL of 40% for operating services	448,000	664,000	216,000

Light Rail – London – Operating costs

131. Indicative figures have been produced to illustrate the impact of MSLs on operational costs for Light Rail inside London. Data for annual operating costs for London Underground

and Rail have been used to calculate an average operational costs figure per day (see Table 9). The annual figures are forecasts of FY22/23, taken from TfL’s Financial Year 23/24 draft budget published on 29 March 2023. Here, rail refers to the combination of London Overground, London Trams, and the Docklands Light Rail. Due to the unavailability of broken-down data for London Overground, London Trams, and the Docklands Light Rail, in this assessment the impact of MSL for London Overground is additionally being considered despite it being categorised as Heavy Rail.

Table 9: Operating costs per mode for services in London (£m, 2022/23)⁹³

	Annual	Daily
London Underground (LU)	£2,088m	£5.72m
Rail (London Overground, London Trams, Docklands Light Rail)	£523m	£1.43m
Total	£2,611m	£7.15m

132. Table 10 summarises the impact of MSLs on day-to-day running costs for different modes within London.

133. Due to limited evidence, a linear relationship between costs and service level has been assumed for illustrative purpose, although in practice this relationship is much more complex.

134. Specifically for London Underground, staffing requirements mean that running a 40% service does not equate to 40% of operating costs, as different staffing levels may be required to operate a given service level. It will also depend on how TfL choose to implement the MSL.

135. It is currently difficult to estimate the exact costs of creating timetables. Hence the table below only highlights the high-level indication of estimated costs based on a simple calculation of estimated daily operating costs and shows the impacts of MSLs on daily costs by comparing a 40% MSL to a counterfactual of 0% service levels. It is important to note that this assessment does not account for additional costs that may occur such as timetabling costs, fixed costs, or additional costs where staffing level does not correlate with service levels.

Table 10: Impact of 40% MSLs on daily costs of services in London (£m, 2022/23)⁹⁴

	No MSL	With MSL	Impact of MSL
London Underground (LU)	£0.00m	£2.29m	£2.29m
Rail (London Overground, London Tram, Docklands Light Rail)	£0.00m	£0.57m	£0.57m
Total	£0.00m	£2.86m	£2.86m

⁹³ Annual forecast operating cost figures of FY22/23 taken from TfL budget 23/24 published on the 29th March 2023 [TfL FY23/24 Budget](#).

⁹⁴ Calculation based on Annual forecast operating cost figures of FY22/23 taken from TfL budget 23/24, assuming a 40% minimum service level.

136. With an MSL of 40%, the impact on cost on LU is expected to be £2.29m, and £0.57m for combined Rail (London Overground, London Tram, and Docklands Light Rail).

Costs to Businesses (operators and infrastructure managers)

137. The section below explains the potential costs to businesses associated with passenger rail MSLs. The magnitude of these costs will depend on several factors. This includes, but is not limited to, the frequency of strikes, scale of strike action, the number of employers affected by strike action etc. Which of these factors would materialise during future strike action is unknown. Therefore, it is not possible to provide a precise figure for these impacts.

Administrative and familiarisation costs

138. It is expected that organisations in the rail sector will be required to familiarise themselves with the legislation and any relevant guidance produced to support the policy and will face additional administrative tasks.

139. Under options 2, 3 and 4 it is assumed that, in response to a notice of strike action, relevant employers could issue a work notice ahead of a strike to specify the workforce reasonably necessary to secure the MSL for that strike period. Therefore, employers may spend time familiarising themselves with the circumstances in which it would be beneficial to issue a work notice and what would be required of them. Additional (potential and actual) administrative tasks include identifying individuals required to work, consulting unions on the proposals for work notices (number of workers and work required), drafting the work notice and issuing to relevant unions, notifying workers of the requirement to work under a work notice and checking those who turn up for work against the names on the work notice.

140. The approach to estimating costs in this section has been informed by existing approaches taken in similar impact assessments, for example, the Strikes (Minimum Service Levels) Act and the Trade Union Enactment Impact Assessments and discussions with the Department for Business and Trade on additional requirements relating to guidance on work notices and reasonable steps.⁹⁵ In order to strengthen this approach, the consultation included a question asking respondents “to provide us with an assessment of potential costs and benefits, including from an implementation and ongoing operation perspective” and further engagement with industry took place to gather views on expected operational changes under MSLs.⁹⁶ The evidence gathered was not conclusive enough to allow us to move away from the existing assumption-based approach. However, it has been used to further inform our overall understanding of these costs.

Familiarisation costs

⁹⁵ Strikes (minimum service levels) Bill Impact assessment see: [Strikes \(minimum service levels\) Bill: impact assessment \(publishing.service.gov.uk\)](#) and ii) BIS, Certification of trade unions' membership registers and investigatory powers for the Certification Officer Impact assessment, December 2014, p10 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414353/bis-15-143-trade-union-assured-register-of-members-final-impact-assessment.pdf - this placed additional requirements on unions to maintain their membership registers.

⁹⁶ A consultation on implementing minimum service levels for passenger rail. See: [a consultation on implementing minimum service levels for passenger rail - GOV.UK \(www.gov.uk\)](#).

141. Organisations in the rail sector will face one-off familiarisation costs associated with reading and understanding the regulations and guidance. An assessment of additional costs associated with implementing the MSLs in the regulations (where employers choose to issue the work notices under the parent Act) is set out within the section on ‘administrative costs’ below. To estimate one-off familiarisation costs to businesses in the heavy rail and light rail sectors, we assume that a chief executive or senior official, an HR manager or director, a legal professional, and a senior manager or professional would form the management team familiarising themselves with the legislative changes. Previously we assumed, as a central estimate, that senior management teams would take 8 hours to familiarise themselves with the legislation.⁹⁷ Here, to account for familiarisation with additional requirements relating to work notices and reasonable steps, we have assumed familiarisation for employers would take between one and two days (8 to 16 hours) with a central estimate of one-and-a-half days (12 hours). Although limited specific evidence was provided on likely familiarisation costs in responses to the consultation,⁹⁸ assumptions have been shaped by further industry engagement with heavy and light rail operators and trade unions. They have also been informed by discussions with the Department for Business and Trade on the requirements associated with guidance on work notices and the Code of Practice on reasonable steps. We have tested our assumptions against other similar impact assessments including the Trade Union Act Enactment IA. To account for uncertainty, we have provided low, central and high scenarios for the time required. These scenarios would capture variations across organisations depending on their organisational arrangements. The industry engagement conducted during and after the consultation has been used to gather important information about the likely impacts of passenger rail MSLs. We believe that the familiarisation time estimated for this impact assessment is reasonable. Table 11 sets out the median salaries used to estimate familiarisation costs. Using median hourly wages, from the Annual Survey of Hours and Earnings (ASHE) 2022, for the relevant occupations and uprating these by 17.9%⁹⁹ to account for non-wage costs the estimated hourly cost per organisation is approximately £120.^{100,101}

Table 11: Hourly median wages and labour costs for employer management team occupations (2022 prices)

Job role	Median hourly wage (excl. overtime)	Median hourly labour costs (incl. non-wage costs)
Chief executives and Senior Officials	£37.43	£44.13
HR managers and directors	£24.59	£28.99

⁹⁷ This is a high-level assumption. It is likely that familiarisation costs will vary across organisations.

⁹⁸ Note that Question 15 of the consultation on minimum service levels for passenger rail during strike action requested evidence on anticipated costs arising from implementation. <https://www.gov.uk/government/consultations/minimum-service-levels-for-passenger-rail-during-strike-action/a-consultation-on-implementing-minimum-service-levels-for-passenger-rail>

⁹⁹ The 17.9% is consistent with the Strikes Act impact assessment.

¹⁰⁰ Estimated from latest ONS Index of Labour Costs per Hour publication.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/indexoflabourcostsperhour/ich/julytoseptember2020> Here, the non-wage labour cost uplift uses 2019 Q4 to 2020 Q3 figures (seasonally adjusted). To estimate the uplift, non-wage costs per hour as a proportion of total labour costs (15%) are divided by wage costs per hour as a proportion of total labour costs (85%) (i.e. $0.152/0.848=0.179$). Therefore, we have uplifted wages by 17.9% to get an estimate of total labour costs.

¹⁰¹ ONS (2022). Earnings and hours worked, occupation by four-digit SOC: ASHE Table 14.6a Hourly pay – Excluding overtime (£) – For all employee jobs: United Kingdom, 2022. Chief executives and senior officials (SOC:111), HR managers and directors (SOC:1136), Managers in transportation and distribution (SOC:1241), Legal professionals (SOC:241).

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashtable14>

Managers in transportation and distribution	£18.38	£21.67
Legal Professionals	£23.27	£27.44
Total	£103.67	£122.23

142. To illustrate the scale of familiarisation costs across the rail and light rail sectors, we have multiplied the hourly labour cost by hours required and the estimated number of employers affected. For our central scenario, we assume that around 50 businesses will incur familiarisation costs. For heavy rail, the Rail Delivery Group lists 42 passenger and track services companies in the rail industry.¹⁰² For light rail, we have estimated that 9 organisations will incur this cost (including the 8 operators for light rail systems in Great Britain plus TfL).¹⁰³ For the purpose of this analysis it is assumed that familiarisation will be required at an organisational level and includes costs to both public and private operators. Table 12 below summarises the cost estimate for familiarisation for both heavy and light rail.

Table 12: Estimated familiarisation costs for employers in the rail sector (2022 prices)

Employers	Estimated number of employers	Estimated hourly labour cost of familiarisation team	Hours taken	Familiarisation cost (nearest £10,000)
Rail	42	£122	12	£60,000
Light Rail ¹⁰⁴	9	£122	12	£10,000

143. The central estimate for the total familiarisation cost to employers in the rail and light rail sector is estimated at around £70,000. However, given the uncertainty in these estimates, we also estimate a range for these costs (Table 13).

Table 13: Estimated employer familiarisation costs for low, central and high scenarios of hours taken (2022 prices)

Familiarisation	Low	Central	High
Hours taken	8	12	16
Familiarisation cost: rail and light rail (nearest £10,000)	£50,000	£70,000	£100,000

144. Assuming familiarisation for employers would take between one and two days (8 to 16 hours), with a central estimate of one-and-a-half days (while holding other assumptions constant), results in an estimated range for the total familiarisation cost to employers in the rail and light rail sector of between around £50,000 and £100,000.

Administrative costs

¹⁰² Rail Delivery Group (2022). This includes train operating companies, owning groups and track and infrastructure companies. Rail Delivery Group. Passenger, Freight & Track Services. <https://www.raildeliverygroup.com/uk-rail-industry/passenger-freight-track.html> [Accessed October 2022]. Note that not all of these businesses are in scope of MSLs but have been included in this assessment on the basis that they will need to understand the implications of MSLs, although it is likely that those out of scope businesses will spend less time familiarising on average compared with operators that are within scope.

¹⁰³ TfL is not double counted here. See: [Light rail and tramways | Office of Rail and Road \(orr.gov.uk\)](https://www.gov.uk/government/consultations/light-rail-and-tramways)

¹⁰⁴ Some light rail systems are publicly owned and operated, therefore the familiarisation costs for these will go to the associated public operator. Of these employers four are public operators. For systems which are publicly owned but privately operated, the owners are not included within the employer figure. Currently Sheffield Supertram is operated by Stagecoach but this will transfer to South Yorkshire Mayoral Combined Authority (SYMCA) from 2024.

145. In addition to the familiarisation costs set out above, it is expected that there will be additional administrative costs to businesses in the heavy rail and light rail sectors. It is expected that additional administrative costs will largely be centred around scoping, producing and issuing work notices in response to notices of strike action from trade unions and potentially taking legal advice. Based on engagement and testing of strike planning processes with operators and Network Rail, as set out in more detail below, it is assumed that, for heavy rail, there will be additional administrative costs relating to strike planning under MSLs as an additional aspect within the strike planning process. This assumption does not extend to the light rail sector where experience of strike planning, in recent years, is limited.

146. The scale of additional administrative costs to business will depend on how often employers issue work notices in response to notices of strike action. Due to uncertainty surrounding employer use of voluntary agreement and work notices, the administrative cost to business has not been estimated for option 1 (voluntary MSLs). We assume that due to the lack of incentives for voluntary MSLs to be reached that a voluntary work notice is unlikely to be issued.

147. In the event that a work notice is to be issued by an employer, businesses may incur additional administrative costs while taking steps to scope, produce and issue the work notice.¹⁰⁵ For example, the process would require the business to identify the workers that would be required to work on a given strike day, to consult with and issue details of the work notice to relevant unions, and to notify relevant workers of the notice.¹⁰⁶ The scale of separate administrative cost incurred under MSLs (e.g. strike day timetabling) will depend on the current level of business continuity planning by employers when preparing for and responding to strike action, which varies significantly depending on the type of strike and also varies across operators whose human resources and operations functions are organised very differently. It is also understood that the existing level of business continuity planning for strike action varies considerably across employers in the rail and light rail sectors.

148. Due to limited strike action on light rail outside of London, with some systems not experiencing any action in the last five years, for light rail there will be less preparation in place than for heavy rail, although this will vary by system. The variation between systems is due to differing levels of previous strike action and expectations around future strike action. The introduction of MSLs will create an additional burden on systems due to the costs associated with producing timetables for strike days with an MSL in place. Whilst we do not have estimates from all systems on the cost of producing these timetables, the total cost for all light rail systems outside of London is expected to be lower than the cost for London. While the total number of systems outside of London is greater, they are considerably less complex with fewer routes, meaning that the cost of producing new timetables will be less. Both operational and administrative staff will be required to produce new MSL timetables. Limited information from some light rail systems has indicated that additional staff would not need to be hired to meet this requirement. However, this may vary by system depending on the nature of future strike actions. Limited evidence provided by

¹⁰⁵ There is also likely a small additional cost where an employer may need to update their privacy policy in order to store personal data for the work notices in accordance with existing data protection requirements.

¹⁰⁶ In order to identify this an employer may need to consider factors such as the time of day, week or year that the strike is due to take place or other relevant strike-specific circumstances.

some systems has estimated the cost of producing an MSL timetable to be around £4,000. However, this is not based on a complete or robust evidence base, and the cost may vary by system dependent on size and complexity.

149. There may be a similar additional burden for light rail in London in regard to setting an MSL. During consultation, TfL advised that the approach in the regulation for setting an MSL would create an additional ongoing administrative burden for TfL. TfL expect timetabling exercises to pose further costs to TfL, as any timetabling requirements for a set MSL would be an extra requirement for the timetables team. Extra compilers would need to be recruited and trained if disruption to business-as-usual activities is to be avoided. Hence, creating an MSL timetable would not be a one-off task, but would be an ongoing requirement.
150. For heavy rail, limited conclusive evidence was received during the consultation on sector expectations of implementation costs and ongoing administrative costs. However, the Department has conducted further engagement with industry to understand the current approach to strike planning and sought evidence through consultation and further engagement on the likely impact of MSLs on industry's strike planning process. The current strike planning process, managed by Network Rail, involves considerable coordination across industry to agree infrastructure availability and develop, agree and deploy strike timetables. This process will not be affected by the introduction of passenger rail MSLs and the powers contained within the Act do not amend wider rail regulations. However: first, in cases where TOCs choose to issue work notices, TOCs will have to undertake additional processes as part of strike planning (e.g. assess which workers are reasonably necessary to deliver the MSL, consult with trade unions, prepare the work notice in a data protection compliant manner, notify employees in accordance with the parent Act, etc.) and, as a result, TOC timelines for strike planning will be truncated; second, to date industry has coordinated through extensive strike planning to agree service levels by utilising contingent staffing through redeploying staff from other areas where possible. We therefore expect, in addition to the familiarisation costs set out above, there will be additional administrative costs associated with implementing MSLs in the rail sector. From engagement with industry we expect that there is likely to be substantial variation across businesses in the extent of these administrative costs, and the total impact is difficult to ascertain. We have sought to understand the likely extent of administrative impacts through consultation and further engagement with industry but limited quantified evidence was provided.¹⁰⁷ Additionally, these administrative costs will only be incurred if businesses choose to use MSLs during strikes, which they are not required to do under the regulations. For these reasons, these administrative costs have not been monetised in this impact assessment.

Enforcement costs

151. Further, employers may incur costs related to dealing with any disciplinary matters in the event of non-compliance by staff of work notices. Employees who have been identified in a valid work notice, and who have been notified of this by their employer(s) but take strike action and do not attend work to fulfil the requirements of the work notice would lose their

¹⁰⁷ For example, Question 15 of the consultation on minimum service levels for passenger rail during strike action requested evidence on anticipated costs arising from implementation. <https://www.gov.uk/government/consultations/minimum-service-levels-for-passenger-rail-during-strike-action/a-consultation-on-implementing-minimum-service-levels-for-passenger-rail>

protection from automatic unfair dismissal for strike action. The employee would retain their protection from unfair dismissal for other reasons not related to strike action. Employers are able to manage instances of non-compliance with a work notice in the same way as they would for unauthorised absence. This could mean that the employee is disciplined as a result or potentially dismissed. It is the discretion of the employer as to what, if any disciplinary action is taken in these circumstances. An employee who is identified in a work notice and is required to work for part of the strike day, may take strike action during the period in which they are not required to work without losing their automatic protection from unfair dismissal for strike action.

152. The costs that could be incurred by the businesses will be specific to their disciplinary processes, as these vary widely across business units, they cannot be easily quantified. These costs could include administrative costs for processing these cases and going through any employment tribunal proceedings. We can assume that most workers will comply with a notice, given that failure to do so may incur disciplinary action.

Increased costs of running more services

153. One of the implications of increased transport services on strike days will be the increase in operational costs incurred by operating companies. These will be passed through to government depending on the contractual agreements in place (see the section above on increased operational costs to businesses for further analysis). For light rail around half of systems are publicly operated, in these instances the increased cost will go to the public operator. Total operational costs typically include fixed costs (vehicles, infrastructure, performance regimes etc.) and variable costs (staff salaries, fuel, electricity etc.) costs. Increased service provision would primarily increase variable costs. Later in the impact assessment we assess the benefits in revenue/wider impacts that we expect.

Costs to Unions

Administrative and familiarisation costs

154. We anticipate that, under MSLs, unions will have to spend time familiarising themselves with the proposed legislative changes and will engage external legal advice to understand the legal implications. These familiarisation costs may include the time taken to understand the legislative changes and how workers (and potential members) would be affected, attending training sessions to acquire knowledge and costs associated with obtaining external advice. It is expected that unions may also incur additional administrative costs.

155. Alongside the Strikes Act, guidance will be published on the reasonable steps to be taken by trade unions, which they will need to familiarise themselves with. Where a valid work notice is given to the trade unions(s), the union(s) will have a duty to take reasonable steps to ensure that all members of the union who are identified on the work notice comply with the notice. Failing to take reasonable steps would lead to the union to lose their protection from liability in tort. This is in line with other existing requirements for taking lawful strike action, as specified within Trade Union and Labour Relations (Consolidation) Act 1992. This could result in employers seeking court action to request an injunction be brought against

the strike to stop it from taking place or to seek damages. The court, in calculating any damages to be given to the employer, must disregard any loss that the employer would have suffered if the union had taken reasonable steps.

156. The approach to estimating costs to unions, in line with the above approach for costs to businesses, has been informed by consultation and engagement with industry and existing approaches taken in similar impact assessments that used evidence from industry engagement.^{108,109} For example, based on evidence obtained from unions in the consultations on the certification of trade union membership registers and the Trade Union Bill.¹¹⁰ Specific evidence is included below, where relevant. The evidence gathered has been used to further inform our understanding of these costs and the approach to estimating these but has not been sufficient to move away from the existing assumption-based estimation approach.

157. To estimate the one-off familiarisation cost to unions, it was previously assumed, under a central scenario, that a union General Secretary and four other senior directors would use one day (8 hours) to familiarise themselves with the legislative changes. In the current analysis, to account for additional requirements relating to work notices and reasonable steps, we have assumed that familiarisation for unions would take between one and two days with a central estimate of one-and-a-half days. This is supported by evidence received as part of the consultation for the certification of trade union membership registers where unions advised government that a General Secretary and other senior directors would be involved in familiarising themselves with legislative requirements.¹¹¹ Alongside this, figures given for the amount of time required ranged from half a day (4 hours) to two full days (16 hours) for each individual involved. The central scenario (12 hours), used here, sits nearer the upper bound of this range. Table 14 summarises the labour costs for union familiarisation. Using median hourly wages, from the ASHE 2022, for a General Secretary and a senior union official and uprating these by 17.9% to account for non-wage costs results in a central estimate of £1,500 per union.^{112,113}

Table 14: Hourly median labour costs for Union roles

¹⁰⁸ Strikes (minimum service levels) Bill Impact assessment see: [Strikes \(minimum service levels\) Bill: impact assessment \(publishing.service.gov.uk\)](#), ii) BIS, Certification of trade unions' membership registers and investigatory powers for the Certification Officer Impact assessment, December 2014 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414353/bis-15-143-trade-union-assured-register-of-members-final-impact-assessment.pdf - this placed additional requirements on unions to maintain their membership registers.

¹⁰⁹ A consultation on implementing minimum service levels for passenger rail. See: [a consultation on implementing minimum service levels for passenger rail - GOV.UK \(www.gov.uk\)](#).

¹¹⁰ The following impact assessments: i) BIS, Certification of trade unions' membership registers and investigatory powers for the Certification Officer Impact Assessment, December 2014. See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414353/bis-15-143-trade-union-assured-register-of-members-final-impact-assessment.pdf, ii) BIS, Trade Union Bill Impact Assessment, January 2016. See: [Trade Union Bill: Impact Assessment \(publishing.service.gov.uk\)](#)

¹¹¹ BIS, Certification of trade unions' membership registers and investigatory powers for the Certification Officer Impact Assessment, December 2014 (pg. 10). See: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/414353/bis-15-143-trade-union-assured-register-of-members-final-impact-assessment.pdf

¹¹² ASHE (2022). Earnings and hours worked, occupation by four-digit SOC: ASHE Table 14.6a Hourly pay – Excluding overtime (£) – For all employee jobs: United Kingdom, 2022. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashtable>

¹¹³ We use the median wage of 'Functional manager and directors n.e.c.' as a proxy for a General Secretary or union senior official wage (SOC 1139). In the Trade Union Bill Impact assessment, the median hourly wage for chief executives and senior officials is used as a proxy for the wage of a union General Secretary.

Job role	Number of Officials	Median Hour Pay (Uplifted)	Time Taken (Hours)	Total (nearest £'00)
General Secretary	1	£36.35	12	£400
Other Senior Official	4	£36.35	12 (48 in total)	£1,700

158. We also expect that unions will seek advice on the reform as part of the familiarisation process. This is based on consultation for the certification of trade union membership registers where unions reported that they would require external legal advice to familiarise themselves with the legislative change and reported an hourly rate of around £250 for this advice. If a lawyer were present throughout all meetings with senior staff, then this would take 12 hours at a cost of £250 per hour for legal advice.¹¹⁴ Table 15 depicts this result. We have used the Bank of England inflation calculator to uprate this value to 2022 prices (i.e., £302).¹¹⁵

Table 15: Estimated legal expenses associated with familiarisation.

Legal Cost (hourly)	Hours taken	Total Legal Cost (to nearest £'00)
£302.26	12	£3,600

159. The total familiarisation cost, including legal advice, per union is estimated at around £5,800. This cost is expected to be incurred by unions representing rail and light rail sectors, which includes unions such as RMT, ASLEF, Transport Salaried Staffs' Association (TSSA), UNITE, General Municipal Boilermakers (GMB) and UNISON. If six unions incur the estimated cost per union, the total familiarisation cost to unions would be around £35,000.¹¹⁶ Given the uncertainty in these estimates, we also calculate a range for such estimates as set out in Table 16.

Table 16: Estimated union familiarisation costs for low, central and high scenarios of hours taken.

Familiarisation	Low	Central	High
Hours taken (per role) ¹¹⁷	8	12	16
Familiarisation cost: rail and light rail (nearest £10,000)	£20,000	£30,000	£50,000

Administrative costs

¹¹⁴ This assumption is informed by evidence obtained from unions in the consultation on the certification of trade union membership registers. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/493636/BIS-16-70-trade-union-bill-impact-assessment.pdf

¹¹⁵ <https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator>.

¹¹⁶ Note that some rail workers may be represented by other unions, including PCS and Prospect. However, these unions account for a small proportion of the rail workforce and therefore have not been included in calculations, as the extent to which they would need to familiarise with legislation is unclear.

¹¹⁷ Here, this refers to each individual involved in familiarisation (i.e. one general secretary, 4 senior officials, and external legal advice) spending between one day (8 hours) and two days (16 hours) with the central estimate of a day-and-a-half (12 hours) familiarising themselves on the legislative changes.

160. In terms of administrative requirements, on a strike day trade unions will have some administrative requirements. This includes the requirement to inform employers that their staff are taking strike action.
161. Government is committing to a statutory code of practice on reasonable steps. The draft Code will be publicly consulted on and therefore is subject to change. Because of this uncertainty in what the final guidance (the Code of Practice) will require in terms of these steps, we have adopted a high-level approach to this analysis. Therefore, we consider there to be two general additional administrative costs to unions associated with reasonable steps:
- Issuing a communication to members, including those identified on a work notice to encourage compliance with a work notice.
 - For the picket and/or picket supervisors to have a role in not encouraging members identified in the work notice to strike.
162. There will likely be additional administrative costs to unions under this proposal. These may include engaging with employers on the detail of work notices, notifying union members of work notices, and updating their privacy policy to store personal data for work notices in accordance with data protection requirements. Although we assume that more work notices will be issued than voluntary agreements agreed, there is still uncertainty surrounding the level of use of voluntary agreements and work notices, this administrative cost to unions has not been estimated here. It is expected that the cost for union consultation with employers would involve similar union personnel as those involved in familiarisation with the legislation and relevant guidance. This is based on evidence gathered at consultation for the certification of trade union membership registers where it was advised these personal would be involved in a range of transition costs including administrative costs.¹¹⁸

Economic Costs to Unions

Reduced bargaining power

163. One of the benefits to workers, of being members of a trade union is an increased ability to negotiate working conditions, pay awards and other employee benefits.¹¹⁹ The introduction of MSLs could adversely affect trade unions' negotiating power and therefore the attractiveness for members of being part of a union. This is likely to have impacts on union membership as it could make it less attractive to be represented by a union, with the resulting in an impact on their success in achieving their demands regarding pay and working conditions. The rail sector is heavily unionised with approximately 63% in 2022¹²⁰ of workers being part of a union¹²¹. This is significantly higher when compared to the UK proportion of trade unions membership at 23%¹²² in 2021. It has not been possible to quantify the impacts of MSLs on trade unions' bargaining strength due to limited evidence. The consultation returned no evidence on this. To account for this, we provide qualitative analysis to assess the potential impacts.

¹¹⁸ Therefore, the expectation is that a union General Secretary and four other senior directors would be involved in this administrative task. See: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/493636/BIS-16-70-trade-union-bill-impact-assessment.pdf.

¹¹⁹ <https://www.careeradict.com/8-benefits-of-being-part-of-a-labor-union>

¹²⁰ <https://www.gov.uk/government/collections/trade-union-statistics>

¹²¹ This is an industry average and there could be variations in unionisation %s for some employers and staff groupings.

¹²² [Trade Union membership UK 1995-2021 statistical bulletin \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/493636/BIS-16-70-trade-union-bill-impact-assessment.pdf)

Costs to rail sector workers

Lost utility arising from restricted ability to take strike action

164. The 'utility' from being a member of a union and the associated ability to take strike action is used to describe any value to the worker that is associated with having this ability. Part of this utility comes from the fact that unions help counterbalance the bargaining power that employers have over their staff. Strike action may in some cases lead to improved terms and conditions, including better pay deals.
165. Since 2011 parts of the rail sector such as transport operatives and train/tram drivers have experienced relatively strong real wage growth relative to the national median wage - which has increased by 1% over this period. Figure 9 illustrates to what extent wage growth has varied across distinct roles within rail since 2011. We also know that unions have historically been considered strong due to their high membership rates and the ability to repeatedly disrupt through industrial action. Figure 10 shows how union membership rates are high for rail workers relative to average membership across the labour force, particularly for train drivers. Whilst it is difficult to draw a direct causal link between wage increases and union strength, it is possible that high union membership presence in the rail sector has contributed to improvements in wages and conditions in the rail sector, and therefore any effect that MSLs have on changing the balance between unions and employers in the rail sector may have a knock-on impact on the ability of workers to improve pay and conditions.

Figure 9. Indexed Real Wages in 2022 compared with 2011 (2011=100).¹²³

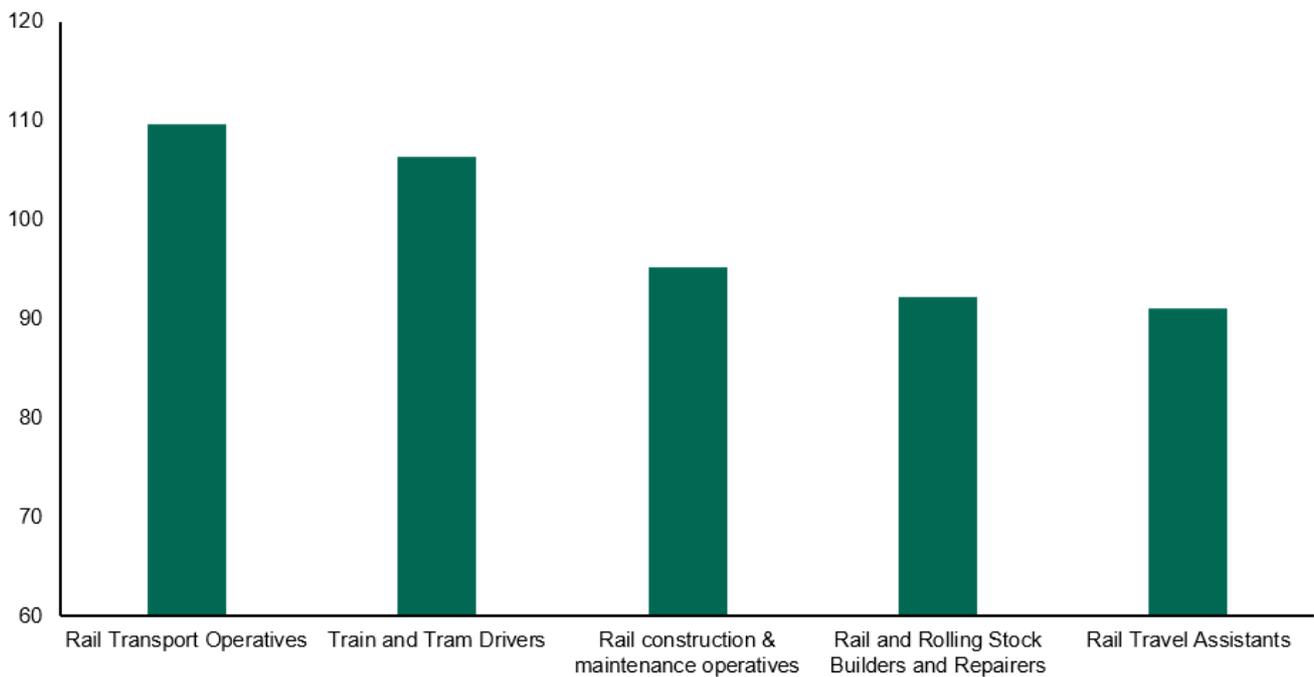
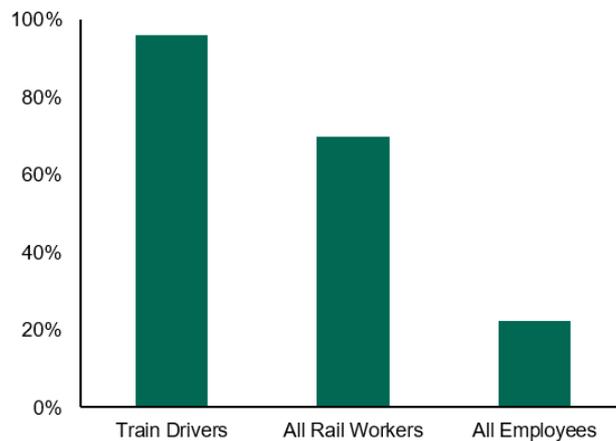


Figure 10. Estimated Trade Union membership rates as a proportion of industry workers, 2021.¹²⁴

¹²³ Nominal wages calculated for these job roles are considered reasonably precise (CV>5% and <=10%) according to ONS Annual Survey of Hours and Earnings (2022), Table 14.7a. Real wages have been calculated by adjusting 2011 ONS Annual Survey of Hours and Earnings data for each job role to accommodate CPI adjustment determined from on the Bank of England’s online Inflation Calculator.

¹²⁴ Estimated trade union membership rate for train drivers is sourced from the ASLEF Charter (<https://aslef.org.uk/about/aslef-charter#:~:text=ASLEF%20have%2097%25%20density%20of%20membership%20across%20the%20rail%20network>). Trade union membership rates for rail workers & all employees is taken from an ONS FOI request relating to the 2021 Labour Force Survey.



166. Impacts on ability to strike are likely to vary by job role and by type of strike. Through the consultation, industry stakeholders indicated that staffing requirements to deliver a given service level is likely to vary by role, whereby for some roles (such as drivers and guards) the relationship between number of staff and service level is likely to be relatively linear. One operator outlined the need for 35-40% of their regular staffing level of train drivers for a 20% service level, increasing to 55-60% at a 40% service level. For train managers the equivalent figures were 30-35% and 50-55% respectively. For some other roles, such as station staff and infrastructure workers, a given proportion of staff are likely to be required to ensure that the station/infrastructure is open for a given length of time. Network Rail indicated in their consultation response that the staffing requirement depends heavily on the number of shifts of workers that are required to work on any given day. They indicated that they would need around 40-55% of daily rostered substantive operations staff and 20-30% of daily rostered substantive maintenance staff to work in order to deliver the Key Route Strategy for extended hours of operation using two shifts of workers. They also indicated that the staff requirement was likely to vary by job role, whereby a higher proportion of workers in some job roles would be required.

167. Similarly for light rail outside of London the impact on ability to strike varies by role. For example, a number of light rail systems have indicated that they require almost all or full staffing for control room staff to run any level of service safely. In contrast, the number of drivers required is more proportional to the service level. For example, one operator outlined that for a 30% service level they would require around 40% of the drivers and conductors, but 100% of the control room staff required on a typical day. Notably for a 40% service level this increased to almost 50% for drivers and conductors but made no difference to the percentage of control room staff required given that this was already at 100%. For another operator the change in driver requirements between a 30% and 40% service level was also relatively proportional to the increase in service level, but the requirement for infrastructure technicians was the same at a 30% and 40% service level, with a requirement for them to be almost fully staffed or fully staffed regardless of the service level.

168. Impacts of MSLs on the bargaining power of unions and workers is difficult to determine. However, if the policy were to change the balance between unions and employers, this may reduce the value that workers derive from being part of a union. This effect may be through potentially reduced extent of success for unions demanding improvements to pay and/or improvement to working conditions, relative to the counterfactual scenario. This potential adverse impact on the terms and conditions of workers in the unionised sector over time (if

bargaining power is substantially weakened) could have a negative impact on terms and conditions more generally in the labour market, relative to the counterfactual. It is also possible there could be secondary impacts such as wellbeing impacts due to monetary loss incurred by union members. These secondary impacts would be largely dependent on various factors so are highly uncertain and has not been assessed.

169. In determining the value of lost utility from being a member of a trade union, consideration should be given to whether, and to what extent, MSLs will impact the terms and conditions of rail workers on lower incomes. Should strike action lead to improvements in terms and conditions, the marginal benefit of extra income could be greatest for those on lower incomes.¹²⁵ Estimates of annual salaries are provided by ONS in the Annual Survey of Hours and Earnings dataset.¹²⁶ This includes percentile estimates of the distribution of salaries for different job types, indicating a range of salaries for various transport-related roles. This data demonstrates that while a large proportion of employees receive above UK median salary, some rail workers receive salaries lower than the UK median salary. In 2022, the estimated median gross pay for all employees in the UK was £27,756 and the median gross pay for full time employees in the UK was £33,000¹²⁷. In Network Rail, 50.5% of staff in 2023 earned below £40,000, 36.7% of staff earned between £40,000 and £60,000, 10.1% of staff earned above £60,000.¹²⁸ It is not possible to assess the impact of MSLs on terms and conditions, or whether it could result in proportionately larger costs to lower paid rail workers.

170. For a given strike, MSLs are expected to result in fewer staff being on strike, and therefore a reduction in the number of instances of pay being withdrawn on the basis of striking for that strike. The net effect over a certain period of time is uncertain, as is dependent on the frequency of strike action and impact of MSLs on the number of workers that are on strike compared with current strikes.

171. Workers who strike are not paid by employers for the period they are taking strike action. If MSLs results in fewer individuals involved in strike action, there will be reduced instances of withheld pay. Individuals who wanted to strike, but were unable to due to MSLs, would retain their pay for that strike period. This would need to be considered alongside the costs to those workers from being required to work (the utility cost described above) with the expectation that the net impact of these benefits and costs would be negative on the basis that workers would only be expected to strike if the benefits of doing so were to exceed the costs/disincentives.

Benefits

Benefits to Government

Increased revenue from running more services

¹²⁵ For further detail, please, see HMT (2022), The Green Book for a discussion of distributional analysis.

<https://www.gov.uk/government/publications/the-green-bookappraisal-and-evaluation-in-central-government/>

¹²⁶ ONS (2021). Annual Survey of Hours and Earnings. Table 14: Earnings and hours worked, occupation by four-digit SOC.

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashtable14>

¹²⁷ Earnings and hours worked, occupation by four-digit SOC: ASHE Table 14 - Office for National Statistics (ons.gov.uk)

¹²⁸ <https://www.networkrail.co.uk/wp-content/uploads/2023/02/Staff-salary-breakdown-in-20k-bands-2023.xlsx> This figure only covers Network Rail so is not representative of the entire rail industry and its workers which could be different.

172. It is generally expected that more users would access the rail network under MSLs on a strike day than in the “Do Nothing” scenario and so it would generate more revenue for rail and light rail. The volume of revenue loss that is avoided by MSLs would depend on the number of passengers who choose to travel on a strike day. Whether the increased revenue is a direct or indirect benefit to Government depends on contractual arrangements, with the Government benefiting directly when operating the services and indirectly delivered through other contractual arrangements. Further analysis on this can be found under ‘Benefits to business – increased revenue from running more services’.

Changes in tax revenue

173. On average, higher service levels during strike action may generate higher tax revenues which indirectly benefit Government finances. There are several potential increases in taxes which could happen due to MSLs. A significant increase in users relative to option 0 may generate wider economic impacts (such as on hospitality, catering and other sectors). More of the rail sector working on strike days could lead to higher income tax being paid. There could be a reduction in tax from shifts in consumer spending in rail (which doesn’t attract VAT) from consumer spending (which attracts VAT and other taxes). MSLs will also likely reduce use of card, which may reduce tax revenue on fuel. Given the uncertainty around changes to transport workers’ wages and working conditions and the change in consumer behaviour, the overall impact on tax revenues is difficult to estimate.

Changes in Track Access revenue

174. As Network Rail is a public body, there would be a benefit to Government in the form of additional revenue generated from variable track access charges paid to Network Rail from greater service levels resulting from MSLs.¹²⁹

Benefits to Businesses

Increased revenue from running more services

175. As per the benefit accruing to Government, businesses delivering train services also benefit from the increased revenue from more users accessing the rail network compared to the counterfactual. Whether the increased revenue is a direct or indirect benefit to businesses depends on contractual arrangements. We have assessed the potential revenue impact below for the different systems against the counterfactual scenarios.

Heavy rail

176. Table 17 below provides a high-level indication of how MSLs will impact revenue in comparison with various scenarios for strike action.

177. This approximation has been calculated by assuming that revenue for a given day is approximately £31.2m per day across the rail network¹³⁰, although in practice revenue will vary depending on the day of the week, as well as the time of year. The Department has

¹²⁹ More information about track access charges and the proportion on fixed and variable charges can be found in table 1 of this ORR document. <https://www.orr.gov.uk/sites/default/files/2021-10/pr23-charges-framework-user-guide.pdf>

¹³⁰ <https://dataportal.orr.gov.uk/media/1889/rail-industry-finance-uk-statistical-release-2019-20.pdf>. This figure has been calculated based on £10.4bn operator fare revenue in 2019/20, uplifted to 23/24 prices and divided by 365 to produce an average daily revenue figure. Daily estimate doesn’t account for weekday/weekend revenue differences or seasonal variation.

investigated the relationship between revenue and service levels on strike days and days following strikes by comparing industry revenue by date of travel to service levels (both as a percentage of a baseline).¹³¹ This evidence suggests that this relationship is broadly linear, as higher levels of service (as a percentage of baseline) correspond with proportionate increases in revenue (as a percentage of baseline). This linear relationship has been used to estimate the revenue impacts associated with introducing MSLs in different scenarios. There are other available modelling approaches and tools that the Department ordinarily uses to assess the impacts of changes in service patterns, such as using approaches set out in the Passenger Demand Forecasting Handbook¹³² or using MOIRA (an industry timetabling model). However, these approaches (and the elasticities underpinning them) are considered less appropriate for estimating the impacts associated with single-day and large-scale changes in service patterns as would be the case for days when MSLs would apply. The linear approach to estimating revenue impacts associated with MSLs (as used in Table 17) is considered appropriate because it is based on specific data on recent strikes and is therefore directly applicable to the use of MSLs and not subject to the same limitations that conventional rail modelling approaches face as set out above.

Table 17: Impact of MSL on daily revenue (£m, 2022/23)

Scenario	Without MSLs	With MSLs	Impact of MSLs
1. Infrastructure	6.2	18.7	12.5
2a. Train Operations (excl. drivers)	9.4	12.5	3.1
2b. Train Operations (incl. drivers)	1.6	12.5	10.9
3a. Infrastructure + train ops (excl. drivers)	6.2	7.5	1.3
3b. Infrastructure + train ops (incl. drivers)	1.6	7.5	5.9

178. Table 17 highlights the impact of imposing MSLs in comparison with option 0. It is evident that in all scenarios revenue is higher compared with the counterfactual scenario. This analysis is based on an average daily revenue figure across the industry. In certain cases, the value of revenue gain will be lower (e.g., during weekends).

179. Due to the nature of the relationship between revenue and strike action, it is assumed that changes to revenue imposed by MSLs would be proportionate to typical revenue of a given day of the week, or time of year. In other words, it is not expected that revenue would change disproportionately depending on when strike action takes place. Note that this analysis only considers the change in revenue losses on the day of the strike and does not take into account any knock-on impacts that may change revenue on other days. It also does not consider any potential scarring impacts on longer-term demand for rail.

Light Rail outside of London

¹³¹ Analysis is based on estimated revenue and service levels (both as % baseline) from June 2022 to March 2023. Due to the commercial sensitivity of this data, more detailed findings have not been included here.

¹³² Rail Delivery Group. About the Passenger Demand Forecasting Handbook. <https://www.raildeliverygroup.com/pdf/about-the-pdfh.html>

180. This section sets out revenue impact on light rail outside London. The approximation has been calculated by assuming that revenue for a given day is approximately £593k per day across light rail systems, although in reality revenue will vary depending on the day of the week, with demand being higher on some days than others. In addition, demand and revenue will also vary somewhat depending on the time of year, although seasonal variation is greater for some light rail systems than others. Demand and revenue will also likely be higher on ‘event days’, for example festivals or sports events, increasing the impact of MSLs on revenue relative to option 0. This is particularly relevant given that past planned strike action has often coincided with these days.

181. The “Do Nothing” scenario assumes no service on the network, i.e., revenue will be £0 on these days. However, given the availability of season tickets for some light rail services, in practice the revenue for these days is likely to be above this. The estimations for daily revenue are based on 2022/23 passenger revenue data,¹³³ with the total figure for the year divided by 365 to get the approximate figure of £593k for revenue per day. This has then been multiplied by the percentage MSL to get an approximation of the impact of MSLs on revenue.

182. An MSL of 40% will generate an estimated passenger revenue benefit of about £237,000 for one strike day for each system (this is set out in Table 18 below). In the instance that there were to be multiple systems experiencing strike action at once, the level of impact would vary depending on which systems this was for, as light rail systems vary significantly in size. For example, were 2 of the 8 systems to go on strike this could range between £18,000 and £144,000 for each strike day, or for 4 of the 8 systems between £51,000 and £186,000 per strike day. Due to limited data on the impact of strike action on revenue, for the purpose of this analysis passenger revenue has been assumed to be proportional to service level. However, in practice this will not always be the case, and will vary by system and by strike. Stakeholders have indicated that a 40% service level under MSLs may not equate to 40% of typical demand. Demand could be either higher or lower dependent on users’ reaction to the strikes. Operators have indicated that, where there were concerns about the level of demand compared to capacity, they would prioritise safety. They could manage this in part through communications, steering users to take alternative modes of transport where possible, or only using the service for essential trips.

183. While the revenue impacts for all systems have been considered in aggregate, it should be noted that for light rail systems, some are publicly owned and operated whilst others are privately operated through concession contracts granted by local authorities, with some private operators taking the ‘revenue risk’ meaning that the impacts on revenue and costs will more directly affect the private operators in these cases.

Table 18: Impact of MSLs on daily revenue (£m, 2022/23)

Scenario	Without MSLs	With MSLs	Impact of MSLs
MSL of 40% for operating services	£0.00	£237,000	£237,000

¹³³ Light rail and tram statistics - GOV.UK (www.gov.uk) LRT0301a

Light Rail inside London

184. Indicative figures have been produced to illustrate the impact of MSLs on revenue for light rail inside London. Data for annual passenger revenue for London Underground and Rail (London Overground, London Trams, and Docklands Light Railway) have been used to calculate an average operational revenue figure per day (See Table 19). The annual figures are forecasts of FY22/23, taken from TfL FY23/24 budget published on 29th March 2023. Here, Rail refers to the combination of London Overground, London Trams, and Docklands Light Railway. Due to unavailability of broken-down data for London Overground, London Trams, and the Docklands Light Rail, in this assessment London Overground is additionally being considered despite it being categorised as heavy rail.

185. Daily revenue figures are calculated based on the annual revenue forecast for FY22/23. It is important to note that daily demand fluctuates by time of the year and day of the week, as well as from external events.

Table 19: Annual and daily revenue forecast for FY22/23¹³⁴

	Annual	Daily
London Underground (LU)	£2,216.0m	£6.1m
Rail (London Overground, London Tram, the Docklands Light Rail)	£359.0m	£1.0m
Total	£2,575.0m	£7.1m

186. Table 20 summarises the impact of MSLs on day-to-day passenger revenue for different light rail modes within London. A linear relationship between revenue and service level has been assumed for illustrative purpose due to limited evidence, although in practice this relationship is much more complex. The estimation here does not include things such as revenue benefits from less disruption for the day before and after strikes, considerations around revenue benefit on other public transport modes, or the continuous impact of recovery from COVID-19 loss in demand. The calculations here are based of TfL’s 22/23 budget forecast as that is the best currently available data.

187. Due to TfL data only being available for the ‘Rail’ group, which includes London Tram, Docklands Light Railway, and London Overground, it is currently difficult to estimate impacts individually on different modes. Hence, the counterfactual for London Underground of 0% service level has been applied to all other modes to give a very high-level estimation of revenue impact.

Table 20: Impact of a 40% MSL on daily revenue per mode (£m, 22/23)¹³⁵

	No MSL	With MSL	Impact of MSL
London Underground (LU)	£0.00m	£2.43m	£2.43m
Rail (London Overground, London Trams, the Docklands Light Rail)	£0.00m	£0.39m	£0.39m

¹³⁴ Annual forecast operating cost figures of FY22/23 taken from TfL budget 23/24 published on the 29th March 2023 [TfL FY23/24 Budget](#).

¹³⁵ Calculation based on Annual forecast passenger revenue figures of FY22/23 taken from TfL budget 23/24, assuming a 40% minimum service level

Total	£0.00m	£2.82m	£2.82m
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188. With an MSL of 40%, the impact on passenger revenue on LU is expected to be £2.43m, and £0.39m for Rail (London Overground, London Tram, and Docklands Light Railway).

Reduced efficiency losses

189. The successful operation of rail networks across Great Britain requires significant forward planning and coordination of various organisations, workers and infrastructure to ensure a reliable service is available for users. Short term disruption to the rail network due to strike action causes disruption to operational and maintenance plans which requires time and resource intensive efforts to mitigate. This results in efficiency losses e.g., through maintenance and enhancement plans that are delayed and rescheduled for later dates at an increased expense. Though it is not possible to quantify, an increased level of service during strike action would likely reduce and minimise any costs associated with efficiency losses.

Benefits to rail users

User experience

190. One of the benefits to passenger rail users is an improvement in experience due to a higher level of service and greater certainty about that level of service on strike days. With more services on offer, passengers would have greater flexibility to travel when it suits their needs and wouldn't need to change their plans as much to align with severely reduced timetables produced at short notice.

191. Rail users are also likely to have an improved experience on days adjacent to strike days as MSLs are likely to reduce impacts on strike days and therefore lower the knock-on impacts on adjacent days.

Improved access to work or ability to earn a living

192. In 2019, 54% of surface rail journeys in England were made for commuting to work or education.¹³⁶ MSLs will increase the number of services on strike days, which will reduce the impact of strikes on workers' ability to access their workplace. They will also mitigate the costs associated with the inability of workers to access work. The impact of future strikes may be different to those recently experienced. Therefore, the extent to which the policy would reduce the impact on workers' ability to access their workplace is not possible to fully estimate or to estimate with a good degree of accuracy.

193. In December 2022, a report by Cebr estimated that rail strikes between June 2022 and January 2023 would result in a loss of UK economic output of around £500m due to people outside of the rail sector not being able to work. This impact does not include the direct loss

¹³⁶ National Travel Survey. <https://www.gov.uk/government/collections/national-travel-survey-statistics>. As used in 2019 Rail Factsheet (2020), p3. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/942425/rail-factsheet-2020.pdf

of output from workers on strike.¹³⁷ MSLs will likely reduce the wider economic impacts from strike action.

Reduced disbenefits of strike action on private and family life

194. Higher service levels on strike days should reduce the impact on those who use rail for leisure reasons when compared to the counterfactual, including visiting family and friends, caring for family and friends, shopping, tourism and other non-work reasons. These leisure activities contribute to the level of economic activity as well as the general wellbeing of society and the ability to go about such activities is restricted during strike action on the rail network.

195. A recent survey found that 11% of Great Britain adults had their travel plans disrupted by rail strikes in late January and early February 2023.¹³⁸ Another study, Rail Strikes: Understanding the impact on passengers¹³⁹, found that just over half (52%) of respondents had planned to make a rail journey during a strike week, and 27% of those who had planned to make a journey had to cancel/re-arrange social plans, spend less time with their family/friends, or both.

Impacts on access to education

196. MSLs may lead to an improvement of access to education during strikes. Passengers who use the rail networks to access school, college and university establishments, although there is a wide and uneven distribution across the networks, will benefit from the policy and face less disruptions in their studies or teaching. Although the most common mode of accessing education in England¹⁴⁰ in 2019 was either walking or taking private cars, around 1% of school students used surface rail as their main mode of travel to their place of education. Disruption may be felt particularly in urban areas where dedicated home-to-school transport could be less common.

197. Additionally, only a small proportion of workers in the education sector are currently working from home – the May 2023 Business Insights and Conditions Survey found that 10% of workers in education were working from home.¹⁴¹ Although the number of people ‘currently’ working from home is a different measure to ‘ability’ to work from home, we would expect the two to be correlated.

¹³⁷ Cebr (2022). <https://cebr.com/reports/eight-months-of-strike-action-to-have-cost-the-uk-economy-at-least-1-7bn-adding-to-existing-recessionary-pressures/>

¹³⁸ ONS (2023). Public opinions and social trends, Great Britain: 8 to 19 February 2023. [Public opinions and social trends, Great Britain: travel to work and rail disruptions - Office for National Statistics](https://www.ons.gov.uk/publications/abstracts/public-opinions-and-social-trends-great-britain-travel-to-work-and-rail-disruptions). Questions about the impact of rail strikes on GB adults have been repeated, with fieldwork periods 22 June to 3 July 2022, 3 to 14 August 2022, 31 August to 11 September 2022, 21 December 2022 to 8 of January 2023, 11 to 22 January 2023, and 8 to 19 February 2023. The percentage of GB adults disrupted was highest in two waves of this research covering the 2022/23 Christmas and New Year period – 19% for the 11th to 22nd of January 2023 fieldwork period, and 18% for the 21st of December 2022 to 8th of January 2023 fieldwork period. A smaller percentage were disrupted in the summer of 2022 at 15% for the 22nd of June to 3rd of July fieldwork period and 13% for the 3rd to 14th of August fieldwork period.

¹³⁹ Department for Transport (2023) Rail Strikes: Understanding the impact on passengers – summary findings at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

¹⁴⁰ Department for Transport (2021). National Transport Survey – Trips to and from school per child per year by main mode: England, 2020. <https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons>

¹⁴¹ Business Insights and Conditions Survey data (Wave 84, published 15th June 2023). Based on responses from 9,950 UK businesses referencing the period 1 May 2023 to 31 May 2023. Data from currently trading businesses only. <https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessinsightsandimpactontheuconomy>

198. Rail Strikes: Understanding the impact on passengers¹⁴² found that 4% of respondents had planned to travel to/from education during a strike week. Of those who had planned to travel to/from education 47% reported at least one impact including being unable to get to a place of education, being unable to study at all, studying less than planned, changing study hours, changing study days, and being unable to sit an exam. While this is a relatively small proportion of all respondents, it is worth noting that the survey included those over 16 only, of which only a small proportion are in education (8% of all respondents reported being full-time students, and 2% part-time, but these proportions increase to 56% and 6% for those aged 16-17, and 35% and 4% for those aged 18-24).
199. The same study also found that at least one impact on planned study or study arrangements¹⁴³ was reported by 3% of all respondents, 5% of those who had planned to travel for any purpose in a strike week, and 47% of those who had planned to travel specifically for education.
200. Amongst the group that had planned to travel for education, the most reported impact was the inability to get to a place of education (22%), followed by having to study less than planned (18%), and having to change study hours (14%). Only 7% of those who had planned to travel for education purposes reported being unable to study at all.
201. Those who had planned to travel to/from a place of education were more likely than those travelling for other purposes to have made all their planned rail journeys (20%, compared to 18% for personal business, 16% for leisure, and 13% for commuting to/from work).
202. A higher level of rail services should reduce the disruption faced by those accessing educational settings. It is not possible to quantify and monetise this impact, other than establishing some of the core facts about the use of the railway for the different purposes which operators will have regard to when setting MSLs.

Impacts on access to healthcare

203. According to the ONS, around 7% of workers in the health sector in the UK travelled to work by rail (including underground, light rail, and tram).¹⁴⁴ Evidence in the May 2023 Business Insights and Conditions Survey¹⁴⁵ indicates that health & social workers (6% of workforce working from home) are among industries with the lowest proportion of people currently working from home, and hence we might expect to be more likely to be impacted by rail strikes. While those who are 'currently' working from home is a different measure to the ability to work from home, we would expect there to be a correlation. The June 2020 wave (wave 7)¹⁴⁶ of the survey – taken as the country was starting to come out of the first lockdown – indicated that health and social care workers had the highest proportion of

¹⁴² Department for Transport (2023) Rail Strikes: Understanding the impact on passengers – full report, available at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

¹⁴³ Impacts to education were "I was unable to get to my place of education", "I was unable to study at all", "I had to study less than planned", "I had to change my study hours", "I had to change my study days", "I was unable to sit an exam".

¹⁴⁴ ONS (2020). Figure 6: Different modes of transport by industry, UK, 2018. <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/coronavirusandtraveltowork/june2020>

¹⁴⁵ Business Insights and Conditions Survey data (Wave 84, published 15th June 2023). Based on responses from 9,950 UK businesses referencing the period 1 May 2023 to 31 May 2023. Data from currently trading businesses only.

<https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessinsightsandimpactontheuconomy>

¹⁴⁶ Wave 7 1 June to 14 June: [Business Impact of COVID-19 Survey \(BICS\) results - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessinsightsandimpactontheuconomy)

employees not working from home, with around 62%¹⁴⁷ of those still working (surveyed among enterprises that remained open) and attending a dedicated place of work.

204. Rail Strikes: Understanding the Impact on Passengers¹⁴⁸ found that 1% of respondents had planned to make journeys to healthcare appointments during a previous strike week. Reported impacts on access to health and social care were correspondingly low: 1% of all respondents had to cancel a healthcare appointment, 1% had to rearrange a healthcare appointment, and 1% were unable to undertake caring responsibilities. These results reflect the small proportion of the population which might be expected to have a medical appointment scheduled on any given day, but not the scale of negative impact felt by them which could in certain circumstances be material. Indeed, approximately one third (32%) of those who had planned to travel for a healthcare appointment reported that they had to cancel or rearrange a healthcare appointment.

Change in travel costs

205. Strikes on the passenger rail network often lead to travellers using alternative modes of transport to travel to their destination.

206. Rail Strikes: Understanding the Impact on Passengers¹⁴⁹ found that 9% of all respondents and 16% of those who had planned to travel by rail during a strike week had increased travel costs due to rail strikes. However, 8% of all respondents and 13% of those who had planned to travel by rail during a strike week reported having saved on travel costs as a result of the rail strikes.

207. In March, the ONS published Revolut card spending data between June 2022 and Feb 2023.¹⁵⁰ The data showed the strike days in Dec 2022 – Jan 2023 led to a slight decrease in total spend on travel. The data showed that rail spending tended to decrease on days where there were rail strikes, with these decreases correlating with increased spending on buses and taxis, benefitting these other modes of transport.

208. The extent to which travel costs change under different strike scenarios and across different users depends on the nature of the strikes, choices around whether to travel, and alternative modes. However, it is likely that increased service provision enabled by MSLs will reduce any additional costs of alternative travel faced by users by enabling users to choose the most cost effective and convenient way to travel.

Wider Impacts

Wider economic impacts

209. Evidence from Rail Strikes: Understanding the Impact on Passengers¹⁵¹ indicates the kinds of disruption that transport strikes can have on household finances and productivity.

¹⁴⁷ 10.2% of people employed in human health and social work activities were on furlough which is not accounted for in the 62% figure.

¹⁴⁸ Department for Transport (2023) Rail Strikes: Understanding the impact on passengers – full report at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

¹⁴⁹ Department for Transport (2023) Rail Strikes: Understanding the impact on passengers – full report at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

¹⁵⁰ Figure 6 : The impact of strikes in the UK - Office for National Statistics (ons.gov.uk) – This data is not representation of overall UK consumer spending trends as the customer base for Revolut is typically younger than the population as a whole.

¹⁵¹ DfT (2023). Rail Strikes: Understanding the impact on passengers – summary findings at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

29% of all respondents, and 70% of those who had planned to commute by rail during a strike week, had their work or working arrangements impacted in some way as a result of the strikes. 5% of all respondents were unable to get to a business meeting.

210. Some sectors of the economy, such as leisure and hospitality, have reported that they have faced high volumes of cancellations as a result of rail strikes. The extent to which personal finances and businesses, and consequently the impact on the wider British economy, are impacted by strikes is highly uncertain and will vary by sector, geography and severity of strike. However, with more services running on strike days under MSLs, the adverse effects would likely be reduced to some extent.

211. Although it is understood that rail strikes impact the economy, these impacts are not easily isolated from other co-occurring events when measuring the economy (including labour market impacts, economic output, etc). An ONS release on the impact of strikes in the UK from June 2022 to February 2023 includes a range of sources that explore the impact of strikes in the context of the wider economic and social landscape.¹⁵² Given the outstanding uncertainties, quantification of these impacts and how they contribute to the wider economy has not been possible, though for context a discussion of how they have manifested in recent strikes has been set out in the “Problem Under Consideration” section.

Reduced negative long-term impacts on the rail sector

212. Evidence from Rail Strikes: Understanding the Impact on Passengers¹⁵³ indicates that strikes may have a long-term negative impact on rail usage. Almost a quarter (24%) of passengers who participated in the research agreed with the statement that they will no longer travel by train if the strikes continue for an extended period of time. It should be noted that this represents claimed future behaviour and may not correspond to an actual change in behaviours of the same level. The introduction of MSLs may therefore raise confidence amongst rail users by providing increased certainty about the services that will run. This could lead to increased rail usage over the longer-term compared with the “Do Nothing” scenario, which would generate positive user benefits, increased revenues in the sector, and wider economic impacts across Great Britain. Improvements in the operating position could potentially benefit all those in the industry – including rail workers by providing further security to the sector.

Reduced stress on other modes of transport during strikes

213. The policy will lead to a rise in the number of rail services running on strike days and therefore could avoid the additional pressure on alternative modes of transport that could be used. This could also lead to positive environmental impacts. This may be especially important in urban centres where congestion is more likely, given a relatively large travelling population.

¹⁵² ONS, 2023. The impact of strikes in the UK: June 2022 to February 2023. See: [The impact of strikes in the UK - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk)

¹⁵³ DfT (2023). Rail Strikes: Understanding the impact on passengers – summary findings at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

214. Evidence from Rail Strikes: Understanding the Impact on Passengers¹⁵⁴ indicates that rail users may switch mode of transport when strikes occur. Among those who had planned to make a rail journey during a strike week, 13% said they travelled by car/motorbike/van, 8% said that they travelled by bus/coach, 4% said that they travelled by taxi/minicab, and 4% said they travelled by another form of public transport (all instead of travelling by rail).

215. The level of impact could vary depending on the area. For example, for light rail systems outside of London specifically, the proportion of public transport trips accounted for by light rail on non-strike days varies significantly due to the different sizes of the systems. For larger systems the impact of any strikes, and therefore also MSLs, will be greater.

Reduced negative environmental impacts

216. Higher service levels on strike days may increase rail usage and reduce private car usage. Rail Strikes: Understanding the Impact on Passengers found that a larger proportion of respondents switched to car, motorcycle or van than other alternative modes (13% of those who had planned to make at least one journey by rail during a strike week).¹⁵⁵ If private car usage is reduced, the proposal is likely to reduce negative environmental impacts attributable to private car use as public transport tends to be less polluting than travel by car. For example, rail carried around 10% of all passenger miles prior to the COVID-19 pandemic but produced only around 2% of Great Britain's domestic transport emissions.¹⁵⁶ Additionally, for every mile travelled, passenger trains produce around one third of the emissions of the average petrol car. Therefore, modal shift towards rail use is likely to have positive environmental impacts. This potential benefit depends on the extent of passenger rail services which themselves emit carbon dioxide, which is highly uncertain and has not been monetised here.

217. The same is true for light rail outside of London: strikes on light rail systems may result in diversion to other forms of transport, such as car or van which will likely have higher emissions per person than light rail. This will be especially true in instances where strikes result in no service at all. Raising the service level on strike days will reduce this diversion to less green forms of transport, meaning there may be a positive environmental impact. The impact will depend on how many trips are simply not taken on strike days currently, compared to the number that are made through an alternative mode of travel. In addition, not all trips made will be replaced with travel by car or van. Some of these may also be made by other forms of transport, for example buses, which also have lower emissions on average. Notably around 60% of light rail stages travelled in England outside of London for areas in which a system operates are made by people with household availability to a car.¹⁵⁷ The proportion of trips that are diverted to different transport modes will vary by area and type of trip. For longer trips there are typically fewer alternative modes of public transport available, and the availability of alternative modes of transport will differ by area.

Business Impact Target Calculations

¹⁵⁴ DfT (2023). Rail Strikes: Understanding the impact on passengers – full report at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

¹⁵⁵ DfT (2023). Rail Strikes: Understanding the impact on passengers – summary findings at <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

¹⁵⁶ Energy and environment (TSGB03) - <https://www.gov.uk/government/statistical-data-sets/tsgb03> - table 0306

¹⁵⁷ Light rail and tram statistics - GOV.UK (www.gov.uk) LRT0401e

218. The proposal is expected to impose some costs on businesses, including increased operating costs and additional administrative/familiarisation costs, which are described above. Table 21 below provides further detail on the costs and benefits. Some of these costs have been monetised, but a large proportion of these remain non-monetised including future streams of costs. The only impact which is partially monetised is familiarisation costs to businesses and unions. Therefore, we do not provide a Business Impact Target score or Equivalent Annual Net Direct Cost to Business in this impact assessment

Indirect Costs and Benefits

219. In addition to the indirect costs and benefits set out above, there may be further indirect impacts as a result of the proposal.

220. The implementation of MSLs may lead to changes in the relationship between trade unions, employees and employers. These knock-on impacts are highly uncertain and could lead to costs or benefits for the transport sector or other sectors depending on many factors.

Sensitivity Analysis

221. This impact assessment has monetised only a small proportion of the costs and benefits associated with the proposal. For some areas where quantification has been made, such as familiarisation and administrative costs, high-low ranges have been provided to inform the potential magnitude of such uncertainties.

222. We have undertaken some sensitivity analysis on the amount of time and number of employees per organisation required to familiarise themselves with the requirements of the proposal. These estimates are intended to provide an indication of the range of costs that could arise.

Status of quantification and monetisation of costs and benefits

223. Table 21 below illustrates the assessment of the costs and benefits that has been undertaken in this impact assessment. Given the large uncertainty around forecasts into future years, lack of evidence to develop quantified estimates for some important categories of costs and benefits, a net present value of costs and benefits has not been produced. As the table below sets out, the impact assessment has only monetised a small proportion of costs and benefits and an annualised stream of costs and benefits based on only a small proportion of the costs, will be misleading.

Table 21: Monetised vs Unmonetised costs and benefits

Group	Costs	Benefits
Government	Quantified, not monetised: Increased funding due to cost of running additional services	Quantified, not monetised: Increased revenue from running more services (direct/indirect)

	(direct/indirect – will depend on the contractual arrangements in place)	Change in in tax receipts to Government from business and wider economy (indirect)
Businesses – transport operators and infrastructure managers	Monetised: Administrative and familiarisation costs (direct) Quantified, not monetised: Increased costs of running more services (direct)	Quantified, not monetised: Increased revenue from running more transport services during strikes (direct) Not quantified: Reduced negative business impacts associated with strikes (direct)
Rail users	N/a	Not quantified: Reduced negative impacts of strikes on user experience (direct) Reduced negative impacts on access to workplaces or ability to earn a living (direct) Change in transport costs for consumers (direct) Reduced negative impacts of strikes on access to private and family life, education, and health (direct)
Unions	Monetised: Administrative, familiarisation and compliance costs (direct) Not quantified: Impacts from a reduction in bargaining power (direct)	N/a
Rail workers	Not quantified: Loss in utility resulting from the restricted ability to take strike action partially offset by pay for those working on strike days (direct)	
Wider Impacts	N/a	Not quantified: Reduced negative impact of strikes on businesses, livelihoods, wider economy, environment, and other transport modes (indirect) Reduced negative long-term impacts on the rail sector (indirect)

3.0 Risks and unintended consequences

Risks

224. There are several potential risks to reflect in the analysis of impacts which have been considered in the detailed design of the policy.

225. Where minimum service levels (MSLs) are in place, there is a reliance on staff complying with the work notice requiring them to work. The ability to take strike action will not be restricted for all rail workers, only those who are required to deliver the policy that has been prescribed in the regulations. The first risk is that the staff listed on the work notice could fail to turn up for work. Where there is a failure on the part of an employee to comply with the work notice, this removes the right to automatic protection from unfair dismissal, and any disputes between the employee and the employer on this would be subject to that employers' human resources procedures. There is a risk that this could result in employment tribunal cases, however it is challenging to predict to what extent this would

take place. This could result in the wider loss of employee goodwill, potentially increasing absences from work or a decrease in the uptake of employees agreeing to take on voluntary overtime. However, the extent to which this could take place is challenging to predict. Any workers named on a work notice who fail to turn up for work, without providing any notice of this, could have a direct impact on the ability of employers to operate their services as planned, or services may be cancelled or delayed.

226. A further consequence of this policy could be an increase in staff taking action short of striking (ASOS). This type of industrial action is not covered by the passenger rail MSLs regulations or the parent Act. Recent ASOS in the rail industry includes overtime bans, which operationally are difficult to mitigate as some parts of the rail industry rely on some staff (usually drivers) utilising overtime hours and their rest days to run business as usual services. An overtime ban is less impactful on the people striking than full strike action, in terms loss of remuneration, this means in practice that it can be sustained over a longer period which creates more uncertainty for passengers. This has also been interspersed with full strike action, for example, ASLEF (the trade union that represents train drivers) held overtime bans on Monday 17 to Saturday 22 July 2023, then again from Monday 7 August to Saturday 12 August 2023 and then undertook strike action on Friday 1 September with a further overtime ban on the 2 September 2023. This action led to reductions in service levels, while these have tended to be relatively modest as compared with the reductions experienced during strike action, there were more ASOS than strike days in this period. To note, that while generally service levels were higher than full strike days there were variations across operators.

227. Overall, introducing MSLs for passenger rail services will likely put further strain on relations between unions and employers. Motions have been passed actively seeking to oppose the introduction of MSLs across sectors at the recent Trade Unions' Congress (TUC) in September 2023 including by rail trade unions.¹⁵⁸ This indicates that these MSLs may result in more adverse impacts in the short to medium term, such as an increased frequency of strikes for each dispute to compensate for the reduced impact of each strike, localised disputes where employers seek to dismiss employees non-compliant with work notices or a rapid escalation in the use of ASOS. However, the extent of this impact is still speculative as disputes relating to strikes are influenced by a range of factors, such as the nature of the dispute, the trade union involved, the level of support for strikes from union members and the ability of employers and unions to reach settlement of disputes. The impacts of future ASOS may also differ depending on the extent of the reliance of operators on overtime and rest day working to operate train services. Industry is seeking to implement modernisation and further resilience to mitigate these impacts and deliver a more reliable service to passengers.

228. Light rail stakeholders in particular have raised concerns around safety risks of implementing an MSL. Whilst the policy will allow for a higher service level on strike days, it will still be lower than levels on non-strike days, creating overcrowding risks. For many light rail systems there are no barriers (such as ticket gates) to passengers accessing the system. This makes it difficult for these systems to control the number of people on board, making overcrowding risks particularly relevant if strikes coincide with large events where patronage is higher than average. However, this risk is somewhat mitigated by the fact that

¹⁵⁸ <https://congress.tuc.org.uk/c01-campaign-against-the-minimum-service-levels-msls-legislation/#sthash.Z9Hiatur.dpbs>

employers are not required to issue a work notice in the instance of a strike. Therefore, where there are safety concerns relating to implementing MSLs on a particular strike day they can choose not to issue a work notice.

Unintended consequences

229. We have set out above the direct and indirect costs that are expected to be incurred by government, businesses and rail sector employees. It is possible that the policy could generate unintended consequences that have not been considered directly within the assessment.

230. Examples of further potential impacts include:

- Additional impacts on operators beyond those set out above, which could result from the additional responsibilities or duties imposed on operators by the policy.
- Impacts on the supply chain affecting businesses not considered in the costs and benefits section.
- Costs to other parties not included within the assessment of costs and benefits. It cannot be ruled out that such costs could affect small or micro businesses.

231. Additionally, the introduction of legislation around MSLs may have an unintended negative impact on industrial relations. The risk of any unintended consequences of this legislation will be actively managed.

4.0 Wider impacts

Innovation Test

232. We do not expect this proposal to directly impact innovation or impact it substantially. For instance, the industry has been looking into Driver Only Operation/Driver Controlled Operation which are already in place on parts of the network. It is possible that minimum service levels (MSLs) will create impetus to accelerate progress on this kind of technological change in the industry, although such changes depend on many other practical, operational and financial factors. Additionally, unforeseen innovation is not anticipated to materially affect the assessments provided in this impact assessment.

Micro, Small, and Medium Business Assessment

233. Costs to businesses identified in this impact assessment include the following costs, both of which are likely to apply to transport operators:

- Costs associated with running additional services during strikes.
- Administrative and familiarisation costs to comply with the new regulations.
- Enforcement costs related to non-compliance.

234. These costs have the potential to place a proportionately large burden on micro, small and medium businesses if they are affected by the proposal. For example, smaller businesses may be required to devote a greater proportion of their resources to familiarising with the new legislation and addressing any additional administrative burdens.

235. The table below sets out the number of businesses in passenger rail transport, interurban as based on the 2022 business population estimates.¹⁵⁹ This category is defined by the ONS as follows:¹⁶⁰

Passenger rail transport, interurban: rail transportation of passengers using railway rolling stock on mainline networks, spread over an extensive geographic area; passenger transport by interurban railways; operation of sleeping cars or dining cars as an integrated operation of railway companies.

236. There is a relatively high proportion of larger employers within the passenger rail transport (interurban).¹⁶¹ However, there are some businesses that are classified as micro, small or medium businesses.

¹⁵⁹ Business Population Estimates for the UK and Regions 2022. Table 7 – Number of businesses in the private sector and their associated employment and turnover, by number of employees and industry group, UK, start 2022. Selected transport categories.

<https://www.gov.uk/government/statistics/business-population-estimates-2022>

¹⁶⁰ Office for National Statistics (ONS): UK Standard Industrial Classification (SIC) Hierarchy. https://onsdigital.github.io/dp-classification-tools/standard-industrial-classification/ONS_SIC_hierarchy_view.html [Accessed 17.07.23]

¹⁶¹ Note: Table 7 of the Business Population Estimates does not provide a more granular breakdown

Table 22: Business population estimates for employers in passenger rail transport, interurban, 2022

Business size	Proportion of employers in each category
1-9 employees	25%
10-49 employees	12.5%
50-249 employees	12.5%
250+ employees	50%

237. The following table shows the size of franchise TOCs operating in the market, by number of employees¹⁶². The average TOC has several thousand employees and far exceeds the 499 employees medium business threshold. With the exception of Eurostar, (who we estimate to employ 1600 people), non-franchised operators generally have fewer employees, as shown in Table 23.¹⁶³ These TOCs therefore make up those businesses that would be considered in the 50 – 499 employees medium business category.

Table 23: Number of TOC employees

Train operation company	Number of employees
Govia Thameslink Railway	7,414
Northern Trains	6,855
Great Western Railway	6,231
South Western Railway	5,266
ScotRail	4,926
Southeastern	4,556
Avanti West Coast	3,279
London North Eastern Railway	3,017
West Midlands Trains	2,901
Greater Anglia	2,799
TfW Rail	2,770
East Midlands Railway	2,295
CrossCountry	1,914
TransPennine Express	1,570
London Overground	1,530
TfL Rail	1,256
Merseyrail	1,149
Chiltern Railways	896
C2c	634

238. The following table shows the number of FTE staff employed by/to work on light rail systems, including contracted staff. The majority of light rail systems employ a smaller number of people than the average heavy rail train operating company, although London Underground is an obvious outlier. Aside from London Underground all systems employed

¹⁶² Table 2233 - Full-time equivalent (FTE) employees by operator, as of March 2022. <https://dataportal.orr.gov.uk/statistics/compendia/toc-key-statistics/>

¹⁶³ Table 2233 - Full-time equivalent (FTE) employees by operator, as of March 2022. <https://dataportal.orr.gov.uk/statistics/compendia/toc-key-statistics/>

less than 1,000 FTE staff (although the DLR figure does not include cleaning staff), with many also falling in the medium business category, having 50-499 employees.

Table 24: Numbers of full time equivalent (FTE) staff employed by/to work on light rail, tram and underground systems: Great Britain (GB) – as at 31 March 2023¹⁶⁴

Light Rail System	Number of FTE staff
Docklands Light Railway ¹⁶⁵	901
Blackpool Tramway	156
Edinburgh Trams	270
Glasgow Subway	329
London Trams	321
London Underground	17,789
Manchester Metrolink	967
Nottingham Express Transit	302
Sheffield Supertram	324
Tyne and Wear Metro	947
West Midlands Metro	235

239. In terms of knock-on impacts to micro, small and medium businesses within the supply chain for rail, we do not expect that there will be significant additional costs associated with the introduction of MSLs. The scope of businesses that are included within scope of the regulations is limited to operators, infrastructure managers, and light rail operators, as set out in paragraphs 35 to 43, and does not include businesses within the wider supply chain. The operational supply chain will therefore not face substantial additional requirements or any obligations other than those set out with their contracting parties. However, the potential increase in service levels on strike days associated with MSLs could result in some knock-on impacts on supply chains associated with on-the-day delivery of rail services, such as through increased activities on strike days compared with normal. Overall, it is anticipated that these impacts will be neutral (for those suppliers on fixed contracts) or positive (for those suppliers that are on variable contracts and are therefore currently negatively impacted on strike days due to reduced need for the services that they provide), with no material additional costs on supply chains as a result of MSLs. The consultation and further engagement with industry has not indicated that wider industry supply chains have been a limiting factor within the determination of service levels through the strike planning process, and that operational supply chains have been able to adapt to different service levels. Additionally, the consultation and further engagement with industry has not identified considerable additional costs to the wider supply chain as a result of MSLs. This is logical, given that MSLs will increase service levels closer towards typical (non-strike day) levels, which sub-contractors are committed to delivering in absence of strikes.

240. Costs to trade unions identified in this impact assessment include the following costs, both of which are likely to apply to transport operators:

- Potential cost of reduced bargaining power leading to a reduction in membership
- Administrative and familiarisation costs to comply with the new regulations.

¹⁶⁴ Light rail and tram statistics, England: year ending March 2023 - GOV.UK (www.gov.uk) LRT0501

¹⁶⁵ The DLR were not able to include cleaning staff in their numbers.

241. These costs have the potential to place a relatively large burden on micro, small and medium trade unions if they are affected by the proposal. For example, smaller unions may be required to devote a greater proportion of their resources to familiarising with the new legislation and addressing any additional administrative burden. These impacts are discussed in further depth in paragraphs 141 to 150. The cost of reduced bargaining power leading to a reduction in membership levels is likely to impact the revenue of the unions. This impact is likely to have a larger impact on smaller unions who are more sensitive to small changes in revenue. The admin and familiarisation costs for unions due to MSLs are also likely to impact unions who have a smaller workforce more, as they have to devote a higher proportion of their resources to this. Therefore, the policy is likely to impact small unions.

242. The table below gives an indication of the size of each union that may incur costs due to MSLs in rail. Due to limited data, we have been unable to provide a breakdown of employees for each union and therefore have been unable to classify each union as small, micro, medium or large. However, there is likely to be a correlation between size of businesses and higher revenue and membership numbers. Some of the unions below do cover sectors other than rail so only a fraction of the entire union is affected by the policy.

Table 25: Trade Unions: Revenue and membership numbers¹⁶⁶

Trade Union	Revenue ¹⁶⁷	Number of members ¹⁶⁸
TSSA	£4,132,489	17,392
ASLEF	£6,917,199	23,625
RMT	£17,746,000	81,720
GMB	£69,858,000	589,946
UNITE	£161,044,000	1,171,186
Unison	£161,350,000	1,372,045

243. To conclude, the policy could impact small, micro and medium businesses and unions. However, it is not possible to exempt these businesses and unions without affecting the ability to achieve the policy objectives. Furthermore, we are unable to mitigate the effects of this policy on these unions, because this policy directly impacts the activity of unions, and the policy could not be delivered if exemptions or mitigations were granted to certain unions. This is because doing so would threaten the deliverability of the defined minimum service levels. The impact on small, micro, and medium businesses (which are not themselves unions) is already mitigated to a certain extent due to the fact that work notices are discretionary only; and so these businesses will have as much time as they desire to familiarise themselves with the legislation and can then choose whether to issue a work notice or not to deliver an MSL in the event of any strike action.

¹⁶⁶ Annual Trade Union accounts for each trade union: For consistency we have used the 2020 returns for each union. We also note that these unions also represent other sectors, so the figures are not directly attributable to the rail sector.

RMT (2020): [715T_2020.pdf \(publishing.service.gov.uk\)](#)

ASLEF (2020): [00206B3EF8E4210531091858 \(publishing.service.gov.uk\)](#)

TSSA (2020): [AR21_2020 - final signed.xls \(publishing.service.gov.uk\)](#)

UNITE (2020): [*795T_2020.pdf \(publishing.service.gov.uk\)](#) – we have only considered those who were in office at the of 2020.

GMB (2020): [707T_2020.pdf \(publishing.service.gov.uk\)](#)

Unison (2020): [AR21_GB Master 2020 - Signed UNISON.pdf \(publishing.service.gov.uk\)](#) – the annual return did not contain information on number of officials employed.

¹⁶⁷ Based on figures within reports on the annual contributions from members.

¹⁶⁸ Number of members in Great Britain at the end of the year.

Equalities impact assessment

244. As set out above, the proposal will interfere with the ability to take strike action for those workers who are required to work on strike days, to comply with MSLs.
245. Based on the Labour Force Survey the 'transport and storage' sector¹⁶⁹ in the UK is comprised of a higher proportion of men (77%) than women (23%). Within rail, 80% of workers are male and a majority are aged between 31 and 50.¹⁷⁰ By contrast, the employed population in the UK is more evenly distributed between genders, with 47.3% of employees being men and 52.7% of employees being women.¹⁷¹ Although publicly available data is not available on the ethnicity of workers in the rail sector, data is available for the wider transport sector. The 'transport and storage' sector is broadly comparable to that of the overall population of employed people, but with a higher proportion of people identifying as ethnic minorities in the 'transport and storage' sector (20%) than in the overall employed population (14%) in the UK.¹⁷²
246. In consideration of this limited evidence, the proposal may impact protected characteristics groups more than other groups. However, the extent to which protected characteristic groups are affected is uncertain, particularly as some job roles may be more impacted than others.
247. As set out above, it is anticipated that MSLs will deliver benefits to rail passengers, the extent of which may vary across groups. Evidence from the Department's survey on strikes¹⁷³ indicates that passengers with disabilities may have faced some increased impacts due to strikes compared with those without a disability, such as greater disruption to their journeys (44% experiencing disruption to a planned journey vs 41% with no disability) and greater impact on planned social activities (18% had to cancel/rearrange social plans vs 13% with no disability). The introduction of MSLs may therefore positively impact passengers with a disability.

Justice Impact Test

248. We are engaging with the Ministry of Justice on the justice impacts test. The implementation of MSLs in rail will unlikely lead to negative impacts on any groups accessing the legal system or having recourse to it.

Trade Impact

¹⁶⁹ April – June 23: EMP13: Employment by industry - Office for National Statistics (ons.gov.uk)Transport and storage SIC code, used by ONS, relates to activities such as air, land and water transport (e.g. rail, taxi and passenger air transport etc.) and also relates to warehousing and support activities for transportation (e.g. warehousing and storage, cargo handling, and bus and coach station facilities etc.)

¹⁷⁰ National Skills Academy for Rail (2020). Back on Track, p.7. <https://www.nsar.co.uk/wp-content/uploads/2020/11/cgq-back-on-track-report-pdf.pdf> - 84% male and 16% female

¹⁷¹ <https://www.gov.uk/government/publications/hmrc-and-valuation-office-agency-gender-pay-gap-report-and-data-2022/hmrc-gender-pay-gap-report-2022>

¹⁷² Office for National Statistics (2022). Annual Population Survey, ethnicity by industry, October 2021 – September 2022. Accessed from Nomis. <https://www.nomisweb.co.uk/datasets/aps180><https://www.nomisweb.co.uk/datasets/aps180>

¹⁷³ Department for Transport (2023) Rail Strikes: *Understanding the impact on passengers*. <https://www.gov.uk/government/publications/rail-strikes-understanding-the-impact-on-passengers>.

249. As set out by the Better Regulations Framework guidance, all impact assessments must consider whether the policy measures are likely to impact on international trade and investment. We do not believe that the introduction of powers in the rail sector will have any impact on international trade as the systems impacted are only Great Britain wide.

Family Test

250. This proposal aims to improve family life due to the expected positive impact on the right to respect for private and family life under Article 8 of the European Convention on Human Rights.

Health impact assessment

251. This proposal is likely to reduce the detrimental impacts of rail strikes. The costs and benefits section has some evidence relating to the use of rail for access to healthcare services or for work in healthcare. There may be wider health benefits from the use of rail and light rail relative to car journeys, in terms of lower levels of pollutants such as NO_x and PM₁₀, although this will vary by location and could be higher in some places (compared to the counterfactual) if more diesel services are run.

Rural Proofing

252. This proposal, will lead to increased transport services during strikes, thereby avoiding or reducing the possibility of strike action resulting in parts of the transport network being completely shut down or experiencing very significant levels of service disruptions, and therefore may lead to reduced negative impacts of strikes on rural areas. It should be noted, however, that the policy approach to an infrastructure strike is that the infrastructure MSL can be applied to the routes listed in regulation only. This means that for this type of strike there will remain parts of the network that will still not be operational. The routes defined seek to prioritise the most highly used routes; network closures will often continue to affect rural areas where usage of rail tends to be significantly lower.

Sustainable Development

253. This proposal is not anticipated to impact sustainable development.

Competition Assessment

254. This proposal is not anticipated to have substantial impacts on competition.

Greenhouse Gases Impact Test/Wider Environmental

255. This policy will increase service levels on strike days compared to the counterfactual which may increase rail usage and reduce car usage. The legislation could therefore lead to some benefits in terms of reduced carbon emissions and improved air quality as rail tends

to be less polluting than travel by car. For example, heavy rail carried around 10% of all passenger miles prior to the pandemic but produced only around 1% of Great Britain's transport emissions.¹⁷⁴ Additionally, for every mile travelled, heavy rail passenger trains produce around one third of the emissions of the average petrol car¹⁷⁵. Therefore, a modal shift towards public transport is likely to have positive environmental impacts. This potential benefit depends on the extent to which the proposal will facilitate a modal shift, which is highly uncertain and has not been monetised here. It is also dependent on the geographical distribution of services, offsetting emissions from running additional public transport services, and factors that affect traffic on the day of strike actions.

¹⁷⁴ Williams-Shapps Plan for Rail (2021), p88.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/994603/gbr-williams-shapps-plan-for-rail.pdf

¹⁷⁵ Williams-Shapps Plan for Rail (2021), p16.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/994603/gbr-williams-shapps-plan-for-rail.pdf

5.0 Post implementation review (PIR)

256. The primary legislation will be evaluated by the relevant department (i.e., the Department for Business and Trade), and the Department for Transport (DfT) will provide evidence and any relevant analysis to support this and also provide more detailed review relating to secondary legislation relating to transport. The more substantial implementation reviews will be undertaken by DfT on how the rail minimum service levels (MSLs) will have delivered its objectives and learning lessons on the effectiveness of the implementation approach and the outcomes of the policy.
257. The policy will be evaluated within the first five years from when the secondary legislation comes into force. This will be a sufficient period to observe the effectiveness of the policy and collect adequate data for an evaluation study. DfT will develop its more detailed evaluation plan when the policy is fully implemented. This will then set the background to develop the relevant counterfactual/baseline, and the relevant data and evidence that will be needed additional to those that will have shaped the evidence framework for MSL. However, if an event triggers a need for this evaluation to be conducted earlier, then this will be undertaken as soon as is practically feasible. Such triggers may include the need to learn lessons on implementation to inform whether the powers provided by the legislation are sufficient and effective or whether they require any amendments, or for any other reason such as other studies or analyses that show some divergence between the policy intention and the emerging outcomes.
258. Due to the nature of this legislation, these regulations will only impact delivery of services when there are strike days in the rail sector. The ability to effectively evaluate the policy delivering its objectives depends on the extent to which it is used, which in turn depends on the frequency of strikes affecting rail services over any review period. Although the policy is not expected to have a direct impact on business as usual services for rail, the PIR will consider any indirect or unintended impacts on business as usual operation and delivery of rail.
259. The PIR will include an evaluation of the extent to which the policy has delivered its objectives. This is likely to include, but may not be limited to, the following, which is indicative at this stage and will be further developed as part of the PIR:
- a. How has the objective of fairly balancing the cost (disbenefits) from limiting strike action against the benefits to the wider public (such as better access health care, to key worker employment) been achieved?
 - b. What impact has the policy had on union membership?
 - c. How have wider economic impacts and environmental impacts been incorporated into the factors that government considered when setting MSLs?
 - d. How has the policy impacted the number of strikes, actions short of a strike and the likelihood of reaching an agreement during a dispute.
 - e. What have been the impacts on key service operators?
 - f. Have there been unintended consequences from the policy, or through any mechanism put in place to deliver the policy?
 - g. What are the lessons learned that could be transferred to other areas?

260. It is anticipated that the evaluation will include both a process evaluation as well an impact evaluation. This will explore the process of developing secondary legislation, its implementation, the costs of familiarisation and other administrative functions needed to deliver the policy. This will aim to establish the cost of the different aspects of the process of implementing the policy. The impact evaluation will focus on the impacts on passengers, other users of the relevant transport system, employers, workers, the wider economy and the environment.

Post-Implementation Review (PIR) Plan

1. **Review status:** Please classify with an 'x' and provide any explanations below.

<input type="checkbox"/>	Sunset clause	<input type="checkbox"/>	Other review clause	<input type="checkbox"/>	Political commitment	<input checked="" type="checkbox"/>	Other reason	<input type="checkbox"/>	No plan to review
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Policy will be reviewed after five years of the secondary legislation for passenger rail MSLs coming into force.

Regulations are to be reviewed in parallel to policy. However, if implementation of regulations and any relevant guidance, triggers an event where a review is needed sooner or will be significant for determining the baselining of the evaluation for the review, then it will be conducted earlier. Monitoring data will be used to inform the decision on timing of the review and baselining that will be conducted.

2. **EU or Domestic Regulation:** Please indicate the origins of the regulation.

<input type="checkbox"/>	EU-derived regulation	<input checked="" type="checkbox"/>	Domestic regulation	<input type="checkbox"/>	Other
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3. **Expected review date:** month and year.

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January 2024 is an expected timing for secondary legislation to be in place. We may decide to undertake a review in advance of this date, for instance, on the third year of implementation of relevant secondary legislations, in order to build the baseline information required for the evaluation of the policy.

4. Rationale for PIR approach:

Will the level of evidence and resourcing be low, medium or high?

Based on the quantity and quality of information that is currently available to set the baseline for an evaluation study, or to assess impacts of the policy, the level of evidence and resourcing will be medium to high. The Department for Transport will separate light rail from heavy rail for the purpose of evaluation as the systems holding the evidence will differ and developing the baselines will depend on different principles, engagements and data collection processes.

Primary legislation sets out the broad framework for how MSLs will operate. The key evidence required to demonstrate whether the policy is having the expected impacts at an aggregate sector level may be relatively easy to collect, process and analyse. This will broadly look at whether the impacts of strike actions have changed with the policy coming into force, and some of the main implementation costs incurred. The level of evidence and resourcing would be low to medium. But certain aspects of data collection, such as gathering information from passengers, train operating companies, trade unions and other parties, may require substantial amount of resources designing surveys, collecting and analysing information and ensuring a good level of assurance accompanies both the data and the analysis conducted on them.

To fully appreciate whether the core objectives of the policy are being met or has been achieved in a reasonable and fair manner will require more detailed analysis at a local and sector level. This will require conducting new data collection and primary analysis. This will also include wide stakeholder engagement. The level of evidence and resourcing will be high.

What forms of monitoring data will be collected?

Data is currently collected during strike action and on the adjacent days of strikes. We will continue to build on this evidence base so that a more comprehensive dataset of the impact of strikes could be analysed. This monitoring data is undertaken by the Department.

Additional monitoring data will be required with the introduction of the policy. This will include data from other Government departments such as ONS (on retail transactions, or the impact on the hospitality sector).

For rail, the Department also requires templated information to be provided by train operating companies, light rail operators or relevant devolved administrations, and from Network Rail and other rail partners. This activity will have to continue, and work needs to be undertaken in order to build a database of information from these sources which are key to establishing the impacts. The Department works closely with these companies, organisations, Network Rail and other rail partners. This information includes financial information such as cost impacts during strikes, demand information, and labour force data (absences etc). The quality of this information will need to be tested.

Other monitoring data will be available to assess the impact on other modes, using reporting information from wider transport sectors. Also, data on pay mandates and time spent on these processes will need to be collected and monitored. This will be from operators, some of the supply chain (to be confirmed), network operators, and devolved administrations.

What evaluation approaches will be used (e.g., impact, process, economic)?

Given the complexity of the policy and its implementation, it is currently envisaged that both a process and an impact evaluation will be undertaken.

The process evaluation is very important, including the fact that key lessons will need to be derived and hopefully used in improving implementation, and in using the lessons for other relevant sectors.

The impact evaluation, including before and after comparisons, will be key to delivering the analysis to make a judgement on whether secondary legislation will need any amendments.

It will also look at whether any unintended consequences came about during implementation due to any other factors, explained by the characteristics of the sector being regulated.

How will stakeholder views be collected (e.g., feedback mechanisms, consultations, research)?

The devolved administrations will be engaged through existing channels of data sharing and data collection. For rail, the Department has a good working relationship with TfL and other administrations. A process of engagement through a light touch 'survey' may be sufficient. Hence consultations may be the method that may be deployed.

With regards to parties such as Network Rail, other infrastructure managers and Train Operating Companies, these will be through a mixed method of a formal request for information, informal regular engagements between franchise managers and operators, or colleagues working closely with Network Rail. We are currently unsure whether research will be required but will scope this depending on whether more structured evidence will be required, other than information that is already collected through existing means.

Other stakeholders (including unions and employees) will need to be scoped and an engagement plan will be developed, including following up with relevant parties who will have expressed clear views during the consultation exercise that is planned for secondary legislation. This is likely to take the shape of focus groups and structured interviewing to gather qualitative evidence, and if possible, some quantitative evidence on time spent and costs etc.

On the passenger side, there are different methods to track passenger responses to future strike actions and how they compared to strike actions pre-MSL implementation. This could be from observed travel trends and usage of network, through telephone data and footfall information, and also data on card and other transactions. But, to gather behavioural responses, surveys similar to the strike survey conducted over the last year may be used, but care will need to be implemented on representativeness of the evidence against which it will be compared. This type of survey requires careful scoping and is both time and resource intensive.

Key Objectives, Research Questions and Evidence collection plans for the Post Implementation Review

Key objectives of the regulation(s)	Key research questions to measure success of objective	Existing evidence/data	Any plans to collect primary data to answer questions?
Achieving an MSL that aligns with policy	Successful delivery of MSL – to balance the ability of rail workers to take strike action with the needs of the wider public during strike action.	Existing usage data by purpose, for example in the National Travel Survey. Existing supply-side information, e.g., rail timetables run during strike and non-strike days. Existing studies and research into passengers, responses to strikes, and other relevant data on uses of transport to access education, health and places of work. Some wider economic impacts of strikes.	Primary data to be collected on MSLs when developed. This will be compared with baseline data. Research into passengers' responses to different strike actions, to build a more comprehensive database of data for further analysis. Analysis of distribution of impacts of rail sector strikes. Further research into the impacts on access to important public services. Research into impacts on workers in the sector.
Effective and efficient delivery of the policy	Extent of costs faced by all parties involved in implementation of MSLs.	Emerging evidence once policy is implemented at sector level, reviewing costs of implementation and any relevant administrative costs involved.	Research into costs to the wider sector and impacted parties, through a combination of focus group, interviewing and data collection.
Effective monitoring	Impact of strikes on rail travellers.	Social research survey has been conducted on the impact of recent strikes on rail users.	Social research will need to continue and will need to cover a good sample of devolved administrations. Research will need to be conducted to understand the wider economic impact. An overarching methodology will need to be developed to capture in a single framework the balancing of different interests to test the outcome of policy.
	Impact on economy minimised.	Studies on wider economic impacts, e.g., Cebr as referenced in the costs and benefits section of the IA. Other relevant data such as on hospitality and other sectors. Social research around impacts on commuters.	