

Evidence to the Welsh Parliament Climate Change, Environment and Infrastructure Committee Session on 26 May 2022 on Bus and Rail Transport in Wales

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The Future Priorities for Public Transport in the Changing Context of Mobility Demands Following the COVID-19 Lockdowns

The present evidence note emphasises that, in considering the context for post-COVID recovery and policy priorities for bus and rail in Wales, it is important to consider the changing socioeconomic context of demand for public transport and the extent to which the current situation is part of a set of trends that will variously continue, stabilise or reverse. The final Section 5 provides a summary of some of the key policy priorities.

1. Importance of the Changes in Public Transport Policies

The national bus and rail strategies of March and May 2021 respectively have their origins in pre-pandemic debates that go back decades. The two transport modes have been regulated rather differently, and have been given different political priorities: rail has typically provided for one-third of public transport trips, but received billions of pounds in service support each year. Buses have provided for two-thirds of public transport trips, but received a fraction of the subsidy support given to rail.

Strong views have been expressed ever since bus deregulation in 1985 for greater public control. However, the industry has matured over the decades, and collaboration between public and private sectors enhanced, with informal and legally formal partnership arrangements possible. Public-private collaboration received a further boost due to the particular needs and constraints of the COVID-19 pandemic. The key problem that the bus industry faced in delivering more sustainable mobility prior to the pandemic was that overall bus ridership had tended to fall over time, rather than increase. A number of factors are seen to explain this:

- It is very difficult to operate bus services reliably to timetable in a context of road networks dominated by private motor vehicles (both moving and parked) with only small parts of the network benefitting from priorities which are often intermittent and almost absent outside of urban areas,
- Difficulty recruiting and retaining bus drivers in a competitive labour market, in which jobs such as forklift truck and goods vehicle driving can offer higher pay and less stressful working conditions,
- Rising costs due to diesel prices and labour rates,
- The need to convert from diesel to more sustainable fuels, but limited scope to fund the additional depot or vehicle costs from revenues,
- Boarding times outside London are slow due to individual ticket purchasing/checking and there are barriers to integrated ticketing due to the need to protect revenues.

Of these problems, the first four must be faced, whether the public sector controls the bus network via franchises, or voluntary collaboration continues. The first is a political problem which requires politicians to make the case and convince the public that additional bus priorities are necessary. The middle three issues are funding and finance problems. The public sector may find it easier to invest if it has strong political controls over the bus services, but the money still needs to be found.

The last issue is the one which could potentially be changed by a more contractual or franchised basis for bus operation, as the revenue risk is passed from the private sector to the public sector, which effectively has an operating contract. London standards of intermodality and capped-fare ticketing are can be achieved but at a cost to the public sector far higher than has been typical elsewhere. The rise of Mobility-as-a-Service is also potentially a game-changer which solves this problem in a different way: allowing operators to participate without having to share commercial information and being confident that revenues will be appropriately allocated. These technical solutions, often reliant on 5G communications, are though still under development.

Overall, then, it can be argued that the bus problem is primarily one of funding, and that regulation would only affect these problems at the margin.

Considering rail, the case for organisational change is strong. The role of contractual arrangements and separation of infrastructure, services, and maintenance in rail safety and customer service failures have been well documented. However, in sustainable mobility terms it can be observed that despite these failures, rail demand had been growing nationally (if focussed on travel into and between the major cities) over a long period prior the Pandemic. One of the key challenges was finding solutions for new capacity, which was perhaps the strongest argument for HS2.

However, the largest problem for the sustainable mobility contribution of the rail sector is how long it takes to deliver new projects. In many cases projects would take so long to move through the prioritisation and delivery processes that if they are not already advanced, they will arrive too late in the NetZero decarbonisation timeline to make a critical difference. For this reason, the focus of rail strategy should arguable be to use the existing infrastructure better, with the conversion of existing rail services to zero carbon operation (e.g. electrification, hydrogen fuel cell).

If Great British Railways can reduce the time horizons for project delivery then rail line and station re-openings could play a bigger role, but HS2 will represent a major demand for sector skills which are a scarce resource.

However, post-COVID, with a decline in demand for commuting (and associated revenues), the rail sector is needing to consider again 'what the railway is for'. A reduced focus on commuting to the large cities, and particularly London, may create more scope for the development of rail services within Wales and the English regions oriented to more local travel needs, and considering social and leisure purposes alongside travel for work. The following sections develop this idea that future mobility overall will be more about leisure and wellbeing, and somewhat less about economic necessity, although recognising that the experience of different citizens may be very different.

2. Impacts of COVID-19 on Travel Behaviour

The 2020-2022 COVID-19 Pandemic and periods of restriction led to changes in four broad domains which influence the demand for travel (Figure 1):

- Altered perceptions by individuals about what is important in life, and new values given to different kinds of space,
- New relationships with technology, particularly those for facilitating remote communications,

- A social and psychological context in which behaviours become more or less acceptable within society (such as remote working and meeting) and the interruption of habits,
- Economic impacts which have impacted on the labour market and overall economic activity, with the emergence of winners and losers as a result (some people saw their incomes reduce, others did not, and were able to increase their savings).

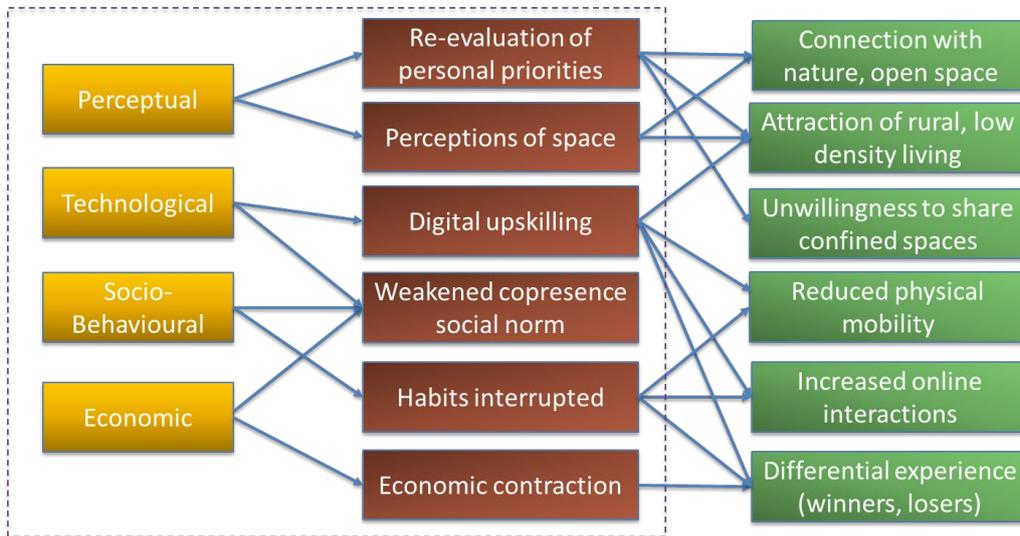


Figure 1: Overview of Impacts and Processes of COVID-19 Pandemic and Lockdowns on the Demand for Mobility

Environmental psychologists have always emphasised the wellbeing benefits of access to nature (green and blue spaces), and to a lesser extent, high-quality urban environments (e.g. historic centres). The lockdowns not only gave more people the time to discover or rediscover environments of wellbeing, the concept of personal space was emphasised by the campaigns to respect interpersonal distance. One result is that London property prices have risen relatively slowly in the last two years, whereas areas associated with rural living, including Wales, have shown the strongest growth¹.

The lockdowns also interrupted or ended time commitments for people, including jobs and social activities. Some businesses closed for good. Even where people were not forced to make life changes they had more time available to consider their futures. As a result, labour market turnover has been increased, with an increased rate of people over-65 retiring, a higher rate of younger people losing their jobs and being re-employed, combined with a higher rate of people choosing to seek new roles.

The lockdowns increased the extent to which walking and cycling (and also other modes such as e-scooters) were used. These levels of using active travel may have reduced post-lockdown, but individuals retain their raised awareness of those modes, and their potential to use them again.

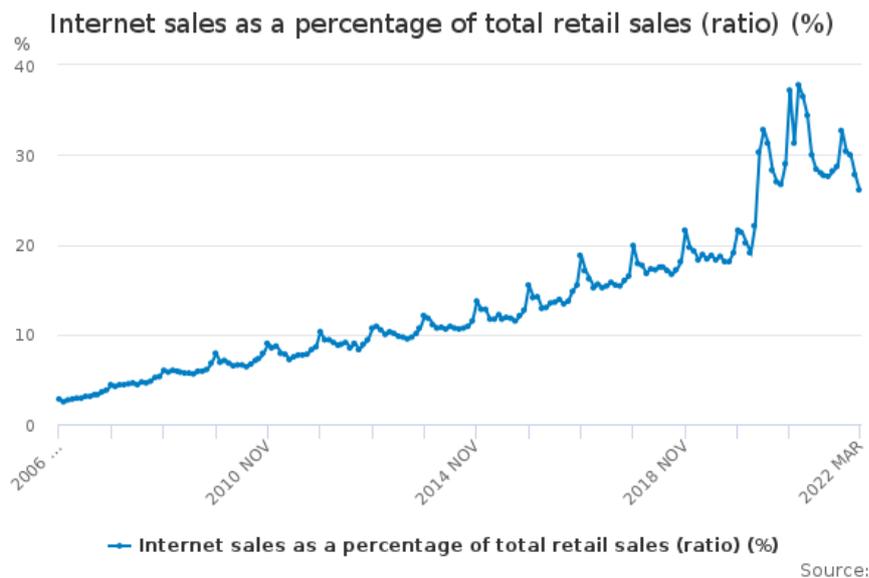
Perhaps most important of the COVID-19 impacts relates to technology. Legal requirements to stay at home resulted in:

- Rapid adoption of enhanced equipment and software for social and economic interaction at distance, increasing both the scope and quality of remote communications.

¹ The Nationwide House Price Index shows a 29% increase in predominantly rural areas over the last five years, suggesting COVID-19 increased an established trend <https://www.nationwidehousepriceindex.co.uk/reports>

- Upskilling of the population with respect to remote communication skills so that remote communication was no longer specialist, but a mainstream and inclusive activity, and, most importantly,
- Changing social acceptance of when it is acceptable to use remote interaction in place of in-person interaction.

As well as facilitating homeworking, the lockdowns boosted established trend for growing e-commerce, with a number of high-profile losses from traditional retailing recorded, such as the department store chain Debenhams.



Source:

Figure 2: Boost to trend for online commerce due to lockdown²

Taken together, these changes in perceptions, aspirations, capabilities, constraints and opportunities have in some cases resulted in people changing their long-run travel behaviour and patterns (rather than returning to their post-COVID situations). In some cases people have undergone 'moments of change' associated with more radical changes in behaviour (e.g. changing mode of travel, place of residence and location of travel together, rather than simply changing employment location.)

These developments suggest enhanced opportunities for policy to influence travel behaviour, although that window of opportunity will be limited. The key challenge for transport policy and planning is to understand how far these impacts and processes will tend to persist, and how far they will tend to reverse, and whether policy and practice can make a difference to these underlying tendencies.

3. Other Major Changes in the Mobility Context

The task of future policymaking is complicated by other factors, not related, or only partly related, to COVID-19.

- Rising energy and road-fuel costs not only increase the cost of private car use, but domestic energy costs reduce disposable incomes and hence the demand for travel. Public transport providers will also see increases in one of the key costs of provision.

² <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi>

- Government policies to promote a shift from internal combustion engine cars to electric cars are now having some success (one in six new cars was electric in April 2022) and will change perceptions about what constitutes the most energy efficient and clean way to travel, but also brings vehicles with different capabilities, notably a shorter range before refuelling, which may change medium and long-distance journey demands.
- To some extent micro-mobility modes such as e-scooters may also pose a threat to short-range bus trips. An in-app survey of Bristol VOI users indicated that the modes seen to have been an alternative to scooter use were car (24%), taxi (12%), bus (15%), bike (12%) and walk (31%). However, public transport supply was reduced during the pandemic, and e-scooters promoted as a means of avoiding COVID-19 exposure. More research is needed in the post-pandemic context to understand if e-scooters do compete with public transport, or perhaps complement public transport by enabling low-car lifestyles.
- Brexit and COVID have had impacts on supply chains which may impact private and public-sector planning and decision-making regarding exposure to globalisation, potentially encouraging re-shoring. Circular economy aspirations for wider sustainability objectives also suggest changes in supply chains. Ultimately such changes may affect both patterns and demands for commuting and also freight flows.
- War between Ukraine and Russia will likely bring longer-term economic output, supply shortage, and fuel prices impacts.

4. Post-Lockdown Public Transport Recovery and Development to Date

Transport Focus found in March 2022³ that 87% of rail users and 89% of bus users felt “fairly” or “very” safe with respect to COVID-19 when travelling, although the survey would not have captured those continuing to avoid public transport for reasons of infection concern. As of mid-May, UK Department for Transport statistics⁴ showed that, nationally, rail had recovered to 75-80% of pre-pandemic weekday levels and bus to 80-85%. However, weekend recovery on both modes has been stronger, up to 85% on rail and 95% on bus, on specific days. These observations fit with the explanation that travel for leisure and visiting friends and family have recovered relatively strongly, because presence is more important for those activities, whereas commuting has been subject to greater discretion, as home-working can substitute.

Evidence from other modes also supports that explanation: car travel demand is now more than 100% of pre-COVID levels at weekends, but lower than 95% on weekdays. Cycling, whilst at nowhere near the peaks during lockdown, shows variation well above the pre-pandemic situation (on some specific days double, and overall perhaps 20-30% higher).

Survey analyses undertaken by the Centre for Transport & Society have identified a reluctance to return to the office full-time. A survey of 466 West of England employees at two time-points (Dec 2020/Jan 2021 and Apr-May 2021) showed:

- Half were ‘very satisfied’ with home working in the second survey, and the positive ratings had increased from the first survey.
- 63% had more choice in the times of day that they work
- 15% stated that their employer now requires greater flexibility from them in terms of the hours they work

³ <https://d3cez36w5wymxj.cloudfront.net/wp-content/uploads/2022/03/04092502/Travel-during-Covid-19-survey-%E2%80%93-4-March-2022.pdf>

⁴ <https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic>

- Almost two thirds of respondents with caring responsibilities said that they now find it easier to fit these around work.

However, home-working was also associated with negative developments by some: a third of respondents found it harder to maintain a healthy work-life balance, and more people reported working longer hours than shorter hours compared with pre-pandemic.

When asked about their Expectations of life in the year after restrictions are lifted compared with pre-pandemic:

- 82% expecting to be working from home more
- 73% expecting to be commuting less
- 61% expecting to be walking more and 44% cycling more
- 57% expecting to be driving less

Another project has examined the Milton Park Business Park at Didcot with a smaller sample surveyed at three points (July 2020, Winter 2020, July 2021). The third survey showed:

- 57% continued to work from home following end of lockdown
- 26% mix working from home with working at the business park
- 15% are working solely at the business park.

In May 2022 the Milton Park travel planner reported that car traffic at the site had only returned to 61% of pre-pandemic levels due to a mixed of working on site and at home.

Therefore, it seems likely that demand for commuter travel on public transport may take a long time to return to pre-pandemic levels, and if it does it may be due to population growth, rather than people reversing their preferred working location practices. This does assume that organisations continue to hold flexible policies, but given that the management also benefit from flexibility, whilst homeworking reduces pressures on office space (or enables businesses to downsize and save money) then it seems likely that many will.

A negative consequence of reduced rail commuting is that peak fares provide higher revenues (as well as seeking to spread demand out of the peaks). A positive consequence is that some of the levels of overcrowding ('passengers in excess of capacity') seen pre-pandemic may not re-occur for some time.

5. Summary: Policy Priorities

- There is evidence that the traditional needs to travel in the past, particularly travel for work and shopping, which have tended to dominate transport planning are increasingly being transferred to remote working and e-commerce. If more of this 'necessary' travel is undertaken digitally in the future, transport planning should put greater emphasis on the leisure and wellbeing roles of mobility: people need to be physically active in their communities and in natural environments to be included in society and to have good physical and mental health. There may be greater economic opportunities for the leisure and tourism sectors if people 'waste' less time travelling for essential needs and therefore seek to spend their 'travel budgets' (both in terms of time and money) for other purposes.
- Similarly, transport planning should focus less on peak demands in urban areas. With less need to spread demand for public transport from the peak to off-peak, it is perhaps time to

re-think the peak fares premium on rail⁵. New travellers may be attracted to rail through lower fares if there is spare capacity that could be filled, particularly in the context of high road fuel costs. This would also have social inclusion benefits as people on low incomes often have less discretion about when and how they travel.

- The rise of the electric car presents a threat to public transport. From 2030 all new cars will need to have significant electric-only operation. As we move from the phase of promoting the early adoption of electric cars to them becoming mainstream, there are risks to public transport. Owners with home photovoltaic charging facilities may be paying no energy costs for some of their car journeys. They are likely to perceive their cars as being less polluting than diesel buses and trains. Transitioning public transport from fossil fuel-power and internal combustion engines in the next decade is critical if it is to continue to appear relevant.
- Managing the demand for car use has always been an important indirect factor in public transport policy. That is even more important with the rise of the expensive-to-buy but potentially cheap-to-use electric car. Pay-as-you-drive road use is likely to be the most effective way of managing the rise in electric car use that are perceived as cheap to use and less environmentally damaging than internal combustion engine cars⁶. However, there may be opportunities to promote park-and-ride with charging facilities at public transport hubs, particularly for trips for which electric car range might be a limitation.
- Public transport demand is strongly linked to the attractiveness of urban centres, as they are dependent on public transport for making them highly accessible. Together they provide an energy and space efficient form of sustainable urban development. For this reason, the extent to which urban areas continue to provide for commercial and leisure activities is critical to providing financially viable and attractive public transport services. It will be important for sustainable development, and public transport, that new urban activity is promoted to replace that lost due to less intense demands for working and shopping activity in the future.

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⁵ In some other countries there is no penalty for travelling in the early morning, simply an advance purchase discount used to spread demand between trains throughout the day.

⁶ Not only is part of the electric energy used by electric cars generated from fossil fuel sources, there is growing evidence that the emissions from vehicle tyres and brakes (whether electrically-powered or not) are important environmental pollutants. <https://www.emissionsanalytics.com/news/gaining-traction-losing-tread>