

# Making public transport free or accessible to all

David Fowler examines the benefits of universal basic mobility but also highlights the drawbacks



## ABOUT THE AUTHOR

David Fowler is a freelance business and technology journalist. He was editor of *Transport Times* magazine from 2007 to 2017 and now contributes to a range of technology and transport-related titles.

For more than 70 years, the NHS has provided UK residents with free healthcare. Free state education dates back even further, to the late 19th century, and is taken for granted as part of the fabric of society.

Why should universal provision be limited to these services? Should other services – such as transport – be provided as a right? Could universal basic mobility, or free access to a certain level of transport, be a practical, or justifiable, proposition?

This question has been addressed in this country and in academic circles more in theory than in practice.

On a practical level, the UK has become accustomed to growing levels of concessionary travel – initially for the elderly or disabled, and more recently extended to categories such as young people, job-seekers and so on. About a third of all local bus journeys in England are made by concessionary passengers according to Government figures.

Numerous towns and cities in Europe and

the US have made attempts to introduce universal free travel from time to time, with different degrees of success. But free public transport was introduced in the Estonian capital, Tallinn, in 2013 successfully enough for the principle to be extended to other parts of the country. In France, Dunkirk made its buses free last September, and Luxembourg plans to introduce free transport in 2020.

In the UK, Wales made weekend travel on its inter-urban TrawsCymru bus network free two years ago.

A study by the Institute for Global Prosperity (IGP) at University College London (UCL) in 2017 made the case for extending the universal basic services principle to housing, food, transport and basic phone and internet access, to counter the threat of worsening inequality and job insecurity posed by technology.

On transport, the study proposed extending the Freedom Pass, currently available for citizens over 60, to everyone for bus services. The cost of extending services in this way was estimated at £5 billion annually. Statistics for 2015/16 show that travel concession authorities spent an estimated £1.15bn on statutory and discretionary concessions in 2015/16, equating to £2.25 per person weekly.

The authors also looked at the cost of multi-modal travel as provided by the London Freedom Pass, and calculated it to

be £5.31 weekly, made up of £3.83 for buses and £1.48 for other transport.

Although the report focused on conventional public transport, the principle could equally be applied to mobility as a service (MaaS).

“The fact we are already seeing existing local government concessionary schemes without an overriding paradigm of social change speaks of the fact that it’s perfectly justifiable on a range of criteria,” says Andrew Percy, the co-director of the Social Prosperity Network at the IGP and one of the report’s authors. The criteria include productivity and environmental benefits.

In Luxembourg, the impetus came from capacity constraints on roads; in Dunkirk, the justification was primarily social; in Tallinn, it was about connecting people with work and the affordability of public transport fares.

Percy believes environmental considerations are becoming increasingly important as a justification for free fares: “I think the justification should be environmental, social and economic in order of importance. In making the case politically, quite often politicians end up making the arguments in the reverse order.”

He argues that the predicted cost in the UK is relatively modest – “for the cost of HS2, you could run free bus services for the country for 10 years”. Labour included a proposal for free travel in urban areas for under-25s

in its manifesto for the last election and is expected to expand this proposal nationwide in its next manifesto.

In practice, there has been only limited analysis of the results of introducing universal mobility. A study of the Tallinn scheme led by Oded Cats, an associate professor in the Department of Transport and Planning at Delft University of Technology, found that attempts to introduce it have taken place mainly in the US and Europe. There have been examples in which transport has been made free for a limited period, in an attempt to encourage people to use public transport more; on specific routes, such as park and ride services; or to defined groups, such as students.

The environmental organisation Friends of the Earth (FoE) says that although the idea of free local public transport for all may sound radical and unaffordable, it is already happening in about 100 towns and cities worldwide, including more than 30 in the US, and 20 in France, as well as in Poland, Sweden, Italy, Slovenia, Estonia, Australia and elsewhere.

These examples are mostly towns with small populations and where fares make a relatively small contribution to public transport budgets – although in the French city of Aubagne and its surrounding area (population 100,000), all public transport services have been free since 2009.

One of the reasons French towns are

▲ **One reason French towns, such as Dunkirk, can introduce free local buses is that payroll taxes cover much of the cost of their networks**

able to introduce free local public transport is that a payroll levy already meets a high proportion of the cost of their bus networks, says FoE. It would not be feasible or affordable, it argues, under the current deregulated regime in Britain.

To make such a system work here, FoE believes that re-regulation would be needed, so that local authorities could plan their bus network as a whole. It would also require the introduction of new powers, both to establish municipal bus companies, so that all profits were re-invested, and to raise funds from local taxation.

It suggests that making bus services

entirely free in England outside London, would require an extra £1.8bn a year. For London, the equivalent figure is £1.2bn. Additional funding would be needed for more bus services and more buses, to cater for the increase in demand.

Cats refers to the best-known example as the city of Hasselt, in Belgium, which introduced a truly universal scheme (not just for city residents) in 1996. This was accompanied by “substantial additions to the relatively small network [and] a momentarily fivefold increase in fleet size”.

Patronage increased tenfold and 37% of the new trips were attributed to new ►

► **Ticket costs became a major concern for users of public transport in Tallinn, Estonia, in 2010 and 2011, according to surveys**



► users, though, worryingly from a health perspective, more than half of them substituted for walking or cycling. This also has environmental implications. Despite the growth in usage, it was reported that the market share of buses in 2013 was still only 5%. Due to a rapid increase in operation costs, the scheme was withdrawn and fares were reintroduced on January 1, 2014.

**Where public transport was subsidised already by around 73%, something different had to be undertaken. You cannot continue with such a subsidy level when the service still remains unaffordable for many**

Allan Alaküla, head of Tallinn's EU office in Brussels

**CASE STUDY: TALLINN**

Tallinn is the largest city to offer free public transport so far. It has a population of 420,000, with a transport network consisting of five tram lines, eight trolley bus lines and 57 bus routes.

Allan Alaküla, head of Tallinn's EU office in Brussels, says public transport was made free in the city because of "social urgency".

"Ticket costs became a major concern for public transport users in 2010 and 2011, according to annual public services satisfaction surveys," he says. "In the context where public transport was subsidised already by around 73%, something different had to be undertaken. You cannot continue with such a subsidy level when the service still remains unaffordable for many."

It was expected that the change would also stimulate the labour market, widening

▼ **Tallinn has a population of 420,000, with five tram lines, eight trolley bus lines and 57 bus routes**

labour mobility in the city, and increase consumption of local goods and services by encouraging people to go out more during evenings and weekends to local cafes, restaurants and for entertainment. Free travel only applies to residents and to visitors who park at park and ride sites.

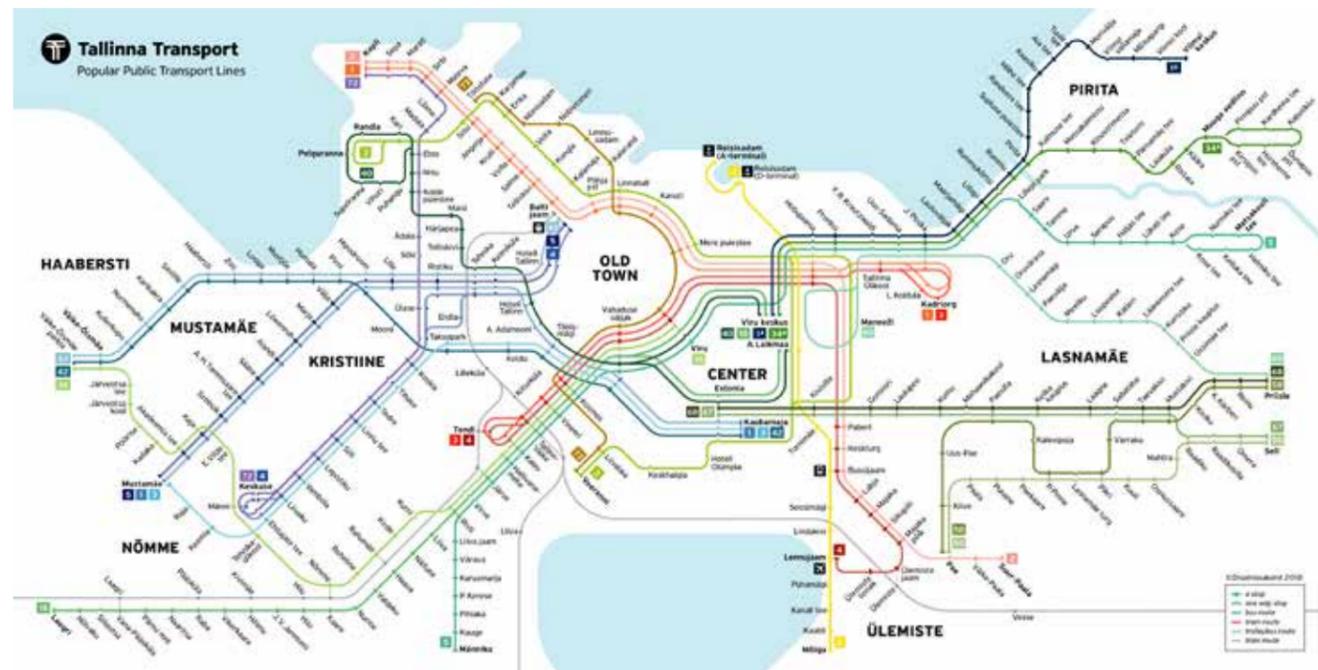
The scheme covers the whole municipal transport network including bus, tram and trolleybus fleets, a total of about 600 vehicles. From October 2013, commuter trains inside the city limits were added, but this represents just 2% of trips.

Alaküla adds: "Free public transport is one of several measures to contain private car traffic in the city centre, combined with a steep increase in parking tariffs, an expansion of paid street parking areas and radical redistribution of street space by creating exclusive public transport lanes at the expense of general traffic lanes and also street-parking places."

Another objective was to increase the number of residents registered in Tallinn, which attracts a contribution of about €1,000 (£860) per person from income tax. On this basis, the city more than covered the loss of fares, with a surplus of €2m (£1.7m).

On the municipal network, there was an increase in passenger demand of 10%

► **TrawsCymru, the Welsh inter-urban bus network, made weekend fares free in May 2017**



when the scheme was introduced. Figures show a slight decrease in car traffic in the city centre of 6%, but also an increase of 4% around the city centre (believed to be due to a steep increase in parking tariffs in the most central area). Cycling's share of trips remains at 0-1% and the share of walking fell from 12% to 9% after free transport was introduced.

Analysis of transport statistics by Oded Cats found that about a year after the introduction of free fares, public transport use had increased 14%. This figure is lower than may be expected because there was already a good level of service provision, high public transport use and low fares before free fares were introduced, the report says.

The Cats's study also found that modal shift from car to public transport was accompanied by an undesired shift from walking to public transport, and mixed evidence concerning whether free transport improved mobility and accessibility for low-income and unemployed residents. The policy led to more trips by these user groups,

but there is no indication that employment opportunities improved as a result, Cats concludes.

The success of the scheme in Tallinn led to a demand for free public transport elsewhere in Estonia, and legislation was introduced to allow it to be introduced on a county by county basis. When the legislation came into force on in July last year, 11 out of 15 counties opted to provide free transport.

In those counties, public transport trips increased by an average of 32% in the second half of 2018.

**CASE STUDY: WALES**

TrawsCymru, the Welsh inter-urban bus network, came into being in 2014. Prof Stuart Cole, now emeritus professor of transport at the University of South Wales and a member of the strategic board of TrawsCymru, was approached by the Welsh Government to make proposals for rural buses. The government was concerned about paying increasing subsidies for rural buses that were little

used but unacceptable to withdraw without some alternative provision.

Cole came up with a plan to replace some existing conventional buses with a demand-responsive service, but also to create a network of high-quality long-distance services, with a demand-responsive feeder network, Bwcabus, initially in Ceredigion and Carmarthenshire and latterly in Pembrokeshire.

Network routes, vehicle specifications and other operational elements are determined by TrawsCymru centrally. Services are procured on its behalf from private sector operators by the most appropriate local authority for each route, with the Welsh Government paying any subsidy.

The network comprises eight routes, which all connect two urban centres, with other settlements in between, and an end-to-end journey time of two to three hours.

The idea of free travel at weekends was first put to the Welsh transport minister as a proposal for weekends before and after Catch the Bus week. The minister ►

► for Economy and Infrastructure, Ken Skates, asked for a more ambitious idea and the plan to make weekend services free for an entire year resulted. This went ahead in May 2017 and was extended for a further year.

Cole explains the rationale behind free travel: "It was a definite policy decision by the Welsh Government to raise awareness of TrawsCymru, attract passengers to the long-distance network and to buses generally, and to show how good buses are now. At the weekends, it happened we had spare capacity so it was a workable."

An increase in demand was expected, but how much was unclear, or to what extent there would be a novelty effect of people trying the service out.

However, Cole says the initial surge in passengers has been sustained. After six months, patronage was up 53% on Saturdays and 84% (from a low base) on Sundays. Overall, the increase was 68% in the first year, with a further increase in the current year to date of 32% at weekends. The service this year has carried about two million passengers, a quarter of them at the weekend.

Surveys show more than 50% are not concessionary pass holders, and 40% of these passengers have switched from other modes. Two thirds say free travel on TrawsCymru buses has led them to travel more frequently by bus.

It has been decided to continue free weekend travel until the end of September when it will be reviewed.

The TrawsCymru board and Welsh Government will be looking at the experience of the past two years, studying market research and considering how to enhance the experiment and what direction to take.

Cole says the benefits have included taking some cars off the road, helping air quality (all the buses are Euro 6-compliant), and easing congestion in towns such as Aberystwyth.

Subsidy to the service costs about £2m annually, or about £1 per trip on average, much lower than typical subsidy levels for rural services.

"The Government seems satisfied it's worth doing to complement bus operations," says Cole.

### CASE STUDY: DUNKIRK

Free bus transport in Dunkirk (population 200,000) was introduced in September 2018, following a weekend-only scheme introduced three years earlier.

A spokesman says one reason for the scheme was "to create a psychological shock. It was necessary because people in our conurbation didn't use the bus. It was

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the means of transport for those who had no other choice".

It also aimed to rebalance transport modes to benefit the environment and reduce air pollution, noise and land take; to combat social exclusion and isolation of some people and "develop a new urban conviviality"; and to bring about a social redistribution of purchasing power to families, modest households, young people and the elderly. Buses are free to residents and visitors alike.

Dunkirk's urban council adopted a target to double the number of bus passengers by the end of 2020. After six months of operation, patronage has risen by 60% on weekdays and 120% at weekends.

At the same time as free travel was introduced, the city made changes to its traffic plan and parking arrangements, as well as creating car parks on the immediate outskirts of the city centre, with two hours of free parking. The effects are being evaluated, but there has been a decrease in downtown traffic.

The network was reorganised to improve services at the same time as free travel was introduced, adding 30% more commercial mileage, with operating costs rising by 24%. The loss of revenue from fares is €4.5m (£3.9m) and additional operating costs are about €10.5m (£9.1m).

In Dunkirk, the payroll tax was increased from 1.05% to 1.55% in 2011. This financed

▲ **After six months of free transport, Dunkirk's bus passenger numbers had risen by 60% on weekdays and 120% at weekends**

the development work necessary for the reorganisation of the network and will now contribute to the additional operating costs (it brings in about €9m (£7.8m) annually). Some cuts were made elsewhere in the council's budget to finance the scheme.

### CONCLUSION

Overall, implementation of free transport is still relatively uncommon, so it is difficult to draw general lessons. A common factor appears to be a sustained increase in passenger numbers rather than a temporary surge, but with less overcrowding or anti-social behaviour than may be expected (see right).

Improvements in access to work, where that is an objective, have yet to be demonstrated.

One factor that seems essential to success, however, appears to be the existence of an income stream, often from local taxation, to make up for the loss of fare revenue.

Alaküla sums up his advice: "Just maintaining service quality is not an option [when free travel is introduced], the public transport offer has to improve simultaneously. And free public transport cannot remain just a single measure, it has to be combined with other sticks and carrots addressing mobility, economy and the environment." **ST**

# Universal basic mobility: the possible drawbacks

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**D**oes universal basic mobility have any downsides or unintended consequences?

Apart from the cost, and the argument that the money could be better spent on something else, possible disadvantages include overcrowding and a need for additional buses to meet demand. On the basis that people tend not to value things that are provided free, anti-social behaviour or vandalism may be expected. There is also the possibility of causing a shift away from cycling or walking and therefore increasing healthcare costs and net emissions.

On the last of these, there are differing views. Andrew Percy of the Institute for Global Prosperity at University College London, says: "People walk more in cities than in the country, so it's a striking argument on the surface, but it's not clear-cut. I can't point to academic research, but free transport also gives access, for example, to go to a park in the afternoon that you might otherwise not be able to reach."

Also, there are other justifications, such as a potential reduction in road accidents.

In Tallinn, evidence seems to suggest there was a shift from active travel. Cycling's share remained between 0-1% of trips. The share of walking fell from 12% to 9% after free travel was introduced.

"My interpretation is that part of that change is walkers now taking one or two

public transport stops instead of walking, but most of the change comes from those who were not able to afford public transport before," says Allan Alaküla, the head of Tallinn's EU office.

Dr Stephen Ayers, intelligent mobility business manager of Thales, says: "Transport authorities provide extensive funding to private bus companies in order to pay for carrying concessionary bus passengers," providing a significant proportion of bus company's revenues.

He adds that authorities also pay for socially necessary services. Commercial companies are clearly primarily interested in profitable routes.

"In other markets, such an arrangement would suggest there is a good argument for more extensive public service involvement in the governance of the network."

### WHO PAYS?

However, even if services were made completely free, the majority of the costs need to be paid from somewhere. Most local authorities do not have a source of revenue that would allow them to pay for completely free and comprehensive bus services.

"The idea of universal free travel is quite interesting, but where does the money come from?" asks Ayers.

Combined authorities and sub-national transport bodies produce business cases for improvements to their transport networks –

effectively, argues Ayers, to create bigger catchment areas for hi-tech industries and hence create agglomeration benefits.

"How does that stack up against free public transport for getting people to jobs?" he asks. "The only way to progress is to put a viable business case together to convince the Government."

There is also the question of whether networks would need rethinking. Areas of deprivation, where there is an argument for providing better connections to jobs, are sometimes not well served by buses.

"To be viable, free transport needs to be provided in a more innovative way. If you're running lots of free buses, but they are empty, how does that help GVA [gross value added]?" "Free" services need to show payback in a measurable way," Ayers says.

Anti-social behaviour seems to have been less of an issue than might have been expected. In Tallinn, Alaküla says: "There were lots of fears before free public transport was started, including vandalism and public order on the vehicles. Contrary to the fears, vandalism decreased and public safety improved in the evenings and at weekends. The explanation is pretty simple – with more passengers on the bus, social control became stronger."

A similar effect has been observed in Dunkirk where anti-social behaviour and incivility has decreased. "The only problem of free public transport is the cost," a ►

▲ **Anti-social behaviour and incivility decreased on Dunkirk's buses after free transport was introduced**

► spokesman says. "The atmosphere on the bus is much quieter and we see the presence of all social categories in the bus."

In London, fears of antisocial behaviour when the night Tube was introduced have not materialised. London TravelWatch senior policy adviser Vincent Stops says this may be down to it being planned for by British Transport Police, "but there haven't been the problems anticipated".

Another argument is that attempting to attract people from cars on to public transport impinges on personal freedom. UCL's Percys says: "The curtailment of options for individuals is a political barrier. Should we pay greater attention to social ills rather than to individual choice? Environmental arguments are building to the point where we are going to have to curtail personal mobility in favour of the greater good."

Overcrowding, and the need for supplementary vehicles, is also a potential concern. In Dunkirk, this was explicitly planned for with a network reorganisation to coincide with fares being removed. For Traws Cymru, Prof Stuart Cole says there was some overcrowding at the start of free services, but this tended to depend on how many groups – families or groups of friends going on a trip – turned up for a given service.

Particularly with seaside destinations, such as Aberystwyth, there was also a tendency for people visiting for the day to want to catch the last departure back (at 7pm). This problem seems to have eased, he says; however, if the current overall growth rate in passenger numbers continues for another year, "we may need more vehicles".

Most cities where free travel has been tried have been relatively small. It could be a different story in a metropolis.

Stops says there were worries over the introduction of free travel for those of school age: "We were a bit concerned about the network being overwhelmed, and whether it was appropriate to allow as many journeys as you like."

He questions the feasibility of making public transport free for everyone in London. "Rail and the Underground are already rammed," he says. "Buses are also full at peak times." With London's population growing, TfL is already struggling to keep capacity in line with demand through the Tube upgrade and Crossrail. "Even if you took 10 years to do it, I don't know whether you could find the capacity," he says.

In March 2018, Anne Hidalgo, the mayor of Paris, commissioned a feasibility study



## The idea of universal free travel is quite interesting, but where does the money come from?

Stephen Ayers, Thales

▼ The share of trips completed by walking fell from 12% to 9% after Tallinn introduced free travel

on making all public transport free in Paris.

The report, published in January 2019, came out against the plan. It noted that urban mobility was undergoing three simultaneous revolutions – an energy transition essential to solve the environmental and health problems caused by cars; the emergence of mobility as a service (MaaS) and other new services made possible by smartphones; and the application of artificial intelligence to allow the creation of driverless transport services. The idea of making public transport free could not be considered in isolation from these trends, which would deeply affect the financing of different modes of transport at the same time as competing with public transport, it said.

### ACTIVE TRAVEL ENCOURAGED

Public transport, the report added, is essential for a metropolis such as Paris, but it is not the only lever to be used against climate change and pollution. Active travel must be encouraged. Experience of free transport in other towns had shown that in contrast, walking and cycling could suffer.

If the aim was to reduce the role of the private car, modelling and experience suggest free travel is not an effective solution. In Île-de-France, its modal share would be reduced at most by 5%, at a high cost, it found.

By contrast, some free measures were indispensable to guarantee access to mobility to all and should be accompanied by other measures to restrict private cars in the urban centre, such as pedestrianisation and the creation of low-emission zones.

The report advocated free transport for

children to facilitate mobility for all families. It also recommended free subscriptions to the Vélib cycle scheme for young people as a step towards facilitating the transition to MaaS. It urged local authorities to create mobility packages to progressively replace the use of private cars and integrate public transport with new services such as car sharing.

Although the transport revolution promised to reduce future mobility costs, it was impossible to say today that this permitted a sustainable model for general free public transport, the report concluded.

As a result, the mayor announced her intention to introduce four measures for Parisians this September: free public transport for children from four to 11; free public transport for residents under 20 with disabilities (disabled adults already travel free); reimbursement of 50% of the Pass Navigo transport smartcard for those in full-time secondary education; and free Vélib subscriptions for residents aged 14-18.

Overall it appears that universal free public transport can be a success in a regulated environment, where the transport authority has a revenue stream from some form of tax to support it.

With the exception of Tallinn, such towns have usually been relatively small, with public transport having a small market share. Experience shows it is necessary to make provision for an increase in demand, but that antisocial behaviour is less of an issue than might be expected.

In large metropolitan areas, there is reason to question whether a free model would work and whether the system would be able to cope with the additional demand. The more targeted approach to free travel adopted by cities such as London and Paris may be preferable. **ST**

