Workplace Parking Levy (WPL) Evaluation Update – April 2016

The principal objectives of the Nottingham WPL package (the WPL scheme and the public transport (PT) improvements which it part funds) are to constrain congestion levels and promote economic growth. The WPL evaluation seeks to assess these impacts and Figure 1 below summarises the relationships between the WPL, the PT improvements and these intended impacts.

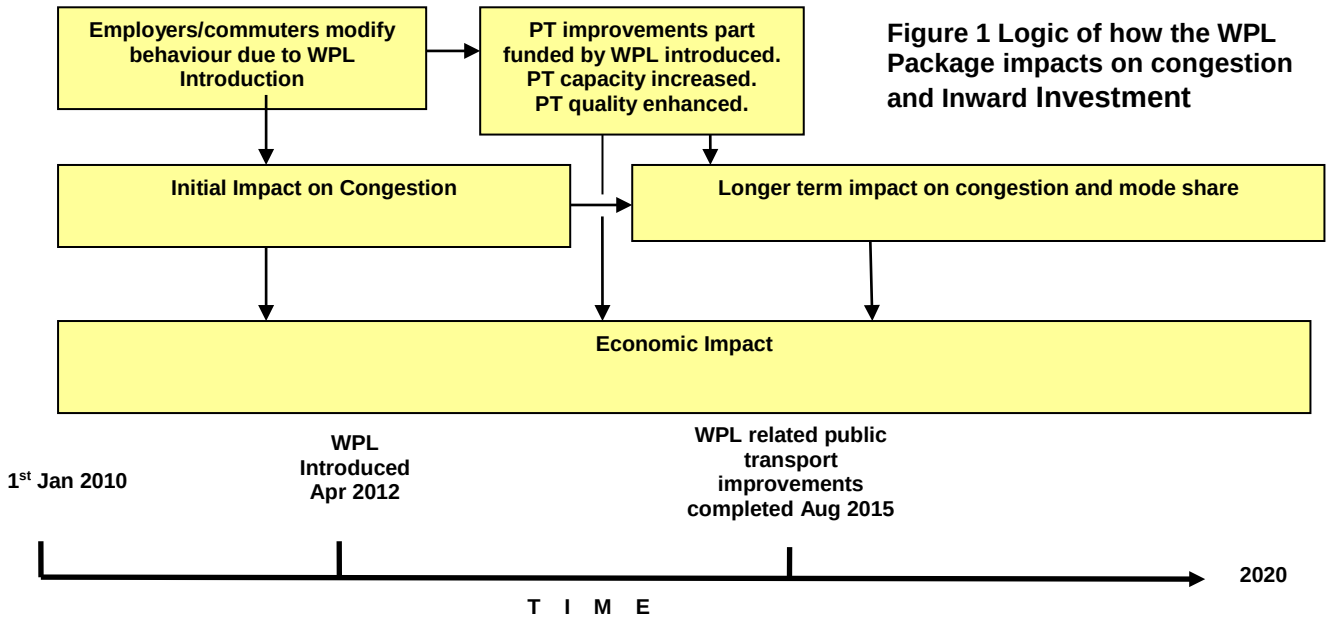


Figure 1 Logic of how the WPL Package impacts on congestion and Inward Investment

.

The following is a brief summary of the evidence and conclusions concerning the above impacts to date.

Change in employer behaviour

Figure 2 overleaf shows that the supply of Liable Workplace Parking Places (LWPP) decreased by 17.5%, prior to the WPL being introduced, as employers sought to limit their liability, or introduced parking management schemes which passed the cost on to their employees. After introduction there has been a much more gradual reduction. Currently the number is showing signs of stabilising out at around 75% of its pre WPL level.

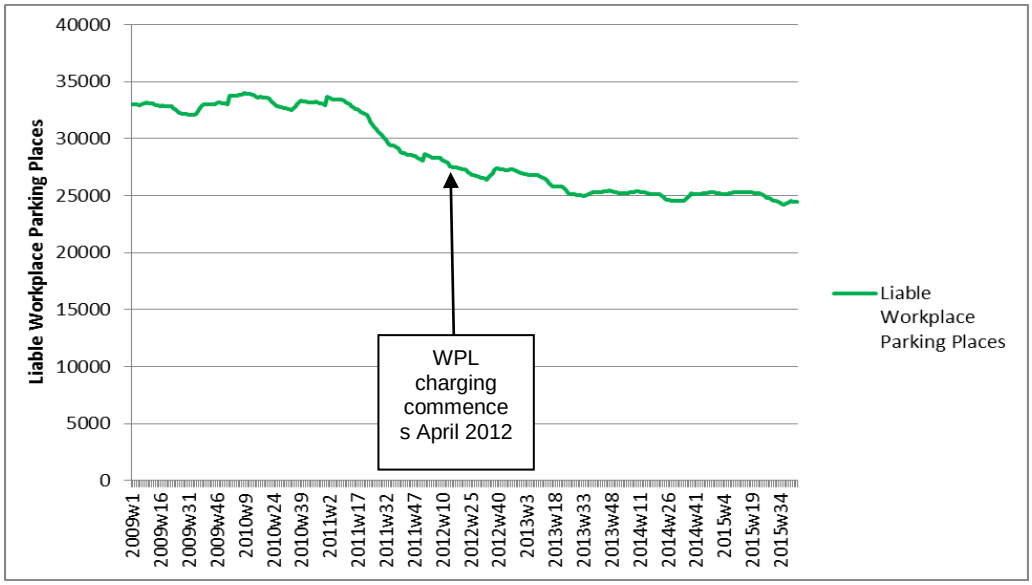
WPL revenue has continued to rise primarily due to the escalation of the real term charge per space. It continues to rise at the rate of inflation after the escalator ended in 2015/16. Around 38% of LWPP are covered by parking management schemes which pass on the cost of the WPL to employees. This mitigates the cost of the WPL on employers.

Table 1 WPL Revenue

Year	Charge (£)	WPL Gross Revenue (£)	Liable Workplace parking Places
12/13	288	7,773,406	26464
13/14	334	8,453,026	25302
14/15	362	9,274,009	25275
15/16	375	NA	NA
16/17	379	NA	NA

Source: Nottingham City Council

Figure 2 Liable Workplace Parking Places 2009 to 2015



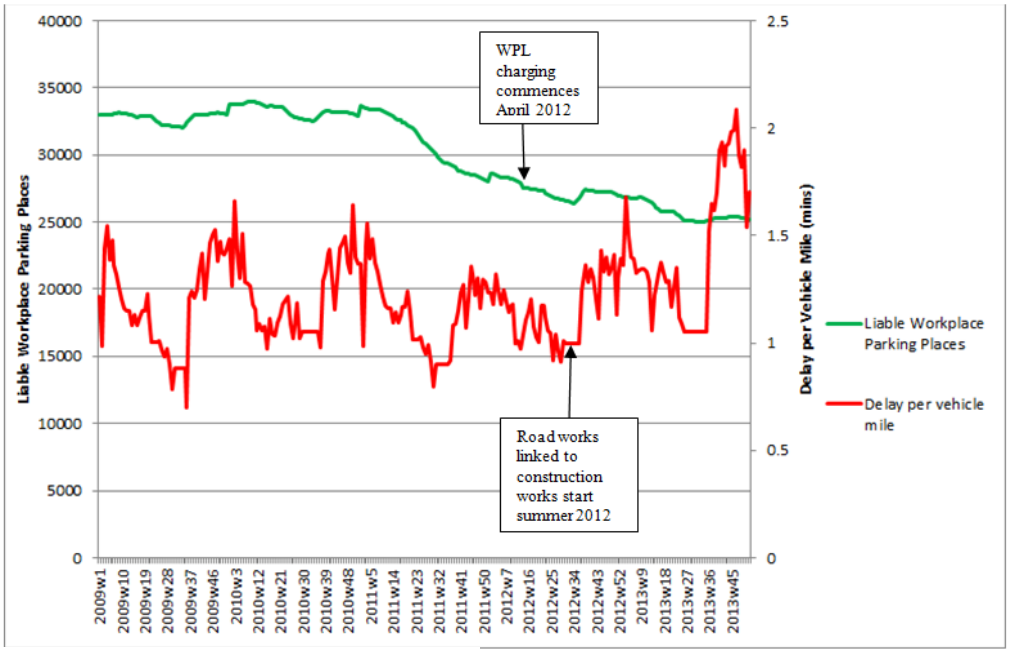
Additionally, the percentage of all employees in the City covered by a Workplace Travel Plan has increased from 25% in 2010 to 33% in 2014.

The behavioural changes outlined above should all contribute to congestion constraint.

Initial impact on congestion

Figure 3 below shows how the fall in the number of LWPP appears to correspond with a fall in congestion (delay per vehicle mile (DVM)) between late 2010 and early to mid 2012.

Figure 3 Delay per Vehicle Mile and Liable Workplace Parking Places 2009 – 2013.



(Source: Nottingham City Council)

However, it is also true that other factors have moved in a direction which could also lead to a fall in congestion levels in this period;

- The period 2011 – 2012 was relatively mild and dry.

- A fall in Real Adjusted Disposable Household Income **(**RADHI)
- An increase in the number of out of work benefit claimants

However, the number of jobs located in Nottingham and the working age population continued to grow strongly throughout the period which could lead to a rise in congestion levels. Given these contradictory indicators, the following ***Hypothesis*** was tested by a statistical model;

"The fall in LWPP from 2010 to early 2012 has contributed to the observed reduction in DVM from late 2010 to mid 2012"

The final results of this work show that there is a statistically significant link between the fall in LWPP and the reduction in congestion although this was not the only factor which was responsible for this reduction. Additionally the work suggests that any further beneficial effects of the WPL on congestion were masked by other explanatory factors most importantly the impact of roadworks due to the construction phase of the public transport improvements.

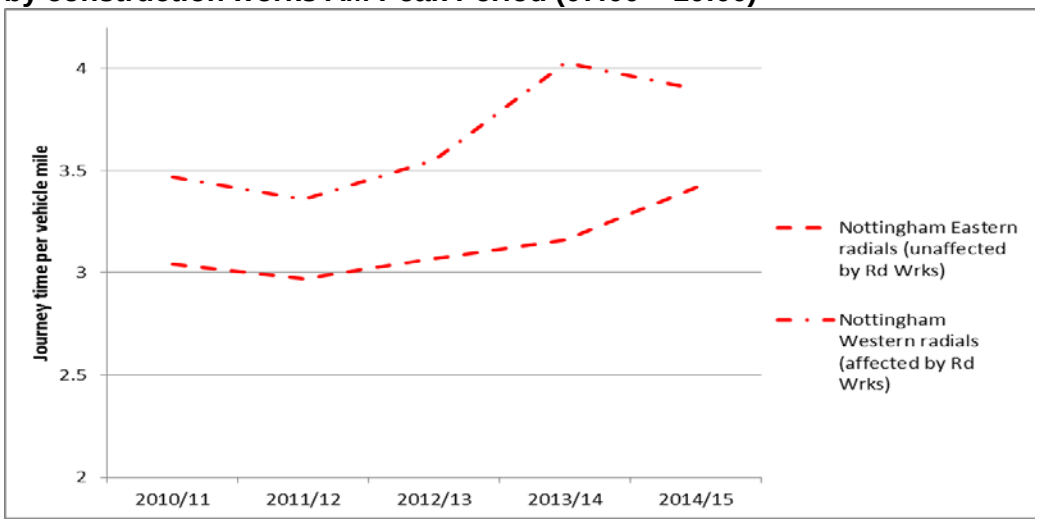
Long term impacts on congestion and mode share

With a presumption of economic growth any long term congestion constraint must be associated with a decline in the % mode share of commuters using the private car. This is because the capacity of the road network cannot be expanded to cater for the extra demand for travel. The WPL package is intended to cater for this by providing additional PT capacity.

Comparison with traffic growth / congestion in other Core / East Midland Cities

From summer 2012 the road works associated with the construction works for NET Phase 2 (two new tram lines), the A453 dualling and the Ring Road Major Improvement scheme have contributed to a rise in morning peak period congestion on the southern and western approaches to the city. This has almost certainly masked any congestion impact that the WPL has had to date. Figure 4 below illustrates this effect.

Figure 4 Journey Time per Vehicle Mile in Nottingham on routes affected/unaffected by construction works AM Peak Period (07:00 – 10:00)

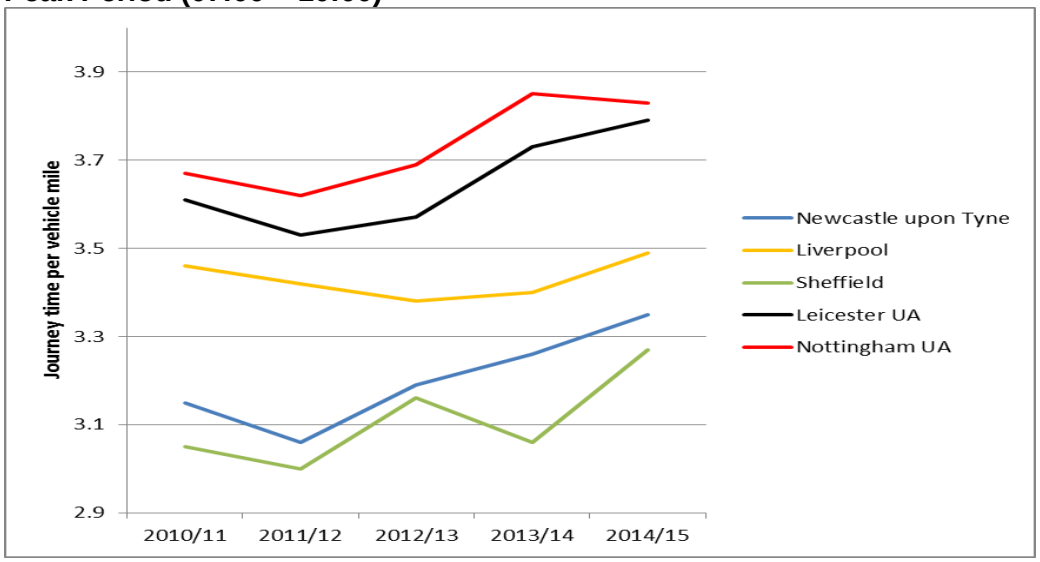


Source: Nottingham City Council

Figure 5 illustrates how the trend in AM peak period congestion in this period is comparable to other similar Cities. It should be noted that is not valid to compare the absolute values of journey time per vehicle mile in each city as the morphology of the road network is different

in each city with significant variation in the type of route and relative proportion of high and low speed routes. Nottingham City has very few high speed roads within the A road network.

Figure 5 Journey Time per Vehicle Mile in Nottingham and Comparator Cities AM Peak Period (07:00 – 10:00)



Source: DfT Table cgn206b Journey Time per Vehicle Mile on Locally Managed A Roads in the AM Peak Period

Given the disruption caused by the construction works, it is encouraging that Nottingham performed similarly to other comparable Cities during the period up to 2014.

More recently, as these roadworks were progressively lifted as the schemes neared completion, there have been some promising shifts in key indicators.

Between July 2014 and July 2015 Nottingham was the only Core City in England to observe a reduction in journey time per vehicle mile on Locally Managed A Roads in the AM Peak Period. This fall reflects the end to the above mentioned construction works.

This positive movement in the level of congestion means that the overall rise in congestion since 2010 has been less than that observed in the similar Cities of Leicester, Sheffield and Newcastle.

A further positive change has been that, in Autumn 2015, the proportion of people travelling by public transport crossing a cordon around central Nottingham in the AM peak period inbound to the City, jumped by 2%, driven by both a growth in travellers using Nottingham Station and the opening of the two additional tram lines. Thus the PT mode share is now over 40% for the first time. Table 2 highlights the recent increase in PT patronage.

The opening of the two additional tram lines (NET Phase 2) has significantly increased PT capacity in the SW of the City catering for a rise in demand for travel associated with forecasted economic growth. Table 2 shows that in 2015 quarter 3, following the opening of these two new tram lines, public transport patronage increased by almost 1 million passengers compared to the same quarter in 2014.

Table 2 Bus and Tram Patronage in Greater Nottingham

Bus and Tram	City				
	Q1	Q2	Q3	Q4	Year
(millions)	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Total
2012/13	18.01	17.46	19.78	18.88	74.13
2013/14	18.31	17.66	19.84	19.14	74.95
2014/15	18.25	17.71	20.31	19.31	75.58
2015/16	18.27	17.83	**21.28**	**19.65**	NA

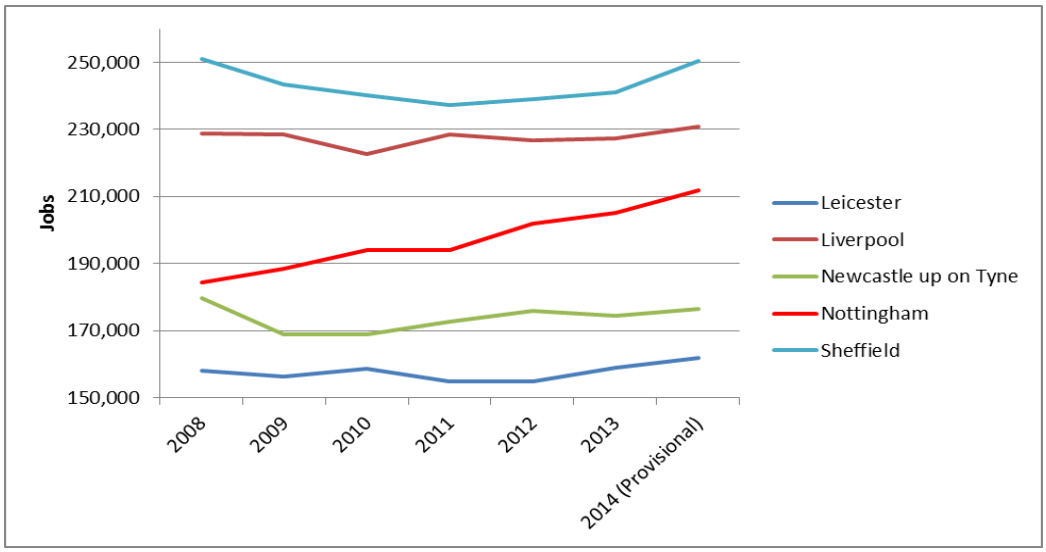
Source: Nottingham City Council

Overall it is still too early to tell if there has been a significant long term impact on congestion. It will be necessary to observe a number of year's data after the package has been fully implemented (and roadworks due to construction works ended) before any firm conclusions can be drawn.

Economic Impact

A basket of indicators have been used to build an evidence base for assessing the economic impact and specifically the impact on inward investment. These are illustrated in the following figures and tables:

Figure 6 Number of jobs based in Nottingham and Comparator Cities.



Source: Nottingham City Council from the ONS 2014

Table 3 Enquiries to Nottingham City Council's Inward Investment Team

Year	Enquiries	No. of successes	% Successes	Jobs created
2008/09	91	3	3.3	360
2009/10	156	5	3.2	85
2010/11	110	2	1.8	85
2011/12	146	5	3.4	65
2012/13	175	9	5.1	1100
2013/14	176	18	10.2	304
2014/15	189	9	4.7	303

Source: Nottingham City Council, Inward Investment Team

Table 4 Activity in the commercial property rental market in Nottingham

Year	Floor space Sq. Ft	Number of deals
2011	251768	42
2012	241900	43
2013	190789	50
2014	NA	NA
2015	469364	51

Source: Nottingham Office Review

Additional to indicators outlined above, there is evidence, from press statements and other sources, that a number of major employers (e.g. VF, Paraexcel and Eon) moved into, or consolidated to, City Centre locations with good PT accessibility in part to remove the need for the provision of parking and improve accessibility. This evidence provides a causal link between the WPL package and the observed changes to the other indicators shown above.

When all the economic indicators are triangulated it is possible to conclude that:

- There is strong evidence that the WPL is having no significant negative impact on economic growth. This is supported by case study evidence that suggests that the WPL plays a very small role in business location decisions.
- The strong growth in employment, combined with a positive movement in the inward investment specific indicators, suggests that Nottingham continues to be relatively attractive to potential investors. There is positive evidence from case studies of major inward investments that the public transport improvement components of the WPL package are playing a role in this.

Summary of Key Findings to Date

- The WPL has been implemented as planned, there has been close to 100% compliance from employers and no Penalty Charge Notices have needed to be issued. The WPL revenue is stable.

- The key public transport improvements which the WPL is part funding have now been completed, i.e. two new tram lines (NET Phase 2), the refurbishment of Nottingham Station and capital investment in the Linkbus fleet. This has both increased PT capacity and improved quality.

- A recent academic study has identified a statistical link between congestion contstraint and the introduction of the WPL. However, network disruption caused by the construction works associated with the WPL package and the only recent completion of the key public transport element of the WPL package (Aug 2015) means it is still too early to draw any final conclusions regarding the WPL Package's longer term impact on congestion.

- However, there have been encouraging changes to employer behaviour with a decrease in the supply of workplace parking places and an increased uptake of workplace travel planning and active car park management.

- Between July 2014 and July 2015 Nottingham was the only Core City in England to observe a reduction in journey time per vehicle mile on Locally Managed A Roads in the AM Peak Period.

- Public transport mode share in the AM peak period rose in Autumn 2015 to above 40% for the first time.

- Evidence suggests that the WPL has no significant negative impact on economic growth.

- There is some evidence that the availability of a high quality public transport system is attractive to potential employers, especially for locations on the tram lines or in the City Centre.