

Cycling Trends Update

July 2019

Travel in London report 11 provides a comprehensive overview of cycling trends in London. This document provides an update of some headline figures as well as giving a more detailed assessment of cycling outcomes on recently delivered cycle routes.

Summary of key findings

- Quarter 4 of the 2018/19 financial year saw an **increase in the average daily cycle-km in central London** of 4 per cent with respect to the same quarter in 2017/18.
- Across the whole of London, 2018 saw the **highest growth observed in cycling volume since monitoring began** (in 2015), increasing almost 5 per cent from the previous year and **exceeding for the first time on record an average daily volume of more than 4 million cycle-km**.
- Where we have invested in improved cycling infrastructure, overall **cycling volumes have grown on all assessed routes after the improvements**, and at a faster rate than the background trend seen at the London-wide level. Further work will be required to understand the extent to which this growth reflects ‘new trips’ stimulated by the infrastructure, transfers from other modes, or abstraction from parallel routes.
- Recent data demonstrate a **positive correlation between the provision of new cycling infrastructure and cyclists’**

perception of safety, which is stronger on segregated or motor vehicle-free routes, albeit that sufficient data are not yet available to allow a formal comparison of casualty rates.

- However, the **demographic profile of people who cycle on new infrastructure is not significantly different** from those who cycle as a whole, these remaining mostly white, male, middle-aged, middle- and high-income people who cycle regularly.
- **Satisfaction with recently delivered routes** among surveyed cyclists is high and behaviour change – albeit small and variable – moves in the right direction.

Central London cycling volumes

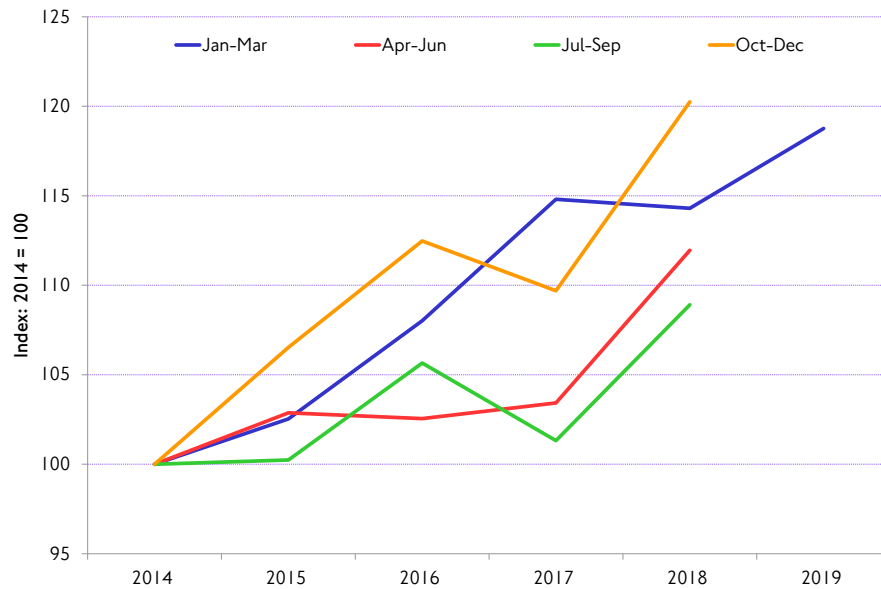
The **central London cycling metric** is calculated on a nominal quarterly basis from cycle counts at around 200 locations in central London, and is reported on the TfL Scorecard.

The latest results from this metric show that in Q4 of 2018/19 the average daily cycle-km in central London grew by 4 per cent from the equivalent quarter a year earlier, recovering the year-on-year decline of 0.4 per cent that was seen on that same quarter a year earlier.

As shown in Figure 1, this continues a trend of strong growth in cycling in central London on this quarter (January to March) since monitoring began: a total 19 per cent increase since the equivalent ‘baseline year’ quarter (Q4 2013/14). This suggests that more people now cycle through the winter quarter, which grows relatively faster than others (although partly because it starts from a lower baseline, since total demand in this quarter is typically 15 per cent lower than the annual average).



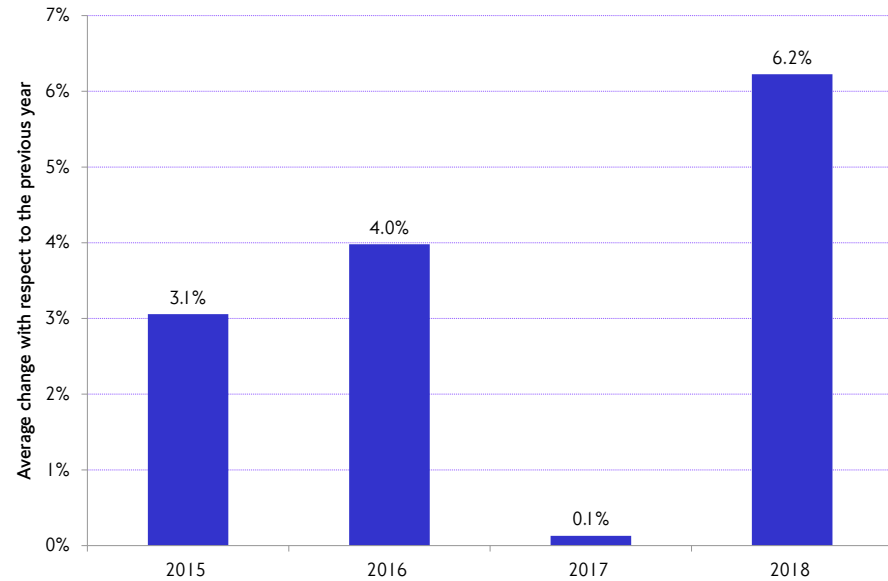
Figure 1. Change in central London cycle metric by quarter, 2014-2019.



Source: TfL City Planning.

Over the whole 2018 calendar year, the average quarterly growth in cycling volume in central London was 6.2 per cent with respect to 2017. This is also the highest on record and represents a recovery of the stagnation in cycling growth that was observed in 2017, with just 0.1 per cent growth over the previous year (see Figure 2).

Figure 2. Average annual cycling volume change in central London – kilometres travelled.



Source: TfL City Planning.

Cycling volumes across London

In addition to the quarterly central London cycle counts there are annual counts in inner and outer London (at around 600 and 350 locations, respectively) that are used to calculate equivalent metrics on a nominal annual basis.

The results from the 2018 counts have just been released and a summary (alongside equivalent central London figures for comparison) is provided on Table 1.



Table 1. Cycling volumes in central, inner, and outer London and change from the previous year (in brackets), typical day in spring, 2015–2018.

Average kilometres cycled in a day (6am–10pm) per km of road network				
Area	2015	2016	2017	2018
Central	1,291	1,287 (-0.3%)	1,298 (+0.9%)	1,405 (+8.2%)
Inner	518	520 (+0.4%)	536 (+3.0%)	550 (+2.6%)
Outer	125	121 (-3.1%)	129 (+7.0%)	137 (+6.0%)
London total	235	235 (-1.2%)	242 (+4.3%)	254 (+4.9%)

Average daily kilometres cycled in a day (6am–10pm) – thousands				
Area	2015	2016	2017	2018
Central	527	525 (-0.3%)	530 (+0.8%)	573 (+8.3%)
Inner	1,730	1,736 (+0.4%)	1,789 (+3.0%)	1,837 (+2.7%)
Outer	1,556	1,507 (-3.1%)	1,612 (+7.0%)	1,714 (+6.3%)
London total	3,813	3,768 (-1.2%)	3,931 (+4.3%)	4,125 (+4.9%)

Source: TfL City Planning.

In 2018, for the first time on record, **the average daily kilometres cycled in London exceeded 4 million**, growing almost 5 per cent from the previous year, which is also the **highest growth observed since monitoring began**. The growth was particularly strong in central London (over 8 per cent) and outer London (over 6 per cent).

In relative terms (cycle-km per km of network), cycling volumes in central London remain much higher than in other areas, around 3 times higher than in inner London and 10 times than in outer London. However, in absolute terms (cycle-kilometres) the contribution of central London is the lowest (only 14 per cent of the total), while inner and outer London account for the rest in almost equal measure (45 and 42 per cent, respectively). This continues to support the idea that trips in inner and outer

London tend to be longer while central London sees more but shorter trips.

Impacts of recently delivered cycle routes

This section looks at changes (with respect to pre-construction baselines) in cycling volume and in the cycling population on new and improved cycle routes that were delivered in 2018. The data come from cycle counts and cycle intercept surveys.

The main objective of the **count surveys** is to monitor cycling demand to understand when and where people cycle and how this changes over time following improvements to the cycle network. The main objective of the **intercept surveys** is to evaluate how improvements affect travel behaviour and the customer experience more generally.

The routes delivered in 2018 and in scope for this analysis are:

- **Cycle Superhighway 3 East-West – section a** (Lancaster Gate to Birdcage Walk). This was actually completed in 2017, but the first ‘after’ data are from 2018. Mostly segregated.
- **Cycle Superhighway 6 North-South – section b** (Stonecutter Street to King’s Cross). Mostly non-segregated.
- **Quietway 2** (Bloomsbury to Walthamstow). Mostly non-segregated.
- **Quietway 3** (Kilburn to Gladstone Park). Non-segregated.
- **Quietway 5 – section b** (Oval to Clapham). Mostly non-segregated.
- **Green Lanes (A105) (Mini-Holland Enfield)**. Mostly segregated.
- **The Cut (Mini-Holland Kingston)**. Mostly traffic-free.



Table 2 summarises the available data. The gaps are due to insufficient sample sizes or data not yet available.

Table 2. Cycling monitoring data available for routes delivered in 2018.

	Volumetric counts		Intercept surveys	
	Baseline	After	Baseline	After
CS3 EW (section a)	✓	✓	✓	✓
CS6 NS (section b)	✓	✓	✗	✗
Q2	✓	✓	✓	✓
Q3	✓	✓	✗	✓
Q5 (section b)	✓	✓	✗	✓
Green Lanes	✓	✓	✗	✓
The Cut	✓	✗	✗	✓

Source: TfL City Planning.

These surveys have several limitations, primary among which is the fact that they relate to specific routes of the cycle network and should not, therefore, be taken as definitive indicators of change at the larger scale or directly compared among each other without due consideration to local factors (eg the extent of abstraction from parallel routes).

Cycling volumes before and after improvements

This section looks at the change in cycling volumes on each of the routes following construction. Table 3 provides some high level information for each route.

Although the analysis of cycling volumes has to be route and even monitoring site-specific, the overall conclusion is that **there is growth in cycling on all assessed routes which opened in 2018**, when comparing the first 'after' counts with the pre-construction baselines.

Table 3. Cycling volume highlights for routes delivered in 2018.

Route	2018 flows ¹	Sites with growth	Annual growth ²
CS3 EW (section a)	2,600-7,800	6 out of 7	1%-36%
CS6 NS (section b)	900-8,000	5 out of 7	3%-41%
Q2	300-6,200	10 out of 12	2%-33%
Q3	200-300	1 out of 2	11%*
Q5 (section b)	200-6,000	2 out of 2	7%-53%*
Q6 (section b)	0-100	3 out of 4	6%-24%*
Green Lanes	200-500	6 out of 6	16%-42%

¹ Total bidirectional cycle flows per day (6am-10pm), to the nearest hundred.

² Calculated on an annual equivalent basis among those count sites where growth was observed.

* These figures stem from a low baseline and are thus more prone to errors.

Source: TfL City Planning.

On most routes and count sites, there is indeed **significant growth** above the average at London level, which between 2017 and 2018 was around 5 per cent overall (8 per cent in central London, 3 per cent in inner London and 6 per cent in outer London). At those few sites where there is stagnation or even small declines in cycle demand, these can usually be explained by methodological limitations or temporary external impacts on the routes (eg construction works).

Further work is underway to quantify the extent to which this growth reflects 'new trips', stimulated by the infrastructure, transfers from other modes, or abstraction from parallel routes. In conclusion, and even though it is still early days in terms of before/after monitoring of the whole cycling investment portfolio, the results so far show that, in general, **where investment is made there is at least corresponding local growth in cycling**.



Perception of safety and cycling confidence

This section explores the perception of safety among surveyed cyclists. 'Actual' safety statistics from collision data are not available for recently opened routes because three years' worth of these data are required to draw meaningful conclusions.

Key conclusions are that:

- Across the assessed routes, most people (between 64 and 84 per cent depending on the route) state **feeling safe for most or the entire journey**. On the two routes with baseline data, this proportion has increased by 7 and 17 percentage points with respect to the pre-construction baseline.
- On all but one of the assessed routes, more than half of the respondents (and up to 63 per cent) state that **a reason to choose that route is because 'it feels safer than the alternatives'**. Where baseline data are available, there have been increases of 6 and 10 percentage points on this proportion since the route opened.
- Most surveyed cyclists (66 to 81 per cent on different routes) feel confident cycling on most roads; and 25 to 40 per cent feel **more confident than the previous year** after the route opened, although the majority feel as confident as before.

In general, these results suggest a positive **correlation between the provision of cycling infrastructure and the perception of safety**. There is also emerging evidence that this correlation may be stronger where the infrastructure is segregated.

Consideration is being given to developing tools to enable a more robust analysis of the impact of segregation, which could be shared on a future update.

Demographics of people who cycle

This section looks at the demographic profile of cyclists on the assessed routes. The main findings are:

- The **proportion of women is relatively low** (around 27 per cent on most routes), but tends to be slightly higher (up to 34 per cent) on some Quietway routes. Where data are available, this gender split has remained largely unchanged with respect to the pre-construction baselines.
- In relation to this, some initial work in TfL's new MoTiON demand model considered how removing women's barriers to cycling might contribute to cycling growth. If these barriers were removed, MoTiON suggests there would be a 10 per cent increase in cycling in London, and that the number of journeys to work cycled by women would increase by 60 per cent.
- There is a **very low proportion of young, 16-24 years old, cyclists** (less than 6 per cent on all assessed routes). The proportion of older cyclists (aged 45 and over) varies but tends to be higher on routes located further out.
- In terms of ethnicity, **the vast majority of cyclists are white** (above 85 per cent on all assessed routes), and this proportion does not seem to have changed following construction of the routes.
- The **proportion of cyclists in full-time employment is higher than 73 per cent** on all assessed routes, with some as high as 84 per cent. It tends to be lower on outer London routes.
- The **proportion of cyclists from low-income households** (less than £20k pa) is very low (below 14 per cent on all assessed routes) relative to their prevalence in the general population (around 26 per cent). On all but one route the



proportion of cyclists from middle-income households (£20k to £75k pa) is higher than the other income brackets, although **the proportion of cyclists from households with incomes above £75k pa is significant** (often exceeding 20 or 30 per cent) and seems to be increasing slightly.

- In terms of general cycling frequency, on all assessed routes **the vast majority of cyclists are very regular** (cycling more than 5 days a week), with proportions varying between 50 and 73 per cent, reaching up to and above 80 or 90 per cent when looking at those who cycle at least 2 days per week.

Although these results are subject to various statistical limitations, the conclusions are broadly consistent with other London-wide surveys such as the London Travel Demand Survey (LTDS).

In general, these findings suggest that **the demographic profile of people using the new infrastructure is not significantly different to that for people who cycle as a whole**. Therefore, additional actions seem necessary to make cycling more representative and accessible to wider demographic groups.

Satisfaction with the new infrastructure

This section looks at the impressions of people who cycle relating to different aspects of the routes and their cycling experience. The key findings are:

- On all routes, more than 60 per cent of respondents rate the **quality of the route** where they were intercepted as 'quite pleasant' or 'very pleasant'.
- When asked about the **satisfaction with specific elements** of the route, 'Quality of road surface' stands out as a poor performer. Quietways tend to also fall short on 'Helpfulness of signs and markings for cyclists' and 'Space for cyclists'.

- On all routes, the proportion of respondents who agree with the proposition '**I would encourage new cyclists to use this route**' is greater than 70 per cent and greater than 80 or 90 on some routes. Agreement with the proposition 'The quality of my journey has improved since the changes' is also quite high and above 60 per cent on all but two of the assessed routes.
- Agreement with the proposition '**I am happy to cycle further in order to be able to use this route**' is greater than 50 per cent only on the CS3 EW (section a), thus suggesting a higher catchment for the more radical interventions.

Although the satisfaction scores are quite variable across the routes and the various aspects, in general **satisfaction with the assessed routes is good** and so are recommendation scores and the perceived quality of the overall journey experience.

Impacts of the infrastructure on travel behaviour

This section explores the extent to which the new cycle routes have changed cyclists' behaviour. The main findings are that:

- The proportion of respondents who say that they **cycle more than the previous year** in the after surveys on the assessed routes is between 29 and 45 per cent, and tends to be at the higher end of that range where there is substantial segregation from general traffic. This proportion is much higher than that of those who cycle less than the previous year, thus confirming the net increase in cycling volume observed.
- Although '**Better/more cycling infrastructure**' is not one of the top statements cited by respondents as a reason to cycle more in the current year, on most of the assessed routes around 40 per cent of respondents do mention it, and this proportion is up to 55 per cent on the Green Lanes route.



- The impacts of the assessed routes on the amount and frequency of cycling, mode shift to cycling, and re-routeing are mixed, but the Green Lanes route stands out as best performer on all of them.

In general, the impacts of cycling infrastructure on travel behaviour vary widely on each individual route but overall they all **progress in the right direction**.

The particularly good performance of the Green Lanes suggests that impact is greater on a high-profile, largely segregated route in an area (Borough of Enfield) where there are complementary measures in place to promote cycling.

