

# Where's the evidence?

## Dulwich cycling study over-inflated



An analysis of the December 2020 report by Dr Anna Goodman, *'Examining the impact on cycling levels of Streetspace modal filters: a controlled before-and-after study in Dulwich Village, London. Transport for Quality of Life'*

The Dulwich Alliance  
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## Executive summary

The Dulwich Alliance is a network of local groups campaigning for a more equitable solution to travel and transport problems in the Dulwich area. The Alliance strongly supports interventions that make walking and cycling safer and easier, particularly for children travelling to school, and welcomes robust analysis of the current experimental 'Streetspace' (Dulwich LTN) road measures.

This paper analyses [a December 2020 report by Dr Anna Goodman](#) on the closure of Dulwich Village junction to motor traffic. The report, which looked specifically at the impact of the modal filters on Calton Avenue, concluded that the number of cyclists had almost doubled, and that there was a sevenfold increase in the number of child cyclists during the school run. These findings have been widely quoted, both locally and nationally.

However, the evidence presented does not support the report's findings. The conclusion of a direct correlation between the Calton Avenue intervention and a large increase in cycling cannot be substantiated, as the report fails to examine the significance of pre-existing conditions, or the contributory effect of other potential causes.

The report also fails to consider whether different interventions, like cycle lanes or timed closures (like a School Street), might have produced the same or better results with less harm, because of displaced traffic, to the wider community across the area as a whole.

In summary:

- **the report overlooks the general increase in cycling before the intervention, due to Covid-19 and the lockdowns**
- **the report fails to consider the effect of the major remodelling of two junctions, the Quietway 7 works, and a number of cycling-friendly measures, which were all introduced before the 'Streetspace' intervention in June 2020**
- **the two sites – the 'Streetspace' intervention site (Calton Avenue) and the 'control' i.e. non-intervention site (Red Post Hill) – are not directly comparable**
- **modelling (an estimate) provides an unreliable baseline for the startling increase in the number of children cycling to school**
- **the report concentrates on the effect of the 'Streetspace' intervention on just one road rather than on neighbouring streets**

- the report makes no attempt to explore whether, based on the evidence, a different type of intervention might be more appropriate at this location
- data from a single morning on an atypical day cannot suggest general trends
- the methodology and authorship both offer the potential for bias
- while the report is presented as ‘academic’ in nature, it has not been peer-reviewed

## Analysis of report

### The findings

The report compares manual counts on the morning of Tuesday 3 November 2020 with two different sets of ‘before’ data – manual counts from two separate years (2018 for Calton Avenue and 2019 for Red Post Hill), and modelling based on 2011 figures. None of the ‘before’ data, therefore, relates to the time period directly before the November 2020 count.

*Based on the manual counts*, Dr Goodman looks (1) at the total number of cycles, recording a 94% increase at the Streetspace site, and (2) the number of children cycling to school, suggesting a sevenfold increase relative to the control site.

*Based on the modelling*, Dr Goodman makes a direct comparison between the 10 child cyclists, from state schools only, estimated to have used Calton Avenue to travel to school in 2011 (‘Before’) and the 141 child cyclists, from all schools, manually counted on Calton Avenue between 7.45am and 8.45am in 2020 (‘After’).

Dr Goodman makes the overall conclusion that the reported increase in cycling at the Streetspace site demonstrates the effectiveness of modal filters on Calton Avenue.

### Problems with the findings

#### **1. The report overlooks the general increase in cycling before the intervention, due to Covid-19 and the lockdowns**

Dr Goodman’s conclusion of a direct correlation between the Calton Avenue intervention in June 2020 and a large increase in cycling cannot be

substantiated, as the report fails to examine the significance of pre-existing conditions, or the contributory effect of other potential causes.

For example, Dr Goodman overlooks the general effect of the Covid crisis on the volume of cycle traffic before the implementation of the Streetspace measures. Government figures show a significant increase in cycling in May and June 2020 following the end of the first lockdown (which may have been linked to a reluctance to use public transport, or possibly with adults furloughed or working from home). This is supported by Alleyn's Junior School reporting in June (before the closure of Dulwich Village junction) that 50% of their pupils were cycling to school<sup>1</sup>, while Dulwich Village Infants reported they were running out of cycle storage space<sup>2</sup>.

**2. The report fails to consider the effect of the major remodelling of two junctions, the Quietway 7 works, and a number of cycling-friendly measures, which were all introduced before the 'Streetspace' intervention in June 2020**

A number of factors (unrelated to the Streetspace measures) may have contributed to an increase in cycling since 2011. These include the major remodelling of both junctions at either end of Calton Avenue in 2015 and 2017/2018; the Quietway 7 works in 2017; the promotion of Calton Avenue on a map distributed to all local schools by the campaign group 'Dulwich and Herne Hill Safe Routes to School'; and the cycle storage places for 250 bikes at the schools located at either end of Calton Avenue<sup>3</sup>. It may be relevant to note, too, that Dulwich College on the South Circular reported that all of its 400 cycle spaces were fully utilised in May 2018<sup>4</sup>.

**3. The two sites – the 'Streetspace' intervention site (Calton Avenue) and the 'control' i.e. non-intervention site (Red Post Hill) – are not directly comparable**

Dr Goodman says that the use of control sites is important when evaluating Streetspace measures because the pandemic continues to affect travel behaviour. However, the two sites (Red Post Hill and Calton Avenue) are not comparable. The Red Post Hill site, next to North Dulwich station, is close to two secondary schools (The Charter School and JAGS), but is also a bus route, and a commuter route for cyclists travelling into central London and the City. Calton Avenue, by contrast, is a road linking residential areas with a number of primary and secondary schools, including four for under-11s (Dulwich Village Infants, Dulwich Hamlet, and the junior schools of Alleyn's and JAGS).

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<sup>1</sup> [Minutes](#) of Dulwich and Herne Hill Safe Routes to School 9 June 2020

<sup>2</sup> [Minutes](#) of Dulwich and Herne Hill Safe Routes to School 10 June 2020

<sup>3</sup> Statistics from [TfL's STARS](#)

<sup>4</sup> [Minutes](#) of Dulwich and Herne Hill Safe Routes to School May 2018

The lack of similarity between the two sites is underlined by examining the 2018/2019 data. The difference between northbound and southbound cycling (travelling north in the morning and south in the afternoon/evening) was significantly greater at Red Post Hill than at Calton Avenue.

If there is a sevenfold increase in cycling on Calton Avenue relative to Red Post Hill, there may be many other factors apart from the experimental traffic measures that are having a causal effect.

#### **4. Modelling (an estimate) provides an unreliable baseline for the startling increase in the number of children cycling to school**

The graph in Figure 4 appears to show a dramatic increase in the number of cycles ridden by children at the Streetspace site. However, the baseline figure of only 10 cyclists using Calton Avenue in 2011 is a modelled approximation (the 'Propensity to Cycle Tool') – using data that relates only to local state schools, not local independent schools – and cannot be usefully compared to a manual count in 2020. A more accurate baseline figure might have been arrived at by using, for example, travel plans from both independent and state schools.

#### **5. The report concentrates on the effect of the 'Streetspace' intervention on just one road rather than on neighbouring streets**

An unintended consequence of the closure of Dulwich Village junction is the reported increase in traffic displaced on to roads like East Dulwich Grove, which has a number of schools and nurseries, and is used by many children travelling to school. This study of the impact of Streetspace measures on cycling would have been more useful if it had been able to examine both increases *and decreases* in the number of children cycling to school *on all local roads*, including East Dulwich Grove, rather than on Calton Avenue alone.<sup>5</sup>

It would have been helpful if the report had stressed that experimental traffic schemes can only be properly assessed through consistent data-gathering and comprehensive monitoring of air quality and traffic (of motorised traffic and cycles) on all local roads. This area-wide analysis is particularly important in Dulwich, which has poor public transport (low PTAL ratings) and high numbers of children travelling to the independent schools from all over London.

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<sup>5</sup> There is an available 2016 count for East Dulwich Grove: see [Road traffic statistics - Manual count point: 47606 \(dft.gov.uk\)](https://www.dft.gov.uk/road-traffic-statistics-manual-count-point/47606)

## **6. The report makes no attempt to explore whether, based on the evidence, a different type of intervention might be more appropriate at this location**

Dr Goodman says in her summary that there is substantial potential to increase cycling if infrastructure is provided that allows people to travel safely and comfortably. However, the choice of infrastructure is not discussed. Dr Goodman makes no attempt to compare or contrast the Calton Avenue intervention with other measures used locally, such as School Streets or dedicated cycle lanes, which may be more appropriate at this location.

This omission is particularly surprising given that the 2018 ‘before’ count on Calton Avenue had already suggested that most cyclists in the morning period (73%) were travelling between 7am and 9am. Dr Goodman has not published the underlying data from the 2020 count but, from the report, it is possible to estimate that over 93% of the children counted cycling on Calton Avenue on 3 November 2020 were travelling between 7.45am and 8.45am. This strongly suggests that timed closures (for example, a School Street) would provide virtually the same benefits for schoolchildren as the current 24/7 closures, while reducing displacement traffic on other local roads (see point 5, above).

## **7. Data from a single morning on an atypical day cannot suggest general trends**

The count was carried out on Tuesday 3 November 2020 from 7am to 1pm, and records cyclists over six hours on a single morning. It does not compare mornings to afternoons; different days of the week; or different weather conditions.

Further research would be needed to ascertain whether the one-off count reflected temporary Covid-related factors (for example, fewer people travelling by public transport, or parents working from home), or general ongoing patterns amounting to modal shift. As Dr Goodman says in her conclusion, ‘Achieving modal shift from car use to more sustainable forms of transport has the potential to yield very large public health and environmental benefits’; but this particular report does not provide any evidence to demonstrate whether, or in what way, this modal shift has taken place. (It is possible, for example, that the under-11s observed cycling may have previously walked to school rather than coming by car.)

It should also be noted that the UK was about to go into a second lockdown on Thursday 5 November, which may have influenced (positively or negatively) active travel behaviour on this particular day.

## 8. The methodology and authorship both offer the potential for bias

- (i) The count in Dulwich on 3 November 2020 was carried out by local volunteers rather than independent third parties. This does not, of course, invalidate the numbers recorded. There is, however, a possibility that advance knowledge of the count could have encouraged more local families to cycle on that specific day. Given the small statistical base, just 25 parents, each cycling with two children under ten years of age, would have accounted for 50% of the numbers identified in the count.
- (ii) Dr Goodman says that the opinions expressed in the report are solely her own. However, the contact details given are [anna@transportforqualityoflife.com](mailto:anna@transportforqualityoflife.com). Dr Goodman has been an associate of [Transport for Quality of Life](#) since 2015 (and her report is published on its website). Transport for Quality of Life is an organisation that researches and advises on sustainable transport solutions, and lists as one of its clients the London Borough of Southwark, which has implemented the current 'Streetspace' scheme in Dulwich using Experimental Traffic Orders.
- (iii) Dr Goodman is data lead on the 'Propensity to Cycle Tool' used to model the 2011 census figures in this report – see [The Propensity to Cycle Tool About Page \(pct.bike\)](#)

## 9. While the report is presented as 'academic' in nature, it has not been peer-reviewed

Given that the claims in the report are significant in the context of the debate surrounding Low Traffic Neighbourhoods, it would have been helpful if the study had been peer-reviewed by independent academic experts.

## Conclusion

The Dulwich Alliance welcomes robust analysis of Southwark Council's Streetspace measures.

However, Dr Goodman's statement in the executive summary that '*These findings demonstrate the substantial potential to increase cycling if infrastructure is provided*' is not supported by the evidence presented.

The study, to the contrary, does not support any direct causal link between modal filters at Dulwich Village junction and a general ongoing increase in cycling (in particular, an increase in schoolchildren cycling) in the area as a whole.

Furthermore, it makes no attempt to address the most obvious explanation for any changes in cycling behaviour in Calton Avenue – which is that they mostly took place before the modal filters were installed.

Finally, the study makes no attempt to show that – to the extent that the modal filters did create any changes in cycling behaviour – extreme 24/7 closures are necessary to achieve that behaviour change, rather than an alternative such as timed closures (or a School Street), or measures such as dedicated cycle lanes, which would have a far less detrimental impact on the wider community.

Dr Goodman has not published the underlying data but, from the report, it is possible to estimate that over 93% of the children counted cycling on Calton Avenue were travelling between 7.45am and 8.45am. This strongly suggests that timed closures would provide virtually the same benefits as the current 24/7 closure while reducing displacement traffic.

### **Disclaimer**

The Dulwich Alliance takes full responsibility for the work presented here, and all the opinions expressed are solely our own.

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