Appendix H Graphs of Results

16 graphs for these combinations of parameters:

- Trend-adjusted and not trend-adjusted
- Fatal and Serious Collisions (FSC) and Slight Injury Collisions (SLC)
- Fixed, mobile and Red-light cameras, plus all 3 combined.

Each plot shows graphs for **0-250, 0-500m and 0-1,000m** radius from cameras, but the red-light results also show **0-50m** because those cameras aim to reduce collisions at or near traffic lights.

The Excel data file available on-line allows all of these graphs to be reproduced and also, by selecting Rows of data, graphs of any combination of police area, camera type and site radius.

While it is necessary to **compare the results of the above 3 types of cameras** – in practice mobile cameras are marginally the worst of a bad bunch – **there is no particular point in differentiating between police areas because:**

- there is no logical reason for **camera effectiveness to be significantly different** in one police area from another
- **any apparent differences might well be due to chance and hence different a few years later**
- **what matters is the overall results**.
- **there is no possibility whatever of these types of cameras in any part of the country being effective, let alone cost-effective.**
- **given these results it is highly unlikely that any other type of camera, such as average-speed cameras, would be effective or cost effective.**

Every graph confirms net adverse effects

Every one of the 16 graphs below, of FSC and SLC trend-adjusted and not, fixed, mobile and red-light and all 3 combined, confirms that:

- **The relatively rapid fall** in collision numbers that would occur over the first few months to a year or so after installation of effective cameras **does not exist**.
- **Within 250m** of the cameras there is **no sensibly quantifiable effect**, except in some cases a slight increase towards the end of the 5 year "after" period.
- **Within 500m the adverse effects are more significant.**
- **Within 1,000m the adverse effects are severe, especially for mobile cameras.**

That cameras provide no net benefit is more than enough reason for scrapping them, especially as the £200/300m pa wasted on them could be used to improve road safety using effective methods. That they actually **cause more collisions than they prevent** makes it even more necessary and urgent

The significant increases in collisions beyond most official site boundaries can only be due to the presence of the cameras (App. G) because the adverse effects on driver behaviour clearly continue well beyond those boundaries.

It is likely that die-hard camera enthusiasts and others with vested interests will try to dispute these results because they are based on circular site areas, not on data for official site boundaries.

But anyone who tries will find himself on a hiding to nothing – because it does not matter in the slightest if significant reductions are achieved within narrowly-defined official boundaries, if at the same time increases beyond their boundaries negate them. (App. E). There is, after all, nothing to be gained by moving collisions from one area to another, let alone in increasing their number.

As these graphs used **very large volumes of the best available data**, and all the ***confounding factors*** that defeated other analysts are eliminated or reduced to trivial levels, **these results are beyond rational dispute.**

That is not to say, of course, that there will be no irrational dispute! Given the scale of **money, jobs, reputations, ego and other vested interests** at stake in the camera "industry" it is likely that (**the usual suspects will challenge and when they fail, try to ignore) these results.**

However, the **plain, appalling truth is that spending several billion pounds of public money and penalising millions of drivers, far from improving road safety, has led directly and indirectly to significantly more collisions would otherwise have occurred** – and that's before factoring in the collisions that could have been prevented had similar money and resources been spent on effective measures.

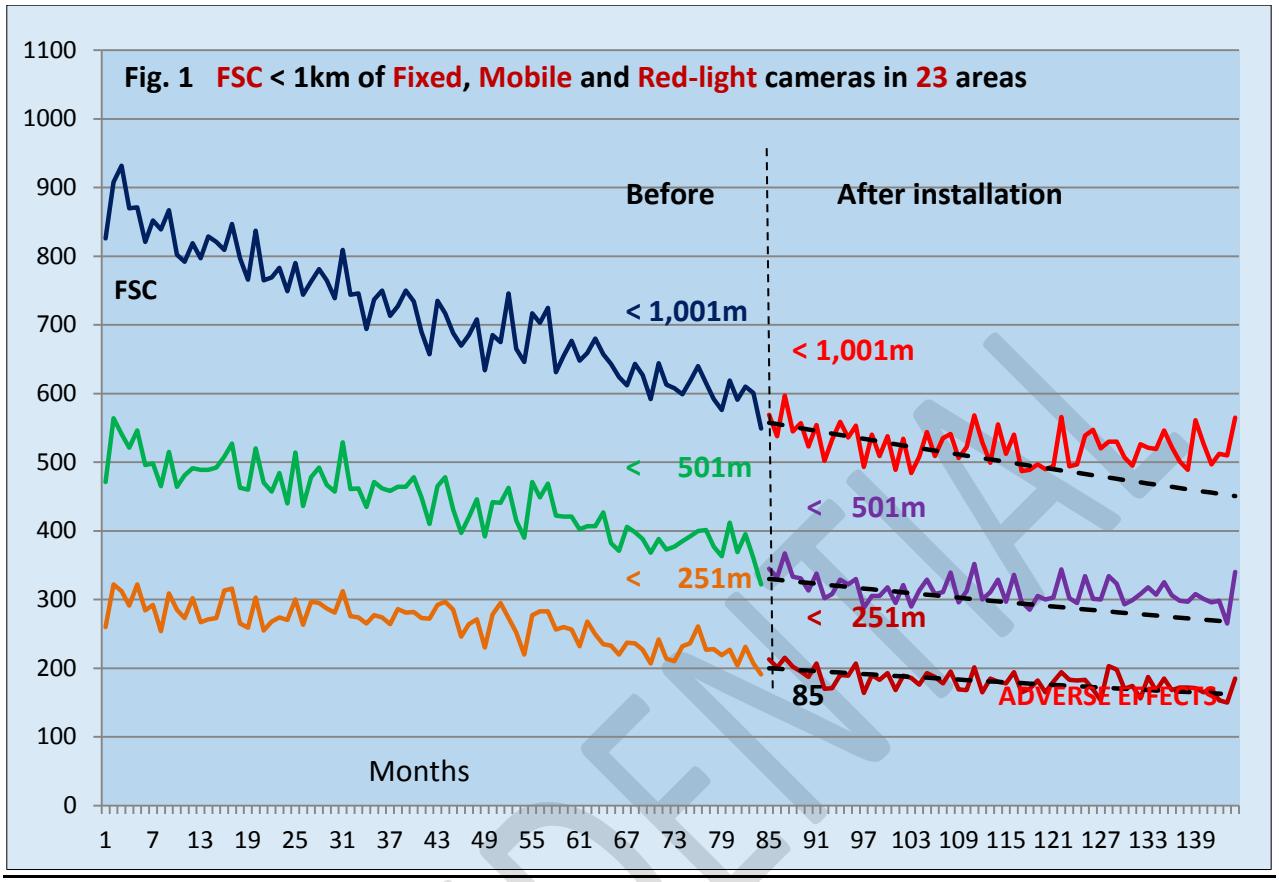
Clearly, **this nonsense must be stopped** but the most difficult obstacle to overcome will be the human frailties that Tolstoy identified more than 100 years ago, and as observed innumerable times by this analyst over more than 10 years:

I know that most men - not only those considered clever, but even those who are very clever, and capable of understanding most difficult scientific, mathematical, or philosophic problem - can very seldom discern even the simplest and most obvious truth if it be such as to oblige them to admit the falsity of conclusions they have formed, perhaps with much difficulty - conclusions of which they are proud, which they have taught to others, and on which they have built their lives.

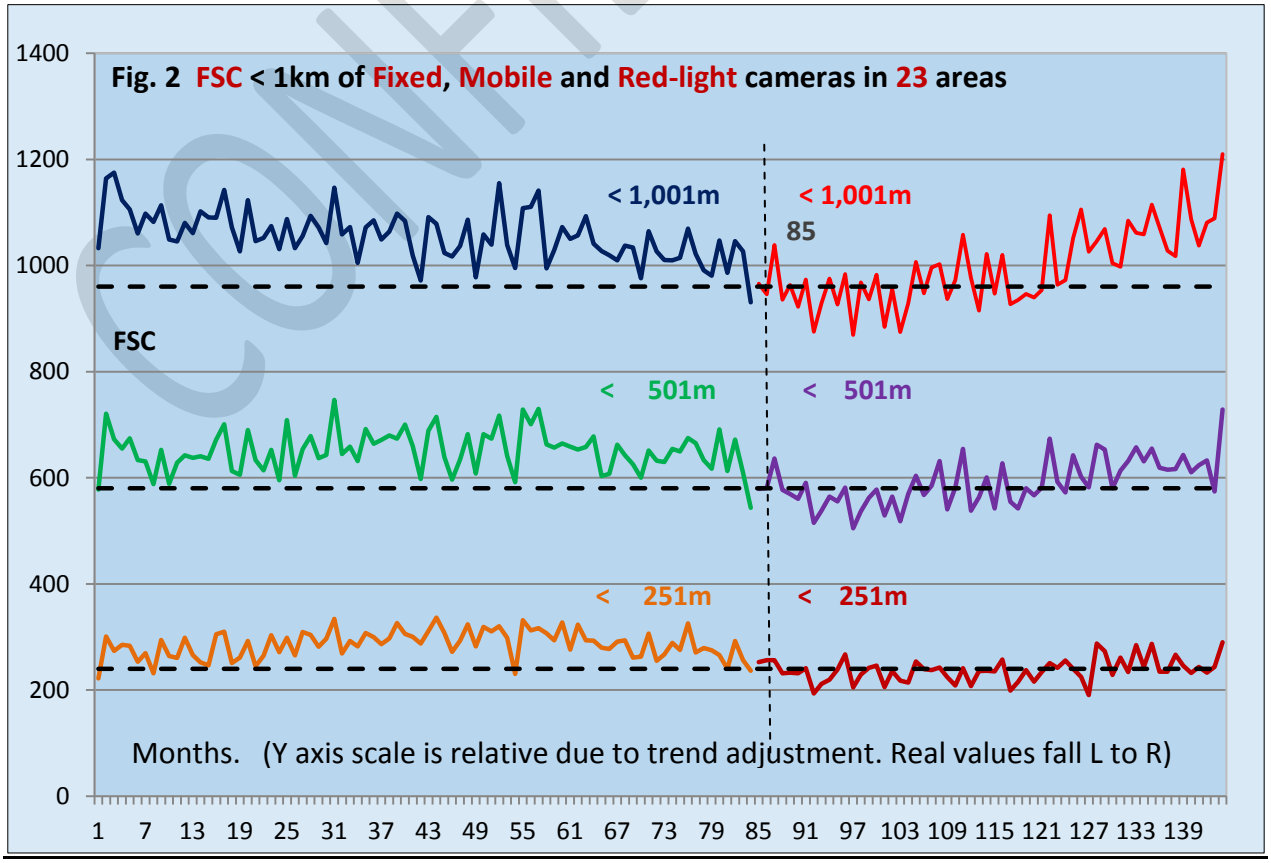
Leo Tolstoy quoted at https://en.wikipedia.org/wiki/Confirmation_bias See also App. A.

16 graphs follow – 8 trend-adjusted and 8 not trend-adjusted

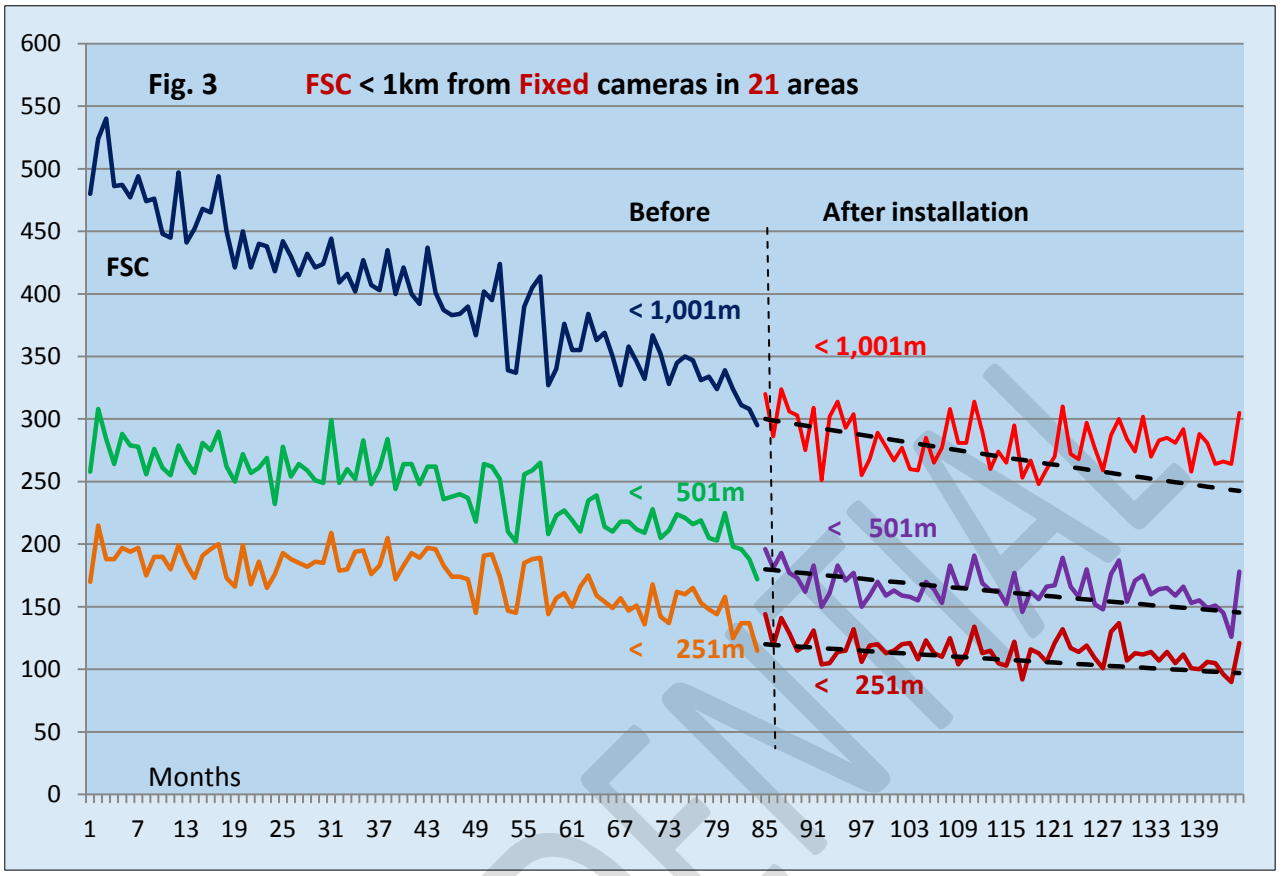
Effects of Fixed, Mobile and Red-light cameras on FSC



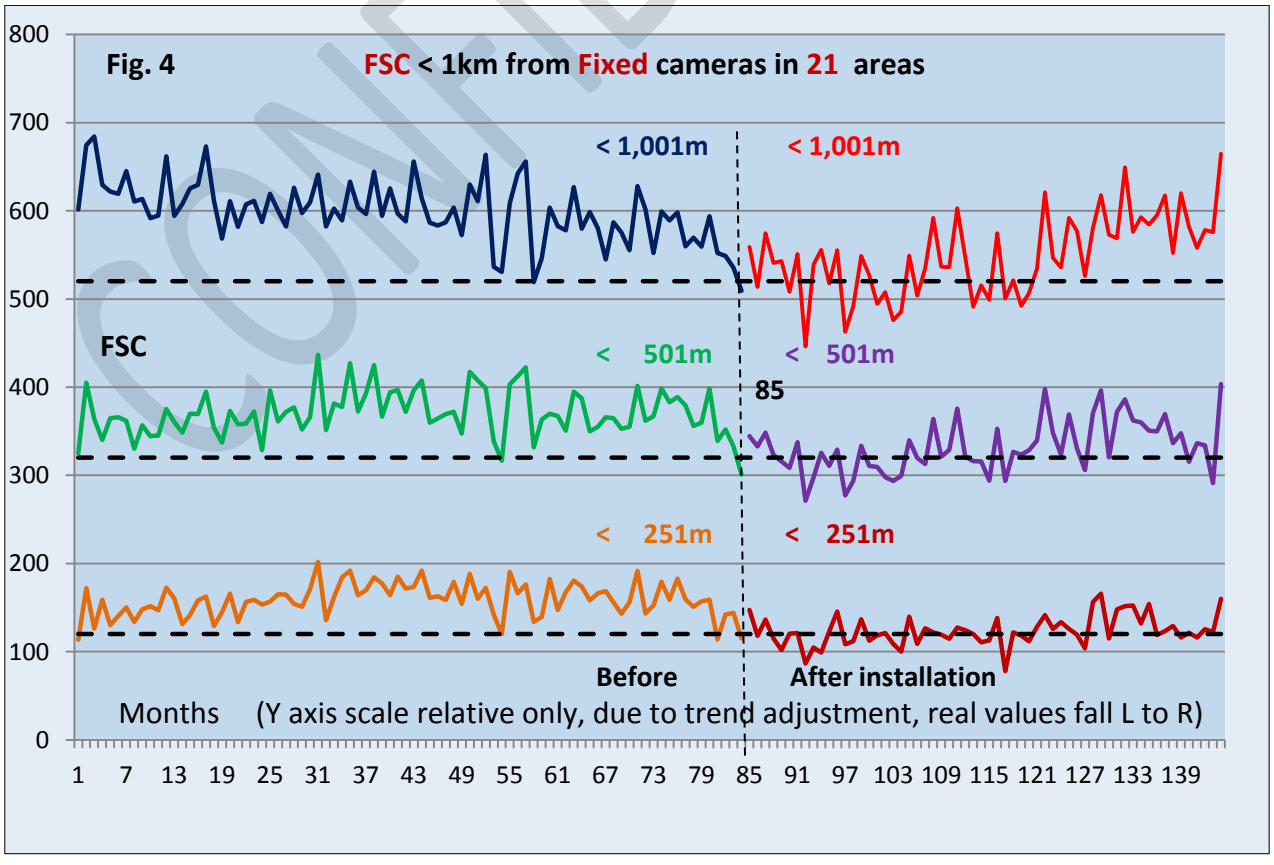
Trend-adjusted version



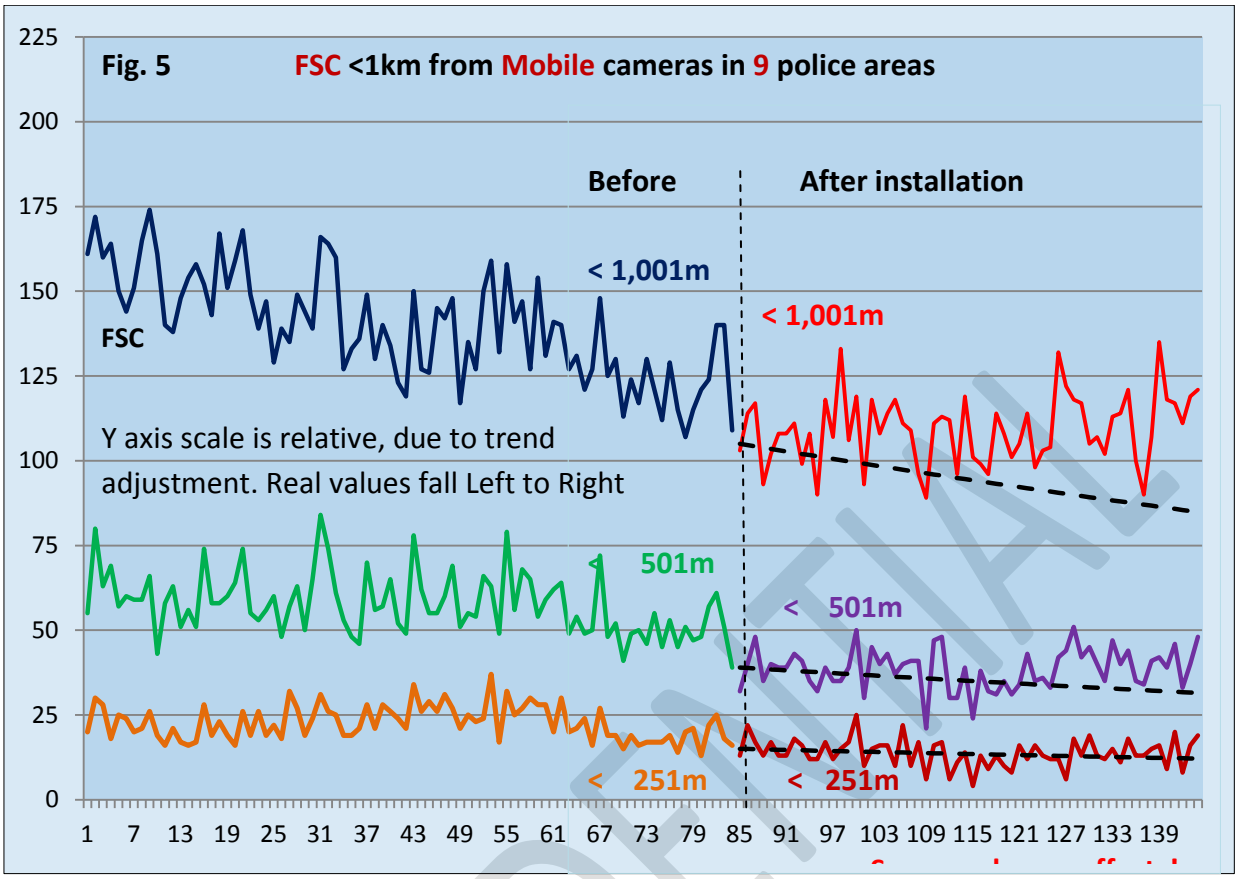
Effects of Fixed Cameras on FSC



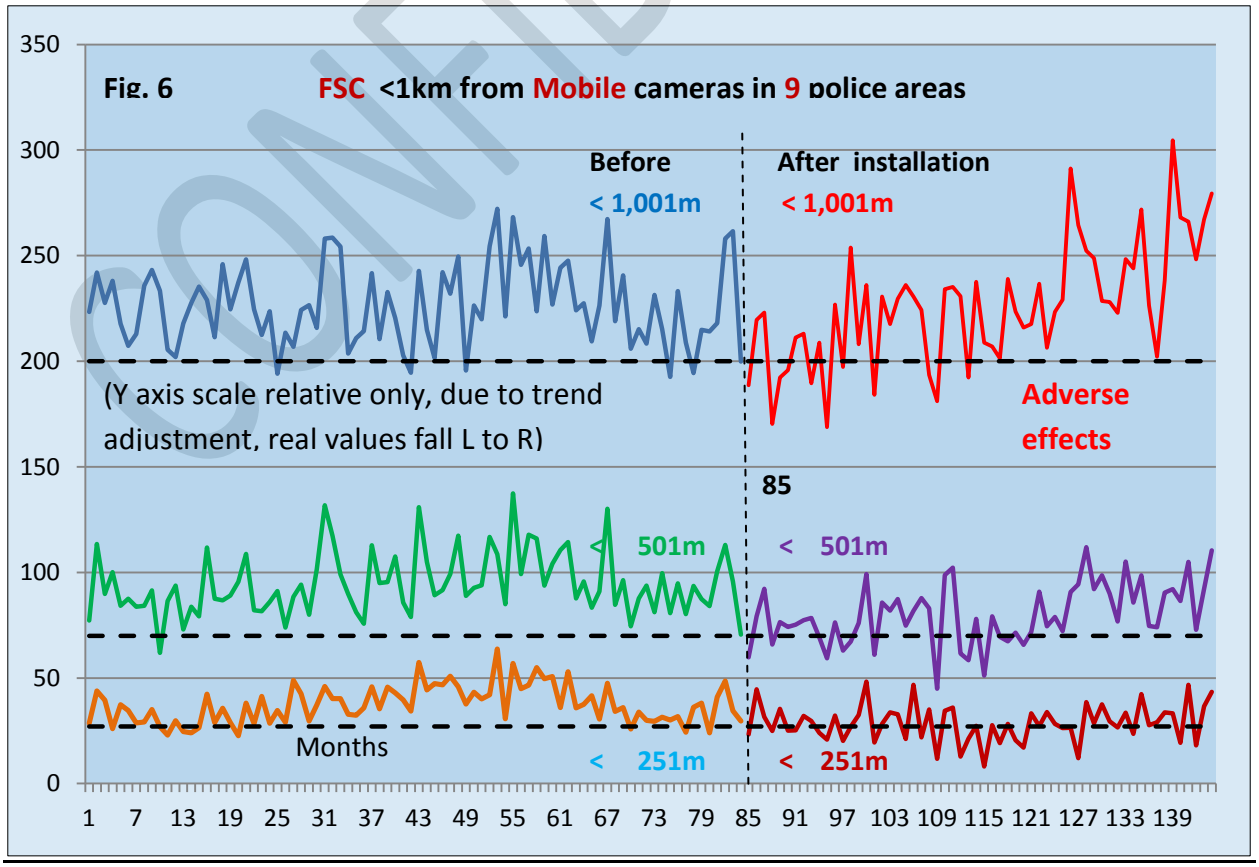
Trend-adjusted version



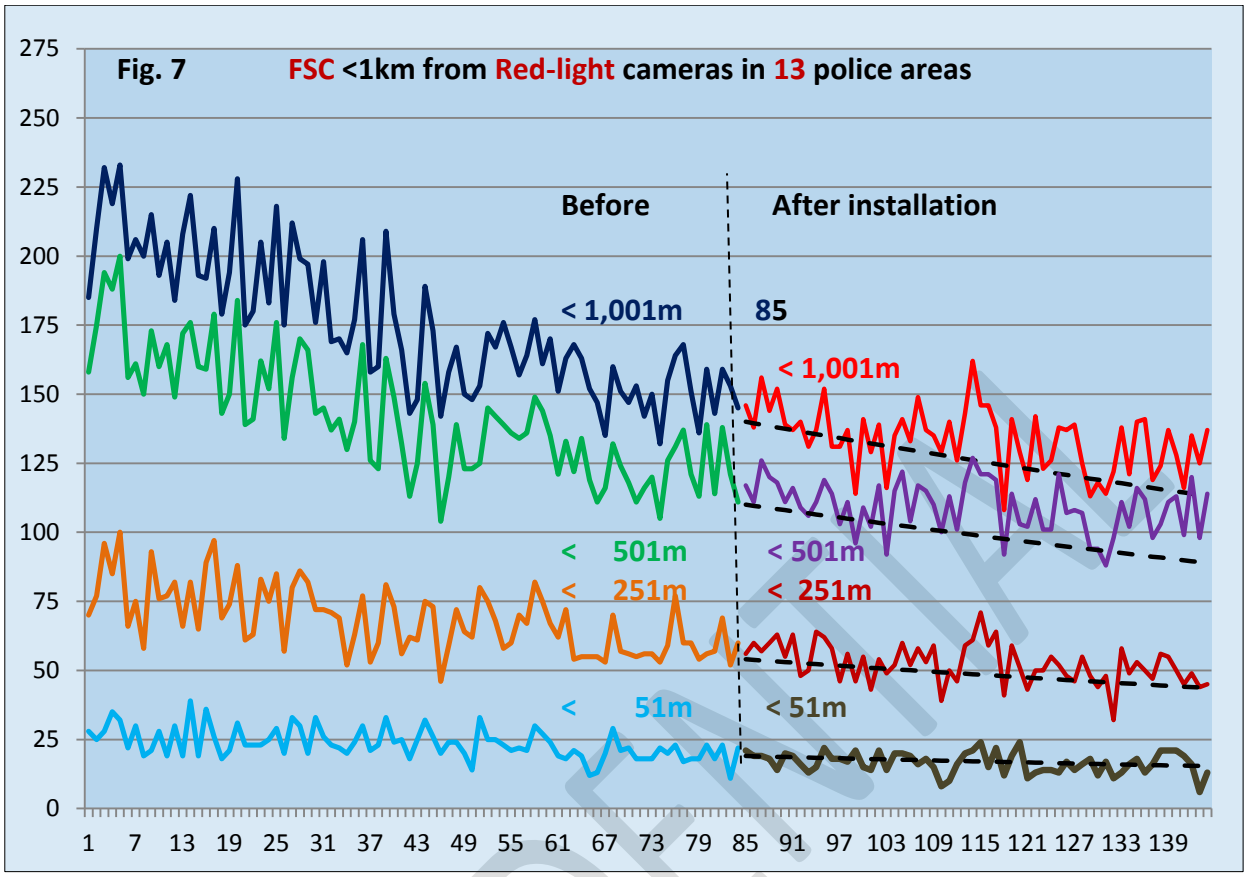
Effects of Mobile Cameras on FSC



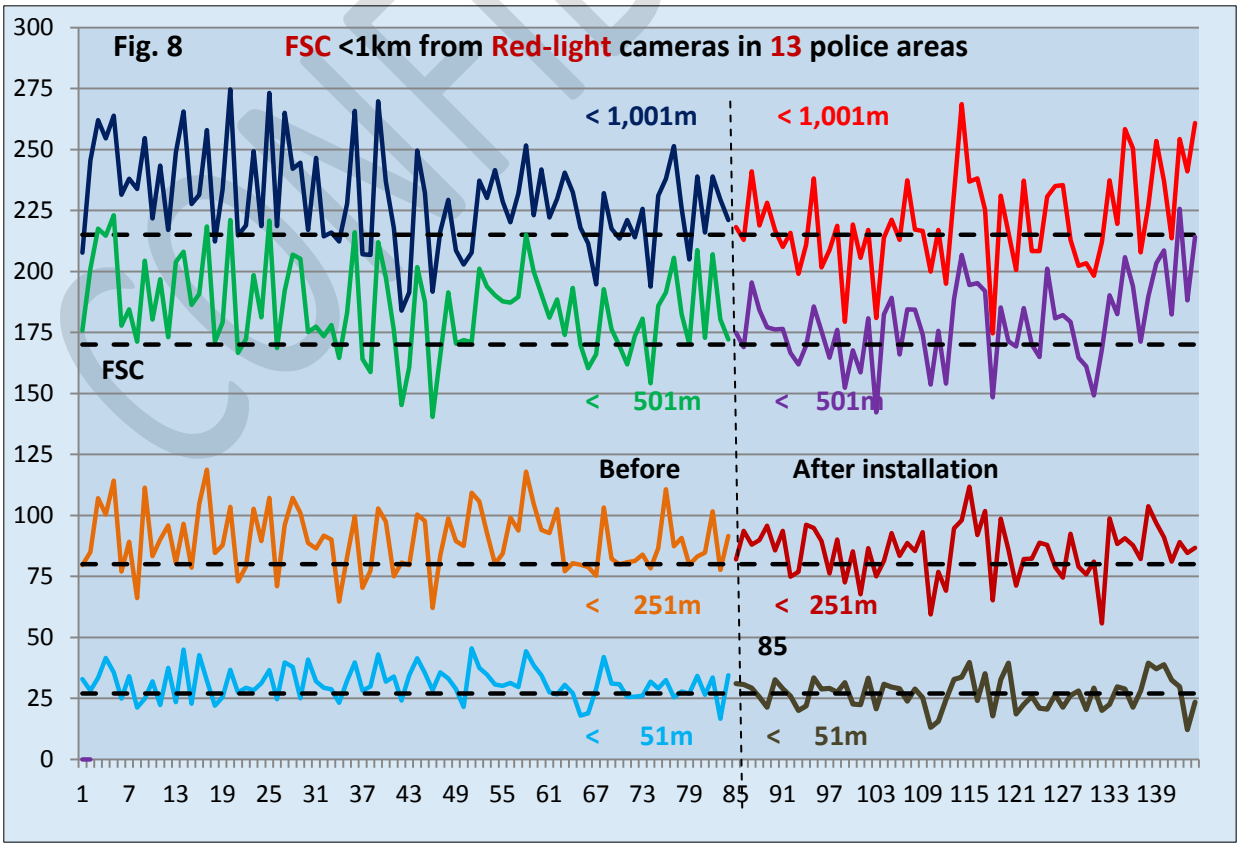
Trend-adjusted version



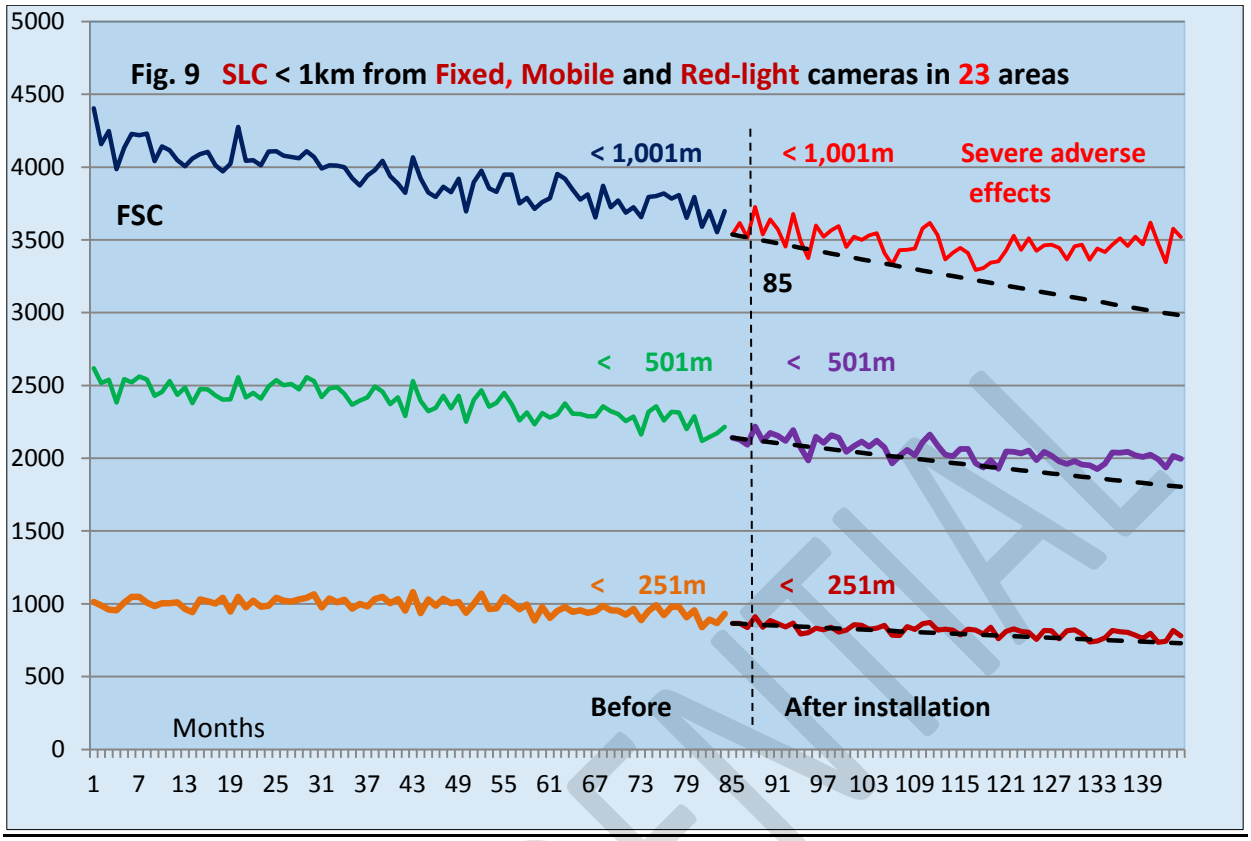
Effects of Red-light cameras on FSC



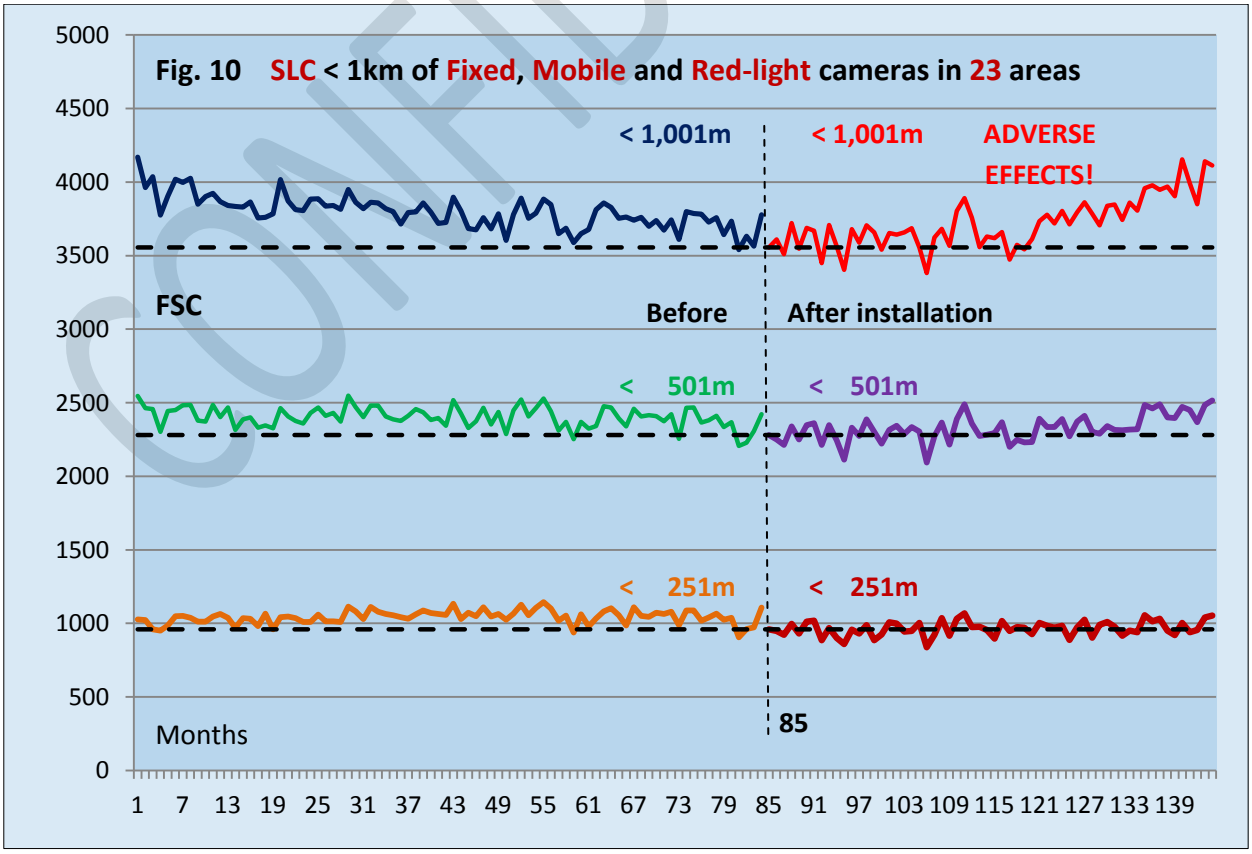
Trend-adjusted version



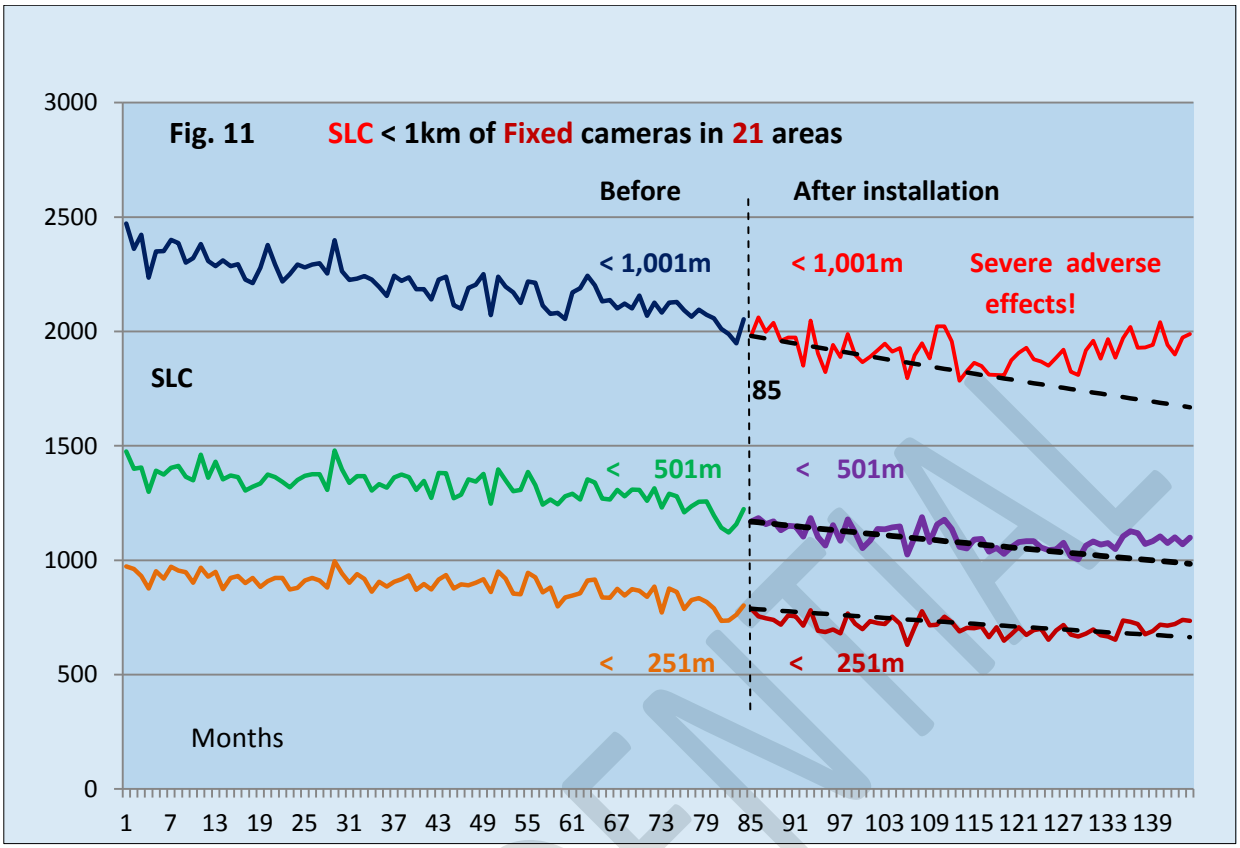
Effects of Fixed, Mobile and Red-light cameras on SLC



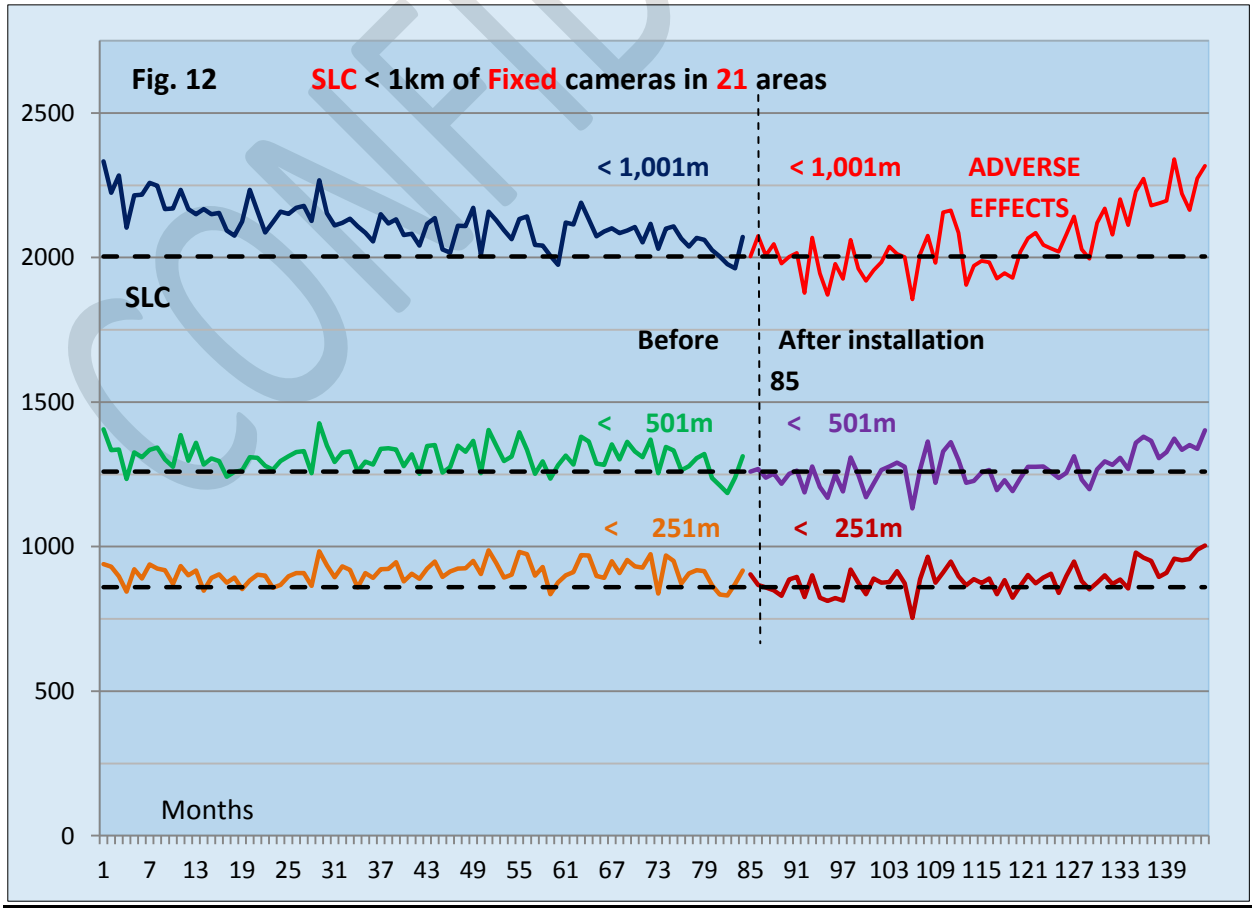
Trend-adjusted version



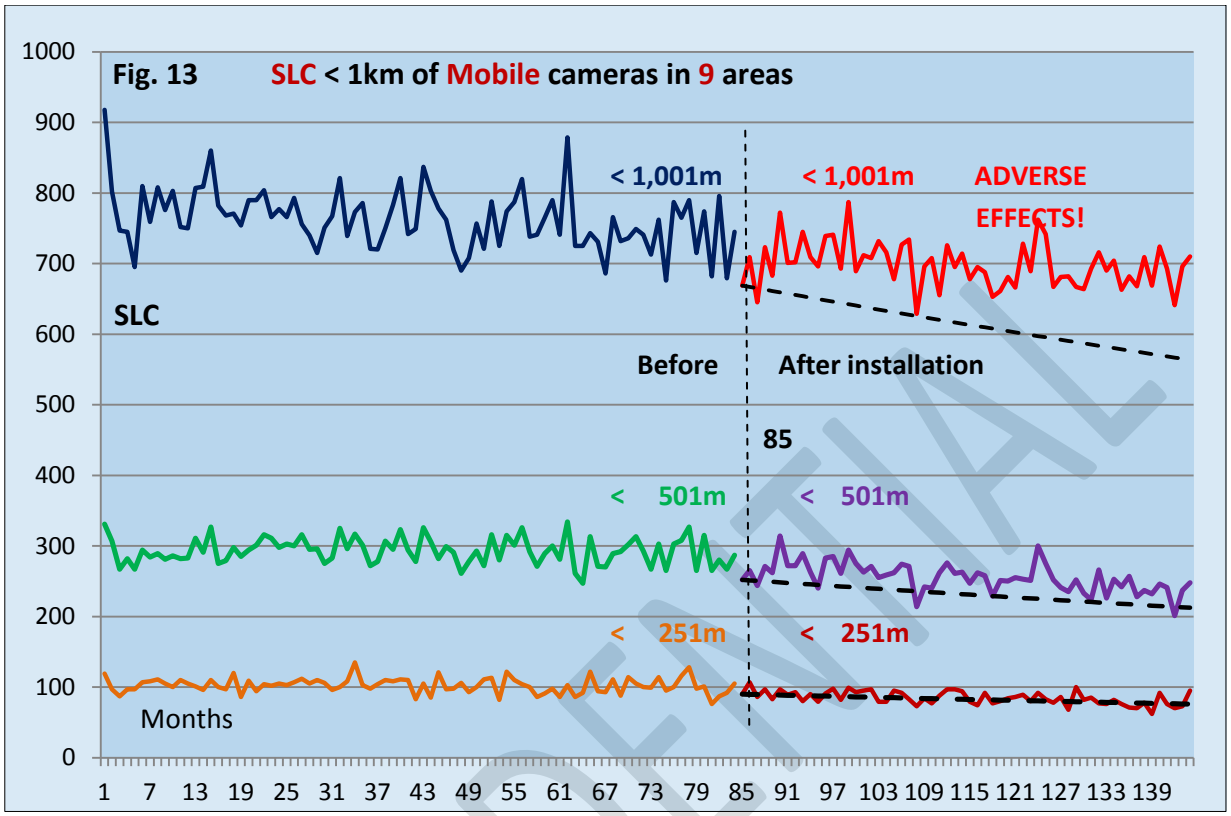
Effects of Fixed cameras on SLC



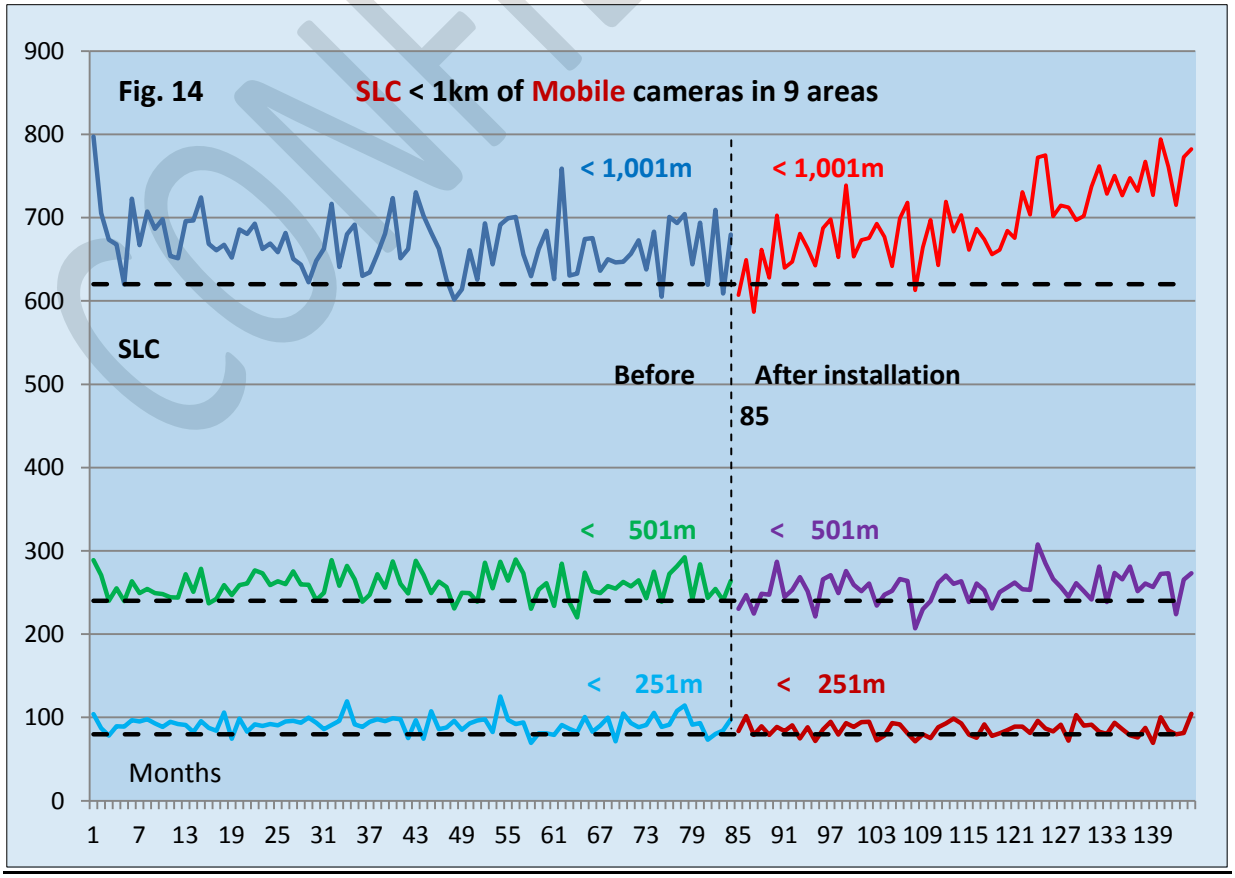
Trend-adjusted version



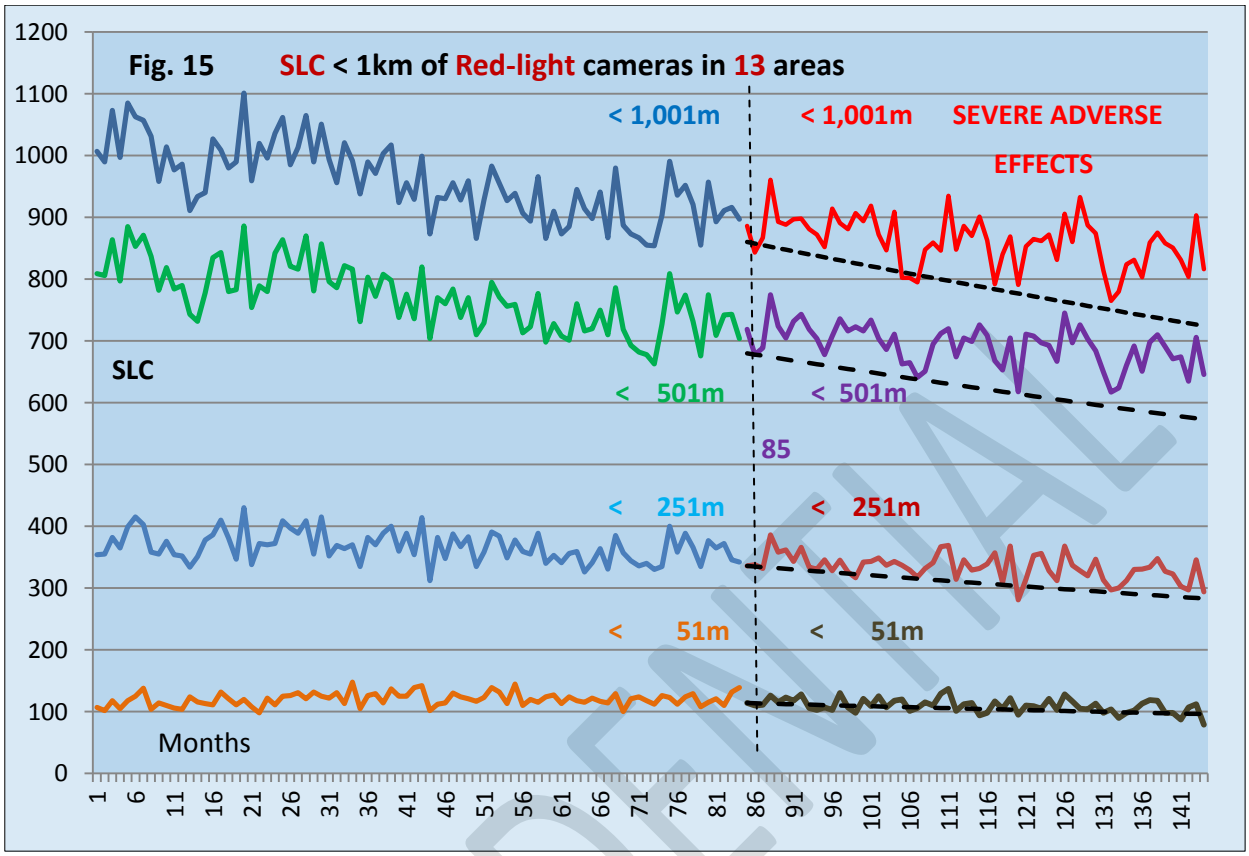
Effects of Mobile Cameras on SLC



Trend-adjusted version



Effects of Red-light Cameras on SLC



Trend-adjusted version