

## NCRM Placement Fellowships

### Advertised Placement – Role and Person Specification

#### Placement Title

**Social Research Academic Advisor (Department for Transport): Improving young driver safety**

Name of receiving organisation	<b>Department for Transport</b>
Location of placement	<b>London, DfT and working off site/home office</b>
Desired length of placement	<b>Four months (although there will be a very small amount of continuing ‘expert advisor/peer review’ involvement lasting up to two-three years)</b>
Desired time commitment per week (part-time, full-time, or proposed %)	<b>Part-time: approx. 2 days per week for the first four months and 1 day every two months thereafter (this somewhat flexible – see project deliverables for details)</b>
Approx. Start Date	<b>Mid-August 2017</b>

#### Role Description (max. 400 words)

This is an exciting opportunity to work as an expert advisor in social science for the Department for Transport (DfT). The successful candidate will work closely with the road safety policy team, applying their expert knowledge of evaluation and quantitative methodologies to help DfT develop policies which can improve the safety of young drivers.

The research fellow will have two main tasks:

1. Providing an in-depth review of methodologies being developed by DfT contractors for a large-scale evaluation of a range of young and novice drivers’ interventions. DfT has recently commissioned work to design, deliver and evaluate the impact of five interventions designed to improve young driver safety. The project is currently in the design phase during which the contractors will develop detailed plans for

the interventions as well as an evaluation framework outlining their proposed evaluation methodology. The precise evaluation method is therefore not yet determined, though a randomised control trial (RCT) is the preferred approach. The research fellow will represent the interests of DfT by providing an independent assessment of whether our contractor's proposed evaluation methodologies are proportionate, needs-driven and likely to be effective in evaluating the interventions that they have designed (detailed designs of each intervention will be delivered alongside the evaluation framework at the end of the design phase). This will require the research fellow to consider how to improve and strengthen the contractor's evaluation approach (including whether alternative approaches should be considered). Based on the advice from the fellow, DfT will either continue with the contractor's proposed evaluation methodology or we will alter the approach. Beyond the design period, the research fellow will remain involved in the project throughout (irrespective of what evaluation method is taken forward) through the provision of peer review of the report outputs and attending DfT project board meetings when expert advice is required (so this is a relatively low level commitment).

2. Conducting analysis of data on large numbers of novice drivers gathered via the Driver and Vehicle Standard Agency's (DVSA) practical driving test booking system to explore how both demographics and structural factors, such as the location of the test centre and the test centre's waiting times, influence when people book their driving test and whether they then subsequently adjust their booking earlier or later. This work will build on some existing analysis to help the department and the DVSA understand how to target behavioural interventions designed to encourage people to allow time for sufficient practice before taking their test. It will also help us to understand whether booking centre efficiencies may have a potential influence over test booking dates and potentially road safety.

Further details on and the project, deliverables and timescales are shown in the following sections.

## **Project Description** (max. 400 words)

As indicated, this project focusses on young drivers. As young drivers are four times more likely to be killed or seriously injured than those aged over 25, DfT needs to target road safety interventions at young drivers in order to reduce the number of people killed or seriously injured on Britain's roads.

The first task involves providing methodological scrutiny and advice to ensure that DfT is able to identify the most effective behavioural, technological and education interventions to improve young driver safety. As there is a lack of evidence regarding the efficacy of these type of interventions on reducing crash risk, DfT has commissioned work to develop five different interventions and evaluate their effectiveness. The evaluation will assess the impact of each intervention on the participant's likelihood of having a collision in the first 12 months of independent driving. The findings will inform decisions around which interventions to roll out.

The DfT wants the evaluation to be as robust as possible while also being powerful enough to detect a small impact of the interventions on collision risk. Though young drivers are more likely than other groups to have a collision, fortunately collisions are still relatively rare. This presents a challenge for detecting the impact of the interventions on collision risk, and our current preferred approach of an RCT design may not be practical or proportionate given the large sample sizes required. Furthermore, other research methods may be more suitable at measuring the 'real-world effectiveness', rather than efficacy, of the interventions. An alternative way of addressing the challenge around rarity of collisions is for the evaluation to consider the impact on other outcome measures in addition to collisions (e.g. self-reported driving style and or reported near misses). The contractors are currently considering these issues during the design phase, which will

produce a full evaluation framework by the end of August 2017. Due to the technical complexity and scale of the project, DfT would like the research fellow, who will be a social science expert, to provide independent methodological advice and scrutiny on:

1. the contractor's proposed evaluation method: Can the design be strengthened? Would it benefit from building in additional or alternative evaluation methods to ensure that this work delivers valuable and usable evidence?
2. the proposed outcome measures: How reliable and valid are any alternative outcome proposed? What further considerations should be made to ensure reliability and validity of these measures?

This work should be done in September and early October 2017.

A second task is analysis of data around practical driving test booking and re-booking. Existing evidence indicates that people who have more driving practice before booking their test are less likely to have a collision once they pass. DfT and DVSA are exploring ways to encourage people to book their tests later to allow time for more practice. This analysis will inform this work through exploring:

1. The relationship between demographic factors and time to test (re-)booking to help DfT and DVSA target interventions aimed at encouraging people to delay their test
2. The relationship between test centre waiting time and test booking (re-)booking to help DfT and DVSA understand the impact of creating test centre wait time efficiencies on test booking behaviour and potentially road safety.

This work will build on and develop existing DfT analysis on this subject ideally delivered before the end of 2017.

## Key Deliverables (max. 200 words)

The key deliverables are as follows:

- A report to the young driver intervention evaluation project board which will provide an independent assessment of the contractor's proposed evaluation framework and recommendations for improvements. This assessment must consider important contextual information when making the assessment, namely a review of existing evidence on interventions for young drivers (not yet published but will be made available to the fellow) and the contractor's detailed plans for each of the five interventions (which they will deliver alongside the evaluation framework). The report should outline an assessment of the feasibility of the proposed evaluation methods and whether they are the most suitable for evaluating each intervention. It should also include recommendations for how to improve the approach to ensure it is feasible, rigorous and cost effective (this can include, if deemed necessary, adopting additional or alternative evaluations methods) alongside their rationale for these recommendations. The report should be delivered to the project board in early October 2017.
- Peer review of interim and final evaluation reports of the young driver intervention evaluation. These outputs are not expected until 2019 and 2020.
- A report suitable for publication on the DfT website (and possibly also an academic journal) detailing the findings of the test booking data analysis, plus delivery of the revised data set (including derived variables) to DfT analysts. Ideally, we would like this work to be delivered before the end of 2017 but this date is somewhat flexible if the fellow cannot commit to working on this project for 2 days per week until the end of 2017.

## Research Methods (max. 200 words)

This placement offers the opportunity for a social science researcher specialised in evaluation methods to apply their knowledge of both RCTs and alternative evaluation methods in a practical way to ensure the quality of the proposed evaluation of interventions to improve the safety of young drivers.

This placement offers an opportunity to develop expertise in how to apply evaluation methods in a challenging context. Challenges include:

- Since collisions are relatively rare even amongst this high risk group, large samples will be needed to understand how effective the interventions are at reducing the likelihood of a collision and / or alternative outcome measures will need to be considered.
- DfT is seeking to evaluate interventions that are delivered pre- and post-test, hence participants will need to remain involved in the research for some time.
- Some of the interventions involve significant commitment, meaning recruiting participants will be challenging.
- There are theoretical (e.g. efficacy versus real-world effectiveness debate) and practical (e.g. can other methods deliver larger samples for lower cost?) issues to consider.

The data analysis element of this placement offers the opportunity for the fellow to apply advanced quantitative analysis techniques to assist government target interventions to improve road safety outcomes for young drivers, which will be reported in a published paper.

## Person Specification

Criteria	Essential	Desirable
Expert theoretical and practical knowledge of randomised control trials and experimental methodologies, including geographic pilots and natural experiments	*	
Knowledge & experience of applying evaluation methodologies in a social science context (i.e. for social or behavioural intervention as opposed to a medical intervention)	*	
Knowledge & experience working with public sector		*
Ability to communicate technical information to policy colleagues in a simple and engaging manner		*
Knowledge and understanding of road safety interventions		*
Experience in evaluating road safety interventions		*

## Further details

Further details on this specific role can be obtained from:

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Role	Principal Research Officer, Department for Transport
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Further details on the application process can be obtained from:

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