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Supporting New Drivers in Great Britain

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Disclaimer

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Executive Summary

Graduated driver licensing (GDL) is a form of phased licensing that introduces various requirements on new drivers to support them through their early driving career, when they are at greater risk of injury, and of injuring others in collisions. As well as encouraging greater and more varied practice during the learning phase, it targets the known risk situations of driving in the dark and carrying peer-age passengers, by imposing restrictions on these activities for a period after they have passed their test.

A 2021 Government report (House of Commons Transport Committee, 2021), published following the Transport Select Committee's inquiry titled 'Road Safety: Young and novice drivers', included an examination of the case for implementing GDL in Great Britain. It noted that there is evidence for injury reduction from GDL, but also that there are concerns about the impact on other outcomes such as access to employment and education for young people.¹ Previously there had been a commitment in the 2019 Road Safety Statement to undertake research into these social and economic consequences of GDL. However, the Parliamentary Under Secretary of State for Transport, when giving evidence to the Transport Select Committee's inquiry, noted that this research is not progressing, as a result of the COVID-19 pandemic and concerns about the potential effects of GDL on employment.

This report therefore examines some of the questions which remain unanswered in terms of the social and economic consequences of GDL. It addresses the areas of concern raised in the House of Commons Transport Select Committee report, by means of a rapid evidence review of published literature, and through interviews with young people and international experts on GDL. Eight areas of concern were addressed:

- (1–4) potential impacts on access to employment and education, on the needs of specific groups (such as carers), on those in rural areas, and on social and health outcomes;
- (5) difficulties concerning enforcement;
- (6) lack of support from young people;
- (7) equivalent benefits being possible with telematics technology; and
- (8) the reliance on evidence from other countries (the implication being that GDL will not work as well in Great Britain, which has generally safer roads).

On the basis of the evidence currently available, including the opinions of experts and young people interviewed, serious adverse impacts are not seen or expected in any of the areas considered. This is because all stakeholders (new drivers, and their friends and families; employers; and service providers) were found to adapt to restrictions, with evidence showing that exemptions and changes in travel patterns help people to maintain the most important elements of their mobility, while still benefitting from well-evidenced improvements in safety.

¹ The definition of 'young person' is not consistent in discussions around driver licensing, largely because different countries have different licensing ages. GDL systems are designed to benefit all new drivers, but most new drivers also tend to be young. Around 73% of driving test passers in GB are aged between 17 and 24.

The debate about GDL in Great Britain has stalled after over two decades of inquiries and evidence gathering. This is likely to be partly due to the perception that GDL is a 'one size fits all' approach, whereas in reality it is a pick-and-mix suite of measures (for example minimum learning periods, and rules on how many passengers can be carried) that can be tailored to different situations and contexts, and which can support new drivers in their early driving, easing them through the riskiest aspects of being behind the wheel while they develop their skills. With one of the most rigorous and professionally delivered driver licensing systems in the world already in place, Great Britain is well positioned for GDL restrictions to be delivered without undue systematic change, thus further enhancing its road safety record and maintaining its world-leading position.

1. Introduction



It is estimated that road collisions in Great Britain incur a cost to society of £33 billion a year (ITF, 2020). Young² and novice drivers are over-represented in these collisions (DfT, 2020). A combination of youth and inexperience reduces not only their own safety, but also that of their passengers, other vehicle occupants, motorcyclists, cyclists and pedestrians.

The risk factors for young and novice drivers are well understood. For example, their risk of a collision peaks between the hours of 2 a.m. and 4 a.m., and each additional similar-aged passenger in the car increases their likelihood of being involved in a collision (DfT, 2018; Ouimet et al., 2015). More and varied practice in the learner period is associated with a reduction in their initial post-test risk (Mirman et al., 2018).

Graduated driver licensing (GDL) is a form of phased licensing that is designed to mitigate these risk factors. Age- and time-based components are typically included during the learner phase and immediately post-test, creating a probationary phase prior to full licensure. The purpose is to increase the amount of on-road practice undertaken by learner and newly licensed drivers,

² The definition of 'young person' is not consistent in discussions around driver licensing, largely because different countries have different licensing ages. GDL systems are designed to benefit all new drivers, but most new drivers also tend to be young. Around 73% of driving test passers in GB are aged between 17 and 24.

and to protect these drivers from known risks related to their age and inexperience when driving unsupervised early in their driving career. Common components include minimum learning periods, coupled with temporary limits on carrying similar-age passengers and driving at night-time during the probationary phase. In countries implementing GDL, the licensing regime has reduced collisions and trauma from collisions involving a young driver, typically by 20–40% (Shope, 2007).

A 2021 report (House of Commons Transport Committee, 2021) which was published following the Transport Select Committee's inquiry titled 'Road Safety: Young and novice drivers', included an examination of the case for implementing GDL in Great Britain. It acknowledged the evidence demonstrating GDL's effectiveness at reducing collisions and casualties, but also raised legitimate concerns about its other impacts on young people, notably on social and economic outcomes such as access to work and education (House of Commons Transport Committee, 2021: 4):

“Given there is some evidence demonstrating the effectiveness of GDL but significant concerns about its impact, particularly from young people themselves, the Department should resume the study into the social and economic consequences of GDL which it committed to in its 2019 Road Safety Statement. This would provide much needed evidence on the likely impacts.”

The 2019 Road Safety Statement (Department for Transport, 2019) referred to in this quote had committed the Department to “...commission research to explore the social and economic consequences of introducing Graduated Driving Licence (GDL)” (action 9, p.21). However, when providing evidence for the House of Commons Transport Committee report in October 2020, Baroness Vere of Norbiton, the Parliamentary Under Secretary of State for Transport, stated that this work was not progressing “...in particular because of the coronavirus pandemic and the impact on young people's employment” (Q256, House of Commons Transport Committee, 2020).

This report seeks to answer some of the questions which remain unanswered following the DfT's decision not to proceed with commissioning research into the potential social and economic consequences of GDL. It addresses the areas of concern raised in the House of Commons Transport Select Committee report, by means of a rapid evidence review of published literature, interviews with young people from across Great Britain, and interviews with international experts who have experience of introducing GDL in other countries. The aim is to ensure that any future discussion about strengthening the licensing process in Great Britain is based on the best available evidence.

This report is a summary of the findings from a literature review and qualitative interviews with subject matter experts and young people, described in more detail in an unpublished review by TRL (the UK's Transport Research Laboratory). It also includes some findings from previous reviews and work with young drivers (Kinnear & Wallbank, 2020; Kinnear et al., 2020; Kinnear et al., 2014; Kinnear et al., 2013; Kinnear et al., 2011) where relevant, to address the areas of concern raised in the House of Commons Transport Committee report.

2. Areas of Concern



This chapter explores specific areas of concern raised within the 2021 Transport Committee report. Each of the following subsections outlines a specific concern and then provides relevant evidence. Unless otherwise attributed, the quotations with page numbers in this chapter are taken from the Transport Committee report (House of Commons Transport Committee, 2021).

2.1 Impact on access to opportunities (employment and education)

The concern

The first concern about a change in licensing approach, and raised in the Transport Committee report, relates to the social and economic opportunities – notably employment and education – that driving enables for young people. Evidence presented from Dr Kiron Chatterjee from the University of West of England (UWE) illustrated that having a personal car makes it nearly four times more likely that someone is employed rather than unemployed, and twice as likely that someone can access services. The implication is that any restrictions on personal car use will reduce such opportunities. Evidence from the British

Insurance Brokers' Association (BIBA) noted specifically that night-time restrictions would be particularly damaging to shift workers and those in the military forces, who are often under 21 and often required to be on call at night.

Evidence

There is very little published research specifically focused on how GDL impacts access to education and employment. The evidence reviewed suggests that GDL does have a small impact on access to employment and education. Argys et al. (2019) found that GDL reduced teenage labour force participation by around 5–7% in the USA. Brookland and Begg (2011) reported that 8% of teenagers interviewed said that the night-time restrictions in New Zealand affected their ability to find work (1% made the same statement addressing the passenger restriction).

Around 29% of 17- to 19-year-olds in Great Britain hold a full driving licence. If we were to assume that a similar proportion of licence holders in Great Britain would be impacted by night-time restrictions as in New Zealand, this would mean around 2% of all 17- to 19-year-olds in Great Britain being impacted in their access to employment. This assumes that no exemptions were put in place for such travel purposes, which is a common concession applied in countries that have introduced GDL.

International experts interviewed as part of the work summarised in this report noted that significant disadvantages related to problems with accessing employment and education do not materialise in practice when GDL systems are implemented, for two reasons. First, as already noted, exemptions for driving for employment and education purposes are usually put in place to mitigate this. Second, businesses and educational establishments tend to adapt to the regulations (for example by ending activities at a time that fits in with restrictions).

Individuals have also been found to adapt to the changing licensing requirements. Williams et al. (2002) found that young drivers use various means to adapt their travel behaviour (for example getting lifts from parents and using alternative travel options) to get around night-time and passenger restrictions. The vast majority of journeys affected are social rather than for education or employment (Begg et al., 1995; Ferguson et al., 2001). Surveys of young drivers and parents (such as Begg et al., 1995; Ferguson et al., 2001; Williams et al., 2002) also suggest that restrictions are likely to have only a minor impact on employment. To the contrary, there is, in fact, evidence that programmes designed to support individuals through the phases of GDL can actually improve the likelihood of employment. Porykali et al. (2021a; 2021b), for example, worked with Aboriginal and Torres Strait Islander peoples in Australia and showed that such programmes can support disadvantaged communities in managing new licensing requirements.

Responses from the young people interviewed for this study indicated that they expected driving to help them access employment. Responses to GDL restrictions were mixed. Negative reactions typically related to inconvenience, mentioning especially the start time of a night-time restriction in consideration of social activities. None of those interviewed said that such a system would put them off learning to drive, as they would still view driving as being more convenient than having to use public transport.

2.2 Impact on access to services and travel needs for specific groups

The concern

It was noted in the Transport Committee report that GDL passenger restrictions could potentially disadvantage those young people who have caring responsibilities, or who have younger siblings reliant on them for lifts. One contributor, a former student and volunteer with the Under 17 Car Club Charitable Trust (U17CC), gave evidence that highlighted this view, noting that “To enforce that you could not take passengers, or you could take only one other person, would be such a limiting experience to young people.” (p.26). BIBA also raised this, specifically related to lift sharing.

Evidence

We could find no evidence specifically related to this point, nor was it identified by the international experts as having been a concern in other countries that have implemented GDL. The young people we spoke with did not raise this issue either. Exemptions could be used for such specific cases, as is common in the USA and Australia. There is a precedent for such exemptions in the licensing process in Great Britain, whereby people receiving the higher rate mobility component of Disability Living Allowance, or the enhanced rate mobility component of the Personal Independence Payment, can hold a licence to drive a car from the age of 16, rather than the usual minimum age of 17.

2.3 Impact on those in rural areas

The concern

A further concern raised was that people in rural areas would be particularly badly impacted by GDL restrictions. Dr Kiron Chatterjee, UWE, touched on this, noting that 17- to 19-year-olds in rural areas drive three times as many miles as those in urban areas. Dr Chatterjee noted that “‘additional barriers’ to driving for young people in rural and peripheral urban areas would ‘not be welcome given the distance they need to travel to reach opportunities’” (p.26). The statement from the volunteer for the U17CC also touched on this, with her noting that people in her school who lived in rural areas used to carpool, to offset the lack of bus services.

Evidence

GDL has been shown to be more effective in increasing safety in rural areas than in urban areas owing to the greater risk posed by rural roads (Foss, 2001). Young rural drivers are 44% more likely to be involved in an injury collision than are young urban drivers, and are therefore more likely to benefit from GDL in public health terms (Fosdick, 2013). It is logical that those living in rural areas are likely to experience the impact of GDL restrictions more noticeably than those in urban areas, since rural public transport tends to be less available. This general concern was raised in our interviews with young people, with some mentioning that they would expect to need a car more in rural than in urban areas. Again, however,

young people were pragmatic when considering potential restrictions, with no-one stating that such restrictions would stop them learning to drive. Any exemptions for purposes such as education and employment that were implemented would apply to those in rural areas as much as anywhere else – and they might be expected to be used more there, given the greater need for car travel to access employment and/or education from these areas.

Some previous evidence bears directly on this issue. For example, a comparison of the impact of GDL in rural and urban areas of North Carolina found that there were no differences in the perceptions of GDL between urban and rural parents and teenage drivers; that is, rural dwellers did not report being disproportionately affected by GDL restrictions (Foss, 2001).

2.4 Impact on social and health outcomes

The concern

Although not explicitly mentioned in the Transport Committee report, the potential wider social and health impacts on young people is an important consideration. This has been especially relevant during the COVID-19 pandemic, which has been associated with a deterioration in mental health in Great Britain (O'Connor et al., 2021), with mobility decreases specifically being associated with lower mental health globally during lockdowns (Nanath et al., 2022).

Evidence

There is little research on social and health outcomes arising from GDL. What little evidence there is, interestingly, suggests that some social and health outcomes unrelated to driving can be improved by GDL owing to reduced exposure to the situations that tend to lead to social and health problems (Deza & Litwok, 2016; Deza, 2019; Bernad, 2021). There is a need for more research directly examining wider mental and physical health impacts from GDL; the specific rules may, for instance, support young novice drivers to maintain theirs and their passengers' safety during early licensure, as the driver can make reference to those rules, rather than their own decisions, as reasons why they cannot take passengers or drive late at night.

2.5 Difficulty of enforcement

The concern

The Transport Committee report noted that some witnesses raised the issue of how a GDL system could be enforced. Several challenges were noted, including the shortage of road traffic officers, and the difficulty of establishing both the age of drivers on the road and whether they come under any of the exemptions permitted (for example establishing whether they were driving to or from their place of employment).

Evidence

The international experts interviewed noted that enforcement by the police is rarely a problem in GDL systems in countries that have implemented them. This is because parents and guardians typically take on the role of managing boundaries within the system, with parents often reporting that GDL empowers them to do so. Even where GDL is not strongly enforced, it still demonstrates effectiveness. GDL has been found to lead to a reduction in independent driving during the probationary (post-test) period (Zhu et al., 2016; McDonald et al., 2016). Naturalistic studies with new young drivers in the USA, where GDL enforcement is described as “modest” (Williams, 2017: 36), suggest that compliance is high. Curry et al. (2017) found that 97% of 17- to 20-year-olds were compliant with New Jersey’s night-time restriction and 92% were compliant with the one-passenger restriction despite low levels of enforcement. A similar finding is reported from North Carolina (Foss & Goodwin, 2014). If enforcement from the authorities is also desired, then it is easier (and compliance is increased) when new drivers are required to carry an identifier such as an R-plate indicating a ‘restricted’ status (Curry et al., 2015).

2.6 Lack of support from young people

The concern

The Transport Committee report noted that there is little evidence that young people themselves support the restrictions inherent in a GDL system. A 2014 survey conducted by Ipsos MORI on behalf of the RAC Foundation (Marshall & Parish, 2014) was cited as showing that of the 317 16- to 24-year-olds surveyed, 41% supported the introduction of GDL, with 39% and 42% respectively supporting potential passenger and night-time restrictions. The Transport Committee also held an engagement event with 14 students at four schools and colleges, finding “little support for the introduction of GDL” (p.26).

Evidence

The young people interviewed for this work gave a mix of responses to the restrictions that typically make up GDL systems, with the dominant perception being that restrictions were likely to cause inconvenience rather than significant problems. In general, interviewees understood why the restrictions described would help young people stay safe. Participants felt that whatever restrictions were in place, they would adapt.

The Ipsos MORI survey findings from a nationally representative sample – eight years old at the time of writing – are a reliable estimate of the support and opposition of people aged 16 to 24 in Great Britain to GDL (41% supporting, 32% opposing) at the time. A further survey has been published since the Transport Committee report (IAM RoadSmart, 2021). This used a sample of 2,000 motorists weighted by region and age to be representative of UK motorists excluding Northern Ireland. It included questions on the acceptability of two GDL measures for all new drivers regardless of age. These were post-test restrictions such as night driving or passenger restrictions, and a minimum learning period of 12 months. For respondents of all ages, the survey found that 69% and 65% respectively supported these

measures, with 31% and 35% opposing (respondents were asked to support or oppose – they were not allowed to remain neutral). Support from people aged 17–34 for the two measures was 55% and 57% respectively.

Returning to this present work, the sample is not nationally representative, but it is geographically spread across Great Britain and comprises licence holders and non-licence holders aged 18–30. While using more detailed qualitative research techniques and a small sample, rather than survey methods with a large sample, it fails to find widespread opposition to GDL.

The international experts interviewed echoed the findings from the young people. They reported that while young people are not typically universally in favour of GDL restrictions, they understand the reasons for it and accept them, working out ways to adapt. The experts also noted that monitoring surveys in countries with GDL generally show that concerns at the beginning of implementation tend to give way to growing positivity over time.

2.7 Possibility that telematics technology can achieve the same effects as GDL

The concern

A number of witnesses cited in the Transport Committee report highlighted the positive safety benefits of telematics devices being installed as part of an insurance policy. BIBA, for example, suggested that:

“Firms such as Marmalade... show that the average young driver accident rate is one in five, but when you have a telematics device it improves to one in 18, so it is more than three times safer... Carrot sees a 42% reduction... Ingenie sees a 46% reduction. We see genuine evidence of people moderating their driving behaviour.”
(p.28)

Evidence

The most recent review of the impact of telematics-based approaches on the safety of young novice drivers (Tong et al., 2015) concluded that there is no sufficiently robust evidence that such approaches improve safety directly. Pressley et al. (2016) concluded the same.

One key problem with such datasets is that it is not possible to separate out the impacts of the telematics systems, self- and provider-selection biases (for example, some insurers are known to avoid some high-risk areas and individuals) and time-based improvements in safety which young drivers show anyway in their early years of driving. This last point is evidenced by all major studies on this topic in the UK (Wells et al., 2008; Forsyth et al., 1995; Maycock, 2002; Maycock et al., 1991), with similar findings from other jurisdictions (Mayhew et al., 2003; McCartt et al., 2003; Williams, 1999; Sagberg, 1998). The problem of bias applies to all evidence on insurer datasets presented to the Transport Committee

and is also likely to play a part in the observation of *elevated* risk in drivers using telematics-based insurance policies reported in Helman et al. (2017). This study found – somewhat surprisingly – that novice drivers who reported having a telematics-based insurance policy actually reported 50% *more* collisions in their first six months of driving than did those who did not have such policies.

Another more concerning issue with telematics policies is that driving at night often leads to higher premiums, as it is one of the things that telematics algorithms treat as higher risk behaviour. Thus, some young people already effectively have a form of night-time restriction (or at least a disincentive to drive at night). It is possible that this is resulting in travel inequalities for groups such as carers, those in rural areas and so on, without the evidenced safety benefits of GDL.

Where there is evidence of reduced risk resulting from the use of telematics and similar technologies, it tends to be seen in studies in which parental involvement was included in correcting any behaviours flagged by the systems, as discussed in Tong et al. (2015) and Pressley et al. (2016).

2.8 Reliance on comparison with other countries

The concern

The issue here is whether evidence from other countries on the effectiveness of GDL is applicable to the situation in Great Britain. The Transport Committee report notes that when giving evidence in October 2020, the Minister questioned whether GDL would be as effective in Great Britain as it has proven to be in the USA, which typically has higher fatality rates.

Evidence

It is legitimate to question whether any road safety measure might be expected to be as effective in one country as it has been in another. There are often many factors that differ including (in this case) licensing age, general safety trends associated with vehicles and roads, lifestyle and cultural factors, public transport provision and other road safety interventions and laws.

Despite this, we are aware of no evidence suggesting specific reasons why GDL would not be effective in Great Britain. Furthermore, GDL acts on age- and experience-related risk factors shown to increase risk for young and novice drivers in all countries, making it theoretically coherent as a measure to implement in any country with a young driver population.

The foreword to the most recent national strategic road safety document in Britain – *Road Safety Statement: A lifetime of road safety* – has near its beginning the following statement (Department for Transport, 2019: 4):

“The UK has some of the safest roads in the world, but the effects of every death or serious injury on our roads are devastating, for the bereaved, for families and loved ones, and for those who support the seriously injured, some of whom may have long-term life-changing injuries.”

All of the government’s strategic road safety publications (1987’s *Road Safety: The next steps*, 2000’s *Tomorrow’s Roads: Safer for everyone*, the 2011 Strategic Framework and the 2015 Road Safety Statement) begin with such a statement – an explicit comparison with other countries, followed by an admission that this is no reason to be complacent. Such comparisons are a legitimate way to learn from good practice in road safety, hence they are ever-present in government road safety publications.

3. Discussion



The current work has aimed to fill the gap left by the decision not to proceed with the research into the potential social and economic consequences of GDL, which had been committed to by the Government in the 2019 Road Safety Statement but was subsequently dropped. Table 3.1 summarises the concerns raised in the Transport Committee report about GDL, the evidence reviewed in this report, and gaps in understanding.

Table 3.1: Summary of concerns raised over GDL, evidence and gaps

| Concern... | Evidence says... | Gaps... |
|---|--|---|
| 1. Access to employment and education | Impact is small. People adapt and exemptions are workable. Young people understand restrictions and see them as inconvenient rather than a major challenge. | We need to understand more about specific industries and educational institutions that would need support, and what form this support should take (for example exemptions) if GDL were introduced. |
| 2. Access to services and travel needs for specific groups | No evidence directly bearing on this issue, although international experts have not observed it as a problem in other countries (exemptions again play a role). | We do not have good understanding of the specific mobility requirements of groups such as carers, and how this would be best addressed by any licensing reform. |
| 3. Impact on those in rural areas | Some evidence that those in rural areas are no more adversely affected than those in urban areas. Evidence that safety impacts are greater in rural areas, owing to higher risks. | We do not know how newer models of travel such as shared mobility (for example app-based car sharing, on-demand public transport) would work in rural areas, and how GDL might or might not encourage its uptake. |
| 4. Impact on social and health outcomes | Almost no evidence on this; that which exists suggests that some wider health and social outcomes are improved by GDL. | We do not know the specific mental and physical health outcomes for young people of car-based and other mobility options. |
| 5. Difficulty of enforcement | Evidence shows this is not a problem in other countries. Parents are the main enforcers and GDL provides legitimacy. | More understanding required on how to best involve parents in any early driving, regardless of licensing rules in place. |
| 6. Lack of support from young people | Ipsos MORI survey (Marshall & Parish, 2014) is most recent representative survey on GDL in the UK and demonstrates greater support (41%) than opposition (32%) among young people. Non-representative sample in the present work shows pragmatic response. | We need a more recent in-depth study of attitudes towards restrictions from a nationally representative sample of 17- to 24-year-olds, as well as older adults, to update the 2014 work by Ipsos MORI. |
| 7. The promise of telematics as an option | There is no evidence that telematics can provide an alternative to GDL. | We do not know enough about how to use telematics as part of insurance, or as some other part of early driving, aside from knowing that the evidence does support parental involvement. |
| 8. The fairness or otherwise of comparison with other countries | No evidence that GDL would be less (or more) effective in GB than in other countries. | This is a wider knowledge gap; we do not know how the factors which vary between countries link to road safety outcomes. |

Source: Authors' own

The concerns raised are not supported by the best evidence currently available. Nonetheless there are gaps in our knowledge which would benefit from focused research if we wish to gather more information before committing to any licensing reforms; many of these gaps (numbers 1, 2, 3, 4 and 6 in Table 3.1) would be filled by gathering more specific and detailed understanding of the social and economic consequences of GDL, and therefore can serve as a guide for the research needed. The other gaps are either specific (number 5) or more widely applicable (7 and 8) and can be picked up by the Department for Transport in its forthcoming Road Safety Strategy.

It is possible that one reason for the continued stalling of the debate about GDL in Great Britain is a perception that it is a 'one size fits all' approach, which stops young people

from accessing education, employment, and other opportunities. In reality it is a pick-and-mix suite of measures (for example minimum learning periods, and rules on how many passengers can be carried) that can be designed to help novice drivers ease their way into driving, by protecting them from some of its riskiest aspects while they develop their skills. Well-designed and well-implemented systems respect local context by using measures – such as exemptions for some circumstances – that aim to minimise any adverse impacts while retaining safety benefits.

Great Britain has one of the most rigorous and professionally delivered driver licensing systems in the world. The framework is in place for restrictions such as those proposed by a GDL system to be delivered without undue systematic change. For example, there is already a post-test probationary period under the Road Traffic (New Drivers) Act (1995) (currently two years), during which we allow for differential outcomes based on the accumulation of penalty points; half the usual number are required in this probationary period for licence revocation. Lessons learned from running this system and the current licensing framework in which it sits are likely to both inform and facilitate the introduction of further, world-leading licensing reforms.

Appendix A: Methods and Participants

This appendix details the literature review process, and lists the demographics/experiences of the young people and international experts interviewed as part of the project.

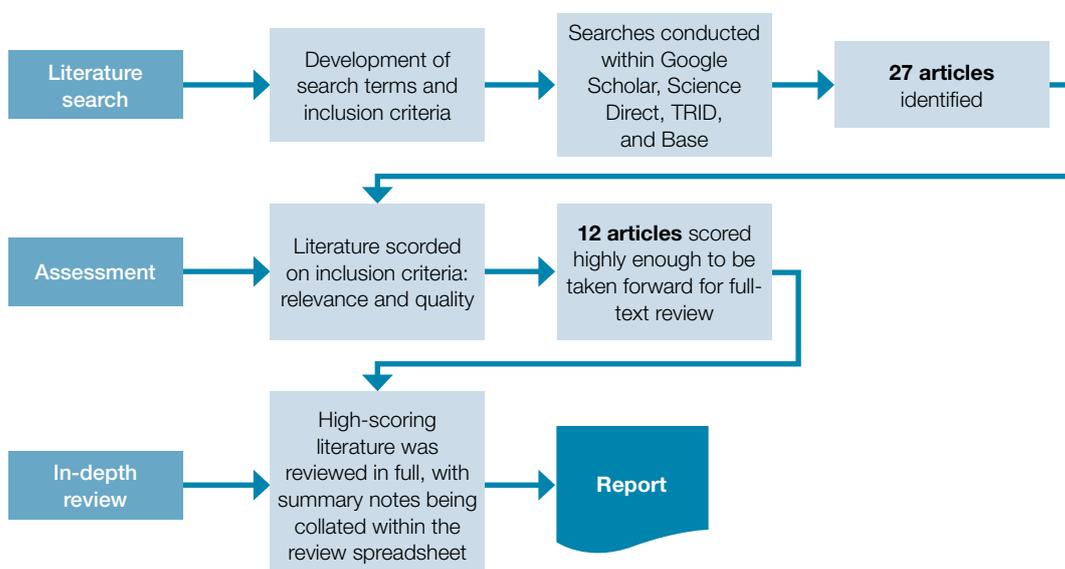
A.1 Literature review

The primary purpose of this task was to understand the social and economic effects that have been observed within jurisdictions that have introduced a phased approach to licensing. This contrasts with the majority of previous reviews, which have tended to focus on the evidence for its effectiveness.

A list of search terms was produced and applied within a variety of online research databases. The focus was on identifying literature not previously covered in evidence reviews conducted on this topic (for example Kinnear et al., 2013; Kinnear & Wallbank, 2020). Multiple searches were conducted within each database using an iterative process, wherein search terms were applied individually and in combination.

A total of 27 pieces of literature were found and rated against inclusion criteria for relevance and quality. This scoring process ensured that only the most relevant and highest-quality evidence was taken forward for full-text review. Following this process, 12 pieces of literature were reviewed in full. The process for conducting the search and review is summarised in Figure A.1.

Figure A.1: Literature search and review process



Source: Authors' own

With only 12 items considered to be of sufficient relevance and quality for review, it is evident that the specific topic of social and economic effects of phased licensing has been largely unexplored in the formal scientific literature.

A.2 Young people

Semi-structured interviews were conducted with 31 young people (18–30 years old) to explore their travel habits and their views of typical phased-licensing requirements. Interviews included participants who held a full UK driving licence, and those who did not. Participants for these interviews were recruited by means of a combination of social media advertisements and an online recruitment service. They were offered an incentive of a £20 Amazon voucher for taking part. The breakdown of young people interviewed by their age group, gender and licensure status is shown in Table A.1. The interviews each lasted around half an hour.

Table A.1: Number of young people interviewed by gender, age group and licensure status

| Gender | Age | Licensed | Unlicensed | Total |
|--------------|-----------------|-----------|------------|-----------|
| Male | 18–24 years old | 4 | 5 | 9 |
| | 25–30 years old | 3 | 4 | 7 |
| Female | 18–24 years old | 4 | 3 | 7 |
| | 25–30 years old | 4 | 4 | 8 |
| Total | | 15 | 16 | 31 |

Source: Authors' own

Participants were very well spread across Great Britain, from the south coast of England to the Scottish cities of Glasgow and Edinburgh, as far west as Bristol and Manchester, and as far east as Margate. All participants were classified as living in urban areas as defined by the government's Rural Urban Classification.³ Greater representation of participants from rural areas was desirable during recruitment, but as 83% of the population live in urban classified areas, the response was limited. Further research should focus on collating more views from young people in rural areas. It should be borne in mind that any small sample of participants such as this allows only for insights to be drawn concerning young people's travel behaviours and their feelings about phased licensing, and cannot be considered representative.

The topic guide for young people differed depending on whether they were licensed or unlicensed. Licensed participants were asked questions on their experience of learning to drive, while unlicensed participants were asked questions about how not having a driving licence (i.e. access to a personal vehicle) affected their life. Both licensed and unlicensed participants were then provided with a brief description of what is meant by a phased approach to licensing (GDL) before being asked questions on what effects introducing a

³ See www.gov.uk/government/collections/rural-urban-classification

probationary phase with night-time and passenger regulations would have on their travel choices and their access to education, employment and general mobility.

A.3 International experts

Interviews were conducted with a selection of international experts to complement the findings drawn from the evidence review. Seven proposed interviewees were invited to take part, with five doing so (from the USA and Australia). Their details are shown, with permission, in Table A.2

Interviews were conducted in November 2021. Each interview lasted around one hour and followed a semi-structured format. Each expert had unique experiences with the implementation of phased licensing, and the exploration of their experience went further than strictly following the topic guide created.

Table A.2: International experts interviewed

| Name | Role | Location |
|-------------------|--|-----------|
| Allan Williams | Widely published and highly respected expert in young and novice driver research and policy | USA |
| Johnathon Ehsani | Assistant Professor, Johns Hopkins Bloomberg School of Public Health | USA |
| Rob Foss | Director Emeritus, Center for the Study of Young Drivers, University of North Carolina Highway Safety Research Center | USA |
| Federico Vaca | Professor and Vice Chair of Faculty Affairs in Yale School of Medicine's Department of Emergency Medicine and Director of the Yale Developmental Neurocognitive Driving Simulation Research Center (DrivSim Lab) | USA |
| Teresa Senserrick | Professor at the Centre for Accident Research & Road Safety – Queensland (CARRS-Q) | Australia |

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