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The driver licensing challenge

NZIER report to the Ministry of Business, Innovation and Employment

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NZIER was established in 1958.

Authorship

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Key points

- The purpose of this report is to capture information on the costs and benefits associated with the driver licensing challenge in a single concise document.
- Being transport disadvantaged in New Zealand is more closely associated with access to and the ability to drive a private vehicle.
- The number of young people facing barriers to completing the graduated driver licensing system (GDLS) in the most deprived areas in New Zealand is estimated to be between 70,000 and 90,000. Some people living outside the most deprived areas will also face barriers to progressing through the GDLS and will stop before obtaining their full licence.
- If a 20% reduction in the annual social cost of crashes and injuries for at fault unlicensed drivers aged between 15 to 24 could be achieved, the annual benefit is estimated to be $11.6 million
- The estimated value of a 10% reduction in the social cost of at fault learner driver crashes and injuries is $13.5 million for those aged 15 to 24.
- Between 9,000 and 10,000 people aged 18 to 24 had no licence when they first signed up for a Jobseeker Support - Work Ready benefit.
- If obtaining a licence could help 20% of those beneficiaries into a job at the minimum wage, their combined income after tax would increase by between $30 million and 34 million in the first year.
- The one-off saving for the Ministry of Social Development would be between $16 and $18 million and the increased in PAYE and ACC levies would be between $3 and $4 million in the first year.
- From 2008 to 2013 over 4,703 people aged between 14 and 19 appeared before the court for unlicensed driving and unpaid fines for unlicensed driving.
- Fifty six percent of those that appear before the court receive a monetary fine which is similar to the financial cost of completing the graduated licensing system to the level of a full licence.
- The issue of people obtaining a partial licence but never completing the GDLS in New Zealand is not limited to just young people.
- Further research should be done to identify the barriers people face in completing the GDLS and what might be done to achieve higher completion rates.

Table 1 contains a summary of the net present value of the key indicative benefits over a 10 year timeframe.

Table 1 Summary of the indicative benefits

Description	Net present value (6% real, over 10 years)
Net benefits from the reduction in Jobseeker Support - Work Ready beneficiaries	
Lower estimate	$91 million
Central estimate	$102 million
Upper estimate	$115 million
Reduction in the costs of licence infringements and Police costs	
Lower estimate	$2 million
Central estimate	$3 million
Upper estimate	$4 million
Reduction in the costs of ACC claims	
Lower estimate	$5 million
Central estimate	$6 million
Upper estimate	$8 million
Reduction in the costs of the social cost of crashes and injuries	
Lower estimate	$149 million
Central estimate	$195 million
Upper estimate	$245 million
Note: the social costs of injuries and ACC claims should not be added together, to avoid double counting	

Source: NZIER

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1. Purpose and context

This report is supplementary to 'The Case for Change' developed by the Auckland Co-Design Lab in conjunction with the New Zealand Transport Agency, ACC, Ministry of Justice and others. The Case for Change identifies the material barriers to gaining a driver licence and the potential benefits that could be achieved by reducing the barriers.

The purpose of this report is to capture information on the costs and benefits associated with the driver licensing challenge in a single concise document. The report is supplementary to the economic modelling of the costs and benefits of driver licensing for young people aged between 16 and 24 in New Zealand.

Figure 1 shows the intervention logic that shows the link between the identified barriers in the Case for Change and a range of interconnected outcomes. At this stage the interventions are not developed in detail. The Case for Change for change proposes four broad categories of interventions which will developed in the next stage of policy development. A more detailed intervention logic may be developed in that stage. However, the desired outcomes are well established. This report contributes the establish the strategic case for change by providing indicative estimate of the potential benefits that could be realised from inventions that deliver higher GDLS completion rates among young adults.

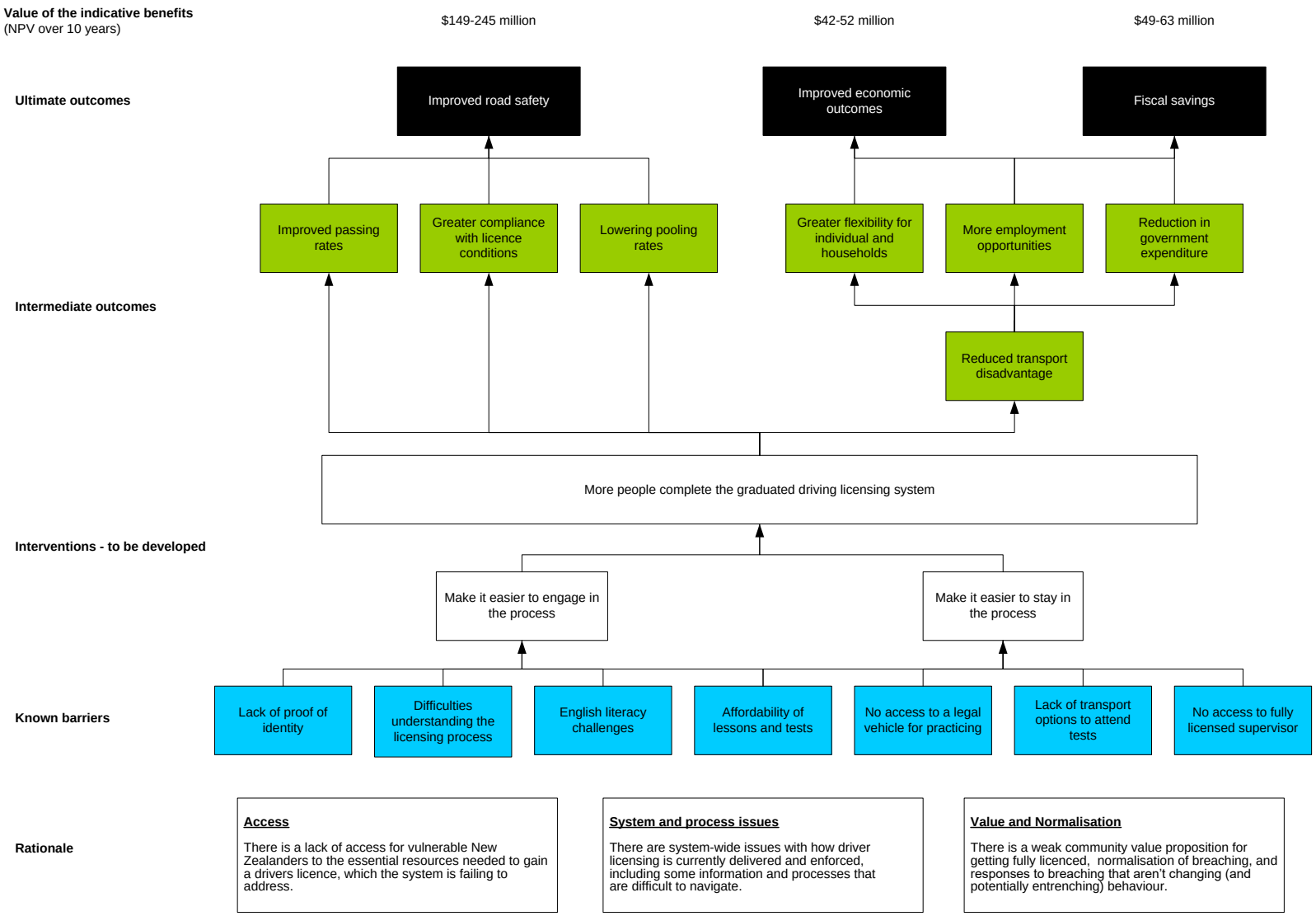
Our approach

Our approach was to gather statistics on the barriers faced by young people in attaining a full driver licence and the construction of a spreadsheet model of the social costs and benefits of progressing through the graduated driver licensing system (e.g. reduced unemployment and reduced infringements for breaching licence conditions.) Such a model can be used to assess the indicative benefits of policy interventions.

There are important causality issues that need to be considered and resolved in establishing the policy case for specific policy interventions. For example, the lack of a full driver licence may not be the primary reason for unemployment. The explanation of joblessness is typically complex. We have not forgotten or ignored the issues. The Co-Design Lab asked NZIER to put the issues of causality and correlation aside at this stage, due to the scope, timeframe and resources available to the Co-Design Lab. The estimates provided in this report are indicative of the size of the prize of the levels of change that may be achieved by increasing the level of licence attainment. This approach is consistent with the high level scoping exercise being undertaken by the Co-Design Lab.

Establishing the causality between licence status and unemployment is beyond the scope of our brief. It would require a major research project and better access to micro-level data. Licence status information is currently not part of the Integrated Data Infrastructure (IDI) hosted by Statistics New Zealand. This significantly limits the level of research that can be performed on the driver licensing challenge. On-going better access to micro-data in a managed fashion such as through the IDI would open up many more opportunities to research the driver licensing challenge, transport disadvantage and other important social and economic policy issues.

Figure 1 Invention logic for reducing the barriers to gaining a driver licence



Source: NZIER

Report structure

The first section is a brief literature review of the concept of 'transport disadvantage and social exclusion.' This area of research has been investigated in the United Kingdom over a number of years. Only a limited amount of research has been done on the subject in New Zealand. Therefore, the literature review summarises the types of barriers and the scale of the implications for the transport disadvantaged in other countries, to provide a point of reference for thinking about the implications in New Zealand.

The aim of the next section is to provide a statistically based foundation for thinking about the number of young people that are likely to face barriers to engaging in and completing the graduated driver licensing system (GDLS) in New Zealand. The estimates are only indicative. They are based on the number of young people living in the most deprived areas of New Zealand. This section seeks to establish a sound way of thinking about the scale of the problem by asking how many youth could be affected.

The remaining sections provide an estimate of the size of the prize for decreasing the number of young people that do not engage in the GDLS and also some estimates associated with learner drivers. The following areas are considered:

- the social cost of crashes and injuries
- ACC claim numbers and costs
- Justice sector costs, including police enforcement and corrections costs
- the cost of unemployment
- PAYE and ACC levy costs.

Making any recommendations about policy options or pathways for change is beyond the scope of this report. We do though make some recommendations about closing the information gaps.

2. Transport disadvantage and social exclusion

This section of the report provides a brief background on the concepts and research into transport disadvantage and social exclusion. A broad literature review is outside the scope of our brief. Therefore, we provide some highlights to set the context for the rest of the report.

Access to transport is internationally recognised as an important factor in participating in modern society. Consequently those that lack access to transport options (described as the transport disadvantaged) experience some degree of social exclusion. Social exclusion is not necessarily the same as poverty or deprivation but these concepts overlap in areas such as access to employment opportunities. Social exclusion is more complex than poverty to measure and the literature suggests that social exclusion due to transport disadvantage is more often temporary and easier to resolve than poverty or deprivation, by providing access to transport.

Much of literature on transport disadvantage and social exclusion draws on the research in the United Kingdom which gained momentum in the 2000s (for example, Social Exclusion Unit 2003) and has continued on to the present (Jones and Lucas 2012). Some research has been done in New Zealand (Rose et al 2009) but it is an area of our transport and social policy that could be better understood with more research.

Table 2 describes a range of forms of social exclusion that are associated with being transport disadvantaged. Each of the forms of exclusion can be thought of as a cost of being transport disadvantaged or more specifically of not being licensed to drive independently.

Table 2 Forms of social exclusion

Form of exclusion	Description
Physical exclusion	Transport access is physically limited because of physical impairment or disability.
Geographic exclusion	The distance of travel requires transport.
Exclusion from facilities	Transport is required to access facilities such as cheaper supermarkets, affordable medical services and budgeting advice.
Economic exclusion	When mobility or the cost of transport limits the ability to search for jobs or take advantage of employment opportunities.
Time-based exclusion	When time constraints exclude participation, which a private vehicle could allow, because active travel or public transport is not realistic in the time available.

Source: Adapted from Church et al (2000)

These forms of exclusion can be considered to be potential outcomes of not being licensed to drive independently. Jones and Lucas' (2012) research into transport barriers to youth employment in the United Kingdom found the following:

- transport barriers are a significant obstacle to employment for some young people
- transport disadvantage varies geographically
- transport barriers to employment or training have a disproportionate impact on young people.

Rose et al (2009) investigated transport disadvantage in New Zealand. The relevant findings were:

- being transport disadvantaged in New Zealand is closely associated with a lack of access to and the ability to drive a private vehicle
- our public transport network is limited to corridors within our main cities
- public transport options may not be feasible if the origin and destination are not located on a public transport corridor
- public transport is costly for some young people and households on a low income.

Transport access and costs in monetary and temporal terms are recognised as barriers to employment opportunities including getting to interviews.[1] Therefore the ability to drive independently is an important factor in accessing a potential employment opportunity even the position may not require the ability to drive.

Analysis of the 2013 Census patterns for commuting to work in Auckland showed that those living in South Auckland travel further to work than most other areas in Auckland (Paling 2014).

Transport advantage is not limited to individuals. It is also a factor that has effects on the household as a whole. According to Statistics New Zealand (2012) 8% of children in New Zealand under the age of 18 live in a house with limited access to facilities such as shops, schools, post shops, libraries, and medical services. Reducing the number of households with parents that have not obtained the full licence is one way to improve access. It would also help them expand their employment and learning opportunities.

[1] Church et al 2000.

3. Deprivation and barriers

At the time of this analysis it was not known how many young people face barriers to obtaining a licence. To gain some insight into how large this number might be we have compared Statistic New Zealand's 2015 area unit population estimates for those aged from 15 to 19 in New Zealand to Otago University's 2013 Deprivation Index for each area unit, and aggregated the population by deprivation index number. The NZDep2013 index of deprivation ordinal scale ranges from 1 to 10, where 1 represents the areas with the least deprived scores and 10 the areas with the most deprived scores.[2]

The Deprivation Index is a composite index based on the dimensions of deprivation shown in Table 3 below. Some of these dimensions are particularly relevant to obtaining a licence. Access to a vehicle, unemployment within a household, a history of educational underperformance, and low incomes are all indications of potential barriers. It is also conceivable that lack of access to the internet may be a contributing barrier to obtaining information about the process of getting a licence, as the role of the internet and digital information increases.

Table 3 Dimensions of deprivation considered in the NZDep2013

Dimension of deprivation	Description of variable (in order of decreasing weight in the index)
Communication	People aged <65 with no access to the Internet at home
Income	People aged 18-64 receiving a means tested benefit
Income	People living in equalised households with income below an income threshold
Employment	People aged 18-64 unemployed
Qualifications	People aged 18-64 without any qualifications
Own home	People not living in own home
Support	People aged <65 living in a single parent family
Living space	People living in equalised* households below a bedroom occupancy threshold
Transport	People with no access to a car

Source: Atkinson, Salmond, Crampton (2014)

The distribution of the estimated total population aged from 15 to 19 years and 20 to 24 years old is shown in Figure 1. We don't know how many of these young people are likely to face challenges obtaining a licence. Those living in the areas scoring an average deprivation score of 9 and 10 are more likely to be transport disadvantaged.

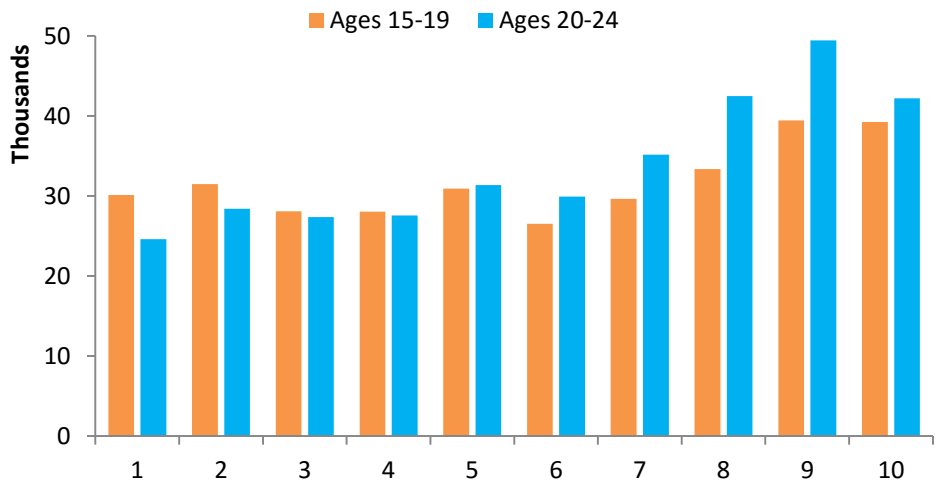
Table 4 shows the numbers of young people living in areas ranked by Deprivation Index score. There are an estimated 155,000 aged between 16 and 24 living in areas that have a deprivation score of 9 or 10. This excludes the 15 year olds because they not eligible to enter the GDLS. These are the people that are more likely to face barriers,

[2] Atkinson, Salmond, Crampton (2014) *NZDep2013 Index of Deprivation User's Manual.* Department of Public Health, University of Otago, Wellington.

though some of them will obtain a licence despite the challenges. The national average unlicensed rates are 42% of those aged from 16 to 19 years and 10% of those aged from 20 to 24 years. The most deprived areas are associated with lack of access to a vehicle and low income. These factors are material barriers to obtaining a licence. Assuming these barriers make it 50 to 100% harder to obtain a licence and progress through the GDLS, the number of young people facing barriers in these two deprivation areas is estimated to be between 70,000 and 90,000. Some people living outside the most deprived areas will also face barriers to progressing through the GDLS and will pool before obtaining their full licence.

Figure 2 Population aged from 15 to 24 by deprivation score

1=least deprived, 10=most deprived



Source: NZIER based on Statistics New Zealand and the University of Otago.

Further research is required to establish the extent and prevalence of barriers to obtaining a licence in this part of the community. A survey of the barriers young people face in deprived areas will provide quantitative insights into the barriers faced and the numbers of unlicensed young people in deprived households. A robust understanding of the prevalence of barriers and the number of people that face them is crucial for evidence based policy development.

Table 4 Young people living in areas ranked by the deprivation score

1=least deprived, 10=most deprived

Deprivation Index	Ages 15-19	%	Ages 20-24	%
1-8	238,235	75.2%	246,920	72.9%
9	39,435	12.4%	49,450	14.6%
10	39,250	12.4%	42,200	12.5%
Total population	**316,920**		**338,570**	

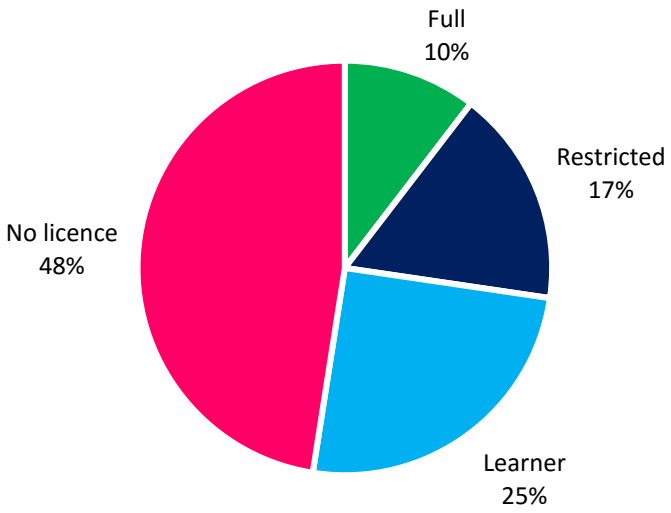
Source: NZIER

4. Licence status and work

Figure 3 shows the percentage of people aged between 18 and 24 years old receiving a Jobseeker Support - Work Ready unemployment benefit at different stages of the GDLS. Figure 4 shows the proportion of the total population aged between 18 to 24 years old by licence status. The percentage of unlicensed or partially licensed people receiving and unemployment benefit is much higher than the pattern across society.

Figure 3 The licence status of 18 to 24 year olds receiving a Jobseeker Support - Work Ready benefit

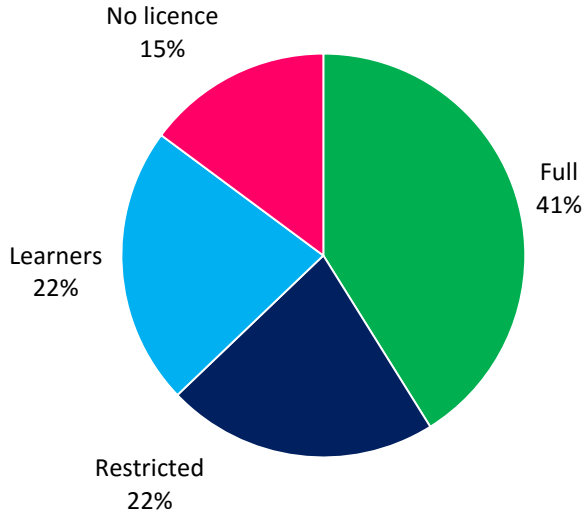
As at December 2015



Source: NZIER based on Ministry of Social Development statistics

Figure 4 The licence status of 18 to 24 year olds in New Zealand

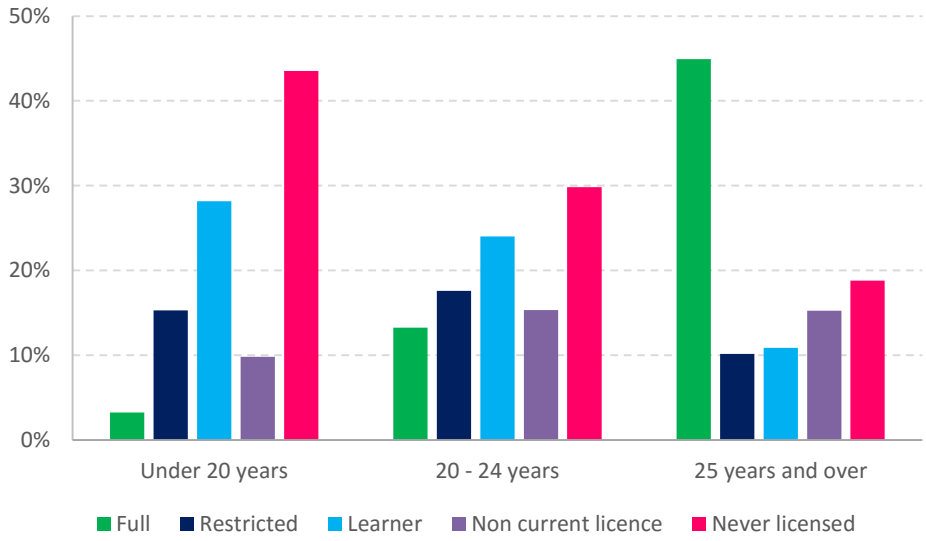
At June 2014



Source: NZIER based on NZ Transport Agency and Statistic NZ data

Further analysis provided by the Ministry of Social Development and the New Zealand Transport Agency shows that only 45% of the Jobseeker Support - Work Ready beneficiaries aged 25 years old and over are fully licensed – the majority are either unlicensed or partially licensed. Furthermore 15% of the beneficiaries between the ages 20 to 24 years have a driver licence which is not current. This could be for a range of reasons including being disqualified from driving or the time limit expires without progression to the next phase. In comparison 18% of the same age group have their restricted licence and 13% have their full licence. More Job Seeker Work Ready beneficiaries in this age group have a non-current licence than either of those that have a valid full or restricted licence. This suggests that more research should be done to understand the underlying issues and whether inventions would support both increased employment rates and licence completion rates. The data and the scope of the research did not permit testing the causal link between licence status and employment status.

Figure 5 Licence status of Jobseeker Support - Work Ready beneficiaries



Source: Ministry of Social Development and NZ Transport Agency

Not obtaining a licence or only partially completing the GDLS can reduce the number of job opportunities a young person has in a number interrelated ways. It can limit their ability to travel to interviews. Secondly it limits them to jobs that fit in to public transport maps and schedules which make travelling to shift work particularly difficult without the ability to travel independently. Thirdly there are many jobs that require individuals to have partially or fully completed the GDLS. Some examples include:

- courier driver
- taxi driver
- forklift operator
- builder

- truck driver
- dairy farmer
- district nurse
- midwifery
- surgeon
- paramedic.

These careers are spread across the earnings distribution. Not all jobs that require a driver licence are low income and manual labour. This reinforces the case of developing a platform that recognises the benefits for young people of obtaining a licence and overcoming the barriers they may face.

Sustained youth unemployment can impose cost on society and the individuals for the rest of their lives. Gregg and Tominey (2005) estimated the 'wage scar' of youth unemployment can impact earnings in middle age by 13% to 21% in the UK. The broad policy implication for the driving licensing challenge is in cases where lower the barriers to engaging in and completing the GDLS leads to lower rates of youth unemployment. This has potential to raise the social and economic wellbeing over the short and long term.

4.1. Unemployment benefits

The reasons for unemployment are complex and unemployment cannot be directly linked to being unlicensed in many cases. However, being unlicensed does introduce barriers to accessing employment opportunities including a barrier to travelling to interviews as discussed in the section about transport disadvantage. More research is needed to understand the probability of gaining employment with or without a driver licence. To support the development of further policy analysis and research we have used a conservative approach to estimating the size of the prize by assessing the direct impact of 20% of people gaining work due to obtaining a licence. The Auckland Chamber of Commerce CadetMAX program reports a 70% success rate when obtaining a licence is coupled with a structure job search program the matches job seekers with employers. Future research and policy development should explore the potential gains from such multi-dimensional programs in the context of the 'social investment approach'. A multidimensional approach is consistent with factors for gaining employment also being multifaceted.

An estimated 9,000 to 10,000 young people nationally aged from 18 to 24 years had were unlicensed (either never licensed or non-current licence) and receiving Jobseeker Support - Work Ready unemployment benefit as at 2 December 2015. If 20% of unlicensed young people gain employment as a result of obtaining a licence then payoff for them in terms of the increased incremental financial benefit in the first year would be between $30 million and $34 million based on earning the minimum wage. The one-off saving for the Ministry of Social Development would be between $16 million and $18 million and the increase in PAYE and ACC levies would be between $7 million and $8 million.

Table 5 Benefits of transitioning from unemployment to work

Per person

Income or savings	After tax	Before tax	Tax (PAYE and ACC)
Income sources			
Jobseeker Support - Work Ready unemployment benefit	$9,105	$10,173	$1,068
Minimum wage	$25,846	$30,680	$4,834
Income difference and savings for central government			
Incremental financial benefit of employment for the individual	$16,741		
Cost savings for MSD	$9,105		
Increased tax (PAYE and ACC)			$3,766

Source: NZIER

There were between 4,500 and 5,500 people aged from 18 to 24 years with a learner licence receiving the Jobseeker Support - Work Ready benefit in December 2015. If 20% of those with a learner licence were able to transition into work at minimum wage because they can drive independently, the financial payoff for them would be between $15 million and $18 million in additional income. The one-off saving for the Ministry of Social Development would be between $8 million and $10 million. The increased in PAYE and ACC levies would be between $3 million and $4 million annually. Whether these impacts are achievable requires further investigation.

In addition to these upfront benefits that apply to cohort of beneficiaries that have been on the benefit for more than a year, we estimate that an additional 1,440 unlicensed people aged 18 years old sign-up for the Jobseeker Support - Work Ready benefit annually. If 15% to 25% of new beneficiaries could gain employment after achieving a full driver licence the net present value of the additional income for the individuals over 10 years would be between $14 million and $24 million. The net present value of the unemployment benefit payment cost savings and the additional revenue from PAYE and ACC are estimated to be between $17 million and $29 million respectively.

Combining the net benefits from the reduction in existing beneficiaries with a lower number of new long term beneficiaries is estimated to generate a net present value of between $91 million and $115 million over 10 years (including the MSD cost savings, PAYE and ACC revenue).

Households and the local economy would benefit from the transition to employment as the minimum wage is about three times higher than the unemployment benefit. Once in work, individuals have the opportunity to develop skills and knowledge that only comes from work experience. This development will enhance their potential income and expand their opportunities.

4.2. What about jobs that involve driving?

Many jobs that require a driver licence specify that it be at minimum a full licence. Other jobs require further endorsements that require a full licence before the training for an endorsement can begin. For example to obtain the large passenger vehicle endorsement required to become a bus driver, the individual must have a minimum of two years of experience on a full licence (NZ Transport Agency 2014). Any delay in progressing through the GDLS stages, including obtaining a learner licence, could further delay school leavers in pursuing a career with minimum licence requirements.

The barriers to obtaining a driver licence and completing the GDLS have implications for the potential number of job opportunities a young person has. This also applies to those who pool on the intermediate GDLS stages. Lowering the barriers to progressing through the GDLS is likely to be positive for the long-haul driving and public transport workforce, because both of these industries are facing labour supply risks linked to an ageing workforce (NZIER 2015 and ANZ 2015).

Table 6 Comparing courier driver's income to minimum wage

All in nominal dollars

Factor	Courier	Minimum wage	Difference
Hourly rate	$18.00	$14.75	$3.25
Hours per week	60	40	20
Annual comparisons			
Annual gross income	$56,160	$30,680	$25,480
Annual net income	$45,478	$25,846	$19,632
Annual PAYE	$9,868	$4,389	$5,479
Annual ACC levy	$814	$445	$369
Over 10 years			
Gross income	$614,936	$335,937	$278,999
Net income	$494,357	$256,238	$238,119
PAYE	$116,106	$44,591	$71,515
ACC levy	$8,981	$4,426	$4,555

Source: NZIER based on PAYE.net and Seek.co.nz

There are job opportunities that involve driving as part of the role and offer a wage premium above minimum wage. For example employment as a courier van driver. The hourly rate for a courier van driver is $18 per hour and the role requires a 60 hour per week based on survey of job adverts. Applicants must have a full licence, in some cases a forklift endorsement and also excellent fitness. The requirement for a full licence and extra endorsements excludes those who have not completed the GDLS and those not old enough to have completed it because of the time required even if they obtained their learners licence at age 16. Table 6 shows the relative income and tax contribution

of a courier driver compared to someone on the minimum wage. In both cases we have assumed the representative individual receives an annual pay increase of 2% annually.

The differences between the courier driver's earnings and the minimum wage demonstrate the economic benefits of a role where the completion of the GDLS is a major factor in earnings relative to a basic income. The differences are material in terms of disposable income and tax contributions, which would have a positive impact on the wellbeing of the individual and their household.

Crucially for some young people achieving these benefits is not linked to academic success beyond the basic literacy and numeracy skills. Courier driver opportunities are likely to increase in a world where online shopping and just in time inventory management are changing supply chain management. Whether they might achieve these benefits is critically dependent on obtaining a full licence. Delays in obtaining a full licence will materially affect whether the potential benefits are realised.

5. Social cost of crashes by licence status

The social cost of road crashes and injuries measure a range economic and societal costs that result of road accidents. The social cost includes cost components for the following aspects[3]:

- loss of life and life quality
- loss of output due to temporary incapacitation
- medical costs
- legal costs
- vehicle damage costs.

Table 7 shows the social cost for unlicensed and learners aged 15 to 24 years. The social cost for learner drivers is likely to be much higher than for never licensed drivers because of their greater risk exposure simply because there are more learner drivers.

Table 7 Social cost of crashes with these at fault drivers (includes motorcycle riders) 2010-2014

Age range of at fault drivers	15-19 years	20-24 years
Never licensed drivers		
Never licensed driver at fault 2010-2014 ($m)	$212.7	$76.5
Percent of the social cost of at fault driver crashes by licence type by age cohort	11.5%	3.2%
Average social cost per year ($m)	$42.5	$15.30
Learner licence drivers		
Learner driver at fault 2010-2014 ($m)	$343.5	$331.6
Percent of the social cost of at fault driver crashes by licence type by age cohort	18.5%	13.9%
Average social cost per year ($m)	$68.7	#66.3

Source: NZIER based on social cost estimates from the Ministry of Transport

Transitioning the drivers at fault in these crashes into the GDLS may achieve a reduction in the occurrence of these crashes but it is unlikely to achieve a complete reduction in the social costs. Young and inexperienced drivers within the GDLS are overrepresented in crash statistics.

[3] Ministry of Transport (2015) The Social Cost of Road Crashes and Injuries 2014.

Drivers aged 15 to 19 are much more likely to be involved in a crash than other drivers. Male drivers in the 15 to 19 age group are approximately nine times more likely to crash (per 100 million kilometres driven) than male drivers in the lowest risk age group of 55 to 59; and female drivers aged 15 to 19 are six times more likely to crash (per 100 million kilometres driven) than female drivers in the lowest risk group of 45 to 49 year olds.[4]

One study showed that unlicensed driving among young people was associated with risk taking behaviours such as driving while impaired.[5] This kind of risky behaviour could persist even if these individuals are transitioned into the GDLS. We note that studies have shown that inverse relationship between employment and youth offending, for example Mocan and Rees (2005). This suggests that if gaining a driver licence leads to the employment it could also lead to a reduction in youth offending. A comprehensive review of this was beyond the scope our research brief.

The overrepresentation of young people in crashes and other risky behaviour associated with unlicensed driving implies we should be conservative when estimating the potential social cost savings from transitioning young unlicensed drivers into the GDLS. Learner drivers are also overrepresented in the social cost of crashes and injures. Inexperience is a recognised crash risk factor.

Further research is required to understand what getting more young people into and through the GDLS would do for the social cost of never licensed and learner drivers. Table 8 shows the size of the prize if moderate reductions in the annual average cost of social costs associated with these two types of licence status could be achieved. The net present value of the reduction in the social cost of crashes over 10 years ranges between $149 million and $245 million.

Table 8 Estimates of the reduction in the annual average social cost of crashes where never licensed and learner at fault drivers

Crash reduction	15-19 years	20-24 years	15-24 years
Never licensed drivers	$ million	$ million	$ million
20%	$8.5	3.1	$11.6
Learner licensed drivers			
10%	$6.9	$6.6	$13.5
Never licensed and learner licensed combined	**$15.4**	**$9.7**	**$25.1**

Source: NZIER based on social cost estimates from the Ministry of Transport

[4] Ministry of Transport (2015).

[5] Begg et al (2014).

6. ACC claim costs

The following analysis is based on active claim numbers and total claim costs over the five years from 2010 to 2014 inclusive. The estimates provided in this section are indicative of the size of the potential savings. Achieving these savings requires the development, implementation and operation of effective policies and programmes.

Table 9 shows the number of claims and costs by licence status for ages 15 to 19.[6] The active claim costs total for never licensed drivers was $6.2 million. There were 593 never licensed claims over the five-year period, which is an annual average of 119 claims. The never licensed claims were 4.8% of total claims and 7% of total costs. The average cost of never licensed claims was $10,533, and this was the second highest category in the table below.

There were 1,619 learner licensed claims that had an active claim cost of $15.4 million. The average active claim cost was $9,524, which is the third highest average cost category. It is natural that the number of claims for learners is higher than unlicensed claims because all learners combined are likely to spend more hours driving than never licensed drivers combined. Therefore, learner drivers will have a higher risk exposure than never licensed drivers.

It may be possible to reduce the annual ACC claim costs of never licensed driving among 15 to 19 year olds by removing the barriers to entering the GDLS and learning safer driving skills. A 20% reduction in the annual ACC costs among unlicensed drivers in the age cohort is equivalent to a cost saving of about $250,000 per year, and represents 24 claims.

Table 9 Average ACC costs per claim by licence status

Ages 15-19 years, 2010-2014, All New Zealand

Licence status	Active claims	Claim costs ($)	Average cost ($)
Learner	1,619	$15,419,402	$9,524
Restricted	2,992	$20,491,179	$6,849
Never licensed	593	$6,245,849	$10,533
Full	2,526	$18,394,137	$7,282
Forbidden	136	$1,547,774	$11,381
Disqualified	266	20,491,179	$77,035
Expired	14	$58,215	$4,158
Unknown	1413	$6,356,057	$4,498
Wrong class	34	$161,658	$4,755
Overseas	147	$265,864	$1,809

Source: NZIER estimates based on ACC statistics

[6] Where the number of claims for any year by licence status category was withheld because it was less than three we have assumed that there were two claims.

Inexperience in the first few years of being licensed is known to be a risk factor. There are also a significant number of drivers that pool at the learner licence stage and do not continue to learn or progress. Pooling is more of an issue with older drivers. If 10% of learner claims for 15 to 19 year olds could be eliminated through removing barriers to gaining experience, the cost savings would be equivalent to $314,000 per year.

Table 10 shows ACC claim costs for those aged 20-24 years. The number of never licensed claims is 2.3% of total claims and 1.8% of total costs. The total claim cost over five years is $1.2 million, which is about a fifth of the cost of never licensed claims for those aged 15 to 19 years old. The average of cost of a never licensed claim for those aged 20 to 24 is $5,291. This is half the average cost of a claim for unlicensed driving among the young cohort.

This difference in the 15 to 19 year olds and the 20 to 24 year olds is unsurprising because it is estimated that 90% of the population has entered the GDLS by the time they reach 25 years of age. Therefore the cohort of never licensed drivers aged from 20 to 24 is smaller than the younger cohort.

The net present value of combined reduction in ACC claims over 10 years ranges between $5 million and $8 million.

Table 10 Average ACC costs per claim by licence status

Ages 20-24 years, 2010-2014, All New Zealand

Licence status	Active claims	Active claim cost ($)	Average ($)
Learner	1,320	$8,721,949	$6,608
Restricted	2,286	$16,316,398	$7,138
Full	3,924	$26,534,074	$6,762
Never licensed	234	$1,238,150	$5,291
Forbidden	141	$711,259	$5,044
Disqualified	307	$5,467,426	$17,809
Expired	38	$166,018	$4,369
Unknown	1,208	$8,730,605	$7,227
Wrong class	90	$998,286	$11,092
Overseas	470	$837,714	$1,782

Source: Source: NZIER estimates based on ACC statistics

7. Police and justice costs

7.1. Police enforcement costs

Police report that there were 42,421 cases of unlicensed drivers stopped by police between 2010 and 2014 throughout New Zealand for drivers aged from 15 to 24 years. There are two quantifiable costs associated with getting caught driving unlicensed. The opportunity cost of police time and the cost of fines. There are also social costs that cannot be estimated without in-depth primary research such as the impacts of fines on household welfare and the social costs of a court appearance for unpaid fines.

The fine for driving unlicensed is $400 which given the number of cases puts an upper bound of the cost of fines for driving unlicensed at $17 million over the five years or an annual average of $3.4 million. A 20% reduction in young driver infringements is equivalent to a cost saving of $680,000 per year.

If we assume an average police cost of $35 per stop[7] to cover time and administration costs, the total cost of these stops is $1.48 million over five years or an average annual cost of $297,000. A 20% reduction in the number of unlicensed driver police stops would save approximately $59,000 per year.

In comparison there were 191,644 licence breaches over the same period in New Zealand for those aged from 15 to 24 years old. The estimated cost for police stops for these breaches was $6.71 million over the five years or $1.34 million per year. Achieving a 20% reduction in the cost of police stops for driving unlicensed could save up to $268,000 per year.

The net present value of combined reductions in police operating costs and infringements for breach of licence conditions ranges between $2 million and $4 million over 10 years.

7.2. Justice costs

In 2013/14, 43,527 people were disqualified or suspended from driving (excluding drink driving and dangerous driving infringements), of which 4,383 received a managed sentence that ranged from community work to imprisonment. The total estimated cost for these managed sentences is $19.3 million.[8] This is the national cost for the total population. This cost excludes the social costs associated with a managed sentence. A breakdown for young people by type of sentence was not available. This cost excludes the social costs associated with a managed sentence.

Between 2008 and 2013 there were 4,703 unlicensed driver court cases for drivers aged between 14 and 19 years. Figure 6 shows the distribution of sentences. Monetary fines were the most common outcome (56%). The reason for a court appearance can include unpaid police fines from unlicensed driving. The initial fine is $400 and a court monetary fine can be up to $1,000[9]. A combined financial cost of $1,400 is more than

[7] Value provided by the Ministry of Justice

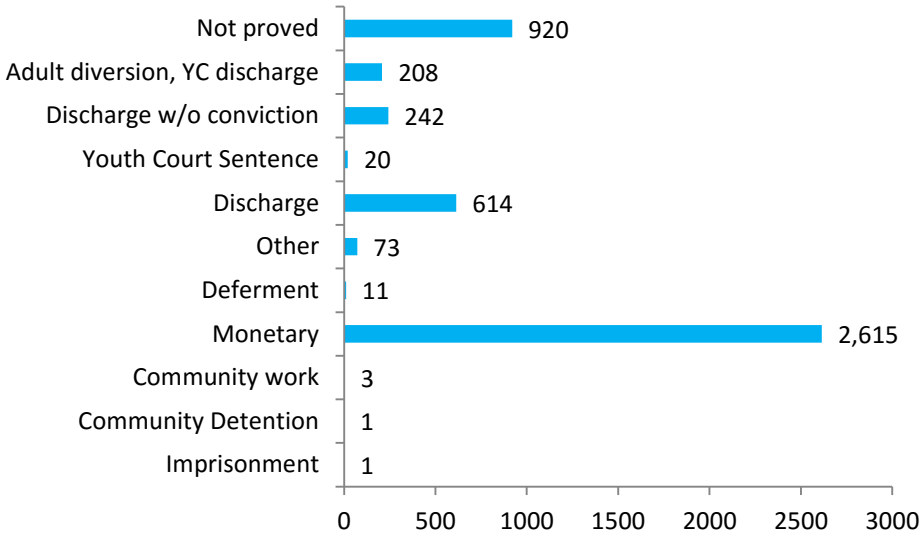
[8] Estimate provided by the Department of Corrections

[9] https://www.nzta.govt.nz/driver-licences/driving-offences-and-penalties/driving-offences/driving-without-a-licence/

the financial cost of completing the GDLS (included the cost of five paid lessons and assuming average pass rates) at approximately $1,200 per person.

Figure 6 Unlicensed driver court appearance outcomes, ages 14-19 years, 2008 to 2013

Outcome



Source: Waters 2015

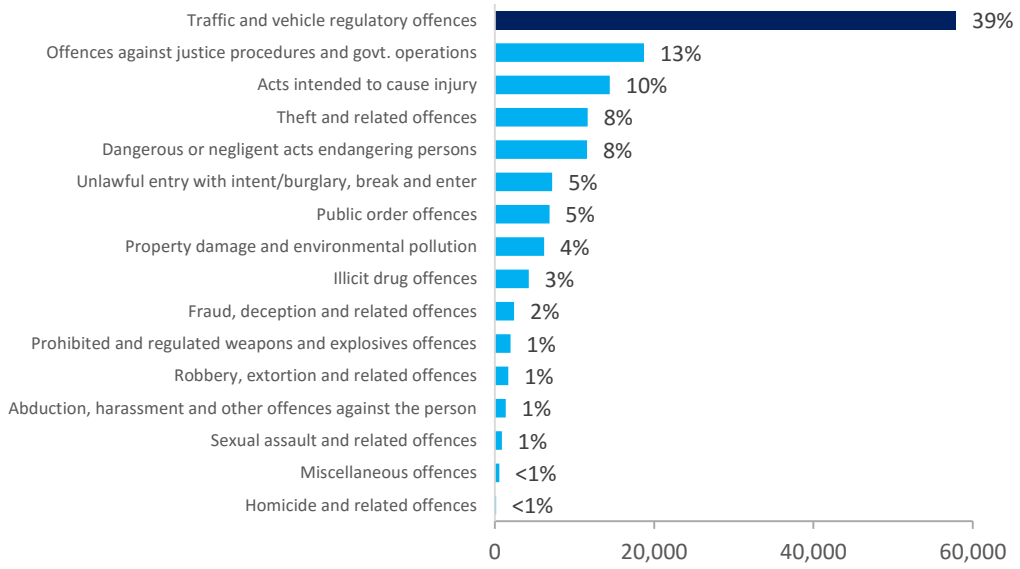
Traffic and vehicle regulatory offences[10] are the most common offence among people aged from 17 to 24 years old. There were over 58,000 convictions for the traffic and vehicle regulatory offences over the period. Figure 7 shows the traffic and vehicle regulatory offences accounted for 39% of all convicted offences (reported on a most serious offence basis) for that age group for the five-year period from 2010/11 to 2014/15. As a proportion of total offences traffic and regulatory vehicle offences were three times larger than the next most common offence.

While the resource intensity for the justice system of some traffic offences are relatively low compared other types of offences on the quantity traffic offences makes a significant contribution to the overall case load. Reducing the number of traffic and vehicle regulatory offences would reduce overall case load pressure on the justice system. For example reducing the number of traffic and vehicle regulatory offences by 20% (a reduction of 12,000 convicted offences) would reduce the overall number of offences by 8%. Because the Courts system typically has a backlog in cases to waiting heard the main potential benefit of this level of case load reduction would be a potential reduction in the in time spent waiting for cases come before the courts.

[10] As categorised in the Australia New Zealand Offence Classification (ANZOC) system. Traffic and vehicle regulatory offences in this category include: drive while licence disqualified or suspended; drive without a licence; vehicle registration offences; vehicle roadworthiness offences; exceed the prescribed content of alcohol or other substance limit; exceed the legal speed limit; parking offences and pedestrian offences.

Figure 7 Offences by people aged from 17 to 24 years

2010/11 to 2014/15



Source: NZIER based on Statistics New Zealand

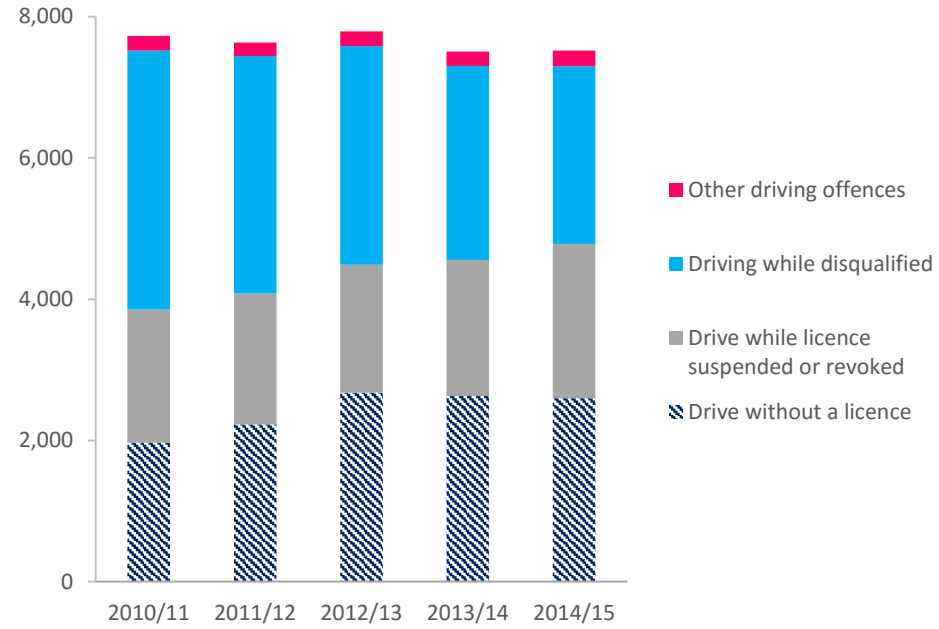
Figure 8 shows the number of convicted driving offences[11] for people aged between 18 and 24 years old from 2010/11 to 2014/15. Convictions[12] for driving without a licence is are a significant and increasing proportion of overall convictions for driving offence for this age cohort. In 2010/11 there were 1,966 convictions for driving without a licence – 25% of the total number for convictions driving offences. By 2014/15 the number of convictions for driving without a licence had increased to 2,596 – 35% of the total number of convictions for driving offences. Driving without a licence was the most common conviction for a driving offence in 2014/15 for those aged from 18 to 24 years old. This increase is equivalent to annual increase of 5.7% over the five-year period.

[11] Excluding drink diving offences

[12] There is not a one to one relationship between charges and convictions. Over the last five years 74% of charges have resulted in convictions.

Figure 8 Convictions for driving offences

Ages 18 to 24 years old



Source: NZIER based on data from Ministry of Justice

Reducing the barriers to completing the GDLS has the potential to reduce the quantum of these convictions which benefit the individuals; other road users and the Justice system. A conviction for a driving offence may disadvantage the individual when competing for employment opportunities either by excluding the individual from a role that requires a clean driving record, or making the individual less attractive than other job seekers. A conviction for unlicensed driving can be avoided by overcoming the barriers to gaining a licence and proceeding through GDLS. Reducing the number of unlicensed driving would improve overall road safety.

8. Information gaps

The progress of the research has been limited by the following critical information gaps:

1. While it is clear that some young people face material barriers in obtaining a driver licence the size of the cohort has not been established. Further investigation is required to establish the number of people involved before any policy interventions can be adequately assessed.

2. The range of barriers to completing the GDLS and the number of young people that face each type of barrier e.g. financial constraints or the lack of an experienced driver to supervise the learner's practice.

3. The causal link between the lack of a licence and unemployment; or alternatively the extent that a licence directly or indirectly increases the number of employment opportunities.

4. The extent that there are labour shortages that could be met if those that face barriers to obtaining a licence were able to apply.

5. More information is needed about the household composition of unlicensed or partially licensed young people to understand the wider impacts. Such as whether they have children, or still live with their parents.

6. An individual's licence status is not currently part of the Statistics New Zealand Integrated Data Infrastructure.

9. Recommendations

The estimates of potential cost savings in this report are indicative because of considerable information gaps.

We recommend further research should be done to:

- understand the variety of barriers to obtaining a learner licence and progressing through the GDLS, how they might be related and what is required to overcome them
- quantify the link between the lack of a licence and unemployment
- understand the range and effectiveness of policy options to achieve higher GLDS completion rates
- explore whether positive interventions would help to reduce unlicensed driving and licence breaches more effectively than the current system of financial penalties
- investigate whether the financial penalties imposed for licence infringements are consistent with modern international best practice
- explore options for re-investing the current revenue from driver infringements into initiatives that directly address the driver breaching behaviours. For example, reinvesting the revenue into compulsory driver education courses for young people which are aimed at increasing road safety by proactively supporting individuals to progress through the GDLS.

We also recommend the necessary changes are made to include licence status information in the Statistics New Zealand Integrated Data Infrastructure. This would enable more detailed research on the link between licence status and economic and social outcomes, such as the relationship between licence status and the transition from unemployment to being in fulltime employment. We understand that the NZ Transport Agency is proactively exploring the options for greater data sharing.

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Appendix A Assumptions

Overall assumptions

- Discount rate: 6% real terms.

Deprivation analysis

- Those living in areas with deprivation scores 9 and 10 are the most likely to face barriers in obtaining a learner licence and progressing through the GDLS.

Costs of obtaining a driver licence

- Purchasing the Road Code (incl. GST) $26
- Driving lessons (5) with prepaid discount $335
- Cost of learner's test (assuming average pass rates) $111
- Cost of restricted test (assuming average pass rates) $147
- Cost of full test (assuming average pass rates) $170
- Time cost of home practice (Learner + support person) $20 per hour
- Number of home lessons required 50.

Social cost of crashes by licence by status

- The average annual social cost of injuries unlicensed and learner drivers at fault aged from 15 to 24 years over the five years from 2010 to 2014 inclusive reflects the typical average over time
- The average cost for unlicensed and learner drivers at fault aged from 15 to 24 years will remain consistent over the next 10 years.

ACC claim costs

- The average annual cost of claims for never licensed and learner licensed drivers over the five years from 2010 to 2014 inclusive reflects the typical average over time
- The average cost will remain consistent over the next 10 years.

Police enforcement and licence breach infringement costs

- The operating cost of a road side stop and licence breach for police is $35[13]
- The cost of a licence infringement for breach licence conditions for the driver is $400
- Each reported breach was assumed to result in an infringement notice.

Employment

- Wage rates increase by 2% annually
- The number of young people joining the Jobseeker Support - Work Ready benefit annually is proportionally consistent with unemployment rate of 18 year olds.

[13] Value provided by the Ministry of Justice