Vehicle Licensing Reform - Regulatory Impact Statement

Warrant of Fitness and Certificate of Fitness

15 January 2013

Ministry of Transport
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Regulatory Impact Statement
Vehicle Licensing Reform -
Vehicle Inspection: Warrant of Fitness and Certificate of Fitness

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry of Transport and the NZ Transport Agency. It provides an analysis of options for warrant of fitness (WOF) and certificate of fitness (COF) reforms. Due to the structure of the vehicle inspection industry, the impacts of the two reforms are closely related and this relationship needs to be taken into account in policy decisions.

National cost benefit analyses of the reform options have been externally peer reviewed. The Net Present Value (NPV) of the combined benefits of the recommended WOF and COF options is estimated to range from $2.2 billion to $2.8 billion. The distributional impacts, including effects on business, of the reforms have also been analysed. All aspects of the analyses are subject to various degrees of uncertainty and appropriate scenario or sensitivity analysis has been undertaken.

The welfare benefits of the proposed reductions in WOF inspection frequency arise from reduced regulatory burdens for vehicle owners – largely savings in charges and time. The potential costs arise from the risk of increased crashes (and consequential deaths and injuries) associated with a possible rise in vehicle defects. While there are uncertainties around whether the accident risk might eventuate, it is important to invest in mitigating this potential risk through education, advertising and increased on-road enforcement.

Changes proposed to the COF inspection regime will provide greater choice of COF inspection provider for transport operators, and allow for a wider variability of inspection frequencies (extending or reducing frequency based on safety performance record). The inspection-provider market reforms will provide significant productivity gains for operators as they will be able to have vehicles serviced and inspected at the same time and in the same location.

The COF and WOF reforms should be considered together. If only WOF regime is reformed, it may lead to higher costs for vehicle owners who require COFs. Moreover, COF reform will entail a different market structure, and this transition may be difficult unless steps are taken to minimise barriers to entry to the COF inspection market. Advanced signalling of policy changes to industry will mitigate transition issues and help to facilitate the prompt entry of new inspection providers.

In accordance with the Government's regulatory policy guidance, we confirm that the proposed reforms would not increase costs for businesses and households; or override fundamental common law principles (as referenced in Chapter 3 of the Legislation Advisory Committee Guidelines); or impair private property rights. The proposed reform options will not impair market competition or the incentives on businesses to innovate and invest, except for the business revenue and employment related effects discussed in this document.

Engagement with industry and a wider formal public consultation process have been undertaken to inform policy recommendations.

Ministry of Transport
New Zealand Transport Agency
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Introduction

1. This document provides the regulatory impact analysis of policy options for the reform of New Zealand's vehicle inspection systems, being reviewed as part of the government's Vehicle Licensing Reform.

2. The objective of the Vehicle Licensing Reform is to reduce regulatory burdens whilst achieving similar or improved safety outcomes.

Status quo and problem definition: WOF and COF regimes

3. With around 4.2 million vehicles on the road in New Zealand, meeting inspection requirements adds up to a considerable time and cost burden for households and businesses. Vehicle inspections are intended to reduce road crashes that may result from vehicle defects, and reduce consequential social costs of deaths or injuries.

Light vehicle inspection (WOF)

4. Nearly all light vehicles are inspected for roadworthiness and issued a WOF. There are around 5.6 million WOF inspections annually (excluding rechecks). Inspections are annual for vehicles up to six years-old and six-monthly after that. Around 20 percent of inspections are undertaken by private sector independent testing stations and the remainder by private sector service and repair agents – mostly local garages. The current inspection regime for light vehicles is the most stringent in the OECD.

5. The stringency of the regime and the substantial improvements in vehicle technology and durability since its inception in 1937 raise questions as to whether the regime could be better targeted to risk, and the likely costs and benefits of doing so.

6. Further, older vehicles may be considered as more prone to vehicle defect-related road safety risk. However, technology advancement in recent decades might have substantially reduced any disparity in such risk between vehicles of different ages. It is therefore necessary to identify whether existing inspection frequency continues to be justified for older vehicles.

Heavy and commercial vehicle inspection (COF-A and COF-B)

7. Heavy vehicles, and light commercial vehicles used for a transport service, are inspected for a Certificate of Fitness (COF) every six months to check roadworthiness[1]. Taxis and rental vehicles get a COF-A, which is largely equivalent to a WOF. Heavy vehicles are subject to the COF-B regime, which involves a more comprehensive inspection.

8. Overseas, annual inspections for heavy vehicles are common, and this raises the questions of whether the regime could be better targeted to risk, and the likely costs and benefits of doing so.

Provision of COF inspection services

9. Vehicles are required to travel to independent COF testing stations, because unlike WOF, no operators or repair and services agents are approved to issue COFs. The perceived benefit of the existing COF model is that more robust inspections result from avoiding potential conflicts of interest that repairers or operators might face, and inspection quality is thereby maintained.

10. However, this COF provision model imposes significant regulatory burdens. These arise from additional investment in equipment and facilities by operators and repairers,

[1] New rental vehicles are subject to an annual inspection in their first year.

duplication of COF or COF-like inspections, travel costs and waiting times, and associated business disruption costs.

11. There is also limited choice and only partial competition in the COF inspection provision market, which comprises three inspection organisations: Vehicle Testing New Zealand (VTNZ), Vehicle Inspection New Zealand (VINZ) and the New Zealand Automobile Association (AA). One of these organisations holds an 87 percent market share for the COF B inspection market.

Important inter-relationships between COF and WOF inspection systems

12. The WOF and COF markets are inter-related, because stand-alone testing stations (VTNZ, VINZ, and the AA) provide both of these services. Reforming WOF, and not COF, could cause unintended consequences and thus they should be considered as a package.

Policy objectives and evaluation criteria

13. The overall objective of Vehicle Licensing Reform is to reduce regulatory burdens whilst achieving similar or improved safety outcomes. Other policy objectives are to:

    13.1. support the government's economic growth and regulatory reform agendas by reducing regulatory burdens while achieving similar or improved safety and environmental outcomes

    13.2. align the costs of regulatory intervention for operator and vehicle inspection requirements to safety risks and benefits

    13.3. reduce associated compliance and administrative costs

    13.4. achieve net benefits from any change and avoid unintended consequences

14. The criteria used to evaluate options reflect selected Treasury and Ministry of Transport policy guidance on regulatory policy and practice:

    14.1. Regulatory practice – non-instrumental values are achieved such that regulation:

    - and its enforcement is proportional and risk-based
    - is flexible and durable, while providing people with certainty of what is expected
    - transparent and seen as justifiable by those affected

    14.2. Effectiveness – this includes:

    - the extent to which intended policy outcomes are achieved
    - the degrees of compliance and costs of achieving them, which may reflect the public acceptability of options
    - any implementation risks, including the ability to mitigate adverse safety effects

    14.3. Efficiency – from a national cost-benefit perspective, this evaluates:

    - benefits from reduced regulatory burdens
    - the social costs of any adverse impacts on safety

    14.4. Distributional impacts – the includes:

    - the extent to which option implementation can manage social and economic impacts, including any price and service level changes

- whether the policy is regressive or progressive for social equity

15. In ranking options, most weight is given to the first three criteria, as policy changes have only limited effects on social equity and the adverse distributional social impacts are transitory; whereas the gains in efficiency and effectiveness are lasting. An important aspect of effectiveness is the capability to successfully implement options. Where implementation risks mean harms might not be successfully prevented, a least regrets approach[2] is taken and other policy options preferred.

Regulatory impact analysis — WOF options

16. At present, light vehicles are required to have annual inspections until 6 years of age and 6-monthly inspections thereafter. A Vehicle Licensing Reform discussion document was released on 19 September 2012 to consult the public on four less frequent WoF inspection options. Apart from the four options consulted, the CBA modelling work also looked at a transitional version of Option 2 (labelled as Option 2A). These policy options are summarised in Table 1 below.

Table 1 WOF policy options as framed for the CBA modelling

WOF scenarios	Frequency
Option 1	Annual inspections for all vehicles, with 6-monthly inspections for vehicles 12 years and over
Option 2	First inspection at three years of age, with annual inspections thereafter
Option 2 A	Same as Option 2, but 6-monthly inspection for vehicles manufactured before 1 January 2000
Option 3	Inspection based on distance travelled plus a default inspection for vehicles that have not had an inspection within three years
Option 4	No periodic inspection; inspection at change of ownership only or if required following an inspection order

Cost-benefit analysis – WOF

17. The cost-benefit analysis (CBA)[3] for WOF options evaluated the following costs and benefits of vehicle inspection:

    17.1. consumer charges, compliance costs and avoidable repair costs

    17.2. road crash costs, including property damage, injury and death

    17.3. justice and enforcement costs

    17.4. environmental impacts

18. It is important to note that the CBA results shown in Figure 1 do not include investment in and the potential effects of safety related mitigation measures. Thus, the safety estimates presented in Figure 1 merely identify the potential increase in safety risk. This provides a basis to consider the feasibility of abating the safety risk increase and helps to narrow down the options considered for mitigation.

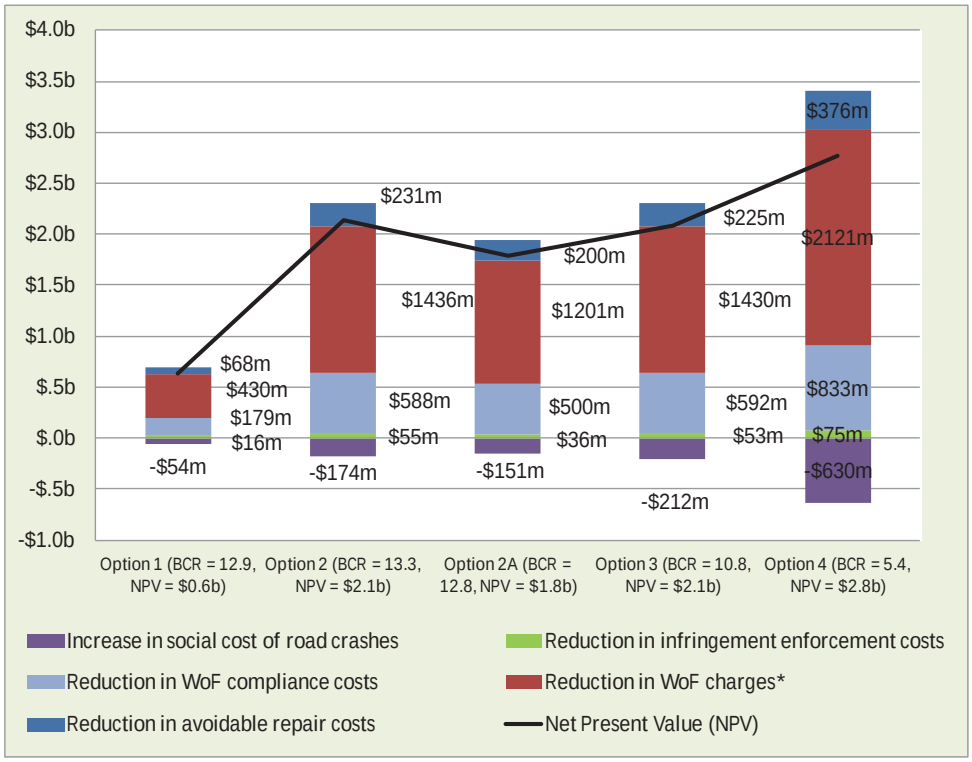
[2] The objective is to minimise the worst-case regret in selecting between options. Where there is a risk that significant harms may not be avoided in the implementation process, the *willingness to accept* such a loss of life may be substantially higher than *willingness to pay* values used in CBA, and thus an option might over-state net benefits.

[3] For details, please refer to the *Cost Benefit Analysis Report*, December 2012.

19. As shown in Figure 1, the analysis estimates that, even under the most conservative assumptions, the NPVs for all policy options evaluated are all significantly greater than zero. The NPV estimates are: $600 million for Option 1, $2.1 billion for Options 2 and 3, $1.8 billion for Option 2A and $2.8 billion for Option 4 over a 30 year period[4].

20. Furthermore, the BCRs for all options are also all much greater than one, ranging from 5.4 for Option 4 to 13.3 for Option 2. Overall, the results are unsurprising in the context of New Zealand having the most frequent vehicle inspection regime in the OECD. The results also compare favourably with the results of similar overseas studies that assess the value of inspection regimes.

Figure 1 NPV WOF options (excluding mitigation and implementation)



* This includes NZTA administration charges.

21. While analysis identified an increased risk of crashes from vehicle defects, it should be noted they play a very small role in road crashes. New Zealand crash data shows that 0.5 percent of all fatal and injury crashes have vehicle factors cited as the sole cause of the crash. Of fatal and injury crashes involving light vehicles, around 2.5 percent involve vehicle defects as a contributing factor (which could have been identified by a WOF check).

22. The key uncertainty is the degree to which vehicle defects are correctly identified as contributors to crashes, resulting in a wide range in crash estimates. Rigorous analysis and literature reviews were undertaken, and adjustments were made for potential under-recording of safety related vehicle defects in crash reports. The extensive sensitivity analysis we undertook shows such adjustments have an insignificant impact on the CBA results.

[4] This is a standard evaluation period (see the NZ Transport Agency's *Economic Evaluation Manual).*

Narrowing the range of options

23. The CBA results shown in Figure 1 for all options unambiguously support change from the status quo. Arguably, other than for Option 1, the options are progressive for social equity (lowering costs for lower income groups of vehicle ownership) and improve efficiency, with Option 4 providing the highest returns for the economy.

24. However the options present different risk profiles in terms of the estimates of potential vehicle defects related crashes and the consequential deaths and injuries. This impacts on option effectiveness, in terms of meeting desired policy safety outcomes. Figure 1 presents the NPV of the estimated social cost of crashes growing from $54 million for Option 1, $174 million for Option 2, $151 million for Option 2A to $630 million for Option 4. These can be translated into an annual increase of 0.8 fatalities and 12.8 injuries for Option 1, 2.6 fatalities and 40.8 injuries for Option 2, 3.1 fatalities and 49.7 injuries for Option 3, and 9.4 fatalies and 146.4 injuries for Option 4[5], relative to the status quo. For Option 2A, the corresponding estimates are 1.4 fatalities plus 22 injuries in year 1, increasing to 2.1 fatalities and 36.8 injuries in year 12 (and reducing slightly thereafter following the road trauma trend). In order to recommend Option 4 credible safety risk mitigation initiatives are required, otherwise we need to invoke the least regrets criterion and possibly rule out the option.

25. We need to consider both the likelihood of these estimates of harm eventuating and the feasibility of mitigating the crash risk. In this respect, it should be noted that:

    25.1. all crashes involving warrant of fitness-related vehicle defect factors are included in the analysis above, and many of these crashes involve other factors, such as alcohol or excessive speed

    25.2. the crash estimates might not be realised if people monitor the safety of their vehicles and repair defects – it is not known how owner behaviour in addressing defects, might or might not change in an extended WOF period

26. In this context it would be prudent to invest in safety mitigation (at least in the short term) as a small change in the behaviour of vehicle owners might help to mitigate or avoid the risk of loss of life or injury eventuating. It is evident from overseas jurisdictions that the same or lower rate of vehicle-defect crashes can be achieved with less frequent vehicle inspection requirements.

27. However, there is considerable uncertainty over:

    27.1. the role of the vehicle age structure in New Zealand's road safety outcomes compared to other jurisdictions

    27.2. the behaviour of New Zealand vehicle owners as to whether they would voluntarily address defects if the period between WOFs is extended

    27.3. the appropriate enforcement level required to mitigate any potential increase in risk in the New Zealand context

    27.4. the appropriate education and advertising investment required to change the behaviour of New Zealand vehicle owners to become more pro-active in addressing vehicle defects between WOFs

28. In light of the above uncertainties which raise questions over the effectiveness of Option 4, and in accord with the least regrets criterion outlined above, we recommend not proceeding with Option 4.

[5] The estimated annual increase of road deaths and injuries are based on the central estimates obtained from the safety analysis. We expect the increase to reduce with the downward road trauma trend over time.

Consideration of remaining options

29. Option 2A is a transition version of Option 2. The initial effects of Option 2A will be smaller than Option 2 but the effects will increase over time to a similar level of Option 2. Most of the comments that apply to Option 2 also apply to Option 2A.

30. While the NPV of Options 2 and 3 are the same, the kilometre-based Option 3 has higher safety risks (in terms of deaths and injuries – see paragraph 24) and is less efficient, potentially having significant implementation and administrative costs. Option 2 delivers around the same benefits as Option 3 and provides greater certainty for road users, and avoids the added administrative complexity of basing WOF on kilometres travelled.

31. The uncertainty about the amount of behaviour changes that might be needed to mitigate risks also applies to Options 1, 2 and 2A. However, any change required is substantially less than that for Option 4. A small change in the behaviour of vehicle owners might mitigate or avoid such risk. In this event, Options 2 or 2A would be preferred over Option 1 because they offer substantially greater economic benefits.

32. It should also be noted that Option 2 offers a more durable regulatory approach. While it is true that older cars have an elevated safety risk, this has been progressively reducing over the past decade as technology has improved and this pattern is expected to continue. On the other hand, Option 2A, a transition version of Option 2, offers a regulatory requirement that can be considered as more targeted to risk.

33. Options 1 and 2A both attempt to address the issue with increased share of crashed vehicles with vehicle defect as a contributing factor for older vehicles. Crash data from 1994 to 2011 (Figure 2) shows this share increases at around vehicle age of 12 years, but the rate of acceleration has been decreasing over time.

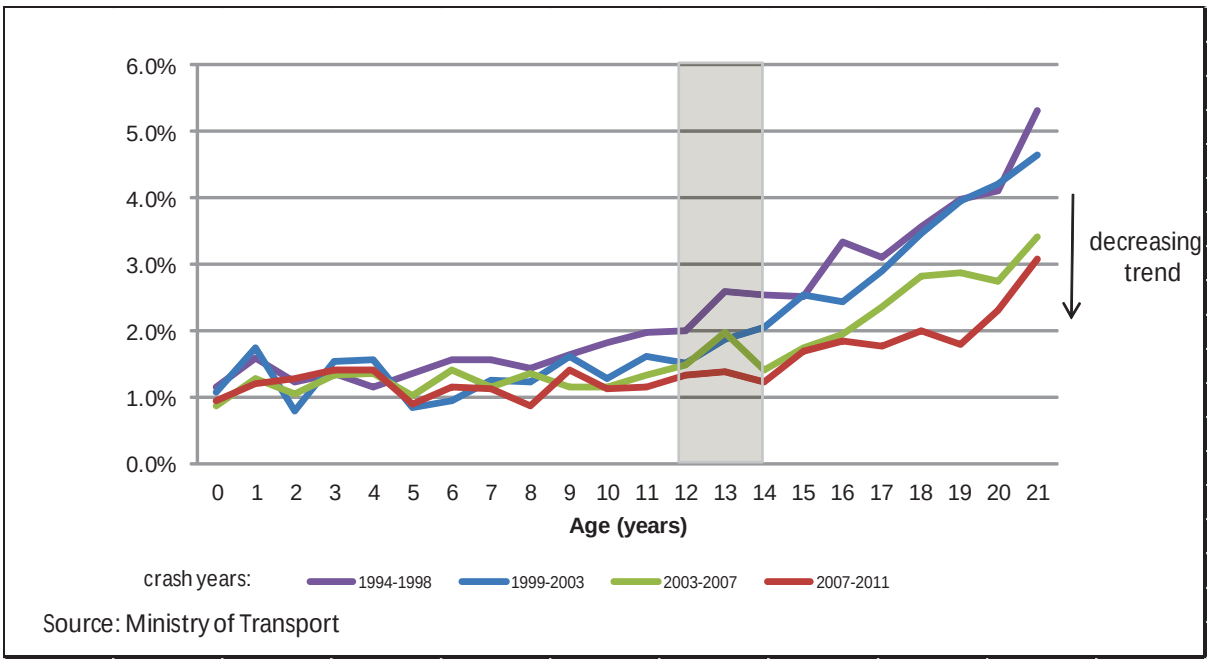
34. While Option 1 (6-monthly inspection for vehicles aged 12 and over) may address the issue associated with older vehicles in the current fleet, it does not consider the effects of technology advancement through fleet replacement over time. It is possible that the decreasing trend from technology improvement to continue over time such that the share of crashed vehicles with vehicle defects would become more homogoenous for all vehicle ages in the medium term.

35. As shown in Figure 2, the share for crashed vehicles older than 12 years of age with vehicle defect as a contributing factor has reduced by more than half between 1994-1998 (the purple line) and 2007-2011 (the red line). Further, the turning point is also approaching 14 years. Vehicles manufactured in 2000 would be around 14 years of age by 2013/14. This is the cut-off for the 6-monthly inspection requirement used in Option 2A.

36. While Option 2A is preferable to Option 1, it delivers relatively small incremental gains over and above Option 2 but incurs higher cost to owners of older vehicles. The NPV[6] and BCR for Option 2A are both lower than that for Option 2. There are better ways to address any vehicle age related risk (eg targeting education and enforcement resources to older vehicles and their owners) and to assist the industry better manage the transition (eg introduce a long lead in time to increase preparedness). Therefore, Option 2 is preferable to Option 2A (and Option 1).

Figure 2: Percentage of crashed cars and vans with a WOF defect by vehicle age

[6] The NPV for Option 2A is $1.8b and is 16 percent lower than that for Option 2 ($2.1b).



37. However, as there is uncertainty in measuring the effectiveness of mitigation measures, it is advisable to potentially over-invest in safety mitigation, at least in the short term. The proposed implementation budget (for the recommended Option 2) of around $3.7 million (average of $2.4 million and $5 million) is equivalent to around 70 percent increase in the existing light vehicles enforcement efforts[7]. It is anticipated that additional enforcement resources will be spread over two to three years. Longer term enforcement needs in light vehicle safety area will be prioristised within the road policing programme, which will continue to be targeted to risk.

38. This ability to invest in additional enforcement to increase deterrent effect provides some confidence any behavioural change required can be achieved and that crash risks do not eventuate. However, it is not intended that mitigation merely involve enhancing existing enforcement efforts. The package of initiatives is outlined in Table 2 below.

Table 2: Estimates of implementation and mitigation costs

Item	Description	Cost nature	WOF
Information and education	Information and education measures to encourage owners of vehicles to take greater personal responsibility for vehicle road-worthiness, such as print and web advertising, brochures for agents, raised awareness of Police checks and variable messaging signage.	One-off Implementation	~$0.8m
		On-going service delivery:	~$0.1m
Police enforcement	Effectiveness of information and education increases when backed up by enforcement. Increased enforcement activity focused on light vehicle safety to enhance awareness of and support the change is proposed. Long term road safety enforcement would continue to be targeted to risk.	One-off Implementation:	$2.4m-$5.0m
		Ongoing service delivery:	-

[7] The current police enforcement effort involves issuing around 120,000 WOF related infringements and issuing around 20,000 'out-of-service' orders.

Information technology and service delivery processes	Changes to the NZ Transport Agency IT systems and business process that support service delivery are required to implement the changes	One-off implementation:	$1.8m-$2.3m
		Ongoing service delivery:	-
Regional operations	Changes required to the NZ Transport Agency monitoring and auditing of providers.	One-off implementation:	$0.3m
		On-going service delivery	-

Inter-dependency with COF reforms

39. The NPVs reported for WOF are based on no detrimental effect on transport operators arising from changed COF inspection service levels and prices.

40. However, the WOF reform options may adversely affect the existing COF inspection market by reducing the number of sites and reducing geographic coverage for vehicle operators, as testing stations seek to off-set lost WOF revenue. As an illustration, if the travel time, distance, and queue times all doubled then annually costs to industry would increase from $20 million to $25 million in the first few years. This would be equivalent to around a 50 percent price increase, or about $65 per inspection, assuming geographic coverage remained the same. In practice, any detrimental effects would be a combination of services changes and price increases and it is not possible to estimate these with any precision.

41. If the COF market is also reformed to allow repairers to undertake inspections, then these detrimental effects can be avoided, as discussed further in the COF section below.

Scale and incidence of impacts – WOF

42. The WOF policy options impact on inspection-related industries, the labour market, vehicle owners and the government. Only the impacts of WOF Options 1, 2 and 2A are considered below as other options were ruled out above.

Impact on inspection related industries

43. The principal winners from the proposed WOF reforms are consumers, who can spend savings in WOF charges on other goods and services. This gain comes at an expense of the WOF providers who will lose revenue and potentially will need to reduce staffing.

44. The proposed reduction in inspection frequency would lower annual inspection revenues by between $20 million and $30 million for Option 1 and between $90 million and $135 million for Option 2. For Option 2A, the revenue impact would be between $40 million and $60 million in year 1, increasing to $85 million to $130 million from year 12 onwards. There might also be a net reduction in consequential repairs undertaken, resulting in further revenue loss to the vehicle repair industry.[8] The impact would be concentrated in urban centres reflecting the concentration of the vehicle servicing industry in these areas.

45. A reduction in staff in inspection businesses is a likely consequence of the proposals, although this is difficult to estimate with any precision. As of June 2012, there were 10,980 active registered WOF inspectors, many of whom also carry out non-inspection related activities (e.g. vehicle servicing or repairs) and some of whom may be employed part-time

[8] This arises from a reduction in avoidable repair costs as modelled in the CBA.

at present[9]. Based on current data, employment in the vehicle servicing, inspection and repairs industries could fall over time by between 320 and 490 full time equivalents (FTEs) for Option 1 and between 1,370 and 2,050 FTEs for Option 2. For Option 2A, employment could fall over time by between 600 and 900 in year 1, increasing to 1,300 to 1,950 from year 12. The higher estimate (2,050) represents roughly 0.1 percent of the current total number of jobs filled in New Zealand and 20 percent of the total number of registered WOF inspectors. However, these estimates cannot be simply translated into unemployment. The reasons are briefly discussed below.

45.1. At present, the turnover rate for workers in the automotive repair and maintenance industry is around 10 percent[10]. This reflects a mixture of changes in professions, movements within the same profession and retirement (currently around 14 percent of the active registered WOF inspectors are over 60 years of age). It is therefore difficult to predict the exact employment impact.

45.2. Different companies in the industry have different service mixes (and hence different reliance on WOF) and their business models may change and/or diversify as a result of the policy change.

45.3. Some firms may reduce hours worked rather than the changes leading to unemployment.

45.4. There is skill shortage for COF inspectors, the demand for which may increase with the COF reforms presenting re-training opportunities for some WOF inspectors.

46. Further, the business and employment impacts to the inspection related industry will take time to filter through and there will be a time lag before reforms are implemented and any adjustment needs to occur as WOFs progressively roll over from 6 to 12 months.

47. Overall we believe the net employment impact to the economy would be much lower than indicated by the gross employment estimates because there will be an increase in the demand for labour by other industries given that consumers will likely spend the inspection charge savings on other goods and services. Furthermore, in the longer term, the change would encourage the inspection industry to improve efficiency in order to maintain market shares and/or commercial viability, which in turn will improve the economic productivity and efficiency at the national level.

48. For testing stations which rely heavily on inspection services, there is a significant risk of business closure due to the policy change. This aspect is discussed in the COF section.

<u>Impact on vehicle owners</u>

49. The business impacts on inspection related industries could potentially flow on to vehicle owners in terms of charges and service level (in terms of access to inspection service by location and/or time). Inspection charges and unnecessary repair costs could increase if the inspection agents seek to recover lost revenue where there is reduced competition.

50. Spatial modelling (see maps in Appendix One) carried out by the NZ Transport Agency suggests a marked reduction in service levels is unlikely. The risk of a significant lessening of competition appears minimal. For a very small number of rural communities vehicle owners might need to travel further to access inspection services if certain inspection centres were closed. Analysis suggests out of the 3,450 sites, only 4 rural sites

[9] There are around 7.75 million WOF inspections (including re-checks) a year. The total number of hours required to carry out these inspections would be around 3.88 million hours (assuming 0.5 hour per inspection). If the total available hours per full time equivalent (FTE) is 1,260, only around 30 percent of the time of all active inspectors is required for inspection related activities.
[10] These figures are based on Statistics New Zealand's Linked Employer-Employee Data for 2011.

do not have direct competition within a 32 minutes driving range. They all undertake in the order of 500 inspections annually at present. Three of the four sites can access other inspection agents in more populated areas within a 45 minutes driving range.

51. In terms of compliance costs and charges, low income earners (including young and old) are likely to drive older vehicles and, therefore, will benefit from Option 2 (or Option 2A) more than from Option 1. However, this group is also likely to bear higher safety costs for Option 2 (or Option 2A) than for Option 1. Mitigations could be targeted to these groups.

Impact on government enforcement and administration

52. There are three key fiscal impacts:

    52.1. a reduction in fines revenue to Crown and local authorities

    52.2. a reduction in enforcement administrative costs incurred by Police, Justice and local authorities

    52.3. a potential increase in accident compensation levies required to fund any increase in motor vehicle injury claims.

Fines revenue[11]

53. The impact on Crown revenue (including reimbursements from local authorities) from WOF-related infringements is estimated to be between $4 million and $5 million per year for Option 1 and between $13 million and $15 million per year for Option 2. The reduction is likely to take a few years to filter through due to a lag effect in revenue collection and a large amount of outstanding fines in the system. The impact on Crown revenue for Option 2A will be similar to that of Option 2 over the longer term, although the initial impact would be much smaller (around $5 million in year 1).

54. The impact on local authorities' infringement revenue is estimated to be between $1.2 million and $1.3 million for Option 1 and between $4 million and $4.5 million for Option 2. These figures assume local authorities reimburse 50 percent of the revenue collected to Crown. The impact on local authorities' revenue for Option 2A will be similar to that of Option 2 over the longer term, although the initial impact would be much smaller (around $1.5 million in year 1).

Infringements related enforcement

55. It is expected that a change in the inspection frequency from 6-monthly to annually will reduce the burden to vehicle owners and therefore reduce the risk of non-compliance and related infringements. The reduction in enforcement administrative costs[12] has been incorporated in the CBA and is estimated to amount to between $14 million and $18 million for Option 1; between $48 million and $61 million for Option 2 and between $32 million and $40 million for Option 2A (NPVs over 30 years). These represent the potential resources that could be freed up for other priority work. As there is considerable uncertainty around the impacts on Justice's collection operation, and officials continue to work together to refine these estimates. It should be noted that these potential savings have an immaterial impact on the estimated WOF option NPVs and BCRs.

ACC levy requirement

56. If the safety risk is not mitigated, an increase in the number of injuries could increase motor vehicle claims burden to Accident Compensation Corporation (ACC), especially for

[11] It should be noted that changes in infringement related revenue do not affect the cost-benefit analysis because fines are classified as transfer payments.
[12] These estimates include the potential cost savings to Police, Justice and local authorities. The CBA also includes the potential reduction in infringements related user compliance costs, estimated at $1.4 million per annum.

severe injuries that result in permanent disabilities. To ensure sufficient funding is available to meet the cost of new claims, ACC reviews their levy regularly. In their recent assessment, ACC estimated that the average lifetime claim cost (discounted to the beginning of the levy year) is $62,995 (for 2013/14)[13] per entitlement claim. At present, the ratio of the number of new entitlement claims[14] to the number of reported road injuries is 0.485 to 1.

57. Thus, the potential levy requirements for Options 1 and 2 would be around $0.39 million and $1.26 million a year respectively. For Option 2A, the levy requirement could increase from $0.68 million in year 1 to $1.24 million by year 12. In NPV terms (over 30 years), the total levy requirements would be $4.1 million for Option 1, $13 million for Option 2 and $12.3 million for Option 2A. The average levy increase per licence vehicle in the first year would be $0.12, $0.39 and $0.21 for Options 1, 2 and 2A respectively. However, due to mitigation efforts, the actual impacts are likely to be less than those illustrated above.

58. It should be noted that the potential impacts on ACC levy requirements do not affect the cost-benefit analysis because the social cost of road crashes and injuries include all costs to the nation irrespective of who bears the costs.

59. Any additional administrative cost associated with ACC levy amendment would be relatively small as this can be done during their routine levy review process. Collection related operational costs are not expected to increase if there is no change in the current collection system.

Regulatory impact analysis — COF options

60. There are two key dimensions to the COF reform options: market contestability, and inspection frequency, as shown in Table 3[15].

Table 3 COF policy options as framed for CBA modelling

COF	*Status quo*	*Option 1*	*Option 2*
Inspection frequency	Currently all are at 6 months, but provision for variable frequency 3 to 9 months not implemented.	Implement variable frequency of 3 to 12 months – default inspection frequency remains at 6 months	Implement variable frequency of 3 to 12 months – default inspection frequency becomes 12 months
COF market reform — choice in provision of inspection services	Currently only three providers are approved to provide COF inspection services. These providers do not undertake repairs.	In addition to testing stations, vehicle repairers (including operators) can be approved to offer COFs	Same as Option 1 plus transport operators can be accredited to manage the maintenance and compliance of vehicles with COF requirements

[13] This figure has been used by ACC to estimate the total lifetime cost of new claims in their recent levy consultation document. Source: Accident Compensation Corporation (2012), "Motor Vehicle Account – Levy Consultation 2013/14".

[14] Entitlement claims include claims that have progressed beyond the medical fee only claim. Compensation and support for returning to independence may have also been required. There are around 6,100 new entitlement claims per year and 12,574 reported injuries in 2011, or an average of 0.485 new entitlement claim per reported injury.

[15] We have not evaluated further the public discussion document option of providing flexibility for testing stations to issue a COF in instances where faults are minor on the proviso they would be repaired. The option has small savings as maybe 5% – 10% of vehicles could avoid a further inspection trip, and the more important issues about geographical service coverage and market power impacts discussed in this section would fail to be addressed. However, the ability for testing stations to have this flexibility might be an important feature in the future if Option 1 (opening COF inspection to vehicle repair providers) is adopted, as it would enable independent testing stations to be more competitive. It would be a small operational change that could be considered by the NZ Transport Agency through modification of existing terms and conditions for independent testing stations.

61. The ‘inspection frequency’ dimension considers assigning a range of different COF frequencies to operators depending on factors (that are to be established by the NZ Transport Agency) that relate to the level of operator safety performance. The ‘market reform’ options would allow the approval of COF testing organisations that may operate vehicles and/or conduct maintenance, service and repair, and involves investment in monitoring auditing to ensure the quality of inspections.

62. We have not evaluated option for accreditation for transport operators. Accreditation involves operators, who meet high quality assurance standards, being treated as continuously compliant with the COF requirements. While this has merit, and is used in Australia, it requires further development to implement and it is recommended that further work is undertaken prior to final decisions.

63. To simplify the cost-benefit analysis, we discuss the evaluation of the inspection frequency options and altering the inspection provision model (referred to as market reform) separately, and identify option inter-dependencies as we proceed.

Cost-benefit analysis – COF-B market reform

64. Allowing vehicle repairers and operators to provide COF inspections services does not require a change in current regulations. However, altering the inspection provision regulatory model has significant business impacts on existing providers.

65. The perceived benefit of having COF inspections carried out separately from repair services and transport operators is a reduced possibility of any conflict of interest in inspection (i.e. to be lenient). There may be adverse impacts on safety outcomes if there is an increase in the number of inspections that are not carried out to the minimum standards. However, good processes and enhanced audit and monitoring systems could be used to manage potential conflicts of interest. We have examined the costs of implementing expanded audit and quality assurance systems to leave the level of safety risk unchanged, and compare that against the potential benefits to be achieved from such a reform.

66. The CBA includes the following cost and benefit considerations:

    66.1. differences in the inconvenience costs and charges of first-time COF inspections[16]

    66.2. reductions in the costs and charges for re-inspections, as repairs and rechecks can be incorporated into a single event when done in repair and service business

    66.3. reductions in the costs and charges for maintenance inspections carried out in advance of a COF (pre-COFs[17]), as they essentially become COFs, stripping out a layer of duplication from the inspection system

    66.4. changes in unnecessary repair costs[18]

    66.5. increase in the costs of audit as there will be more sites, and the scope of audit activities may need to be expanded.

[16] Repair businesses inspections may cost more if internal quality assurance– such as requiring the inspector who signs-off the COF to be different than the person who undertook the repair - is required.
[17] “Pre-COFs” are a COF-equivalent check done before a formal COF inspection. They can be undertaken by repairers or independent inspection stations, and may be part of an overall maintenance programme or induced by the requirement to have a COF. They minimise the risk of failing a COF and being further inconvenienced as well as the risk of being scored negatively in the Operator Rating System from a fail.
[18] While there is the risk a repairer requires unnecessary repair work, this is offset because at the moment excessive repairs are willingly undertaken during pre-COFs to reduce uncertainty about testing station inspection outcomes.

67. There are potential sources of benefit excluded in the appraisal. There will be broader business disruption costs from vehicles failing an independent COF inspection, because the vehicles must then be off the road until repaired and successfully rechecked. This can impose unplanned disruption, and some operators are spending considerable effort and cost to reduce the chance of failure, by duplicating inspection infrastructure. Having integrated inspector/repairers that can address faults at the time can reduce these broader disruption costs. Another benefit not captured relates to lower end-prices to consumers and corresponding increased industry output[19].

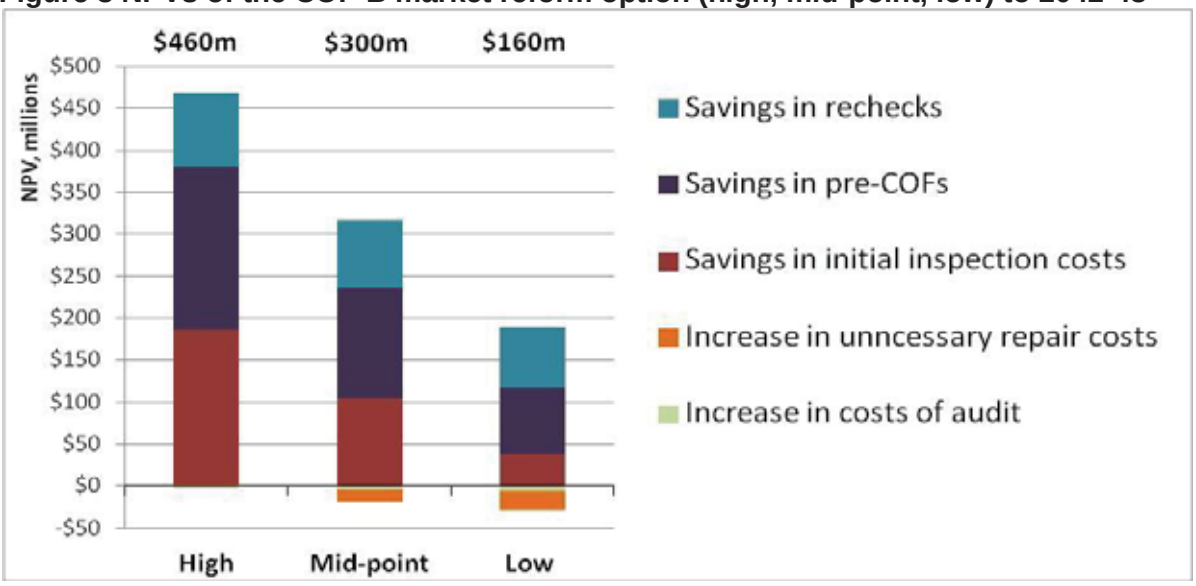
68. There is significant uncertainty in the CBA estimates because they involve assessing scenarios of changes to market structure and changes in transport operator behaviour. The key assumptions that most affect the CBA results are:

    68.1. *Testing station market share:* those truck operators that prefer to have an inspection carried out by an independent organisation are assumed in this appraisal to not benefit from the reform option.[20] Indications from industry are that there will be a small demand for COFs to be performed by independent testing stations. It is assumed that the market share of such services would be between 10 and 20 percent in the long-term.[21]

    68.2. *Duplication:* the proportion of COFs that currently have pre-COFs undertaken: in future pre-COF inspections would become formal COF inspections if they are undertaken by approved inspectors. Savings depend on assumptions of how many pre-COF inspections (that are of the same standard as a COF inspection) presently precede actual COF inspections (the low to high range is 40 to 80 percent).

69. Over 75 percent of the variability of the results is driven by the two key assumptions outlined above.

Figure 3 NPVs of the COF-B market reform option (high, mid-point, low) to 2042-43



70. Figure 3 shows that the NPV estimates (over a 30-year evaluation period) for the COF-B market reform option range between $160 million and $460 million, with a mid-point

[19] More specifically, we did not account for demand elasticities and increased output arising from lower prices.
[20] They could possibly benefit because of better customer service arising from increased competition in the market.
[21] The current WOF market share for independent testing stations is 20 percent.

estimate of $300 million. The annualised savings are $14 million, $26 million and $41 million for the low, mid-point and high respectively.

71. The results are driven by removing multiple layers of costs to truck operators. Because half of the pre-COFs that would happen anyway simply become COFs and the remaining pre-COFs induced would not need to be incurred anymore, the reform will result in large savings in inconvenience costs and charges for initial inspections. Any safety problems identified are assumed to be addressed at the time of the COF, rather than being dragged out over time.

Cost-benefit analysis — COF-B inspection frequency options

72. A possible element of COF reform is to allow variable frequencies for inspections. There would be benefits from permitting some operators to obtain COFs less frequently if the market structure was left unchanged, because the exposure to the multiple layers of duplicated costs outlined above is reduced.

73. Assuming only independent testing stations are allowed to continue to inspect (i.e. the current market structure), the NPV of allowing, for example, 25 percent of trucks subject to COF-B to undertake annual inspections (whilst the rest stay at 6 months) is between $46 million and $67 million, with a mid-point estimate of about $55 million (annualised[22] value of $4 million to $6 million, with mid-point $5 million).

74. If the market contestability option was also undertaken, the scope for benefits from frequency changes is substantially lower than $55 million, and depends on which operators are being awarded the frequency concession and why.

Cost-benefit analysis — COF-A

75. The market for COF-A is one tenth that of COF-B by value ($3.5 million versus $35 million annual revenues), and about one-third by volume (55,000 vehicles versus 150,000 for COF-B). Similar reform options can apply to COF-A as for COF-B, but a CBA has not been undertaken for COF-A.

76. If the WOF and COF-B changes are undertaken then the market contestability reform option will most likely be necessary for COF-A, because there may be a significant reduction in the number of independent testing stations. Moreover, COF-A operators would receive similar kinds of benefits as COF-B operators, such as reducing the inconvenience costs when vehicles fail and require repair and then recheck(s).

Scale and incidence of impacts - COF

77. COF inspections are currently provided by three approved organisations with approved sites and approved inspectors. The combined turnover of these businesses is estimated to be in the order of $100 million per annum. This revenue principally comes from WOF and COF inspections and a much smaller component comes from other vehicle related services.

Service and price impacts

78. As identified in the WOF appraisal, there is potential for changes to WOF inspection frequency to have knock-on impacts on the provision of COF inspection services. The loss of revenue from a reduction in WOF inspection frequency could cause a combination of

[22] These annual estimates are calculated using annuities; i.e. the sum over 30 years of the uniform benefit discounted at 8% equals the respective NPV. The mid-range estimate is rounded to the nearest multiple of $5 million, given the estimate is illustrative.

price increases and site closures for COF. This could escalate compliance costs and charges for industry, and could be severe for more isolated parts of the country. A principle of current operation policy is that operators do not travel more than 30 minutes (or 40 km) to reach an inspection site.

79. As noted earlier, independent testing stations that only provide inspection services (including both WOF and COF) have advised that they would face a significant risk of closure if their inspection throughput fell significantly. This would adversely affect rural locations (in particular off-sites) and result in a fall in the service coverage and increased charges. However, the risk of poor national coverage would be mitigated substantially, if not entirely, if barriers to entry are removed or significantly lowered as outlined in 'risks and their mitigation' section below.

Addressing barriers to entry

80. There are potentially prohibitively large costs for inspection sites to meet the NZ Transport Agency's current requirements that are potentially not related to the effectiveness of safety inspections. But as discussed in the 'Risks and their mitigation' section below, it is proposed that many of these requirements are made more flexible or removed. It is likely that smaller repair sites, including those in remote areas, would expand their business mixes and/or relocate to fill any unmet demand should existing offsite services cease. The market reform is likely to increase competition and therefore service level and any price changes might only be temporary.

81. In this context, any potential loss in inspection service coverage and changes in pricing are expected to be small in the medium term. The cost is not prohibitive for heavy vehicle servicing agents and, potentially, truck operators to acquire key inspection items (including roller brake machines and load simulation equipment)[23]. Indeed it is becoming increasingly common for truck operators and servicing agents to have that equipment, and market prices for 'pre-COF' inspections are established.

82. There is the potential for there to be shortages in the number of COF inspectors and in the provision of training courses for inspectors. At present, training only occurs within the two largest inspection providers. There could be a need for a more proactive role by the NZ Transport Agency to ensure that there is sufficient access to inspector training so as not to unduly limit how the market transitions during the initial years.

Employment and other impacts

83. Due to the likely lumpy transition to a new market structure, and the fact that several hundred COF inspectors are employed by testing stations, downsizing or closure of sites will lead to employment impacts[24]. However, these effects are likely to transitory as there:

    83.1. is a skill shortage (COF-B inspectors are on the long term skill shortage list)

    83.2. will be more demand for there skills as repairers enter the market.

84. A small increase in the cost of NZ Transport Agency audits is expected because there will be more sites to visit, and the scope of audit activities may need to be expanded. This will have a small operational implication for the NZ Transport Agency but, as in the current regime, the costs will be recovered from inspection providers.

[23] For example, the costs of roller brake machines and load simulation devices start from $100,000.
[24] While the risk of business closure may be higher in rural areas, the employment impacts are likely to be higher in cities where most inspectors are employed.

Implementation

85. Change will result in amendments to Land Transport Rules covered in the cabinet paper.

86. The estimated potential impacts on the inspection related industries for both WOF and COF options could be partly mitigated by providing sufficient advance notice to the affected stakeholders so that they can better plan and gear up for the change. More consideration will need to be given to how the reduced frequency is progressively phased in, to avoid a gap appearing in demand for WOF as frequency moves from 6 to 12 months and several options are under investigation. A one year plus lead-in time for change would assist industry to adjust.

87. Table 4 below provides the indicative estimates of implementation costs, including a summary of WOF implementation costs discussed above. These estimates have not been included in the cost-benefit analysis discussed. However, inclusion of such costs will not materially affect the estimated BCRs and the estimated NPVs will only reduce marginally.

Table 4: Estimates of implementation and mitigation costs

Item	Description	Cost nature	WOF	COF
Information and education	Information and education measures to encourage owners of vehicles to take greater personal responsibility for vehicle road-worthiness, such as print and web advertising, brochures for agents, raised awareness of Police checks and variable messaging signage.	One-off Implementation:	~$0.8m	$0.1m
		On-going service delivery:	~$0.1m	-
Police enforcement	Effectiveness of information and education increases when backed up by enforcement. Increased enforcement activity focused on light vehicle safety to enhance awareness of and support the change is proposed. Long term road safety enforcement would continue to be targeted to risk.	One-off Implementation:	$2.4m-$5.0m	-
		Ongoing service delivery	-	-
Information technology and service delivery processes	Changes to New Zealand Transport Agency IT systems and business process that support service delivery are required to implement the changes	One-off implementation:	$1.8m-$2.3m	$2.7m-$4.1m
		Ongoing service delivery	-	-
Regional operations	Changes required to New Zealand Transport Agency monitoring and auditing of providers.	One-off implementation:	$0.3m	$0.5m
		On-going service delivery:	-	$0.6m

88. At this stage, the implementation cost estimates do not include potential costs to government to support training for COF inspectors, which would facilitate the entry by repairers into the COF inspection market.

Risks and their mitigation

89. The following risks have been identified along with their mitigation in the previous discussion and are summarised below:

    89.1. Reducing WOF frequencies could elevate crash risks. For Options 1, 2 and 2A this risk could be largely managed by a substantial increase in the existing mitigation effort – including public awareness of the policy change, additional education about vehicle safety and increased police enforcement.

    89.2. For vehicle operators that require COFs, there is a risk of temporary service level reductions or price increases, during the transition from a restricted to a more open inspection provider market.

    89.3. These risks can be substantially mitigated by ensuring barriers to entry to the COF inspection provision market are minimised, and by advance signalling of the policy change to facilitate the rapid entry of new inspection providers. In particular, the scope of requirements on inspection sites should be reduced to relate only to the safety outcomes of inspections, and there needs to be a marked increase in accessibility of training for new COF certifiers.

    89.4. Reforming WOF, but not the COF inspection provision market, could increase costs to commercial vehicle operators because of a reduction in inspection sites. However, this could be mitigated by implementing the COF market reform option and related measures as a package with the WOF reform options.

90. It is important to note the COF analysis assumes that robust auditing of COF inspection is implemented so existing safety standards continue to be assured. Finally, the progressive phasing in the reforms as discussed above will provide industry with significant lead time to adjust to change.

Monitoring, evaluation and review

91. It is best practice to monitor the effectiveness of regulatory change. The key attributes that require monitoring are:

Key Attribute	Desired Outcome
Cost burden for vehicle owners and commercial operators	• Significantly reduced cost burden for owners of private vehicles • Significantly reduced cost burden for commercial operators
Road safety	• No statistically significant increase in the number of crashes where vehicle defects are a contributing factor

92. The following indicator information will be monitored by the agencies to evaluate the effectiveness of any change:

    92.1. WOF and COF prices

    92.2. Access to WOF and COF services

    92.3. Road safety statistics include numbers of crashes, deaths, and injuries and causal factors.

    92.4. WOF and COF fail rates by nature and level of vehicle defects

    92.5. Operator Safety Ratings for commercial operators

    92.6. Performance Ratings for WOF and COF inspectors

    92.7. WOF and COF related infringements

93. An interim review will be undertaken two years after implementation and a full review four years after implementation. The Ministry of Transport and the NZ Transport Agency will jointly report back to the Minister of Transport on the review findings and provide advice should any changes be required to achieve desired outcomes.

Consultation and technical input

94. Extensive consultation with the industry has been carried out since June 2012. A Technical Advisory Group (TAG) was set up to work with the industry around modelling the potential impacts to the industry. The TAG involves representatives from Vehicle Testing New Zealand (VTNZ), Vehicle Inspection New Zealand (VINZ), Motor Trade Association (MTA), New Zealand Automobile Association (AA) and Road Transport Forum (RTF). The process was largely focused on the development of the WOF options in the initial phase. Industry consultation of the CoF options took place during November and December 2012.

95. Furthermore, the project team has discussed with existing testing stations the potential impacts on business revenue, employment and commercial variability of their operations, in particular at rural sites. We have considered their advice when forming our views on the industry impacts.

96. Public consultation on reform options was also undertaken during September and October, and considered as part of the policy analysis process. 4,593 submissions were received. Submissions primarily focused on the WOF reforms and people in favour of WOF reform felt that modern vehicles are more durable and that reform better reflected the right balance between cost savings and safety. A large proportion of these submitters felt that a change in regime would bring New Zealand in line with other international jurisdictions. Submitters in favour of keeping the current WOF regime felt that the average New Zealander lacks the knowledge and equipment to properly maintain a vehicle. Submitters also had concerns about the high age of the vehicle fleet and the unsafe nature of New Zealand's roads and the effect of decreased inspections on vehicle parts such as tyres.

97. Submissions on COF showed little support from the commercial vehicle sector and the public for less frequent inspections for heavy vehicles. Some stakeholders supported retention of six-month inspections, but with the ability to put operators on variable inspection frequencies between 3 and 12 months (an extension from nine months currently).

98. As an alternative approach to greater choice, Vehicle Testing New Zealand, Vehicle Inspection New Zealand and the Automobile Association all supported inspection agents being able to certify vehicles where minor defects are picked up and allowing operators to repair such faults without needing a recheck. The Automobile Association supported inspection stations being able to perform minor repairs, although this appeared to be not supported by either Vehicle Testing New Zealand or Vehicle Inspection New Zealand.

99. The Road Transport Forum supported more choice and flexibility for operators, such as inspectors travelling to operators' premises, so long as it did not impact negatively on safety outcomes. A major fleet provider favoured the outcome of opening up COF inspection market.

Conclusions and recommendations

100. A comprehensive analysis of the WOF and COF reforms has been undertaken and identified substantial reforms benefits, but uncertain reform risks. The more liberal WOF reform Option 4, which involves moving to inspection on change of ownership (similar to several Australian States), has been discounted due to the potential scale of harm and uncertainty over the ability to mitigate the potential increase in crash risks. While it has the largest national benefit, it may not be effective in meeting reform policy objectives of achieving a similar or improved safety outcome, and we have then applied a 'least regrets' approach that favours Options 1 (annual inspections up till age 12 then 6 monthly) or 2 (first inspection at 3 years and then annual inspection) or 2A (same as Option 2 but 6-monthly inspection for vehicles manufactured before 1 January 2000).

101. Assessment of the remaining WOF policy options concludes that Option 2 has by far the most substantial national benefits; safety risks can likely be mitigated, and it provides a more durable regulatory regime reflecting continuing improvements in technology and safety performance of the light fleet.

102. While Option 2A provides the industry an opportunity to better adapt and transition to the new regime, the NPV and BCR for Option 2A are both lower than that of Option 2. This means the incremental gains from Option 2A (relative to Option 2) do not outweigh the additional costs to vehicle owners. As the transition effects can be managed by introducing a long lead in time, the Ministry of Transport and the NZ Transport Agency prefer Option 2 because it delivers substantial economic benefits and incurs a modest safety risk that can be mitigated.

103. The benefits of having greater COF inspection choice would be substantial, in particular flow-on productivity gains for the transport industry.

104. The analysis concludes that the COF and WOF reforms should be considered as a package. If WOF alone is reformed, it may lead to higher costs to vehicle owners who require COFs. Moreover, COF reform will entail a different market structure, and this transition may be difficult, unless steps are taken to minimise barriers to entry into the COF inspection market.

105. Advanced signalling of policy changes to industry will also mitigate transition issues and help facilitate the prompt entry of new inspection providers. A significant lead in time for industry to adjust to reforms would reduce adverse social impacts.

106. The recommendations are:

    106.1. to extend the WOF inspection requirement to annual from year 3 (Option 2)

106.2. to enable provision of COF inspection services by a wider range of competent and approved organisations, each employing approved inspectors and operating approved diagnostic equipment

106.3. to allow COF inspection frequency to be better targeted to risk by changing the Land Transport Rule: Vehicle Compliance 2002 to provide for a three to 12 month variable inspection frequency.

107. The reforms need to be undertaken together and accompanied by investment in mitigation initiatives designed to address risks.

Appendix One: Impacts on warrant of fitness providers

Information withheld because it would unreasonably prejudice the commercial position of providers. (Section 9 (2) b (ii) of the Official Information Act).