



Regulation of the road freight industry – evidence on the effectiveness of operator licensing

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Abstract

The paper will examine approaches to the regulation of the road freight sector used in Australia and some other developed countries and discuss available evidence on the effectiveness of the operator licensing schemes that generally apply.

The paper has been prepared against a background which has seen a number of important changes in the way the road freight industry in Australia is regulated, since the creation of the National Road Transport Commission in 1992.

In addition to the achievement of greater clarity and consistency in traditional prescriptive regulation and on-road enforcement, innovative regulatory approaches introduced in Australia over the last decade have included accreditation-based compliance, the implementation of “chain of responsibility” provisions through “conventional” road transport law and enhanced conventional compliance, through a broader range of sanctions combined with enhanced powers of officers and more effective evidentiary provisions.

This approach contrasts with most other developed economies, where a major element of the regulation of road freight is the maintenance of extensive operator licensing.

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Introduction

Given the importance of road freight transport to the Australian economy it is crucial that road transport regulation enhances, rather than detracts from, the sector's overall efficiency, productivity and community well being.

The current Australian approach of imposing legal responsibility on all those in the transport chain who influence on-road outcomes, rather than concentrating on the driver and the transport operator, is contrasted with the approach of most other developed economies, which is based on economic regulation and operator licensing.

Approaches to the regulation of road freight have received little analytical attention in Australia. Street and Chow (1997) concluded that:

US and Canadian experience with safety compliance and enforcement procedures is mixed. It provides both green and red lights for similar Australian initiatives to promote truck driving safety. There is evidence of wasted effort and expenditure alongside some quite cost effective intervention measures. (p.494)

Professor Michael Quinlan recently prepared a report on safety in the long haul trucking industry in NSW for the Motor Accidents Authority. Professor Quinlan's recommendations included:

...a compulsory licensing system covering operators (including owner/drivers), freight forwarders, consignors and brokers/agents...

...minimum legally enforceable 'safety rates' be established for owner/drivers... (p. 31)

In this context, it is useful to consider overseas experience with different types of operator licensing schemes and examine the evidence on the efficacy of these approaches.

The Australian approach to road freight transport regulation

In Australia, the Federal Government's powers to make laws are set down in the Constitution. All unspecified powers are held by the states. As the Constitution does not make an explicit reference to roads or road transport, the authority to make laws and regulations covering these areas is held by the states and territories.¹ As a consequence of this allocation of powers at federation, each state continued to develop its own set of laws and regulations for road transport. This resulted in numerous inconsistencies between state laws, and imposed significant costs on road transport businesses, on industry more generally and on the community as a whole.

¹ A number of other heads of power in the Constitution has given the Federal Government some indirect powers over the supply of roads and the regulation of road transport. These heads of power include the corporation's power, the inter-state and overseas trade and commerce power and the power to make conditional financial grants to the states.

Recognising the need for a more uniform system, in July 1991 the Commonwealth and the states and territories agreed to the formation of the National Road Transport Commission (NRTC). The Commission's charter is to develop a framework for nationally uniform or consistent road transport regulation in order to improve road safety and transport efficiency, to achieve environmental sustainability and to reduce the administration costs of road transport regulation.

The NRTC makes recommendations to the Australian Transport Council. If these recommendations are approved, all States and Territories and the Commonwealth are required to implement.

The initial focus of the NRTC was in the removal of inconsistencies in standards for vehicles and drivers and in the removal of differences in operating conditions. The NRTC's work on compliance and enforcement commenced later, and is now on the verge of delivery.

Areas covered by the NRTC's current work program include:

- driver health and fatigue management;
- compliance and enforcement; and
- performance-based standards

Compliance with prescriptive standards

Australia's law governing road freight transport generally focuses on drivers and, to a lesser extent, transport operators, and requires compliance with prescriptive standards. Sanctions are generally limited to fines, driver demerit points and suspension or cancellation of vehicle registration, with more severe penalties restricted to overtly dangerous or negligent actions.

Competition policy issues

Australia's road transport regulations do not aim to address concerns about the level or nature of competition in the road freight market. This is because Australian governments have, in most instances, chosen to take more generic action to address concerns about the nature of competition in a market. The Trade Practices Act is the key tool for implementing this approach to competition policy.

Australia currently has no regulations governing access to the road freight industry or freight rates. The Privy Council in 1954 found that the economic regulation of interstate vehicles by state government to be unconstitutional. This decision led to the end of economic regulation on interstate routes and eventually on all routes.

However, a House of Representatives Standing Committee (the Neville Committee, 2000) has raised the prospect of regulating entry to the road freight industry through a national system of accreditation. Unlike the market restrictions that were in place in the 1920s and 1930s to protect ailing rail freight

services, the current call for accreditation focuses on perceived deficiencies in the management of fatigue and the safety of the road freight market itself. As discussed above Professor Michael Quinlan's report on safety in the long haul trucking industry in NSW also saw the need for a compulsory licensing system with minimum enforceable 'safety rates' of pay to established for owner/drivers.

Consideration of these licensing and minimum freight rate issues is taking place at a time when numerous other road transport reforms are in progress. These reforms which are outlined below could have a more direct and positive impact on compliance generally, including the management of fatigue.

National compliance and enforcement proposals

The development of new compliance and enforcement provisions is central to the NRTC's current work program. Reforms in this area include:

- *voluntary accreditation-based compliance* processes, which rely less on detection and more on performance and quality assurance, place the onus on operators to develop management and operating systems. While these approaches can be administratively demanding for operators, the arrangements are incentives driven as they create opportunities for productivity improvements and can reduce on-road compliance costs (NRTC, 1998);
- *chain of responsibility* provisions which recognise that enforcement should not stop with the heavy vehicle's driver but should encompass all parties with control over the behaviour which led to the breach. Chain of responsibility aims to ensure that all responsible parties in the logistics chain can be held accountable under the criminal law for their contribution to breaches of road transport law. Chain of responsibility provisions have so far been developed and endorsed for laws relating to dangerous goods, driving hours regulation, and mass, dimension and load restraint regulation. Chain of responsibility is expected to play an important role in the development of compliance culture in Australian road transport. It is expected to produce positive benefits in road safety, infrastructure protection, and competitive equity outcomes; (NRTC 2002) and
- *risk based categorisation of offences and sanctions* are being developed under the NRTC's compliance and enforcement work program. Policy developments include a draft penalty framework for severe risk heavy vehicle overloading. Proposed sanctions include improvement notices, supervisory intervention orders and prohibition from involvement in the industry.

Approaches in some other countries

The licensing of truck drivers and the registration or licensing of vehicles for road use is a common practice internationally. In Australia, if these requirements are satisfied businesses are free to operate in the freight transport industry and charge prices determined by the market. However, in many other countries further restrictions on entry to the road freight industry are also in place.

Two distinct categories of road freight operator entry regulation are currently being used in other OECD (Organisation of Economic Co-operation and Development) countries². The first category involves restrictions on market size and operation (some times known as economic regulation) and the second category involves regulation of operator quality through mechanisms such as licences or certificates which are sometimes linked to safety ratings. For this report this second category has been broadly classified as operator licensing.

Economic regulation

As a general rule, the use of economic regulation in OECD countries reflects either an historical interest in protecting the local rail industry from competition from road, or alternatively protecting the local road freight industry from foreign competition and/or protecting the local freight industry from 'cut-throat' competition (OECD 2000a).

The OECD (2001) reports that economic regulation of road freight transport has declined significantly in importance among its thirty member countries. The OECD's International Regulation Database indicates that in 1998, freight rates were regulated in some way in Japan, Italy and Greece. While in Netherlands, Portugal, Spain, Switzerland, Czech Republic, Hungary, Poland, Italy, Austria and Greece a professional body enforces pricing or entry regulations or guidelines. Only three OECD member countries (Finland, Mexico, Hungary) regulate inter-modal freight competition.

While restrictions on domestic competition are becoming relatively rare among OECD member countries, restrictions on the operations of foreign trucking firms through cabotage and other restrictions are very common.

The OECD reports that amongst its members liberalisation of the road freight industry has been almost uniformly positive (OECD 2001, p. 25). Its review of deregulation in the road freight transport sector found that the move away from economic regulation and the liberalisation of the road freight transport sector has led to:

- reductions in freight rates — for example, freight rates declined by 15 per cent in France, by 12 to 25 per cent in the USA; and by 25 per cent in the UK and New Zealand;
- improvements in service quality;
- increases in productivity; and
- the development of innovative new services (OECD 2001 and 2000a).

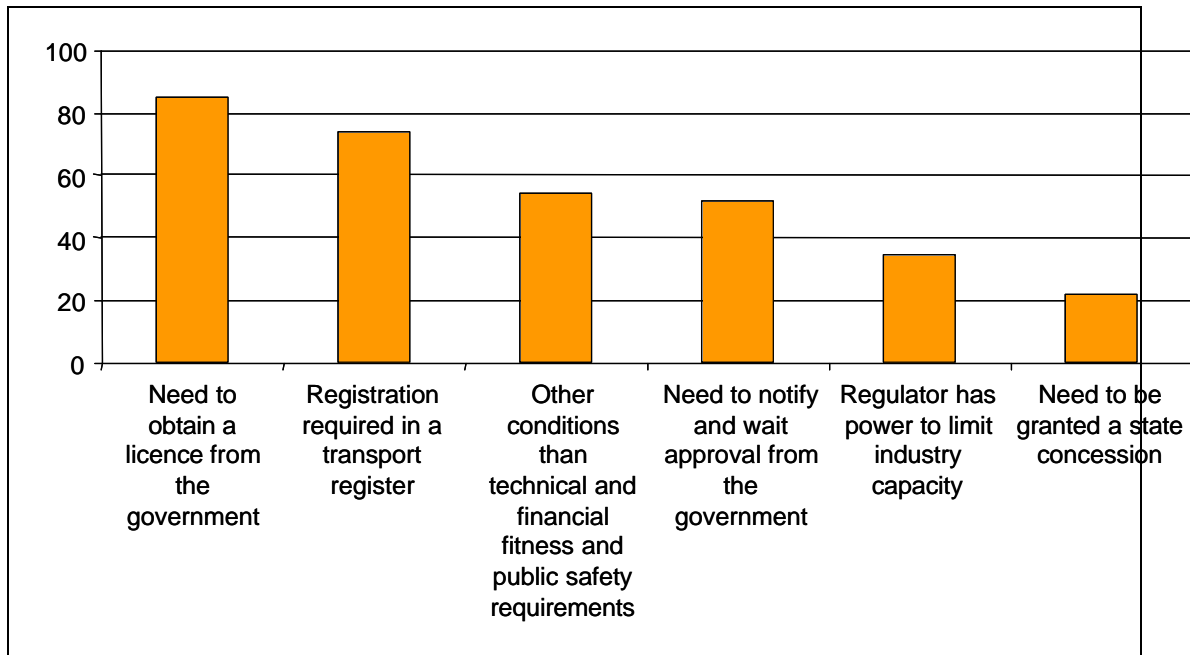
² The OECD brings together the following 30 countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, The Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

Operator licensing

Operator licensing is intended to assist in overcoming market failures in the areas of road user charging, infrastructure access and externalities, particularly road safety.³

In 1998 around eighty per cent of OECD countries required firms to obtain a permit, licence or certificate to set up a business supplying road freight services (figure 1).

Figure 1: Road freight entry regulations, 1998 (percentage of OECD countries)



Source: OECD 2000a.

In most OECD countries operator licences are required for hire and reward operators but are not necessary for ancillary (own account) operators. However in the UK, Mexico and Spain, ancillary operators must also obtain a licence or permit to operate their fleets. In New Zealand, ancillary operators must be licensed if they are operating vehicles with a gross-laden weight of 6,000 kgs or more. All European Union member states require their ancillary operators to be licensed if they transport any freight for hire or reward.⁴ Canada has also recently implemented a National Safety Code that requires all freight transport operators, including ancillary operators, to have a safety fitness certificate before they can operate as motor carriers.

³ This section briefly describes the extent of operator licensing in OECD countries. The discussion relies extensively on two OECD reports (2001) and (2000a). The discussion is also based on more detailed research on developments in the USA, Canada and the UK.

⁴ The European Union is made up of the following fifteen member countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

In a majority of cases, operator licensing involves registration of the road freight transport operator in a transport register. In most countries the licensee has to demonstrate compliance with technical and safety, or financial fitness requirements specified by the regulator. These requirements could be considered as a means of regulating the 'quality' of operators.

The specific requirements necessary to comply with the operator licence conditions vary significantly between countries. For example, in the USA, motor carriers (transport operators, freight brokers and freight forwarders) that are subject to federal regulations must register with the Federal Department of Transport within 90 days of starting a service. To register, motor carriers must demonstrate that they have adequate insurance and have agents in all states in which they will operate. They must also register with every state through which they will travel in conducting their operations. Operators must also submit to a safety fitness rating process.

A similar rating arrangement is currently being implemented in Canada. New Zealand which also has a system of operator licensing, is currently considering whether it should introduce an Operator Safety Rating System to augment its licensing arrangements.

In both the USA and Canada an operator's safety fitness rating is subject to audit through roadside inspections of vehicles and drivers' logs and through more detailed audits at the place of business. If the licensee is found to no longer comply with the safety rating, they may be prohibited from operating commercial motor vehicles outside their own state or province. In addition, in the USA a motor carrier with an 'unsatisfactory' safety rating is ineligible to contract or subcontract transportation services with Federal Government agencies.

In the UK and other European Union countries an operator must have a licence (an 'O' licence in the UK) before working in the road freight transport industry. Applicants must demonstrate they:

- are a person of good repute;
- have appropriate financial standing;
- are professionally competent or employ persons who are professionally competent;
- have suitable vehicle operating centres and maintenance facilities or arrangements; and
- have environmentally acceptable vehicle operating centres and vehicle maintenance facilities or arrangements.

In European Union countries the licence is held indefinitely, provided the conditions of the licence are not breached and the licence fees are paid on time.

In the UK operator licensing restrictions are also used for environmental planning purposes. 'O' licence applicants must advertise in the local press that they are applying for a licence or a variation of a licence and must specify the

specific location of the centre(s) where their vehicles will be garaged, maintained, etc. Local residents may appeal against the granting of a licence on the grounds of noise, pollution, visual intrusion etc.

Experience with operator licensing in road transport

Licensing road freight operators for quality imposes another layer of compliance costs on businesses. The extent of these additional compliance costs will depend on the complexity of the licensing and safety rating processes, the nature of the information to be collected and assessed and the compliance effort required. The administrative costs for operators in the USA, Canada and the UK appears to be high as they are required to maintain a wide range of documents and databases. For example, in Canada a carrier must keep files for the current year and the previous four years pertaining to a wide range of areas including: the operator licence; each drivers employment, conviction and driving history; training undertaken by each driver; vehicle purchase and maintenance histories; and drivers logs.

The benefits will depend on the effectiveness of the licensing procedures in achieving their objectives. However, studies undertaken in the USA and the UK indicate that these licensing and safety rating arrangements do not necessarily improve compliance with safety regulations. The quality of the information databases and their accessibility to different jurisdictions and enforcement agencies, as well as the level of resources and the reluctance to impose sanctions, were factors that impeded the arrangements effectiveness.

United States

A 1999 audit of the Office of Motor Carrier Safety program raised considerable doubt about the effectiveness of the program and its enforcement by Office of Motor Carriers (Office of Inspector General 1999). The Inspector General recommended major changes to the administration of the system, as the safety rating system did not ensure motor carriers operated safely. The Inspector General found that the Motor Carrier Safety Program was not sufficiently effective in ensuring motor carriers (transport businesses) comply with federal safety regulations because:

- very few operators were actually rated — in 1998, nearly 72 per cent of the motor carrier population was unrated. Of those rated, 38 per cent were rated as unsatisfactory. The rating system allowed operators with less than satisfactory ratings to continue to operate for extended periods;
- the policies and procedures in place did not ensure that safety regulations were enforced. The report argued that emphasis of the program had shifted too far towards education and outreach which has little impact on businesses which persistently breach safety rules;
- available sanctions were not used to deter future non-compliance. Although safety investigators had authority to shut down motor carriers that posed an 'imminent hazard', the sanction was rarely used even though some carriers repeatedly breached safety regulations. (Over a period from 1995 to 1998 only 17 businesses were shut down even though 117 businesses were identified as high multiple significant breaches of the safety regulations);

- performance measures used by the Office of Motor Carriers did not focus on reducing the absolute number of fatalities involving commercial vehicle crashes. Fatalities involving commercial vehicles had increased by 20 per cent between 1992 and 1997 and vehicle miles traveled had increased by 25 per cent;
- the database used to identify high-risk operators was incomplete and inaccurate and the data entry was not timely; and
- the priority needed for the safety program was difficult to achieve when its administration was the responsibility of an agency whose primary role was investment in road infrastructure.

The Office of the Inspector General, in a separate report, also raised concerns about the effectiveness of the operation of the Commercial Drivers Licence program (Office of the Inspector General 2000). These arrangements are intended to lead to the disqualification of unsafe drivers. However, the Inspector General found that state agencies were failing to disqualify drivers as required under the program.

Moses and Savage (1992) in an earlier review of effectiveness of the USA safety rating and enforcement system also expressed doubts about its effectiveness, even though they found that many of the operators found to have an unsatisfactory safety rating at an audit subsequently improved their accident performance. While this outcome is noteworthy, Moses and Savage believed that the auditing process had a relatively insignificant impact on safety in the road freight transport industry. There were two reasons for this finding. The first was that very few operators were actually audited. (The more recent audit by the Office of Inspector General found the low level of safety rating had continued.) Secondly, only five per cent of all operators audited were found to have unsatisfactory safety ratings and improved safety records for such a small number of operators had only a negligible impact on the overall safety of the industry.

Importantly, Moses and Savage found that many of the areas investigated by safety rating auditors, such as financial responsibility, and many questions relating to maintenance, had little impact on road transport businesses' safety performance. Thus the need to prove compliance with these areas of investigation increased compliance costs without any impact on safety performance.

Moses and Savage (1992) concluded that a more targeted approach to auditing safety ratings could be more effective in improving the road transport industry's safety performance. They recommended that operators with high accident rates should be targeted for audit and these more targeted inspections should go hand-in-hand with higher penalties. However, as the Office of Inspector General found in the more recent reviews reported above, targeting high-risk operators requires effective enforcement and good up-to-date reliable databases.

Reforms are under way in the USA to better target high risk operators. These reforms include a new Performance and Registration Information Systems

Management (PRISM) program which is intended to address some of the problems associated with the USA's safety rating program. The PRISM program is a complement to, rather than a substitute for, the Motor Carrier Safety Program. PRISM focuses more closely on high-risk operators with the assistance of an extensive computerised information database. The program uses screening and a safety auditing program to link vehicles, their operators and their compliance with road transport law. It aims to identify and where possible turn around, the safety performance of high-risk operators. If these attempts to improve an operator's safety fail then under the PRISM program the registration of an operator's vehicles can be suspended or revoked. This sanction is in addition to the unsatisfactory rating, which would also be imposed under the Motor Carrier Safety Program. A pilot study of the program suggests that PRISM will be more effective in targeting unsafe operators and in turning around their safety performance.

United Kingdom

Despite the relatively strict 'O' licensing entry requirements in the UK, concerns have been raised about industry over-capacity and profitability, and the poor compliance levels of some operators with road transport law.

There is an ongoing debate about the level of excess capacity in the UK's road freight transport industry. Reflecting this concern, a member of the recently formed Commission for Integrated Transport has called for the British Government to provide grants to assist small haulier businesses to exit the industry. This call for grants is symptomatic of the level of concern about the profitability of some of the UK's smaller operators (Commercial Motor 2000, p. 32).

A random survey of heavy goods vehicles by one of the British Government's key enforcement agencies found relatively low levels of compliance with safety law. The survey found that:

- over 25 per cent of vehicles surveyed had faults that would warrant prohibition of the vehicle's use if repairs were not carried out; and
- 12 per cent of trucks checked had faults that were sufficiently serious to justify immediate removal from the road (UKDETR 1999).

In response to these concerns the UK government announced major changes to its approach to the enforcement of 'O' licensing conditions and heavy vehicle road transport regulations more generally. Key changes to the enforcement arrangements included:

- improvements in information databases;
- greater accessibility to these databases across enforcement agencies; and
- an increase in the level of enforcement effort which was to be funded through increases in 'O' licence fees.

Canada

Despite approval by Canadian governments in 1997 of a safety-ratings process for motor carriers (National Safety Code Standard 14), consistent application

across Canadian provinces has not been achieved. A review in August 2000 (Nix, 2000) found that the December 2000 target date for the introduction of a nationally consistent standard would not be achieved, as some provinces and territories did not have the necessary procedures in place, while in others, there remained some significant deviations from the standard.

Regulatory agencies in Canada are devoting considerable resources to implementing a consistent and effective safety ratings scheme. Additional difficulties face road transport operators which operate into the United States. As mutual recognition arrangements between the two countries have not been implemented, dual accreditation is required of carriers operating between the two countries.

Improving compliance and enforcement

Regardless of the approach used to regulate road freight transport compliance and enforcement of the law is crucial to successful policy. The OECD in its report *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance*, points to the following three categories of explanations for (non-) compliance:

- the degree to which the target group knows of and comprehends the rules;
- the degree to which the target group is willing to comply; and
- the degree to which the target group is able to comply with the rules.

The OECD (2000) argues that regulators must keep these considerations in mind when taking action to promote compliance. High compliance levels will be easier to achieve if good compliance outcomes are factored in at the regulatory design phase. To do this government must have a sophisticated view of factors such as:

- market characteristics;
- how organisations are structured and make decisions;
- the incentives which are likely to motivate compliance by individuals and organisations; and
- obstacles to compliance.

The OECD (2000, p. 8) also notes that:

To date, while many Member countries employ various kinds of risk and impact analysis methods, few conduct ex ante evaluation of compliance factor. ...

Monitoring compliance trends should also be a key part of ex post evaluation programs for ex post evaluation programs for existing regulations.

Regulation, no matter how well designed, can fail to achieve its objective if it is not effectively enforced. This point was raised by Professor Freiberg (2000) at

the conference on smart compliance for the new millennium. He argued that it is illogical for road transport operators not to 'cut corners' in a regulatory system with a low enforcement environment.

There are a number of ways that the enforcement can be improved including:

- creating incentives for regulated parties to prove their compliance with the law — Australia's voluntary accreditation-based compliance scheme and Alberta's Partners in Compliance program both fit within this category of regulatory alternatives as they provide incentives for operators to comply with road transport law;
- creating a pyramid or hierarchy of enforcement strategies and sanctions (see OECD 2000b). For example, a regulator may have a number of sanction options ranging from persuasion to fines to harsher measures such as prison or prohibition from operating in the industry. The compliance and enforcement legislation proposed by the NRTC will provide a hierarchy of sanctions, ranging from monetary penalties, through to court determined supervisory intervention orders to removal of an operator from the road transport industry. These higher level sanctions can be applied for "persistent or systematic" breaches of road transport law. Effective implementation of these sanctions will require the maintenance of data on breaches of road transport law and the exchange of that data between jurisdictions.
- educating road transport authorities, the police and the judiciary on the objectives of the legislation they are enforcing to ensure consistent application of the law. In Australia, the NRTC in conjunction with enforcement agencies has undertaken to develop national enforcement officer training competencies to ensure a nationally consistent application of the new compliance and enforcement provisions, including chain of responsibility. A national inspection manual is also being developed to assist in the enforcement of the heavy vehicle standards requirements;
- taking advantage of new technologies that can assist regulated parties to comply with the law or assist authorities to enforce the law. There are a range of technologies which are, or could be, used to improve compliance and/or enforcement of the road transport law.
- improving, coordinating or merging information databases to give enforcement authorities better access to information on drivers, vehicles, employers and perhaps other participants in the transport chain;
- increasing the penalties for breaching road transport regulations. Becker (1968), in an article on crime and punishment, drew attention to the fact that if the probability of breaking the law and getting caught is low, then the penalties need to be extremely high. In Australia, the NRTC has developed a risk based categorisation of offences and related sanctions;
- increasing the level of resources, allocated to the enforcement;

- providing more appropriate powers for enforcement officers and providing effective evidentiary powers to facilitate effective court action. The compliance and enforcement legislation under development by the NRTC includes those provisions; and
- revising the roles or duties of enforcers. In many countries, including Australia, enforcement is the responsibility of more than one authority. Such a breakdown of enforcement roles may not necessarily be the most efficient method for achieving effective enforcement at least cost.

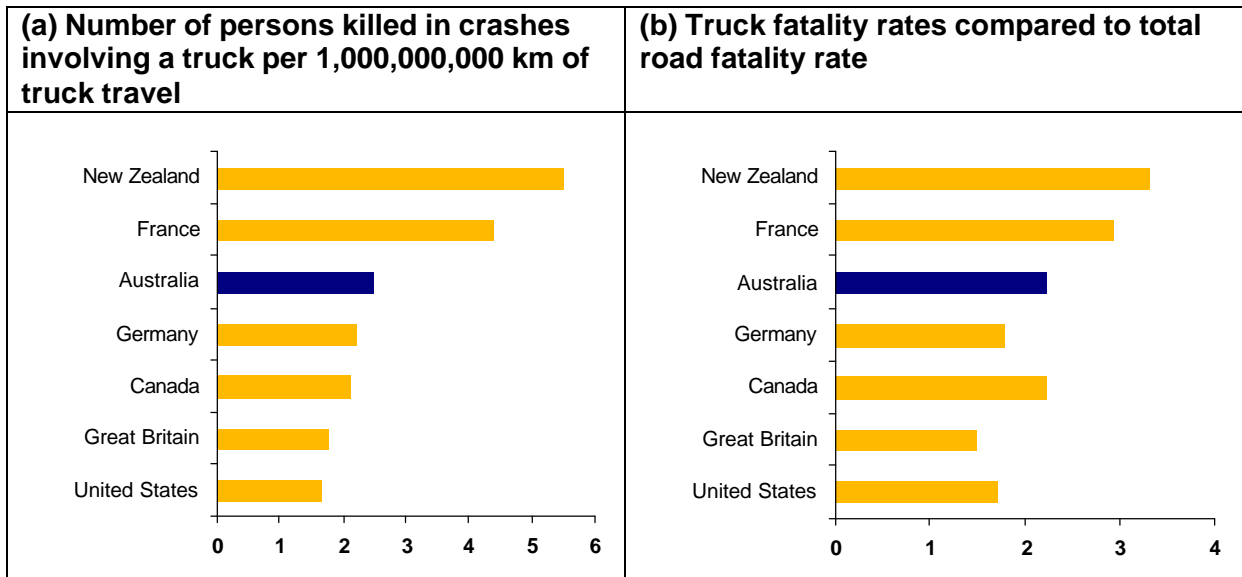
There is no clear rule on when, or whether, any of these alternative approaches to improving enforcement should be used. In some instances, more than one, or a combination of all approaches may be warranted. Ultimately, the choice of measures will depend on the circumstances and on the benefits and costs.

It also needs to be borne in mind that increased enforcement effort or changing enforcement mechanisms will not be appropriate if the regulation being enforced is not suitably framed or properly designed to achieve its objective.

Evidence on the effectiveness of alternative approaches

Benchmarking heavy vehicle safety outcomes in different countries is one means of gaining a better understanding of the effectiveness of alternative regulatory regimes. The NRTC has recently released a benchmarking study on truck safety (NRTC 2002). This study found that the United States and Great Britain had the best safety record with the lowest rates of number of persons killed in crashes involving a truck, per 108 km of truck travel. Canada, Germany and Australia had somewhat higher rates. The rates for France and New Zealand were considerably higher than Australia's rate (Figure 2a). The NRTC study also found that Australia was in the middle of the range when each country's truck fatality rate ratio is compared to the country's overall fatality rate (Figure 2b). However, compared with other countries Australia had the highest proportion of single vehicle fatal crashes and the highest proportion of truck occupant fatalities.

Figure 2: Benchmarking Truck Safety



Source: NRTC 2002.

With the exception of Australia, all of these countries had some form of operator licensing in place. Thus it is difficult to conclude that operator licensing was responsible for the different results. In fact the NRTC study found that differences in road systems helped explain Australia’s performance compared to the United States and Great Britain.

Unfortunately this benchmarking only compares Australia’s safety record under the old regulatory regime. It is anticipated that Australia’s safety record will improve as the new compliance regime is introduced.

While the benefits of operator licensing are not yet clear, it can be said with some certainty that the operator licensing arrangements in place in North America and the European Union impose additional compliance costs on businesses. Operator licensing also requires a substantial commitment in public resources, both financial and human. The extent of the additional compliance costs would depend on the complexity of the licensing processes, the nature of the information to be collected and assessed and the compliance effort required. Importantly, in federal jurisdictions where the states rather than the national government have regulatory responsibility over road transport, the public resource costs and threats to the effectiveness of the system seem to be amplified. However, the difficulties in maintaining up to date national databases on operator and driver safety, which is a crucial component of a risk rating system, are not unique to federal systems. They also occur in the UK’s unitary system.

However, regulatory systems which rely on the identification of high-risk operators also involve risks to the community. For example, an unsafe operator may enter the industry and cause significant harm before being identified as a high-risk operator. Such approaches are therefore heavily reliant on effective enforcement as well as a good information system, which can keep track any breaches of the rules and regulations. The difficulties associated with identifying

and targeting high-risk offenders was recently pointed out by Professor Freiberg (2000, p.13). He noted:

Identification is difficult and sometimes wrong. High quality, accurate, reliable and up-to-date databases are needed, but are rarely available. Past performance is not always a guide to future conduct and sometimes predictions can be very wrong. Secondly, the measure one can bring to bear may be limited either by law or resources. Intensive surveillance, monitoring, enforcement and escalating sanctions including shut down orders, are all proper measures, but they can leave the enforcement agency open to the risk of being caught unaware of the offender who suddenly appears from the 'safe' 80% or who just appears in the industry.

In Australia's case, the voluntary nature of the new accreditation-based compliance arrangements means that businesses will only pursue this alternative if they believe that the benefits to their business exceed the accreditation scheme compliance costs. Importantly, because accreditation-based compliance arrangements are voluntary they are likely to have a greater acceptance by business, which is likely to translate into higher levels of compliance.

Another feature of the Australian arrangements is that the operator, rather than the government, bears all of the costs associated with audits to prove compliance. On the other hand, because accreditation-based compliance requires participating businesses to take greater responsibility for identifying, controlling and minimising risks in an auditable way it may be more difficult for small operators, who form the bulk of the industry, to take up.

Australia's new chain of responsibility provisions should also assist in improving the compliance culture of the entire road freight supply chain and, by doing so, should reap benefits for safety and reduce damage to road infrastructure. However, as these new Australian arrangements are in their infancy it is too earlier to assess whether the benefits will actually be reaped. Ultimately the proof of the effectiveness of the new arrangements can only be determined once they have been operating for a period of time.

Conclusion

Operator licensing is a common regulatory tool used in many countries other than Australia. Around eighty per cent of OECD countries require road freight businesses to obtain a permit, licence or certificate to set up a business supplying road freight services. Operator licensing covers a range of regulatory approaches. At one extreme, operator licensing is a simple registration process with little or no barriers to entry. At the other extreme operator licensing is used for the economic regulation of the industry and involves significant restrictions on entry and the setting of freight rates.

The majority of OECD countries regulators are moving away from economic regulation which impacts on the price of freight services or the number or type of operators. In most countries the objective of operator licensing is to improve safety. It is not uncommon for the licensing arrangements to be linked to a quality assessment or safety rating.

In some respects, Australia has taken a much more light-handed approach to the regulation of road freight activity. Businesses are free to operate in the road freight industry once they have registered their vehicles and have access to licensed drivers. In Australia, until recently, road transport laws have been primarily enforced through on-road enforcement and, in some states, vehicle inspections. However, the introduction of voluntary accreditation-based compliance arrangements is now placing a greater onus on operators to develop auditable management and operating systems which can be used to assure compliance with the relevant aspects of road transport law.

A key difference in Australia's approach to regulation is the new chain of responsibility provisions. In many countries, the ultimate responsibility for road safety resides with the operator of the road transport business. (The driver also has legal responsibilities but ultimately it is the operator's responsibility to ensure that the driver abides by the rules.) By contrast, Australia's new chain of responsibility provisions mean that all who bear responsibility for conduct which affects compliance with road transport law should be made accountable for failure to discharge that responsibility. This is an important development and moves Australia to the forefront of regulatory reform. It appears that there are no similar provisions in other countries.

While Australia's approach to regulating the road freight industry is somewhat different to the approach used in other countries, there is at this stage no evidence to indicate that the lack of any form of operator licensing for road freight has had a detrimental effect on road safety outcomes in Australia. It would appear to be good sense to follow the current regulatory reform path rather than switch to an entirely new regulatory approach like operator licensing. If governments did decide to pursue a form of mandatory operator licensing care should be taken to ensure that the benefits outweighed the costs. Importantly, government should also be certain that the considerable resources that would be required to put in place an effective form of operator licensing would not produce greater benefits if they were directed elsewhere.

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