

THE HENRY PARKES ORATION 2011

Railways in Australia: Federation Unfulfilled

Philip Laird

Sir Henry Parkes Memorial School of Arts, Tenterfield NSW
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Opening ceremony on 1 May 1889 of the Hawkesbury River Bridge

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One hundred and twenty two years ago, in this building, Sir Henry Parkes as the Premier of New South Wales delivered a speech that gave real direction to Federation of the Australian colonies.¹

In this speech, Parkes had a clear vision of an Australian Federation that included an efficient rail system to increase both the nation’s defence capability and its prosperity.

If Sir Henry were to return today to Australia, he would be impressed with advances in railway engineering along with some world class operations. However, he would be greatly disappointed and quite angry at the substandard nature of rail in New South Wales. He would also demand to know why, 110 years after Federation, the nation’s railway gauges had not been standardised; and, why successive federal governments have failed to give Australia a fit for purpose rail system.

1. The late 19th Century

To answer these questions, we need to go back to the late 19th Century. On the first day of May 1889, a major rail bridge across the Hawkesbury River was officially opened by the NSW Governor, Lord Carrington. As well as joining the northern and southern sections of the New South Wales railways, the bridge completed a continuous railway link between Brisbane, Tenterfield and Sydney, and on to Albury, Melbourne and Adelaide. At a banquet with over 300 present, including from Queensland and Victoria, Parkes observed that the grand trunk line linking the four colonies had a length of nearly 1800 miles - or over 2800 kilometres. Parkes gave many examples of overseas railways that were shorter than the new trunk line, and stated that the New South Wales Government, in completing not only the Great Western Line with its Zig Zag, and now this great bridge over the Hawkesbury River demonstrated taking on “formidable obstacles” and that “*we have neither been sparing of our capital nor stinted in our public spirit in trying to give...the people of Australia fair railway enterprise.*”²

In short, Parkes was then able to say that New South Wales had a world class railway system.

Parkes went on to say that “*We have formed a communication by railway which may be said to bind the whole population of Australia in one chain... and ... that the time has arrived for the political federation of these colonies.*”

His speech concluded with a rousing call for a “United Australia”.

However, the linking by rail of the four capitals of the eastern colonies involved no fewer than three different railway gauges. The opening of the Hawkesbury River bridge provided support for gauge unification and prompted the Chief Commissioner of the New South Wales Railways, Mr Eddy, to stress the need for the Colonies to affirm the adoption of a uniform gauge and to prepare for the ultimate conversion of other railway gauges to the uniform gauge.

Eddy noted that “*Every year the change is delayed ...the cost of altering the gauge becomes greater.*” He asked that Parkes “*...give this matter most careful consideration.*”³

Further support for both federation and a uniform railway gauge was to follow with an official visit to each of the Australian Colonies by an Imperial officer, Major-General Bevan Edwards. Edwards arrived from Hong Kong in July 1889 at Brisbane, inspecting defence facilities and troops in each Australian colony. He also traveled between Brisbane, Sydney, Melbourne and Adelaide by rail. This gave him a first hand experience of the problems caused by break of gauge.

In October 1889, Edwards provided official reports to each of the Colonies on not only defence matters but also railways. Here, if “*... full benefit is to be derived from the railways, a uniform gauge must be established – at all events on the through lines.*”⁴

¹ In the words of Sir Robert Garran, the 1889 Tenterfield speech of Parkes “turned a vague ideal into a practical working program for Federation.” <http://www.nationaltrust.com.au/placestovisit/shp/>

² Richmond T (2010, p20) *Brooklyn - Federation Village*, Deerubbin Press

³ Australian Parliamentary Library, *1897 Australasian Federation Conference debates 31 March 1897.* <http://www.aph.gov.au/senate/pubs/records.htm>

These themes were echoed by Parkes in his October 1889 speech at Tenterfield in his historic call for Federation.⁵

However, it then took 106 years for all mainland State capitals to be directly linked by a uniform gauge. This occurred in 1995 when track from Melbourne to Adelaide was finally converted to standard gauge.

What went wrong? How could it have taken so long?

The answer, for the most part, is that under federation, railways were left under State control. This was in contrast to Commonwealth being given express powers to control defence, and services such as post and telegraphs.

Leaving railways with the States was also in contrast to the Canadian federation of 1867 that made their railways a federal responsibility. It was also in contrast to the decisions of the United States Supreme Court during the late 19th Century that removed many state laws restricting interstate rail operations.

Here, the national approach to railways in both Canada and the United States went hand in hand with major progress in gauge standardization during the late 19th Century.⁶

In 1891, a National Australasian Convention was held in Sydney with Parkes as President. The convention adopted a draft constitution for a new Commonwealth.⁷ This listed powers of a federal Parliament that included defence and customs along with post and telegraphs. Plus the “... *control of the railways for the purposes of the Commonwealth.*”

At the 1897 Australasian Federal Convention in Adelaide, strong objections from South Australia to federal control of post and telegraphs were overcome with the help of “the powerful and persuasive figures of Barton, Deakin and Reid.”⁸ This federal control was then expanded to include “*telephonic, and other like services.*” This was helpful during the 20th century with the national development of radio, television and internet.

Railways then went somewhat backwards at the 1897 convention. One delegate, Bernhard Wise from NSW, noted that, “the telegraphs and the post offices are to be handed over to the Federal Government” and asked why not the railways? Here, a proposal of James Walker of NSW to include railways “*among the departments to be taken over at the outset*”⁹ was voted down 18 to 12. Instead, three clauses were inserted into the constitution that limited Commonwealth powers to control railways for military purposes and only allowed conditional acquisition of any State railway and railway construction by the Commonwealth.¹⁰

⁴ Parliament of Victoria (1889), *Report by Major-General Edwards, C.B. on the Military Forces and Defences of Victoria, with a memorandum containing proposals for the re-organisation of the Australian Forces*, Government Printer, Melbourne, p. 8-9. Edwards also urged that “...the railways to connect Port Darwin and Western Australia with the other Colonies should be made as soon as possible

⁵ Parkes, Sir Henry (1890) *The federal government of Australasia* Speeches dedicated to Lord Carrington. Sir Henry revisited rail issues in November at St Leonards, December at Albury and February 1890 at Melbourne. On the gauge question “... if the four colonies could only combine to adopt a uniform gauge, it would be an immense advantage in the movement of troops, as well as in the operations of commerce and the various pursuits of society.”

⁶ See Stevenson, R. (1987) *Rail Transport and Australian Federalism*, Australian National University, Canberra and Puffert, D (2000) The standardization of track gauge on North American railways, 1830-1890, *The Journal of Economic History*, Vol 4, pp. 933-960.

⁷ White M and Rahemtula A (2002), *Sir Samuel Griffith The law and the constitution*, Lawbook Co; which notes refinement of drafts on the Queensland Government ship ‘Lucinda’ not far from the Hawkesbury River Bridge by Sir Samuel Griffith and others. See also

⁸ Livingston K T (1996) *The wired nation continent* Oxford, page 163; see also Moyal A (1984) *Clear across Australia*, Nelson, Melbourne which outlines the challenges between 1 March 1901 and 1910 of merging six colonial post and telegraph services into one.

⁹ Quick and Garran (1901, 1976 edition) *The annotated constitution of the Australian Commonwealth*, Legal Books p169, p176 re vote 18 to 12, also p642-643

¹⁰ Section 51: (xxxii) the control of railways with respect to transport for the naval and military purposes of the Commonwealth; (xxxiii) the acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State; (xxxiv) railway construction and extension in any State with the consent of that State

A further vexing question at the Conventions of the late 1890s was that of railway rates and charges. Here, the strong competition between Sydney and Melbourne interests to secure Riverina trade “caused a series of long and critical debates.” This issue was in part addressed by further clauses allowing for the establishment of an Inter-State Commission, and Section 92 of the Constitution requiring trade between the States to be ‘absolutely free’.

You can see that the situation in 1897 for rail had changed from what Parkes had envisaged in 1891 that control of railways was to be for Commonwealth purposes.

The end result was not a good one. As seen 100 years later by former Prime Minister Paul Keating¹¹ “*The state centric nature of the Australian federation ... gave Australia a rail system which failed to meet the continental needs of the country.*”

2. Into the 20th century

Federation did confer some benefits to rail.

The first and foremost achievement was the completion in 1917 of a standard gauge railway from Port Augusta to Kalgoorlie. This work was noted by Burke¹² not only as “*the first great work of Australia’s Federation*” but for rail “*...an exhausting effort which successive governments could not improve on...*”

The new transcontinental railway had been spurred on in 1910 by another British Military officer, Lord Kitchener.¹³ However, despite a recommendation made in 1921 by a Commonwealth Royal Commission into gauge standardisation, Kalgoorlie - Perth conversion had to wait until 1968.

This Royal Commission made many recommendations. Only two were taken up; new standard gauge links being built firstly between Kyogle and South Brisbane by 1930, and between Port Augusta and Port Pirie in 1937.

The stern lessons learned during World War II¹⁴ of the cost of multiple gauges led to a further rail inquiry. Here, Sir Harold Clapp’s 1945 ambitious report had three main elements.¹⁵

- Firstly, gauge standardisation of all Victorian and South Australian broad gauge lines as well as standard gauge access to Perth and from Port Pirie to Broken Hill.
- Secondly, construction of a railway linking Bourke in New South Wales to near Mt Isa in Queensland and onto Darwin.
- Thirdly, based on good North American practice, modernisation of the railways.

His recommendations on all three fronts were thwarted by narrow state interests.

Following a Privy Council decision in 1954 that boosted interstate trucking at the expense of the railways, two federal Parliamentary committees were formed in 1956. One, of Government members, was called the Wentworth committee after its Chairman, Bill Wentworth. The second Committee was of opposition members.¹⁶ Both Committees strongly supported three gauge

¹¹Paul Keating “... a big strike for rail but an even bigger strike for the country” to mark the tenth Anniversary of Melbourne Adelaide Rail Gauge Standardisation. *Railway Digest* July 2005, page 29

¹²Burke, D. (1991) *Road through the wilderness*, UNSW Press. This notes railway agreements with the South Australia and Western Australia and the Commonwealth *Kalgoorlie to Port Augusta Railway Act 1911*.

¹³Fischer T (2011) *Trains Unlimited* ABC Books which notes (p169), inter alia, Kitchener’s concern about break of gauge and that the Australian railway system would favour an enemy more than the defenders

¹⁴The no fewer than 11 breaks of gauge required an annual average transfer of about 1.8 million tonnes of freight to be transferred during WWII (peaking at 2.3 million tonnes), and added immense costs to the War effort (Brigadier L.G. Binns, as cited, Appendix 1, Government Members Rail Standardisation Committee (1956) Report).

¹⁵Harding, E. (1958) *Uniform Railway Gauge*, Lothian Publishing, Melbourne, Stevenson, R. (1987) (footnote 6) and Laird (2005) *The legacy of Sir Harold Clapp*, *Railway Digest* (NSW ARHS) July p34-38.

¹⁶See, for example, Laird P *A half-century of highway subsidisation – or 50 years after Hughes and Vale* *Railway Digest*, November 2004 p 26-29 and *The Wentworth and ALP standardization reports* *Railway Digest*, November 2006 p 35-40. The formation of the two Committees was also prompted by a meeting held in January 1956 by the Australian Institute of Political Science leading to a book *Australia’s Transport Crisis*. Plus a call by Mr. Malcolm Fraser MHR

standardisation projects: Albury to Melbourne, Kalgoorlie to Perth, and Broken Hill to Port Pirie. They were completed during the 1960s.

Since then, progress in further gauge standardisation has been slow.

Notable efforts to improve the rail situation were made during the 1970s by the Whitlam Government. One initiative was an offer by the Commonwealth to each of the states to take over their non metropolitan railways. This offer was made under the Constitution and was only taken up by South Australia and Tasmania. This led to the formation of the Australian National Railways Commission. The relevant legislation was signed into law, on 10 November 1975, just one day before the dismissal of the Whitlam government.

Australian National worked hard to improve the efficiency of its rail freight operations. Denied federal funds, Australian National then raised its own loan funds to convert Adelaide - Port Pirie to standard gauge in the early 1980s. This gave interstate rail freight a chance to survive in Australia.

Further Whitlam initiatives included legislation for the construction of the Tarcoola - Alice Springs line and the allocation of federal funds to improve urban public transport. There was also a move to establish an Inter-State Commission. When operating during the 1980s, this Commission did much to set the scene for improved interstate rail freight operations, and led to inter-governmental agreements to establish a National Rail Corporation in 1992. Later, an Australian Rail Track Corporation or ARTC was formed.

The ARTC has worked to allow rail freight to grow on the East West corridor linking Melbourne to Perth. In 2004, after protracted negotiations with the NSW government, the ARTC took a long term lease of the NSW Hunter Valley track and the NSW interstate mainlines. The ARTC has worked hard to try and improve the NSW Main South and North Coast track and signal systems.

However, it was only in 2008 that an outmoded signalling system between Casino and Brisbane was replaced by modern Centralised Traffic Control, or CTC. This was long overdue and in fact by 1966, CTC had been installed between Auckland and Wellington in New Zealand.¹⁷ Up to 2008, the extra costs imposed on Sydney Brisbane rail operations by this failure of federation to install CTC during the 20th century amounted to about \$2 million per annum.

3. Role of the States

Under the constitution, the States were left with the major role in rail development. Urban rail achievements during the 20th century include electrification of Melbourne's trains in 1919 followed by Sydney in 1926, and, over 50 years later, Brisbane in 1979.

Perth's urban rail system,¹⁸ which was destined for closure 30 years ago was retained, expanded almost four fold, upgraded and electrified. The result has been outstanding, with patronage since the early 1980s having grown nine fold to nearly 59 million passengers last financial year.

For intercity rail, notable achievements include the introduction in 1937 of the Melbourne - Albury Spirit of Progress as the finest and fastest train in the Southern Hemisphere. Also of note is the Queensland tilt train with speeds up to 160 km per hour starting in 1998 on tracks straightened for faster freight trains. This was followed by Victoria's Regional Fast Rail, also with trains moving up to 160 km per hour, over upgraded track.

(Vic, Lib) for a national transport plan and to overcome anomalies "...created by the break in railway gauge in the various States."

¹⁷ From 30 year old Federal Cabinet records, Casino - Brisbane CTC signalling had also been proposed and rejected for limited federal loan funds under the *National Railway Network (Financial Assistance) Act 1978*. The cost estimate is based on traffic data and estimates of stopping a freight train (then \$104) to exchange a staff (Michell M and Laird P *Smooth running - a route of cost reduction*, 2002 Conference on Railway Engineering, Wollongong Proceedings page 227-237)

¹⁸ Perth's rail electrification, like Brisbane and Central Queensland was at 25,000 volts AC as opposed to the older 1500 volts DC system in use in Melbourne and Sydney.

For freight, world best practice in rail operations are demonstrated by the iron ore railways in the Pilbara Region of Western Australia. These railways go back to the 1960s and have since been upgraded to handle escalating exports. They now move over one million tonnes of iron ore each day and support export earnings amounting to \$1 billion per week- keeping Australia prosperous at a time of global recession!

The movement of this iron by rail can take place in trains with over 300 wagons, with world record energy efficiency. Here it takes just $\frac{3}{4}$ of a litre of diesel fuel to move one tonne of iron ore 426km from Mt Newman to Port Headland and bring the empty wagons back.

As it happens, Pilbara iron ore railways are built and operated by the private sector. In addition, the electrification of the Central Queensland railway in the late 1980s by the Queensland Government led to further world class operations, albeit on narrow gauge. At its time, it was the largest electrification project in the Western world. Today, it saves over 200 million litres of diesel a year and supports one of the world's great coal export supply chains.

More recently, the Northern Territory with the support of the Government of South Australia, the Commonwealth and the private sector completed in 2003 the Alice Springs to Darwin rail link.¹⁹ Over 1400km in length, the line was constructed in a record 29 months at less than \$1 million per km - again demonstrating that Australia is up to the task of building good railways in a cost effective manner.

As noted by former Deputy Prime Minister Tim Fischer²⁰, freight traffic on the line has increased fivefold since it opened.

Despite some gains, the States have set back rail development in Australia. Two of many examples will have to suffice. Firstly South Australia's aversion to standard gauge over many decades leading to delays and extra costs. Secondly, the failure of the NSW and Victorian governments in 1980 to take up an offer of the Fraser government to electrify the Sydney - Melbourne railway.²¹

4. Some warning signs

By the late 20th century there was ample evidence that all was not well with railways - particularly in New South Wales.

As seen in 1989 by a House of Representatives Committee "*...The plain fact is that a greatly increased amount of freight could be carried across the continent by rail more efficiently and with greater safety than it ever could be by road. ... If rail were more efficient and carried the amount of freight it should, lives would be saved, less non-renewable resources would be used and less pollution would be generated.*"²²

As seen in the year 2000 by the Deputy Chairman of the same Committee, Mr Colin Hollis MP, (on 1 June in Parliament) there was a need for a national transport policy "*instead of this piecemeal state-centric nonsense that passes for transport policy in this country.*"

¹⁹ This railway, agreed to by the Commonwealth in 1908, and long delayed over the decades, was commenced by Prime Minister Fraser in the early 1980s and stopped in 1983 by Prime Minister Hawke. It was ultimately revived due to the persistence of each Chief Minister of the Northern Territory and the strong support of the Government of South Australia.

²⁰ Fischer T (2011) *Trains Unlimited* ABC Books, p189

In addition, the Chief Minister, Paul Henderson, of the Northern Territory Government (personal communication, letter 19 July 2011) notes that the new railway has provided "immediate economic benefit" and facilitated a number of new mining projects; also a 2008 study has found that "...economic benefits of \$211 million were derived between 2004 and 2008 ... also future benefits from 2009 to 2015 of \$548 million are expected.

²¹ Michell M *Great Railway Setbacks of the 20th Century*, Railway Digest, April 2001

²² House of Representatives Standing Committee on Transport, Communications and Infrastructure (HORSC Transport etc 1989) *Rail: Five systems, One Solution* Canberra This Committee called for a national approach and noted that "... Rail has been starved of funds and rendered inefficient."

In 2007, with yet another inquiry²³ the then chairman of the Committee, Mr Paul Neville MP said (on ABC Radio 4 February) “*We know that the freight task is going to double in the next 20 years, and because of that, our roads will become totally and utterly congested if we don’t do something serious about rail in that time.*”

The Committee also found that “... *the greatest need for Australia is the reconstruction and realignment of the main freight networks.*”

The track between Australia’s two largest cities of Sydney and Melbourne is at least 60 kilometres longer than it needs to be, and has excessive curvature. In fact, between Campbelltown and Junee, trains twist to the left some 31 circles and have to twist to the right another 31 circles.²⁴ The 260km of track with substandard alignment and sharp curves could be replaced by construction of some 200km of new track at five locations to modern engineering standards. This would speed up all trains and save fuel.

Between Sydney and Brisbane, through Grafton, the curvature is even worse. This reflects the original branch line nature of over 600 km of this track. Excessive length could again be reduced with track straightening. Quite simply, the tracks linking Australia’s three largest cities “... *are inadequate for current and future needs.*”²⁵

The substandard nature of this interstate track reflects decades of neglect. Such neglect was also suffered by the interstate road system until the National Highway System was put in place by the Whitlam Government. In the 30 years from 1974 to 2004, in 2004 dollars, some \$24.6 billion of Federal funds was used to upgrade the interstate highways. However, the net federal interstate rail allocation over these 30 years was about \$2.2 billion; a ratio of some eleven to one in favour of interstate highways.²⁶

5. The costs of a substandard rail system

At Federation, in 1901, except for the break of gauge, Australia had a good rail system for a large country of less than 4 million people. However, Australia’s state-centric rail system is no longer fit for purpose.

For the first half of the 20th century, trains and trams were the dominant ways of moving people within our larger cities. Since 1950, the use of cars has grown almost tenfold. As a result, Australia is now excessively dependent on road transport, whilst Sydney is choked by cars and buses.

In addition, Australia now has the highest amount of road freight per capita in the world.

A lot of this road freight is moving interstate. Each day, there are over 3000 trucks on the Hume Highway moving freight. These trucks move over 10 million tonnes of freight each year between Sydney and Melbourne whilst rail moves less than a million tonnes of intermodal freight between Australia’s two largest cities. Between Sydney and Brisbane, over 6 million tonnes per year is moved along the Pacific Highway and with less than one million tonnes per year by rail.

²³ HORSC Transport etc (2007) *The Great Freight Task: Is Australia’s transport network up to the challenge?* This report again noted, inter alia, a need for a national approach. Plus more investment.

²⁴ Laird P (2008) *East coast mainline rail track: options for 2014* Conference on Railway Engineering Perth Proceedings pp 357-368

²⁵ Len Harper, Chartered Institute of Logistics and Transport *The major task of increasing rail traffic on the East Coast* Track and Signal Oct-Nov-Dec 2008 (p9-13). This assessment is supported by earlier Engineers Australia Infrastructure Report Cards.

²⁶ Laird P Adorni-Braccisi G and Collett M (2004) *Australian land transport - is it sustainable ?* Towards Sustainable Land Transport Conference, Wellington New Zealand. See also Senate Rural and Regional Affairs and Transport Committee (2009) Inquiry into the investment of Commonwealth and State funds in public passenger transport infrastructure and services. Over the 30 years to 2004, federal funds for all roads were about \$58 billion, and for all rail \$4 billion; a ratio of over fourteen to one.

The 2010 National Assembly of Local Government called, inter alia, (Strategic Resolution No: 42 That the Australian Local Government Association lobby the Australian Government to address the state of under investment in the National Rail System through the formation of a Government Authority for Rail. nga.alga.asn.au/event/2010/publications/Resolutions_2010v2.pdf

Branch line closures and deficiencies are putting more freight on road. One current example is with New South Wales grain transport. Here, as recently seen by *The Land*,²⁷ ‘Third world’ branch lines are driving freight on to the roads.

Our road vehicle use comes at a high cost. Firstly, over \$15 billion a year is now expended by Australia’s three levels of government on road construction and maintenance.²⁸

Secondly, putting over one million new vehicles on the roads each year costs over \$20 billion a year.

Thirdly, over 1300 lives are lost each year from road crashes in Australia. Coupled with other road injuries, the cost of road crashes has been conservatively estimated at \$18 billion a year.

The total cost of road vehicle operations, including the fuel they use, buying and maintaining the vehicles, road works and road crashes, is broadly estimated at about \$150 billion a year.²⁹

There are numerous other hidden costs of road vehicle use, including health impairment from motor vehicle emissions, estimated at over \$4 billion a year. In regards to hidden costs, Prof. John Stanley³⁰ has estimated, after taking into account fuel excise and annual registration charges, but not including road congestion, a ‘road deficit’ of \$14 billion a year. This compares with an older estimate of a road deficit of Prof. Peter Newman and myself³¹ of \$8 billion a year of hidden subsidies. Under current road pricing, road deficits are increasing.

Road congestion costs are now in the order of \$10 billion a year.

These road deficits include a ‘road freight deficit’ of at least \$3 billion per year.³² About half of this amount is unrecovered road system costs from the operation of articulated trucks. The other half is due to the involvement of such heavy trucks in road crashes coupled with other environmental and social costs.

6. Oil Vulnerability

A major input into road vehicle use is that of liquid fuel. During 2010, cars, buses and trucks used about 31 billion litres of petrol, diesel, and LPG. By way of contrast, rail used less than one billion litres of diesel a year for a smaller passenger task but a larger freight task than road.³³ Rail also uses electricity, produced mostly from domestic coal, with an oil equivalent of about 1.2 billion litres per year.

In 1998, the Chartered Institute of Transport issued a sternly worded warning that cheap oil would not last forever and that ‘More of the same’ in our current transport plans is no longer tenable. The next year, the Institution of Engineers, Australia issued a well researched call for transport reform.³⁴

²⁷ Report, *Call this a rail system? - ‘Third world’ branch lines driving freight onto roads* *The Land*, 11 August 2011, re round table conference held by the Independent Pricing and Regulatory Tribunal (IPART) as part of its review of access pricing on the NSW grain rail network.

²⁸ Bureau of Infrastructure, Transport and Regional Economics (BITRE) (2011) Information Sheet 40 - Public Road-Related Expenditure and Revenue in Australia

²⁹ Allen Consulting Group (1993) *Land transport infrastructure, maximising the contribution to economic growth*, Australian Automobile Association, Canberra estimated these costs at about \$80 billion per annum. From GDP data at <http://www.rba.gov.au/statistics/tables> this was about 11 per cent of GDP. This is now about \$150 million per year.

³⁰ Australian Financial Review, 24 January 2011 *Roads lobby has it all wrong*. See also <http://www.mtf.org.au/Events-MTF/Transport-of-Economics-Forum-June22nd-2010.aspx>

³¹ Laird P Newman P Bachelors M and Kenworthy J (2001) *Back on Track: Rethinking Transport Policy in Australia and New Zealand* UNSW Press

³² Laird P (2006) *Freight transport cost recovery in Australia*, Australasian Transport Research Forum. The Henry Tax review in 2010 had a number of recommendations that if implemented would see an improvement in road pricing for heavy trucks.

³³ Australian Bureau of Statistics, Canberra (2011) *Survey of Motor Vehicle Usage for 12 months ended 31 October 2010. Cat. No. 9208.0* and Australasian Railway Association Australian Rail Industry Report 2010. Earlier SMVU data notes that in 1991 Australian road vehicles used about 21 billion litres of fuel and in 2001, about 26 billion litres.

³⁴ Chartered Institute of Transport (1998) statement from their 1998 National Symposium and Institution of Engineers Australia (1999) *Report on Sustainable Transport*

In 2002, the Secretary of the Australian Treasury, Dr Ken Henry³⁵ noted that projected increases in urban traffic and interstate road freight raised “important issues”; also “*Not dealing with these issues now amounts to passing a very challenging set of problems to future generations.*”

Despite these warnings, the growing use of oil in road transport and the cost of oil imports was of little apparent concern to government. In 2004, oil prices were rising, yet there were government forecasts that oil could be expected to drop back to \$20 a barrel. However, by mid 2008, oil prices had peaked at about \$146 per barrel. With the global recession, oil prices have since receded to now about \$80 a barrel and a case can be made³⁶ “*that petrol prices are likely to be restrained in this decade.*”

On the other hand, as the current global recession lifts, oil prices could really escalate. Two recent books from Canada give information on oil vulnerability and suggest a need for rethinking transport policy.³⁷

A further concern to oil vulnerability is climate change. The diversion of passengers and freight from road to rail would not only reduce the use of imported oil but also reduce greenhouse gas emissions.

In this regard, the 2008 Garnaut climate change review observed³⁸ that “*Governments have a major role in lowering the economic costs of adjustment to higher oil prices, an emissions price and population growth... Mode shift may account for a quarter of emissions reductions in urban public transport...*”

This could mean a reduction of fuel use by at least two billion litres per year.³⁹

Mode shifting 20 per cent of Australia’s road freight to rail would reduce diesel fuel use by over half a billion litres per year.

High Speed Rail, with intercity passenger trains capable of speeds of 250km/h works well in 12 countries around the world. High Speed Rail could well be viable between Brisbane, Sydney and Melbourne where it has the potential to reduce aviation fuel use by over a half billion litres a year.⁴⁰ However, High Speed Rail would take at least ten years for the first trains to start operation. In the meantime, there is no alternative but to upgrade our existing rail system.

It makes sense for Australia to follow the lead of New Zealand⁴¹ and other countries to reduce dependence on imported oil. This will require an upgraded rail system and improved road pricing.

7. What might have been

Suppose, as envisaged by Parkes in 1889, and again in 1926 by visiting British expert Sir George Buchanan,⁴² railways after Federation were under the control of the Commonwealth, as opposed to the States. How different would Australian railways be from what they are now?

³⁵ Henry K (2002) in an address to the ATRF and BTRE Colloquium in October 2002 accessed at www.treasury.gov.au

³⁶ Gargett D (2010) Petrol prices in Australia, Australasian Transport Research Forum (www.patrec.org)

³⁷ Gilbert R and Perl A (2010) *Transport Revolutions: Moving People and Freight without Oil* New Society Publishers, Gabriola Island BC Canada, and Rubin J (2009) “*Why Your World is to get a Whole Lot Smaller.*”

³⁸ Garnaut Climate Change 2008 review - Chapter 21 - ‘Transforming transport’ at <http://www.garnautreview.org.au>. Garnaut also suggested that various Governments may now like “*to examine why intercity passenger train services in Australia are inferior to those in European and high-income Asian countries, with a view to removing barriers to the emergence of high-quality inter-regional rail services in Australia.*”

³⁹ ABS SMVU shows passenger vehicles using 18.4 billion litres of fuel to move 164.4 billion km. Of this, 95.6 billion was in capital cities using at least 10.7 billion litres of fuel

⁴⁰ Laird P (2011) *Potential reduction in energy use from a High Speed Rail network in Australia* Australasian Transport Research Forum, Adelaide

⁴¹ New Zealand excise on petrol is 48.524 cents per litre (as of October 2010) and has been increased many times since Australia froze fuel excise indexation in 2001 at 38.143 cents per litre, also New Zealand has mass distance pricing for heavy trucks since 1978, works to get more freight onto rail and sea, and in 2011 committed \$36 billion over 10 years to road and rail upgrades

1. In line with the findings of the 1921 Royal Commission, it is likely that the gauge questions would have been resolved within a few decades.

As seen by Mr Whitlam (Hansard, 30 October 1956) *“If one authority were in charge of the railways, the break-of-gauge would be intolerable and the responsibility would swiftly be sheeted home to the appropriate Minister.”*

2. Cost shifting between the States and federal governments, and putting off much needed investment, in rail would have been avoided.
3. There would have been more balance between federal rail and road investment.
4. Commonwealth control of railways would have likely resulted in better quality interstate links meeting Canadian and US Class I railroad standards in terms of alignment, speed weight characteristics, clearances and signalling.
5. An inland route between Melbourne, Parkes and Brisbane,⁴³ would have been built during the 20th century. It is still to be built.
6. Early Commonwealth control of railways would have prevented the excessive diversity of locomotives and rolling stock. For all of the 20th century, these were made, at much extra cost, to different specifications.⁴⁴
7. The different management of interstate rail freight operations would have been addressed well before the early 1990s.
8. Privatisation of rail assets would have been better handled, in some cases, such as Tasmania, they were costly and failed experiments.
9. Rail deficits, which occurred during the second half of the 20th century, would have been much smaller.
10. Road deficits would have been reduced.
11. Less oil would need to have been imported.
12. The burden of operating trains under different State based safety regulators would have been lifted long ago. Only this year, in 2011, was approval given by the Council of Australia Governments, or COAG, for a national rail safety regulator.

As noted earlier this year by Federal Infrastructure Minister Albanese⁴⁵ *“It is 110 years since Federation ... yet ...on some issues it’s as if federation is as elusive as it was for Henry Parkes.”*

8. Making Federation work

One solution to problems of Federation on many fronts favoured during the early 20th Century was to establish more States. In 1939 Sir Isaac Isaacs considered that two reform options warranted attention. *“The first is the abolition of State Parliaments. The second while leaving State Parliaments undisturbed, to implement Commonwealth powers to meet modern circumstances.”*

⁴² Page, Sir Earle (1963) *Truant Surgeon*, Angus and Robertson, page 145. Sir George Buchanan was retained by the Bruce - Page government and found, drawing on overseas experience, that transport, which would include railways, main roads, major ports, shipping, pilotage and aviation, should be taken over by the Commonwealth Government and that a new department should be created expressly for the purpose of its administration.

⁴³ Day, D (2010) Andrew Fisher, Prime Minister of Australia. This book notes that an inland route was recommended by Prime Minister Fisher during the mid 1910s

⁴⁴ The Bruce Page government proposed joint Commonwealth mainland State uniform standards for the construction of railway lines and rolling stock, and gauge unification.

⁴⁵ Canberra Times 13 February 2011 *Opinion COAG Today to be Asked to Complete Federation Dream*
<http://www.minister.infrastructure.gov.au/aa/opinion/2011/index.aspx>

Greenwood writing in 1946⁴⁶ went further and found that “*Yet, despite its achievements, the evidence points decisively to the conclusion that the federal system has outlived its usefulness, ... and ... It is time to recognise that the federation should be replaced by a unified state.*”

Support for this view continues and it is costly to the nation to maintain the State governments with their present functions.⁴⁷ Today, the preferred option appears to be to make COAG work more effectively. However, even with some progress by COAG, a long standing Australian Transport Council of Ministers, and a National Road Transport Commission since 1992, transport reform continues to be unacceptably slow.

9. Where to now ?

In conclusion, although Federation has conferred many benefits, the failure during the 1890s to include railways along with defence and communications as a Federal responsibility has been costly to the nation. The railway gauge question, resolved in the late nineteenth century in Britain, Canada, the United States and New Zealand, still awaits resolution in Australia.

There is now a major back log of rail capital works on several fronts this decade. This demands a national approach rather than a State centric one.

If Parkes were living today as Premier or Prime Minister, he would urge that action be taken to give Australia a uniform railway gauge.

Secondly, Parkes would be concerned for Australia’s ability to respond to any threat from overseas and this would include a need to lessen dependence on imported oil. In turn, this will require:

- expansion and upgrading of urban rail in Sydney and other large cities,
- bringing mainline interstate track towards Canadian and US Class I railroad standards by straightening and strengthening the track with better clearances,
- residual gauge standardisation, particularly of broad to standard gauge
- rehabilitation of branch lines and completion of better rail links to ports,
- construction of an inland route, and,
- road pricing reform.

Some of these measures would be assisted by giving the Australian Rail Track Corporation a firm legislative basis for getting more freight and passengers onto rail.

In this regard, there has been a legislative basis for a National Highway System since 1974 with a federal National Roads Act.

Parkes would likely seek, in the absence of a total revision of the Constitution, a transfer all national transport functions to the Commonwealth. He would also press for adequate rail investment to remedy decades of neglect.

Only by such means will Australia finally gain a rail network fit for the twenty first century.

Professor Philip Laird PhD FCILT Comp IE Aust
School of Mathematics and Applied Statistics
University of Wollongong

⁴⁶ Gordon Greenwood (1946) *The Future of Australian Federalism*. Some 30 years later, Greenwood’s book was republished. In the 1976 edition, whilst acknowledging that he had earlier underestimated the degree to which federalism was entrenched, “*the central argument of the book has not been damaged but indeed has been strengthened by time.*”

⁴⁷ Drummond M (2009) Abolish the states and save \$50 billion, *The Order*, Summer 2009-2010. See also <http://www.asc.org.au>