

SUBMISSION TO THE SENATE STANDING COMMITTEE ON EMPLOYMENT, WORKPLACE RELATIONS AND EDUCATION BY DR DARYLL HULL¹

INQUIRY INTO WORKFORCE CHALLENGES IN THE TRANSPORT SECTOR

OVERVIEW OF THE TRANSPORT AND LOGISTICS INDUSTRY

The Transport Sector in Australia is defined by industry stakeholders as part of an emerging transport and logistics industry (the T&L industry). The transport industry has moved beyond its traditional narrow modal based perspective i.e. rail, road, maritime, aviation. There is now a more integrated, customer focused view of transport in all its forms.

This is now the position of key private sector organisations such as the Australian Logistics Council (ALC)².

While there is no single agreed definition of the T&L industry, it is sufficient for the purposes of this Submission to refer to the following:

“T&L is the movement of people and freight from one place to another for economic and social purposes”

There are many other definitions of the T&L industry, but they amount to the same thing. “Transport”, “T&L” and “supply chain” are differing forms of the same process.

This Submission therefore encompasses the following modes in the T&L industry:

- Rail
- Road
- Maritime
- Aviation
- Warehousing and Distribution
- Logistics, and
- Supply Chain

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² The ALC was established in 2002 by the then Australian Minister for Transport the Hon John Anderson as a forum of invited CEOs and senior public servants, in order to provide the Government with advice on T&L matters. It has concentrated on infrastructure, regulation, and capable people as its main areas of interest. www.austlogistics.com.au

The T&L industry in Australia constitutes 8% to 15% of all economic activity in the nation, depending on the measures used. It employs directly and indirectly approximately 450,000 to 500,000 people³.

The T&L industry is the key enabling industry in the Australian economy. No sector of the economy can operate without some attention being paid to T&L matters. It is the “glue” that binds the economy and the community together. Thus while it is a large employer and business sector in its own right; it is also central to the success of many other sectors e.g. tourism, mining, retail and more.

FREIGHT LOGISTICS AS A SPECIAL CASE

A great deal of work has been done to define the area of freight logistics as a key part of the T&L industry. It serves as another benchmark for many of the challenges facing the T&L industry in general. Here much work has already been undertaken by the Commonwealth Government:

“The Bureau of Transport Economics (BTE) conservatively estimates that in 1999–2000, freight logistics activities represented approximately nine per cent of Australia’s gross domestic product (GDP)—or \$57 billion. This is a broad estimate because it is difficult to determine the scope of increasingly complex freight logistics chains and the lack of industry data makes it difficult to quantify the sector’s significance. But it makes the freight logistics sector one of the biggest sectors in the Australian economy.

Approximately \$31 billion worth of freight logistics activities was performed in-house. The remaining \$26 billion represented those activities performed by the freight logistics industry, comprising those firms providing freight logistics services to private and government customers. Services provided by freight transport logistics operators accounted for \$23 billion while services provided by non-transport logistics operators totalled approximately \$3 billion.”⁴ (Freight Action Agenda 2002)

It is also in the area of freight logistics that most work has been done on the workforce challenges facing the T&L sector. The Freight Action Agenda, endorsed by the Australian Government in 2002, has the following to say on the matter:

“The Action Agenda considers that the biggest challenge facing the freight logistics industry is the need to establish a united industry view on issues of mutual interest. Freight logistics issues must be considered at a higher level than they are now. The traditional modal interests must be developed into a multi-modal view and combined with the interests of non-transport logistics.

³ The estimates for the T&L industry are difficult to gather because often neither the Australian or State governments collect information using the new and wider definition of “T&L”. They are often limited to modal information (e.g. rail), or broad based categories (e.g. ANZCO codes are generic with respect to occupations). This is one of the challenges in attempting to come to terms with the nature of the T&L industry and its trends.

⁴ Freight Action Agenda 2002

A united industry approach to freight logistics issues requires leadership. This will only eventuate if there is a cultural change across the whole freight logistics sector. Everyone engaged in freight logistics activities must come to understand that only by working together can the broader issues affecting the sector be clearly articulated and addressed. This culture change is also necessary to address the new drivers of economic success—knowledge and relationships.

The freight logistics sector must do more to raise the skills and knowledge of its workforce and adopt practices and technologies that transform information and experience into knowledge. There must be a greater understanding of the importance of developing the right skills and attitudes to foster better relationships with all those participating in freight logistics chains.

This need reflects the view that business connections are becoming less transactional in character and more based on relationships.

The freight logistics industry finds it difficult to attract young employees. As freight logistics is increasingly becoming a knowledge industry, the ability to attract well-trained and flexible staff is vital. Similarly, the increasing dependence on communications and information technology means the industry must also attract more school leavers and tertiary graduates. This reflects younger people's tendency to be more comfortable with the latest technological advances.

The freight logistics industry's inability to attract young employees is not helped by its image. When asked, few young people would nominate freight logistics as their desired career path— regardless of the financial rewards to do so. The image of freight transport as a dirty, nuts and bolts—or old economy—industry contributes to this perception. It is an impediment to attracting female employees in particular and significantly reduces the potential employee pool.

While attracting young employees is crucial to the industry's long-term performance, relying on youth will not be enough. The industry must also look to its current workforce. It must do more to invest in its people to make sure its employees develop the skills and knowledge that the industry needs. At the same time, the industry must also make sure it adopts best practice in occupational health and safety. This investment in its people needs to occur at all levels of the industry and needs to be increased significantly."⁵

⁵ Ibid.

THE T&L WORKFORCE IN GENERAL

Unlike some other sectors in Australia, the T&L industry is not a coherent and well organised industry. It is unable to present an integrated and progressive front to Government and the community. It is an emergent industry and as such has many diverse interests within it. There are many companies, for example, who regard the very idea of an “industry” as an academic concept. They see instead “competitors”.

To place this in perspective, consider that the mining industry in Australia has approximately 2,000 organisations in the public and private sectors and there are around 20-30 major corporates who manage the majority of the economic activity in mining sector.

The utilities sector (water and energy) across Australia has approximately 3,000 organisations and 100+ public and private organisations that control the majority of the economic activity of the sector.

The T&L industry nationally has in excess of 160,000 organisations, with the bulk of them employing fewer than 5 people. There is constant movement at the higher end of the corporate section of the T&L industry as organisations merge and acquire assets to consolidate the supply chain approach to transport and logistics. There are presently a handful of major public and major private organisations who dominate the T&L industry, but this number is rapidly changing over time.

One of the major issues in mapping workforce challenges in T&L is the dearth of reliable statistical information on specific aspects of the industry due to this complex and changing environment. The present ANZCO codes and data collection and reporting methods means that we have little or no information on particular segments of the T&L industry. The ABS gathers generic information e.g. “drivers” as a single occupational grouping.

Thus the T&L industry has unique challenges at every level. It is highly fragmented, geographically dispersed, and reliant on government for major infrastructure e.g. roads, railways, ports of all kinds. In NSW there are over 80,000 organisations of varying scale, location and differing technologies that comprise the T&L industry.

Coupled with these factors, the freight sector of the T&L industry has traditionally worked on very thin margins – around 2% in most cases. Volume is the key to success, and this comes at a price in terms of overheads, fuel, people and regulatory costs.

Private T&L companies are very territorial and highly competitive amongst themselves. They carry this mentality into relationships with customers and suppliers. It makes for an interesting mix of business models, management attitudes and employee behaviours.

For example, there are over 120 associations and groups who claim to represent some or all of the industry's interests. The average membership of these groups is usually less than 500⁶.

The T&L industry is thus an emerging industry and hard to classify, yet it is a critical enabling industry in the economy. At the heart of this vital industry are its people. At the core of the people are their skills and capabilities. This is not an industry with a well organised skills development culture.

The best evidence we have indicates that the industry spends in the order of \$1 billion per year on education and training⁷. In this expenditure approximately 50%, or \$500 million, is spent in non accredited areas i.e. not spent on AQF vocational courses or at Universities.

The certification spend (licensing, compliance work) is approximately \$200 million, the vocational spend is around \$150 million (at TAFE colleges or with private Registered Training Organisations – RTOs), and the higher education spend is around \$50 million.

These numbers are disturbing because of the high rate of expenditure in non-accredited programmes and the relatively low rate of spend in higher education. They make sense, however, within the context of the learning demographic in the T&L industry.

Approximately 50% of the entire T&L workforce of 500,000 has no post school education at all, 30% have some form of vocational training, and 20% have some higher education qualification⁸. This is an industry that has relied on relatively undereducated/underqualified people to move people and freight around the nation and the State. Training and continuing education have not traditionally been seen as a high priority.

Over the past decade the number attending higher education in national T&L related courses has risen from 2,500 to 8,000; and the number attending vocational courses at TAFE and other providers nationally has risen from 35,000 to over 90,000⁹. These are significant increases, but below the NSW and national average. More work needs to be done at the national level to promote T&L courses at both higher education and vocational institutions, amongst employers in both the public and private sectors.

⁶ TALC commissioned research, 2006

⁷ Research undertaken by the NSW Transport and Logistics Centre of Excellence in 2002, and updated for inflation to 2006 baseline.

⁸ TDT Australia, 2006

⁹ TALC, commissioned research, 2006

VOCATIONAL TRAINING

One of the main challenges in training in T&L is the low completion rate of TAFE courses by students. With a completion rate of less than 20% across all registered vocational courses. NSW stands out against the trend in this regard; having a 54% completion rate in T&L related courses in 2005. However, the fact that nationally so few young people actually complete their TAFE courses should be a cause for concern.

The reasons for this failure to complete are various, but one of the main reasons postulated appears to be that students only attend courses to gain the specialised knowledge they need from one or two units in a full course, and then they return to work. If this is the case, then the Federal Government must demonstrate greater support for the Australian Qualifications Framework (AQF) and its application in T&L organisations. "Cherry picking" will not provide a sound educational base for people at work.

On the other hand, vocational training needs to be delivered flexibly, accessible for shift and regional workers and adequately funded for industry defined, compliance outcomes (all providers, in addition to qualifications).

HIGHER EDUCATION

There were approximately 8,000 students across Australia in higher education in T&L related courses in 2005 within a general university student population in excess of 900,000¹⁰.

We also know that of the 8,000 T&L students enrolled at university; approximately 50% are international students who are unlikely to remain in Australia after the completion of their studies. This indicates that the total number of students in T&L related courses in Australia who are likely to be available for work in the industry may be as low as 4,000. This is unlikely to meet industry's needs in the coming decade. This is especially difficult when we consider the 3 to 4 year time lag associated with completion of university degrees.

Of the 26 Universities who offered the 220 courses in T&L in 2006, only 7 are prepared to accept TAFE Diplomas as immediate entry in undergraduate programmes, and to offer any credit for these Diplomas. The bulk of the Universities offer qualified entry and case-by-case credit¹¹. Some indicate that they would not recognise TAFE qualifications under any circumstances. They hold to the view that TAFE Diplomas are often not up to higher education standards in terms of curriculum, teaching and assessment.

This means that the available pool of vocationally qualified people in the T&L industry are finding it difficult to move up to further studies, to fill the need for university trained staff in a range of specialised areas.

¹⁰ What is not known is the number of students in general courses e.g. Arts and Business who intend to make a career in T&L at some later stage.

¹¹ TALC, commissioned research, 2006

This also delays and frustrates students who are endeavouring to upgrade their qualifications. It makes the gaining of skills and learning in a busy environment more difficult. In some occupations e.g. rail signal engineering it means an exodus of qualified rail signal electricians from the rail industry because they are unable to upgrade their qualifications to improve their career prospects.

EDUCATION AND TRAINING – AN INDUSTRY VIEW

The ALC is clear in its understanding of the challenges presented by figures such as those presented here:

“ALC Statement November 2006:

- We are a labour intensive industry at a time of national labour shortage
- It is true that the overall size of the T&L task is continuing to grow and to outstrip GDP growth
- It is often overlooked, however, that as well as solid, sustained growth, the task itself is becoming more complex and demanding. This is driven by customer expectation, made possible by technology.
- This all means that we need better skilled people in greater numbers.
- We also operate on very thin commercial margins so are limited in pay and conditions growth.
- We need to work quickly to deliver “Safe T&L” and to take practical and effective steps to improve our image and our performance
- Our recent research (underwritten by TALC) confirmed that logistics is not even thought of when career seekers start their hunt. Added to this is the challenge that the T&L task, if done well, is invisible. It happens quietly in the dead of night with minimal environmental impact. The shelves are fully stocked when the customers arrive in the morning and few stop to wonder how it happened.

This all means the challenge is to:

- Lift the profile and community understanding of T&L (branding etc)
- Increase the recognition of the contribution made to the economy and the community
- Increase the influence and priority that the industry attracts in government decision making and resource allocation
- Drive improvement in the performance of the industry on key issues such as pay, safety, career structures, equity target group representation, immigration etc
- Establish learning and skilling that is more effectively driven by the needs of industry and the emerging demands of integrated logistics domestically and internationally

- Work to ensure people don't drop out of the system i.e. cross over points, innovation, mentoring etc "¹²

The ALC went out its way in 2006 to highlight the importance of workforce issues in its action plan for that year:

"Priority 2 – 2/06 Capable People

The Issue

The logistics system must have the right people, well led, with the right skills in the right numbers and in the right place at the right time to work. Indeed investment in infrastructure must be matched by investment in people. The logistics system requires sufficient numbers of capable people in employment and in training.

The objectives and targets

- Continued efforts at a whole of logistics level are needed in 2006-07 to ensure:
- Job seekers join the sector in sufficient numbers and with the requisite knowledge and skills and career paths
- Industry is consulted in the development of curriculum at secondary and tertiary levels
- Work takes place in a safe and secure environment
- The understanding and profile of Transport and Logistics in the general community is improved
- Research and support for innovation continues to develop strongly

Specific actions in 2006-07

In regard to Careers – Attraction and Retention

- Improve the level of general understanding and the image of Transport and Logistics (T&L) through leadership of national industry branding initiatives
- Provide a forum for the sharing and dissemination of promotional materials and projects to minimise duplication and maximise co operation.
- To provide input to the (ALC) Data Working Group with specific reference to Career Related data definitions and information requirements.
- Development of consistent, positive and accurate public media articles focussing on opportunities and achievements of individuals in Transport and Logistics

¹² ALC 2006 Report to Council

In regard to Education, Skills, Innovation and Research

- Identify and lead actions to improve 'cross over points' and transition points in education and skills development such as
 - Between School and TAFE
 - Between TAFE and University
 - Between Study and Work
 - Between generalist skills and qualifications and specialist logistics
- Support focused research into priority areas for logistics
- Identify and lead concrete actions to improve the practical success for innovation in logistics
- Support knowledge sharing across logistics

In regard to Safety (Occupational, Environment, Management System)

- Identify and promote best practice safety in logistics
- Promote adoption of a National Charter for Safe Logistics
- Manage and promote the National Operating Guidelines for Retail Logistics

Related 2005 Position Statements: 1/05, 2/05, 3/05, 6/05

Related ALIS recommendations: 11, 12, 14-16, 20¹³

At its most recent meeting in Perth in 2006, the ALC emphasised and supported the following aspects of the February 2006 Council of Australian Government (COAG) Communiqué on Human Capital as most relevant to T&L organisations. They were regarded as most critical, and most urgent in the opinion of the ALC members:

- The need to assist to increase the proportion of young people meeting basic literacy and numeracy standards, and improve overall levels of achievement
- The effective implementation of full mutual recognition of skills qualifications across the T&L sector
- Portability and recognition of skills and training
- Supporting strategies for dealing with skills shortages in regional areas

¹³ Ibid.

EMPLOYMENT AND WORKFORCE CHALLENGES IN T&L: WINNING THE SKILLS BATTLE WHILE LOSING THE KNOWLEDGE WAR

As noted previously, the T&L industry in Australia employs over 450,000 people and contributes over 10% of national economic activity. It is a key enabler of the entire economy.

It is an industry that faces a number of long term internal competitive pressures:

- Need to cope with the demands to skill up workforce participants in an environment of increasing workforce mobility between careers, organisations and between and within industries;
- Failure of the sector to attract and retain new people to the industry from schools and elsewhere at levels necessary to replace the number of people leaving in the next ten years;
- Potential loss of industry and corporate knowledge resulting from the ageing of the existing workforce;
- Need to transport knowledge and information across sector and organisational boundaries so that industry may benefit from best practice and industry research and development; and
- Fragmentation within the transport and logistics industry that has disturbed or broken networks of knowledge transfer between generations in the workforce and within organisations.

Training more people is not the answer to these challenges. In addition to building students numbers over time, TALC believes that targeted programmes are needed to address the crisis in industry capability.

THE TRANSPORT AND LOGISTICS CENTRE (TALC) – AN INNOVATIVE RESPONSE TO THE WORKFORCE CHALLENGES IN THE T&L INDUSTRY

TALC was conceived and developed jointly in 2003 between the then NSW and Federal Ministers for Transport. It was jointly funded by both the NSW and Federal Governments in accordance with a Memorandum of Understanding (MOU) signed in 2005. A one-off grant of \$8 million was provided for the work.

It was conceived and designed to “prime the pump” in workforce capability matters on behalf of the T&L industry, firstly in NSW and later across Australia. It was not intended to duplicate existing education and training programmes, but to create new ways and means of building capability across the T&L sector in NSW and Australia.

Thus TALC does not duplicate, but supports the work of groups such as:

- National Industry Skills Councils e.g. TDT Australia, Industry Business Skills Council (IBSA)
- Various technical Universities and vocational providers (there are over 26 Universities and 1,000 RTOs servicing the T&L industry in Australia)
- The Australian Logistics Council (ALC) – the national forum of senior industry representatives
- Freight Councils in each State, each with its own particular programmes e.g. LINC in South Australia as a jobs and career on-line search engine
- Various national and local industry Associations e.g. the Chartered Institute of Logistics and Transport in Australia (CILTA), the Australian Trucking Association (ATA), and Australasian Railways Association (ARA)
- Various State Government groups in different locations e.g. the Industry Capability Branch in Queensland Transport, the Victorian Transport and Distribution Roundtable

THE AUSTRALIAN TRANSPORT UNIVERSITY PROJECT 2002-2003

TALC commenced as a project in late 2002. It was then called “The Australian Transport University (ATU) Project”.

It was conceived as a response to identified medium and long threats to the ability of the transport industry to perform efficiently into the future due to (1) the effects of an ageing work force and loss of knowledge, as well as (2) fragmented education and training responses across transport agencies.

The project was initially established to:

- Provide an integrated approach for the identification, design and delivery of programs to improve work force capabilities across the NSW transport agencies;
- Explore new methods of learning and development, knowledge creation, retention and sharing between transport agencies and the broader transport industry; and
- Identify and assess options to improve training and education within the transport and logistics industry, including consideration of the establishment of an educational institution for the industry.

The ATU Project was endorsed in principle during 2002 and 2003 by both the Australian Logistics Council (ALC) and the Australian Transport Council of Ministers (ATC).

The ATU Project evolved during late 2002 and early 2003 following sector wide consultation with industry. Over 150 business and government organisations and 400 key individuals were engaged in the process. It was agreed that the ATU Project should become a staged process based on a level of facilitation and networking of existing education and learning institutions¹⁴.

A national advisory board for TALC was also created in the MOU between NSW and the Federal Governments in 2005. It comprised:

- Association of Ports and Marine Authorities
- Australasian Railways Association
- Australian Bus and Coach Association
- Australian Council of Trade Unions
- Australian Institute of Export
- Australian Logistics Council
- Australian Shipowners Association
- Australian Trucking Association
- Chartered Institute of Logistics and Transport
- Department of Transport and Regional Services
- Director of the TALC
- Logistics Association of Australia
- New South Wales Ministry of Transport
- TOLL Holdings (added in 2006)
- Transport and Logistics Industry Skills Council - Transport and Distribution Training Australia
- Transport, Distribution and Logistics Industry Round Table (VIC)

ALIGNMENT WITH THE AUSTRALIAN LOGISTICS COUNCIL (ALC) AND OTHERS

In order to meet the requirement of the Federal Minister that all programmes had national application, TALC entered into an informal cooperation agreement with the ALC in 2004. The key action programmes of TALC and the ALC have been aligned.

The ALC is a Member of the TALC Industry Advisory Board, and the Director of TALC is on the Executive of the ALC as Chair of the Education and Skills Development Group. This has turned the Centre into the “engine room” of the ALC in people development, skills and innovation.

TALC has also entered into informal cooperation agreements with State agencies and industry groupings in NSW as well as in Queensland, South Australia and Victoria; with the TDT Skills Council; the Victorian Transport and Logistics Roundtable; various Freight Councils and key national industry associations. These groups are both a source of ideas and funds; as well as co-deliverers of the Centre’s programmes.

¹⁴ The idea of a national T&L higher education institution remains on the agenda for TALC, and is still seen by TALC as the best “Olympics style” response to an emerging crisis in the workforce education and training arena in Australia.

GETTING RUNS ON THE BOARD – TALC IN ACTION

MISSION

TALC works with industry and government authorities to build capability across the national transport and logistics industry through a combination of:

1. Development of education and training strategies and initiatives to support and enhance competencies
2. Development of strategies to assist industry to attract, recruit and retain staff, and
3. The design of strategies to assist industry in creating, sharing and sustaining modal, organisational and individual knowledge.

PROGRAMMES

TALC has developed a number of initial programmes designed to facilitate a change in the industry over time. These programmes have been created after industry consultation, research and reflection.

SCHOOLS AND TRAINEESHIPS

The TALC “Attract, Recruit and Retain Staff” strategy has a strong focus in the secondary schools area. It is actively guided and supported by a Reference Group of Industry and Education representatives including:

- NSW Air Freight & Sea Freight Councils
- TAFE NSW, Shipping Australia Ltd
- New South Wales Road Transport Association
- Logistics Association of Australia (LAA),
- Catholic Education Office
- New South Wales Department of Education and Training
- Rail Corp
- NSW Bus & Coach Association
- Australasian Railway Association Inc
- Australian Aviation Council (AUSAC)
- Australia Post.

Adopt-A-School

Under the “Adopt-a-School” banner the TALC matches schools with T&L businesses to offer students a varied and rewarding career start. TALC engages the schools and businesses through the Federal Department of Education, Science and Training Career Advice Australia Scheme, incorporating the best practices achieved by independent T&L Adopt-a-School activities.

TALC established liaison points across the country with parties successfully implementing or piloting Adopt-a-School strategies, including:

- Toll Group
- Walkers Removals
- Roadmaster
- Port of Melbourne
- SHIFT S.A.,
- Forstaff Engineering
- Queensland Transport & Logistics Careers Forum

The dynamic flexible nature of Adopt-A-School approaches has encouraged a diverse range of activities and engaging T&L companies (e.g. Road Transport firm Roadmaster utilise Site Visits, Work Experience, Structured Workplace Learning, School Awards, Enterprise Projects and New School Website Developments via a variety of primary & secondary school partnerships).

This flexibility is seen by TALC as a key to encouraging the industry to participate via relatively low cost activities with high potential return both for the businesses and the industry overall.

This has been picked up by Local Community Partnerships and Group Training Companies (GTCs) working with TALC (e.g. "Try-A-Trade" piloted by Central West Group Apprentices and utilised by Sydney Training and Employment across Canterbury Boys High School Year 9-12 groups to include aptitude testing, interviewing of students, and OH&S White card training prior to external work experience).

T&L employers can also see benefit in directly engaging schools in the operations of their business as part of interactive Adopt-A-School mechanisms (e.g. My Freight Career (leading supplier of new trained Freight Forwarders across Australia) educating secondary students via a Customs, Quarantine, Airport & Port excursion incorporating Freight Forwarding documentation with further opportunities for work experience and traineeships in 2007).

TALC is also supporting state-wide initiatives within the secondary schools system to highlight to students the nature and challenges of the T&L Industry. In 2007 the 2nd Round of the Premier's Debating Challenge for Years 9 & 10 will feature topics exclusively centred on T&L. TALC have developed and distributed '*Transportunity*', a guide (running sheet) to establishing Adopt-a-School activities within T&L industry¹⁵.

Overall, Adopt-A-School is proving to be an effective relationship tool with strong positive outcomes for all parties - students, school, and business; aligned with enhanced community/social outcomes.

¹⁵ www.talc.com.au

Traineeships & Apprenticeships

The Traineeship and Apprenticeship Programme encourages the industry to increase the number of vocational traineeships and apprenticeships offered. TALC utilises both the SHIFT programme and a national partnership with Group Training Companies to facilitate this.

TALC promotes the SHIFT (Shaping Individual Futures in T&L) program that develops an individual training and work experience pathway for secondary school students towards their preferred career.

The SHIFT model was developed by the South Australian Freight Council. Students undertake vocational training in conjunction with their secondary schooling to enable a smooth progression into a full-time industry Traineeship or Apprenticeship. SHIFT helps students articulate from school to tertiary level Traineeships/ Apprenticeships and work, particularly targeting recruitment of non-traditional groups including female and indigenous students. The SHIFT approach retains 80% of participants within the T&L industry post school.

SHIFT is being expanded nationally [e.g. Cert II Warehousing and Storage - Road Transport (NSW) and Cert II Aeroskills - Transport Administration (VIC)] with 42 secondary students in South Australia, 17 students in Queensland, and 12 students in Victoria combining vocational education with their secondary schooling at present. Vocational studies in Cert I-II Logistics are currently being piloted in selected Sydney high schools.

TALC has also established a national partnership with GTCs to establish additional T&L New Apprenticeships under the Federal Government's Australian Apprenticeships Scheme. GTCs act as an extension of a T&L organisation's human resource team by recruiting and selecting a trainee, monitoring their skill and knowledge uptake on the job, and mentoring and guiding the new "employee" to the business culture and standards.

This approach encompasses all additional traineeships and apprenticeships established within T&L organisations, building capability through more vehicle mechanics (via apprenticeships), more supervisors (via front line management training for existing workers), and more entry-level opportunities and relevant training for support staff (business services, finance, technical focused traineeships).

At present the NSW based TALC/GTC alliance has established 572 additional Australian Apprenticeships in a period of less than 18m months, with a target of establishing at least 1,000 before the end of the 2006-2007 financial year.

An example of the critical ways in which this programme is supporting the T&L industry is the NSW Riverina region, which, when already suffering from many years of drought, was further impacted by rapidly increasing fuel prices. The local GTC¹⁶ addressed the challenges with local road based operators by demonstrating a thorough understanding of their community issues and establishing a strong network with local business.

The Hon John Watkins MP, Deputy Premier of NSW, Minister for Transport and Minister for State Development remarked in 2005 that: "This type of grassroots work in local communities is very important to ensure we keep investing in the skills necessary to support the transport industry."

Careers Promotion

The TALC T&L Promotion programme is a series of projects designed to raise the profile of the T&L industry within schools, tertiary institutions and private education providers.

For example, TALC funded a major Career Path Mapping research, conducted and published by the Australasian Railway Association (ARA) into the recruitment and retention of rail employees. TALC also utilises the continuing development of the SA Freight Council's (SAFC) LINC¹⁷ site as part of TALC's web gateway project known as TILIS, to provide Career Path Mapping.

TALC has actively supported the resourcing and representation of T&L at Careers Events (Conferences, Fairs, Expos, School Leader Forums) partnering with industry and promoting the broader T&L Industry at both local and national events. This has been highly effective through support of the Australian Logistics Council "Employer of Choice" events in capital cities across Australia (4 supported in 2005, 7 supported in 2006).

In 2005 and 2006, over 260,000 parents and students have visited Careers Expos at which the T&L industry has been supported by TALC.

Once interest and participation has been raised, the establishment of a National T&L Employment Opportunities Network will provide streamlined avenues for the referral of interested parties into long term T&L Careers/Employment. This is being undertaken as a collaborative venture with industry stakeholders.

Schools Curriculum

Curriculum Support focuses on developing T&L School Curriculum Materials linked to the most relevant curriculum outcomes, including Business Studies, Work Studies, Economics, Enterprise Studies and Human Society & Its Environment.

¹⁶ Murray Mallee GTC

¹⁷ LINC – SA Freight Council's on line search engine for T&L careers

TALC research indicated that the most critical point in school education for young people to gain a sense of the world of work was Years 6-10. Thus TALC has focused on this area as the main entry point for information about T&L in schools.

With the guidance of two Industry/Education forums and specialist consultants, TALC developed two Careers Guide booklets to both promote the T&L industry as a career option and provide curriculum support material¹⁸. The two guides were produced in 2005 and 2006 and have been distributed across 3,100 secondary schools across Australia via Ryebuck Media, a leading schools publishing group. Another 20,000 copies have been distributed to schools and interested third parties on request. They are extremely well received.

The Careers Guides have been well received by industry, careers advisers, parents and students. Through their use and further engagements with students at Careers Events and via Adopt-A-School initiatives it is estimated TALC has had a direct impact on educating in excess of 100,000 Australian students about the T&L Industry. In addition the Guides and supplementary material (e.g. *Transportunity*) are available at www.talc.com.au as FREE downloads.

Further to the development of '*Transportunity*', and after more research, TALC has distributed an illustrated wall sized Transport Map of Australia to NSW Primary schools supporting HSIE Transport studies and will trial '*Trucker Buddy*' within Australia in 2007.

T&L Careers Forums

To support GTCs and increasing traineeships, TALC has funded T&L employer/educator/regulation agency network events over 2005-2006 to identify and promote local career & education pathways into T&L. Based on their success, and taking note of the successful work of similar initiatives in Queensland¹⁹, SA and Victoria, TALC has recently embarked on migrating the successful T&L Careers Forum approach across key Transport Hubs within NSW.

Initial engagement across Western Sydney will be replicated in early 2007 across the Central West (Parkes Transport Hub), the Hunter (Newcastle), New England (Tamworth) and the Southern Highlands/Illawarra (Moss Vale).

TALC continues to provide consistent and positive promotion of the wide opportunities available within T&L by:

- Continuing to encourage students towards a T&L career

¹⁸ Each page in the guides was sponsored by a T&L industry stakeholder

¹⁹ The Queensland Transport and Logistics Careers Forum is of special interest because it was started by volunteers from industry, and has developed a network of 17+ schools in SE Queensland, traineeships and recognition by the Queensland Government as a model of best practice for the rest of the State.

- Helping industry to establish networks with local schools and Local Community Partnerships (LCPs) that promote 'taster' training, work experience opportunities/ career pathways
- Raising interest in T&L careers and employment through an informed, efficient network of T&L affiliated Schools and Education Bodies

MENTORING

Mentoring is effective and inexpensive to implement. A mentoring programme can lead to on-going beneficial relationships and networks that positively impact on the bottom line.

TALC has embraced mentoring as a means by which T&L organisations can address many of the issues affecting capability in their respective workplaces.

Mentoring is a relationship between two people where the more experienced person assists the other to develop and achieve their goals. Mentoring is not the same as training, although sharing information and knowledge is part of both processes. The T&L workforce is an ageing one. It is challenged by a lack of attraction of new recruits and where they do engage, retaining and developing them.

The T&L industry possesses many practical, well experienced participants that are eager for an opportunity to share the knowledge, the short-cuts, and the stories of their industry.

A successful mentoring programme can:

- facilitate the transfer of industry and company know-how from more to less experienced employees
- help recruits more quickly 'find their feet' in a new environment
- allow the 'baby boomers' to give something back to the industry or company
- create a powerful sense of personal accomplishment for all participants

TALC's mentoring projects have been created in direct response to a National Workshop convened in 2005, at which over 60 industry participants suggested that TALC should run pilot mentoring programmes and develop resources to inform the industry of the positive benefits of mentoring²⁰.

²⁰ Attendees included national transport union officials, senior industry people, NSW and Australian Government representatives, public transport and freight logistics stakeholders.

This year TALC published the 'Mentoring for Managers in Transport & Logistics' pocketbook to communicate the benefits of mentoring to the T&L industry. The pocketbook serves as a very useful resource that guides managers through the simple steps of setting up a mentoring programme in the workplace. This was a direct response to requests made at the National Workshop.

To date over 3,400 copies of the pocketbook have been distributed in New South Wales and throughout Australia. It is gratifying that many of the requests for the pocketbook have come from small to medium sized transport and logistics organisations.

Additional, complementary mentoring material hosted on TALC's web site for pocketbook recipients to consult. The pocketbook will also be available as a downloadable file for the TALC web site in 2007.

TALC extended an invitation to organisations interested in implementing mentoring programmes to submit a business case for TALC support. Assessment of submissions led to the selection of two mentoring pilot programmes for TALC support

The first mentoring pilot was The Australasian Production and Inventory Control Society (APICS) and the Logistics Association Australia (LAA) who have members in logistics and supply chain management. TALC supported the implementation of an NSW industry wide mentoring programme for 20 employees over 12 months. In addition to direct TALC funding, TALC arranged private sector sponsorship for mentoring training and arrangement of relevant activities such as company site visits.

Participants praised this mentoring programme as an excellent opportunity for up and coming supply chain logisticians to develop skills. The mentoring pairs found great benefit in being able to talk through the day to day issues they faced and canvass solutions and options in a non judgemental, supportive environment. Following the success of the 2005-2006 pilot, the industry associations have issued invitations for participants to join a new mentoring programme to commence in 2007.

The second mentoring pilot directly supported by TALC was the Australian Rail Track Corporation's (ARTC) mentoring programme launched in July as 'Evolution 2006'. This pilot involves 21 mentoring pairs who are spread far and wide across between NSW and South Australia. There are mentoring participants located in Newcastle, Adelaide, Broken Hill, Sydney, Goulburn and Wagga Wagga, who have an interesting logistics exercise in determining mutually convenient meeting places.

The ARTC considered mentoring as a means by which it could:

- improve knowledge retention through skills transfer from more experienced staff,
- improve retention rates,

- assist in making the industry attractive to new recruits, and
- support employee development

There is evidence of enthusiastic activity by the participants who assist one another with personal development plans, advise on making key business presentations, provide tips on resolving workplace related issues and share their understanding of rail industry matters. The ARTC mentoring programme involves a number of external mentors who bring valuable private sector commercial skills and practices into the organisation.

By and large the ARTC mentors have shown an overwhelming desire to 'give something back 'to their industry', whilst the mentees have shown a keenness to learn and develop their careers in rail.

Future Mentoring projects

TALC is developing eMentorMatch, an online matching and networking facility due to be launched in 2007. eMentorMatch will connect mentors and mentees across the nation. eMentorMatch will provide mentoring opportunities to those denied by the size, or nature of their organisation, or its location.

eMentorMatch will be available for employees to register individually or as part of a company group registration. This facility will be of great benefit to resource stretched organisations in T&L that have difficulty providing capability improving opportunities for their employees.

PROFESSIONAL DEVELOPMENT

One of TALC's key goals is to develop people in the T&L industry, to help build a more highly skilled and competent workforce.

One of the ways that professions in Australia recognise and build their workforce is via certification, e.g. many accountants apply and are recognised by their profession via becoming a Certified Practising Accountant (CPA).

TALC worked with Australia's pre-eminent T&L Industry Associations for 12 months to form a national Certification Council to oversee the roll-out of two new certifications for professionals in the T&L industry:

- Certified Professional Logistician (CPL)
- Certified Transport Planner (CTP)

The CPL and CTP certifications are industry owned, governed and maintained for the benefit of professionals in the Transport and Logistics Industry.

The CPL/CTP Certification Council members comprise:

- Supply Chain Logistics Association of Australia (SCLAA)
- Logistics Association of Australia Ltd (LAA Ltd)
- Chartered Institute of Logistics and Transport (CILTA)
- Australian Institute of Traffic Planning and Management Inc. (AITPM)
- Australasian Production and Inventory Control Society (APICS)

CERTIFIED TRANSPORT PLANNER (CTP)

Transport is crucial to our everyday life. However, it is taken for granted until a major breakdown in a transport mode, infrastructure element or network occurs. Australian cities, and many major world cities, are grappling to effectively deal with the problems of traffic congestion, capacity constraints on all modes, cost effective updating of vehicles, infrastructure provision, as well as maintenance and construction costs, finance options and delivery timeframes, not to mention fuel shortages and the environmental effects of our transport systems.

Transport Planning is about preparing, assessing and implementing policies, plans and projects. These are designed to improve and to manage our transport systems. There is a need for transport planning on a local, regional and national level.

The Certified Transport Planner (CTP) is a professional qualification that will provide the definitive standard for measuring capability and professionalism within the transport planning profession worldwide.

CTP status enhances an individual's professional credibility within the industry and also enhances the profile of the Transport Planning Profession.

The CTP is a professional qualification that brings together the breadth and depth of skills required of a modern Transport Planner. The CTP unifies the disciplines of Engineering, Town Planning, Geography, Economics, etc that make up the Transport Planning profession.

CERTIFIED PROFESSIONAL LOGISTICIAN (CPL)

Logistics, as a term now embraces warehousing, freight, transportation and distribution, through to supply chain management. Gone are the days when transportation, warehousing, distribution and materials management were seen as separate or distinct functions and disciplines. Today, professionalism of a high standard is required to manage these complex, disparate functions in a seamless and integrated supply chain mode with a clear understanding of the need to track the physical goods/services flow, financial flow, and, of course, information flow.

The Certified Professional Logistician (CPL) programme will become the benchmark of excellence for measuring capability and proficiency within the profession of logistics and supply-chain management. The CPL programme represents the hallmark of logistics professionalism.

The CPL will be able to demonstrate that they have the capability to effectively master the technology and leadership skills required across the broad range of activities that today constitute logistics. The CPL is a new professional certification in logistics that enables workers in this industry to develop themselves more effectively, and assists in defining the logistics profession.

Long Term Workforce Competence and Industry Visibility

Transport Planning and Logisticians (Supply Chain professionals) are critical disciplines in the Transport and Logistics Industry that will benefit from professional recognition. This recognition will not only flow to the profession, but also the individual whom desires the ability to use the post nominals CTP or CPL after their name.

There are approximately 4,000 transport planners and 200,000 logisticians employed across Australia in public and private organisations that will be eligible to participate and continue on a lifelong professional development journey.

TALC has provided a legacy to the industry that will be appreciated over the next few decades, as the new workforce culture emerges – unified, professional and capable.

KNOWLEDGE MANAGEMENT

TILIS WEB GATEWAY

An ambitious shared digital infrastructure project is underway for the national transport and logistics (T&L) industry. This infrastructure project is being built on the Internet.

Like most infrastructure projects despite intense interest from some local and international companies that want early access, many in the industry know little about the project titled the Transport Integrated Learning and Information Service (TILIS).

TILIS is shared infrastructure designed to be harnessed by individuals or organisations, large or small. TILIS will not be a provider of services or replicating existing services. The gateway will be able to direct people on their journey; it is not the end destination of itself. It is both a hub for people to find and then connect to a location, and it is the means they can immediately travel to that destination.

It will provide advanced technology tools and compliant systems that can improve business effectiveness without businesses carrying the huge capital cost of these systems. Unlike physical infrastructure TILIS can be built once, reused many times, be used on many computing devices, while being accessed from any location.

TILIS will:

- Be the single gateway to current and useful career, learning and related information on the T&L industry for users, especially young people, and parents, career advisers, teachers and existing employees
- Help employers and educators do more refined and relevant online searches to discover, share and reuse information, resources and content relating to the T&L industry
- Ensure everyone can configure TILIS to their preferences and needs so improving how they can search, discover, harvest and manage information and share knowledge in a secure environment
- Enable opportunities for existing providers of content and web-based resources, whether commercial or non-commercial, to enhance discovery and manage access by many more users
- Establish the tools for employers, educational providers and industry bodies to individually or collectively use TILIS infrastructure to exchange content, manage courses, and report outcomes for learning, compliance and performance needs

The TILIS gateway is supported directly and indirectly by the Department of Education, Science and Training (DEST); and various organisations are involved in pilot projects within TILIS. They include BOEING Australia, QANTAS, the Australian Institute of Export, Logistics Recruitment Solutions, the Australian Logistics Council, SAFC, CCM Software and others.

TILIS will create new pathways and faster connections between everyone in the T&L industry. It has been driven by industry, and will be supported by industry.

NATIONAL T&L INNOVATION STRATEGY

In 2006 TALC organised a National Innovation Workshop for the T&L Industry attended by representatives on the industry, relevant government departments, the ALC, and the research world.

The aim of the Workshop was to begin to determine what a national innovation agenda for the industry could be composed of and what kinds of research and other innovation-related activities should be priorities.

It grew out of the recognition by the Freight Action Agenda 2002 for the industry that more should be done to stimulate innovation in the industry, described in the Agenda as one of 'incremental adaptors', and the suggestion that more needed to be known about the sources of innovation in the industry and about the players involved and their relationships.

Innovation is usually considered to be most effective industry development tool when major groups of players in an industry work together to develop new products and ways of doing and organizing operations. All major industries nowadays are highly regulated and the T&L sector is no exception, especially in the areas of OH&S and environmental matters. Some areas of the regulatory framework directly concerns practices in the industry itself while in others the issues addressed derive from the interactions on the activities of the industry with major aspects of its operating context.

The workshop raised issues that go directly to the challenges facing the T&L – the bringing together of innovation, R&D, knowledge management and people.

- The creation of a mechanism for more effectively scanning the international environment for innovations/ research underway, being trialled or in operation in major centres of T&L activity elsewhere in the world. This scanning should include the development of cutting edge areas of research as these crucially affect the operations of the T&L industry here. In particular, the difficulties associated with T&L operations in congested urban areas was referred to several times in the Workshop and the international literature suggests that an emerging area of research, known as City Logistics, should be one of the first foci of the proposed international scanning. There does not seem to be any centre of research in Australia which is currently researching this important area
- The creation of an effective way or ways to *diffuse* new knowledge throughout the industry, whether the new ideas come from international scanning or local best practice which is not being rapidly emulated by players, especially smaller players
- A program of work bringing together organisational theorists and engineers working on new technologies for the industry currently under development around the world, notably, for example, intelligent transport systems and automated freight transport
- a program of work examining existing and potential networks of relationships between different 'levels' of the supply chain and ways to improve their management and especially raising the capacity to build joint long term linkages between sets of clients and suppliers. The consensus among the workshop participants was that levels of *trust* between players are not high enough which limits innovation capacity within the whole chain.
- An example was suggested: research to ascertain ways in which major clients may be persuaded to think less about the immediate benefits of use of proprietary software systems and more about the operational efficiencies that could be gained, and the associated financial benefits, of using a common system, perhaps set through the development with input from all players of an appropriate Australian/international standard.

- This in turn could be linked to research on information flows between groups of players and supply chain partners as a way of leveraging capacity all along the chain
- R&D agencies (and governments) to find ways of increasing industry awareness of the commercial imperatives faced and their role in driving innovation. They should also research and provide 'change management roadmaps' to provide incentives for improvements among logistics service providers and their customers. This was seen to especially involve a focus on achieving better commercial outcomes through collaboration along the chain
- The development at national level of T&L-specific technology strategies rather than the industry having to rely on the generic approaches currently operating which are not well adapted to the industry's specific needs. These should be supported by an 'impact' or 'triple bottom line' statement as the strategies are considered
- Establishment of a 'EUREKA' (an EU program) model program where government R&D funds are linked to collaborative research between players in both public and private sectors
- The creation of a central (representative) 'voice' for the industry in devising and implementing a national innovation and research agenda. The suggestion focused on the need for the industry to convene a National Research and Innovation Forum (NRF) to consider the outcomes of the Workshop just held and the mechanisms for taking the action needed to improve rates of innovation in the industry and hence the sector's competitiveness.

These suggestions will be progressed during 2007, with TALC and the ALC working closely together on the outcomes.

However, TALC funding is limited to the balance of the initial grant, and it likely that most of the TALC programmes will be wound up by the end of 2007 as the funds are depleted.

CONCLUDING COMMENTS

The T&L industry is facing significant workforce challenges in Australia. The challenges are a combination of demographic changes, new organisation requirements, and a conservative industry culture faced with emerging new paradigms e.g. "transport" becomes "T&L", which becomes "supply chain".

As with many challenges facing the Australian economy there is no shortage of good ideas on how to address the issues. There are innovative and mainstream initiatives that can make a positive impact across many areas of activity. However, the real difficulty is in implementation and execution of the good ideas.

There are too many vested interests all claiming the high ground for ideas. There are too many players and too many strategies. Each player has access to various political and economic levers, through personal relationships, business affiliations and statutory avenues. While this is normal in a functioning economy, in the T&L sector it is combined with an emergent and fragmented industry framework. The outcome is messy and replete with compromises.

What is needed is an Olympics style response to the challenges. It is only with a national response to the national issues facing the T&L industry that we can expect better outcomes. The industry cannot lift itself up by its own bootstraps. It is at a critical moment in its development and intervention by government at this time could raise the industry up to a new level.

A single national coordination and funding group should be created, based on the Federal government or utilising COAG. This should incorporate a national innovation fund to support best ideas in the T&L industry in line with industry needs.

The portfolios involved are various, but should include those that touch the following:

- Workforce Participation
- Workforce Planning
- Education and Training
- Transport and Logistics
- Communications and Information Technology
- Industry Development
- Innovation
- Science and Technology, and
- Occupational Health and Safety

From this can emerge a range of national strategies and policies to support future actions, but most important it should be capable of pulling together all the disparate groups across the T&L industry and showing them a combined pathway to improving productivity in the industry.

As an adjunct to this national response, there should be created an ongoing national vocational and higher education institution linked to industry needs, but capable of influencing funding for programmes, courses and research. This could be linked to various Universities, TAFE and Technical Colleges as well as public and private schools.

Such an institution need not be another “bricks and mortar” exercise, but could become a “virtual” institution that connects existing training and educational institutions in new ways. Cobadging of courses, joint appointments of staff, greater use of adjunct and clinical appointments to strengthen programmes, on-line delivery of learning, web gateways – these are all possible ways of bringing the best we have together for the benefit of industry.

This combination of ideas + execution will go a long way to addressing the workforce challenges facing the T&L industry.

Therefore, there are some basic actions that must be undertaken by the Federal Government in order to assist the T&L industry to build its capability:

RESEARCH

- Engage the Australian Bureau of Statistics to design and implement an official, accurate definition of the Transport & Logistics Industry, facilitating collection of statistics to provide an accurate reflection of the industry and enable the success and progress of plans being implemented to be measured, to build this collection of vital infrastructure and activities which underpin the Australian economy in every area of endeavour.
- Commission research into the reason only 20% of participants in vocational courses complete the full course and what changes are required to gain closer to 100% success rate, e.g. subject relevance, standards, flexibility, provider funding, value of certification, linking certification to improved pay rates and career path.
- Commission research into the state of higher education in T&L in Australia. Examine the articulation of vocational and higher education courses and the barriers to entry established by the higher education institutions

BRANDING

- Complement the ALC T&L branding of the industry by designing and implementing an education programme for industry players – all 160,000 – to encourage them see themselves as participants in a cohesive and distinct T&L industry and understand and support the benefits this will bring to their businesses. This will reinforce the work being done to attract people into what we are marketing as the “T&L industry” but which is a collection of disparate activities in the minds of employers.

PROGRAMMES

- Concentrate on programmes sponsored by industry in three areas:
 1. attraction, recruitment and retention of staff,
 2. education, training, mentoring and developing people; and
 3. enhancing systems and tools for better knowledge management at all levels in the workforce.

Together these are the keys to solving many of the workforce challenges faced by the T&L industry

- Support the establishment of a **national T&L Innovation Fund** to promote and show case workplace ideas and systems that improve industry capability
- Focus on programmes that make a difference in regional areas and increase workforce participation
- Consider an Olympics style response to the challenges, and create a **national coordination group** that can bring the various stakeholders together to focus on implementation and execution of the many good ideas presently out there in the industry
- Create a **national education and training institution** with the capacity to brokerage and provide world class vocational and university based courses

This move would bring together the disparate efforts of local and State education and training providers, and galvanise the T&L industry around the issue of “capable people” in a way that has not been possible in the past.

A national T&L institution standing apart from, but working with, existing universities and vocational providers would allow for true industry courses to be developed, national delivery to be promoted, and international education and training opportunities to be explored.