Transport and Logistics Industry Skills Council

Education and Training Committee
Parliament of Victoria

Inquiry into skills shortages in the rail industry

Submission by the Transport and Logistics Industry Skills Council (TLISC)

July 2009
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Introduction

The Education and Training Committee of the Parliament of Victoria is currently conducting an inquiry into skills shortages in the rail industry. The Committee has been asked to consider:

a. factors influencing recruitment and retention in the rail industry;

b. demographic profile of the rail industry workforce and the outlook for future retirements and loss of skills;

c. implications for of the Victorian Industry and Manufacturing Statement commitment for the rail industry in relation to local content; and

d. whether there is a need for increased training opportunities at university and trade levels and, if so, how industry can stimulate student/user demand.

The Transport and Logistics Industry Skills Council (the Skills Council) is pleased to be given the opportunity to make a submission to the inquiry.

This submission will provide information on the role of the Skills Council in providing a nationally endorsed Training Package for the rail industry, information about the rail industry collected through our annual Environmental Scan, initiatives taken by the ISC and others to increase attraction to the rail industry, and future developments within the Transport and Logistics Training Package to enhance its use in the rail industry.

The Transport and Logistics Industry Skills Council

The Transport and Logistics Industry Skills Council (the Skills Council) is one of 11 national organisations that have a key role in advising government on national industry skill requirements, and providing advice to industry around national workforce planning initiatives, training package development and the national vocational education training system.

The Skills Council receives funding from the Commonwealth Government and also attracts funding support through other Governments projects, non Government projects and industry sponsorship.

The Skills Council has a responsibility to liaise with a broad range of industry, government and community key stakeholders including, business organisations, industry peak bodies, training organisations, unions, government departments and regulators.

The Skills Council service provision centres on:

- Providing accurate industry intelligence to the vocational education and training sector about current and future skill needs and training requirements
- Supporting the development, implementation and continuous improvement of quality, nationally-recognised training products and services, including industry Training Packages
- Provision of workforce planning services to industry
- Working collaboratively in research and policy projects focusing on the industry skill and labour requirements
- Developing learning and assessment resources to meet targeted industry training needs

The Transport and Logistics sector in Australia

The Transport and Logistics sector which covers Road Transport, Rail, Warehouse & Storage, Maritime and Aviation in Australia employs an estimated 500,000 individuals directly and over 1 million people in both direct and associated roles. The sector contributes $90 Billion to the Australian economy annually (14.8% of GDP).

In terms of future growth in the sector the Australian Bureau of Transport and Regional Economics (BTRE) anticipate the movement of bulk freight to increase 1.6 times over the next 20 years, interstate bulk freight to double in that time and the number of containers through Australian ports to triple.

Key challenges

Some Key challenges effecting workforce development, training and business growth in the industry include:

- A shrinking local labour pool
- Challenges around employee attraction and retention in some sectors
- An older than average workforce with high numbers set to retire over the next decade
- Increasing pressures on existing transport infrastructure
- Growing demands on freight to movement to meet the needs of the supply chain.

Our industry engagement strategy

A key role for the Skills Council is the ongoing dialogue and communication with Transport and Logistics businesses. In many ways this activity is critical in informing the core activities of the Skills Council including our communication and reporting to Commonwealth on future skill needs. To support this action the Skills Council has created a range of industry advisory (sector) committees, including the rail sector. These committees are highly valued by the Skills Council and they provide a significant industry contribution to the national skills agenda.
Environmental Scan 2009

The key findings from the Skills Council Environmental Scan of 2009 were as follows:

Rail transport is a key element in the integrated logistics supply chain in Australia. Rail freight operators carry bulk commodities (coal, iron ore, grain and minerals) and containerised general freight, while passengers use urban and long-distance services provided by government and private operators. In 2007, approximately 666 million passengers travelled on urban rail and light rail tram services, and another 9.1 million passengers used non-urban and long distance services.

The Garnaut Climate Change Review notes that shifting bulk freight from road to rail could reduce carbon emissions and fuel use by 60%, and that the emissions intensity of the average commute is more than six times less for rail than passenger cars. Rail is a vital and expanding part of Australia's transport infrastructure.

Rail is well suited to transporting containerised freight, steel and many bulk products, particularly over long distances. According to the Australasian Railway Association (ARA), every additional train takes 150 trucks on the road, saves 45,000 litres of fuel and reduces greenhouse gas emissions by 125 tonnes.

Occupations in Skill Demand

- Train Driver
- Railway Track Worker
- Train Controller
- Tram Driver
- Railway Signal Operator

Industry Evidence

- Transport and Logistics Environmental Scan 2009 Survey
- ARA - A Rail Revolution Report 2008
- Victorian Government Inquiry into Skills Shortages in the Rail Industry 2008
- The Garnaut Climate Change Review 2008

Impact on Training Demand

While the rail industry has continued to use Training Package qualifications, significant growth in commencement and completion of national qualifications can be achieved through improvements to the current Training Package qualifications.

The complexity of rail training across operators and a desire to use local ‘company’ training have led to a lack of national consistency in the provision of qualifications for the industry.
In more recent times work has been undertaken, with rail providers and the Australasian Railway Association, to more accurately determine specific job roles with a view to these being reflected in restructured qualifications for rail infrastructure workers.

This area is experiencing significant growth and workloads and it is anticipated the uptake of national qualifications will increase over the coming year.

Increased commuter patronage on rail transport will also cause growth in demand for rail operations staff, which will necessitate increased training in this area.

Initiatives to Increase Attraction to the Rail Industry

The Skills Council is aware of only two initiatives in recent years intended to attract young people directly to the rail industry. The first of these, a Rail Apprenticeship Pathways Program, was run by the Skills Council and the second, Rail and Rural, in Western Australia earlier this year.

Rail Apprenticeship Pathways Program

In 2007 the Skills Council ran a Rail Apprenticeship Pathways Program funded by the Commonwealth Government through DEEWR. This was an initiative run between Puffing Billy Railways, Connex and the Transport & Logistics Industry Skills Council.

The Rail Pathways Program was developed to provide access for young people to the world of work in a rail transport setting. A major aim of the project was to generate interest in rail careers amongst young people and to support other efforts to address skills shortages in the rail sector.

The project was funded by the Federal Government and managed by the Skills Council in cooperation with Connex and Puffing Billy.

Young people had the opportunity to obtain valuable work experience and related training. Participants who successfully completed the training program received a nationally accredited qualification in rail operations.

Commencing in February 2008 28 young people participated in the program. Trainees undertook practical work in rail operations at the Puffing Billy Railway (primarily on track) and gain an understanding of the overall rail industry through site visits to main line operations.

Promotion and recruitment was carried out in cooperation between the Skills Council and agencies that work with young people including the Local Learning and Employment Network (LLEN), Regional Careers Advisors, local business advisory services, Australian Apprenticeship Centres and schools.

This was a pilot scheme to provide participants with a Certificate I in Rail. According to the guideline document:
“The approach used in the Certificate I in Industry (Pathways) was developed to provide participants with an appropriate mix of skills and knowledge developed in a meaningful context to prepare them for work or ongoing learning.

The Certificate I in Industry (Pathways) uses a unique qualification structure which mandates work-like integrated learning. It revolves around a technical task unit and explicitly delivers employability skills. It aims to develop work readiness rather than job readiness and as such is designed for those groups who need to find work or access further training.”

Program Outcomes

The main outcomes from the program were:

- The Puffing Billy Railway was an ideal training location given the simplicity of operations, available off-track training locations (sidings, etc.) and a limited number of train services each day;
- The location of the Puffing Billy Railway (40 kms. from Melbourne) made it a difficult location for many potential participants to attend;
- The training provided was primarily around track work.
- Whilst there was enthusiasm from both the industry and the participants, from a risk management perspective it was difficult to determine how the project could be replicated within the wider industry;

A report into Rail Skills Formation Strategy in Queensland\(^2\) found that “Specific rail related training is not present in any schools in Queensland.” And whilst “There are ‘VET in schools’ programs that include skills needed by the railway industry, such as pre-trade training and introductory courses for broad families of industries.”

The review supported one of the main findings of the Rail Pathways program around risk management in that “Work experience arrangements for high school students in the rolling stock manufacturing and rail operations sectors are problematic due to the activity being contra-indicated on the work experience list of exclusions.”

Rails and Rural

Rails & Rural is a West Australian Regional Industry Career Advisors (RICA) project designed to showcase two “hidden” industries – rails and rural.

According to the RICAs “Many metropolitan young people are familiar with trains, using them and seeing them regularly, but rarely think about the jobs involved in designing, building and running a railway beyond train driving.”


This project lets young people hear directly from rail professionals about the opportunities, careers and pathways in the industry. Western Australia is at a point where investment in infrastructure, including modern new and updated rail systems is expanding.3

The Rails & Rural project involved hosting a group of young people from the Perth metropolitan area, their teachers and case managers. The contingent travelled from Perth to Northam and back.

On the way to Northam, representatives from rail industry companies in Western Australia addressed participants on jobs, training and apprenticeship opportunities as well as career pathways within the industry. The objective was to help the young people to understand that railways are not just about driving trains but also comprises the design and construction of railways and trains, operating freight and passenger services and administrative and professional support.

On the return train journey to Perth participants talked informally with rail industry representatives and explored ways of finding out more about the careers introduced earlier.

Conclusions to be drawn

Both of these initiatives provide examples of different methodologies that have been used to create awareness of the diverse careers that exist within the rail industry and, in the case of the Rail Pathways project, to provide hands-on experience for participants.

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Future developments for the Transport & Logistics TLI07 Training Package

Background

The Transport and Logistics Industry Skills Council (the Skills Council) is the body responsible for the development and maintenance of the Transport and Logistics Training Package TLI07 (previously TDT02). This Training Package houses Units of Competency, the Qualifications and the Packaging Rules that support the delivery and assessment for a significant proportion of rail training in Australia.

The Transport and Logistics Training Package was introduced in 1997. It came about as part of the growth of the national competency based training system in Australia which was underpinned by the development of Training Packages.

The packaging rules for the Transport and Logistics Training Package were originally designed around a ‘7, 14, 21 formula’. This formula dictated that seven units of competency had to be gained at each certificate level as a person worked towards a higher level qualification. In effect the Training Packaging has a pre-requisite requirement at each qualification level that relies on the requirements for a previous level being met before progression can occur.

The Training Package was developed to provide high levels of flexibility and to maximise the application of Units of Competency to meet diverse workplace needs. However, in reality workplaces tend to use clusters of core competencies that form logical building blocks for the development of skills and knowledge in common occupations.

This model has worked well since the Training Package was first introduced on the basis that it was easy to navigate and training progression could be built upon a stipulated pre requisite.

Issues

The ‘Nesting’ of Qualifications (being one certificate sitting inside another) has been identified as being inconsistent with Best Practice Training Package design and the Skills Council has received direction from the Federal Government to replace these arrangements with a model that reflects actual job roles. Implicit in this requirement is a need to build improved qualification structures that encourage both lateral and horizontal entry into qualifications. What this means is a level three qualification should have its own bank of units that are not necessarily related to the qualifications sitting under it.

The current Packaging Rules do not acknowledge that different jobs in the rail sector may need more or less than seven units of competency per level. The Package also provides broad headings for occupational roles, like ‘Rail Operations’ or ‘Rail Infrastructure’, but does not provide guidance on typical skill clusters found across many rail operations. The weakness in this model is that a number of people in a particular rail occupation, i.e. Shunter, could end up with the same qualification but with completely different content, which then limits portability.
A further issue is that the current Packaging Rules enable RTOs/industry to make an inappropriate selection of units that provides a minimum of training to individuals and, as a result, little alignment to the actual job role. An example of this is found on the Federal Government Australian Apprenticeships Jobs Pathways website for a Signaller - Certificate II in Transport and Distribution (Rail Operations), where the job description and training clearly do not match: as shown in figure 1 there is no training to operate signalling equipment and coordinate train movements.

<table>
<thead>
<tr>
<th>Signaller - Certificate II in Transport and Distribution (Rail Operations)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Description</strong></td>
</tr>
<tr>
<td>Employees operate signalling equipment and co-ordinate train movements with their area of control. They establish signalling routes, initiate strategies to overcome late running trains and implement emergency procedures when necessary.</td>
</tr>
<tr>
<td><strong>Summary of Training</strong></td>
</tr>
<tr>
<td><strong>Certificate I</strong></td>
</tr>
<tr>
<td>Participate in basic workplace communication</td>
</tr>
<tr>
<td>Apply security procedures</td>
</tr>
<tr>
<td>Conduct housekeeping activities</td>
</tr>
<tr>
<td>Follow OHS procedures</td>
</tr>
<tr>
<td>Work effectively with others</td>
</tr>
<tr>
<td>Complete workplace orientation/induction procedures</td>
</tr>
<tr>
<td>Apply customer service skills</td>
</tr>
</tbody>
</table>

**Figure 1 Extract from the Australian Apprenticeships Jobs Pathways website**

**Research**

During 2007 the Skills Council undertook extensive work on analysing the design and functions of its Training Packages and provided a report on its finding⁴. The research identified that there were improved models that could be applied to the TLI Training Package which would provide improved alignment of qualifications to actual job roles whilst maintaining high levels of flexibility for the selection of Units of Competency for specific roles. This work also highlighted that whilst it is often argued that having a large bank of Units of Competency available for a qualification maximises flexibility, in reality most of the industry is using similar clusters of common units for the majority of occupations.

Information has also been provided by external bodies. In particular from the Australasian Railway Association, who said in a recent report that “The T&L Training Package is considered too broad.” And also that “Consideration should be given to packaging based on core and elective units and more flexibility in importing units.”⁵

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⁴ Transport and Logistics ISC (2008), *Analysis and revision of qualification structures in T&LISC training packages*. (Unpublished)

Review of Infrastructure Units of Competence

Furthermore, industry feedback to the Skills Council suggested that the units of competence in the rail infrastructure domain were not meeting the needs of the rail industry and as a result, very few people were picking up qualifications in the TLI 07 Training Package.

In view of the industry feedback about the units of competence specific to rail infrastructure a review of these units commenced in December 2008 and to date 58 units have been developed or reviewed.

Moving Forward

The Skills Council has undertaken to continue its review of the Training package and has identified this as a key KPI in its Contract with the Federal Government. The review will engage all key stakeholders including Industry, Unions and Government and will be focused on producing the best possible outcome for the Industry, individuals and the National Training System.

This review is highly consultative and will be run through a number of phases each of which will revise the qualifications for occupations within a selected area of the industry. The current phase covers:

- Infrastructure qualifications,
- Train operation and yard/terminal operations,

The review of train operation and yard/terminal operations will commence in April 2009. Workshops were held in the main states with industry, Union and RTOs representatives and proposed qualifications have been developed for Train Drivers, Tram/Light Rail Drivers and for a number of general roles within rail infrastructure.

The development of the infrastructure qualifications is being run alongside a review of Units of Competence specific to rail infrastructure.

The review of the remaining qualifications will commence in 2010 and will cover station operation & administration and network and signalling control qualifications.

Conclusion

Whilst it is not comprehensive, the annual Environmental Scan run by the Skills Council supports the generally held view that challenges facing the rail industry include an aging workforce combined with probable growth in the sector in response to a number of different factors. Replacing the ageing workforce and increasing the pool of qualified workers in the industry will necessitate a greater focus on skills development primarily in the vocational domain.

The Industry Skills Council is aware of its responsibilities and is determined to ensure that the rail industry has access to appropriate qualifications with which to equip its workforce by continuing the Review of Packaging Rules and ensuring the units of competence reflect the needs of industry.
Furthermore, the Rail Apprenticeship Pathways Program project demonstrated that young people can be attracted to the rail industry provided meaningful work experience can be provided. However, as the project also highlighted, this is virtually impossible in the conventional rail environment due to the high risk nature of the industry unless suitable locations can be found. I am aware of only two currently within Victoria; The Puffing Billy Railway and the Rail Skills Centre at Newport The latter is a dedicated rail infrastructure training facility which has actual equipment and track designed to be used for training in a controlled environment.