LTC
LOGISTICS TRAINING COUNCIL

Logistics Industries
WORKFORCE DEVELOPMENT PLAN
July 2015 Update

This document is an extract of the 2015 Workforce Development Plan prepared by the Logistics Training Council for the Western Australian Department of Training and Workforce Development. For more information please refer to the complete Workforce Development Plan.

Maritime

This page is intentionally left blank.

FOREWORD

The Logistics Training Council Inc (LTC) continues to provide high level strategic information and advice to the Western Australian Government on the current and future workforce priorities of the Transport, Logistics and Wholesaling Industries in Western Australia. The LTC has taken a leadership role within the industry to ensure that the workforce and other strategic activities of the LTC align with the priorities set by the Minister for Training and Workforce Development, the State Training Board and the Department of Training and Workforce Development (DTWD) through the policy document 'Skilling WA – A Workforce Development Plan for Western Australia, Second edition'.

The 2015 Logistics Industries Workforce Development Plan is a blueprint for all activities required to move the Transport and Logistics Industries forward into 2016.

Transport and Logistics are essential to the future growth and development of WA, as these industries are the drivers of all activities in the State, including construction, mining, agriculture and tourism. The Transport and Logistics Industry in Western Australia encompasses those businesses and individuals engaged in aviation; freight forwarding; maritime; ports and stevedoring; postal; rail; road transport; warehousing; logistics; and wholesale.

A major challenge for the LTC is to encourage industry to plan for its future workforce, while investing in strategies such as training to ensure a viable, skilled workforce is available to meet its needs. Skilling WA sets out the blueprint for how the State will plan for tomorrow's workforce, with the LTC enabling industry to use this as a guide for how to move forward.

The downturn in the mining sector has had a negative impact on the Transport and Logistics sectors, but growth is still expected into the future, as the movement of freight, both in and out of Western Australia, increases. Population growth will have an even greater impact on this over the next decade as demand for goods rises.

The Transport and Logistics Industry faces many challenges in the next 12 months, including an ageing workforce; stronger competition from growth sectors such as construction, for skilled workers; attraction and retention issues; limited focus by many businesses on succession planning; and an industry that is poorly identified to a prospective new generation of workers.

The research carried out by the LTC to inform the Workforce Development Plan has been captured in the 2015 Logistics Industries Environmental Scan, and can be used as a companion to this report to ensure a full and valuable picture of the industry is gained.

The LTC will continue to work closely with all stakeholders over the next 12 months to implement the strategies identified and ensure successful outcomes are achieved. Since releasing the 2014 Workforce Development Plan, the LTC has been able to achieve the following outcomes:

- Establishment of traineeships in Train Driving and Furniture Removal.

- Publication of a Careers Pathway Handbook for the Aviation Sector, including promotion through Careers Advisors and Schools.

- Visits by the LTC to regional centres in WA, both to promote Transport and Logistics as industries of choice, but also to gather intelligence to inform future recommendations.

- Judging and mentoring of finalists in the WA Training Excellence Awards.

- Facilitation of workshops for the Transport and Logistics Industry Skills Council in WA.

- Participation by the Chief Executive Officer on the Department of Training and Workforce Development's website "Workplace Essentials for Better Business" Steering Committee to develop resources and strategies.

- Continual updating of the LTC website to incorporate more information on careers, training and the industry.

- Facilitation of the Heavy Vehicle Industry Safety and Training Alliance (HVISTA).

The LTC will continue to offer strategic leadership in the area of Workforce Development and ensure that all advice provided to Government and Industry is of the highest calibre, allowing informed economic and policy decisions to be made for the sustained growth of the industry.

The 2015 Logistics Industries Workforce Development Plan is an organic and vibrant document, one that will be continuously updated as new information is provided or the environment changes. It is expected to be utilised by the Department of Training and Workforce Development, other Government agencies, registered training organisations and key Industry stakeholders, providing valuable input into State and Industry Workforce Development strategies and becoming the benchmark for future activity. I commend this Plan to you and look forward to seeing positive outcomes as a result of its findings.

Cathi Payne
Chairperson
Logistics Training Council Inc

DISCLAIMER: The comments made in this document, where not attributed to a particular source, are the opinions of the Logistics Training Council.

Table of Contents

SECTION 3 - INDUSTRY PROFILES

Industry Snapshot

Strategic Environment

- The four sectors in the maritime industry are: the up and down stream, also known as offshore, (which includes oil and gas production and iron ore mining, shipbuilding and marine cargo handling); international blue water transport; near coastal water transport and inland water transport, all of which operate vessels that transport freight or passengers in relevant waters.

- Around 25 per cent of the domestic freight task (on a tonne kilometre basis) is carried by ships, with the number set to increase. Over the last 15 years, the amount of cargo carried by foreign vessels employing foreign crews has increased from six per cent to 30 per cent, with only 0.5 per cent of export trade carried on Australian flagged vessels.[1] This has contributed to less on-board training places, making it more difficult to train workers.

- Much of the activity occurs throughout the regional ports as a result of the mining and offshore oil and gas activity. The expected growth in port activity over the next five years will result in many more maritime workers being required to service it.

- Freight growth is expected to continue over the next two decades. The Western Australian Regional Freight Network Plan has identified that by 2031 trade through our ports will increase 140 per cent to more than 1 billion tonnes per annum. [2]

- Approximately 40 per cent of activity in the offshore maritime (oil and gas) sector is based in WA. The sector employs approximately 2,500 staff hired directly to the vessels operating in the area and supports more than 10,000 staff in affiliated areas.[3]

- During the 2013/14 financial year, WA ports exported nearly 720 million tonnes, roundly 60 per cent of the nation's trade of 1.17 billion tonnes. The value of this trade exceeded $145 billion, representing an increase of more than 10 per cent on the previous year. By tonnage, Western Australia's exports now exceed the entire volume of all other Australian jurisdictions combined.[4]

- Statistics provided by the TLISC indicate that 36 per cent of workers in this industry have no post school qualifications; 26 per cent have certificate qualifications; 23 per cent have diploma or advanced diploma qualifications and 16 per cent have tertiary qualifications.[5]

- Approximately 78 per cent of the workforce is male.[6] Amongst deckhands there is approximately 96 per cent male dominance, with 97 per cent for marine transport professionals, which include Master Fisher, Ship's Master, Ship's Officer and Ship's Surveyor.[7]

- The ageing of the seafarer workforce is a significant issue, with the average age being 44 years.[8] For deckhands the average age is 52 years and marine transport professionals 50 years.[9]

- Only 5.5 per cent of marine transport professionals is aged below 25 years, with 57 per cent between 35-54 years, which could have a major impact on the workforce, especially as nearly a quarter of the workforce is nearing retirement age.[10]

Key Issues

- Differences in regulations between different vessels, blue water, inshore, offshore and fishing makes it difficult for experienced maritime workers to move from one type of vessel to another.[11]

- The lack of industry sponsors and available training berths makes gaining mandated sea time difficult, particularly with dwindling fleet numbers. A big challenge is the capacity to maintain safety, efficiency, international competitiveness and appropriate environmental standards.[12]

- The lack of equity in funding for different programs makes the high cost of the practical component of training prohibitive, particularly for those wishing to progress their maritime tickets to move into larger vessels. This is exacerbated by loss of wages and in some instances accommodation costs while training, as well as the cost of training.

- The industry is heavily regulated, and for many companies training is linked to regulatory requirements, not qualifications. This means that many workers have completed skill sets but do not have whole qualifications and funding is not currently available to employers for skills sets.

- The skills shortage of marine engineers, officers, masters and marine pilots is related to both a global shortage and the decline of the blue water fleet. This has seen the pool of workers in WA shrink as activity increases and competition for workers escalates.[13]

Occupations/Skills in Demand

ANZSCO	Skilled Priority Occupation
231211	Master Fisher
231212	Ship's Engineer
231213	Ship's Master
231214	Ship's Officer

Overview of the Maritime Industry

Industry Analysis

Australia, as an island nation, depends on a safe, efficient and environmentally sustainable maritime sector. Around 25 per cent of the domestic freight task (on a tonne kilometre basis) is carried by ships, with the number set to increase over the coming years. Over the last 15 years, the amount of this cargo carried by foreign vessels employing foreign crews has increased from six per cent to 30 per cent. Whilst more than 99 per cent of Australia's international trade is carried by ships, only 0.5 per cent of its export trade is carried on Australian flagged vessels. Since 1996, the number of Australian registered trading vessels has more than halved from 55 to 22; and employment on Australian registered trading vessels has reduced from 2,400 to 1,300 over the same period.[14] Ship owners globally continue to register ships in 'ports of convenience' and, in most cases, source seafaring labour from those regions, in order to save costs. However, it is expected that the Federal Government's shipping reforms will lead to an increase in the number of Australian flagged ships.[15]

There are four sectors in the maritime industry: the up and down stream sector (also known as offshore), which includes oil and gas production, iron ore mining, shipbuilding and marine cargo handling; international blue water transport, which operates vessels for the transportation of passengers or freight by sea between domestic and foreign ports; near coastal water transport, which operates vessels for the movement of passengers or freight by sea between domestic ports; and inland water transport, which operates vessels that transport freight or passengers in harbours or inland waters (except tug boats or lighters).

Industry Trends

Major growth has occurred in coastal marine occupations, particularly marine tourism, chartered vessel operations, public ferry transport, coast guard and emergency services and marine services to the oil and gas industry, as well as increases in the size and complexity of vessels. Approximately 40 per cent of activity in the offshore maritime (oil and gas) sector is based in WA. The sector employs approximately 2,500 staff hired directly to the vessels operating in the area and supports more than 10,000 staff in affiliated areas.[16]

During the 2013/14 financial year, WA ports exported nearly 720 million tonnes, roundly 60 per cent of the nation's trade of 1.17 billion tonnes. The value of this trade exceeded $145 billion, representing an increase of more than 10 per cent on the previous year. By tonnage, Western Australia's exports now exceed the entire volume of all other Australian jurisdictions combined.[17] The State is home to three of Australia's five largest bulk exporting ports, including Port Hedland, the world's largest bulk exporting port, based on tonnage.[18]

Freight growth is expected to continue over the next two decades. The Western Australian Regional Freight Network Plan has identified that by 2031 trade through our ports will increase 140 per cent to more than 1 billion tonnes per annum.[19]

The maritime sector is expected to grow annually by about nine per cent.[20] Growth in export volumes, including a rise in containerised and non-containerised trade will increase demand for international sea transport. Increased demand relating to a growth in tourism is projected, which includes passenger cruises and coastal maritime operators. New investment in offshore oil and gas projects will also intensify the need for qualified seafarers.[21]

Differences in regulations between vessels, blue water, inshore, offshore and fishing, has meant that difficulties can arise for those experienced maritime workers wishing to move from one type of vessel to another.[22] This has been addressed by changes brought about by the Australian Maritime Safety Authority (AMSA), which are currently being implemented.

The cruise market segment is growing rapidly, sustaining the demand for seafaring workers with multidisciplinary skills at all levels. 41,000 international sea passengers passed through Australian ports in 2012-13, which is forecast to increase to 59,100 passengers by 2032-33.[23]

During the 2013/14 financial year, 31 cruise vessels visited the Port of Fremantle, with 44 vessels scheduled to visit during the 2014/15 financial year. Fremantle Ports Authority continues to be proactive with Cruise Down Under, Australia's peak cruise industry association, to promote Fremantle as a cruise ship destination and to support marketing of the region.[24]

Other regional ports, such as Broome, Geraldton, Bunbury, Albany and Esperance are also benefitting from the increase cruise line activity.

Labour and Skill Demand

The severe reduction in the movement of Australian flagged ships in and out of Australian waters and the significant increase in wages growth has resulted in less on-board places for the training of seafarers, making it difficult to train workers. The significant downturn in the oil and gas sector, which is largely due to the decrease in oil prices, has resulted in a halt to some projects and left a number of seafarers unemployed and looking for work. This means that the previous general shortage due to lack of training is currently overfiilled because of the downturn. The market is generally cyclical and should the oil price rise, activity in the sector will ramp up, making the shortage relevant. The main issue is that the number of vessels leaving the coast as a result has encouraged operators to upskill rather than invest in new entrant training.[25]

Access to sea time and berth space is still a major barrier to the successful training of workers, due to the loss of vessels on the coast, and a greater focus on simulation will need to be investigated. This has resulted in most cases to a freeze to new entrant training and a consolidation and upskilling of the existing workforce.[26]

The increased activity in the oil and gas sector has also seen a shift of focus in the maritime workforce, with fewer deckhands working in the fishing sector, especially crayfishing. This trend is expected to continue, due to the number of new oil and gas projects coming on line in the next couple of years and the restrictions regarding the size of catches which have been placed on the fishing sector by the Government.[27]

The industry is also looking at larger vessels to work offshore, so the skill requirement for Masters has increased accordingly. This includes a greater need for Master Unlimited, Dynamic Positioning training, and management skills which include documentation and soft skills such as pastoral care and conflict management.[28]

Statistics provided by the TLISC indicate that 36 per cent of workers in this industry have no post school qualifications; 26 per cent have certificate qualifications; 23 per cent have diploma or advanced diploma qualifications and 16 per cent have tertiary qualifications.[29]

National statistics indicate that 51 per cent of deckhands have no post school qualifications, whilst 19 per cent have Certificate III/IV qualifications and 29 per cent have diploma qualifications. 66 per cent of marine transport professionals have diploma or degree qualifications whilst 21 per cent have certificate level qualifications.[30]

As a result of the move from construction to operation of some major projects in the North West, there has been a softening in demand for maritime workers, especially Integrated Ratings and Master 4/5.

Figure 1   Job vacancies in Maritime per four-week period (2014-2015)
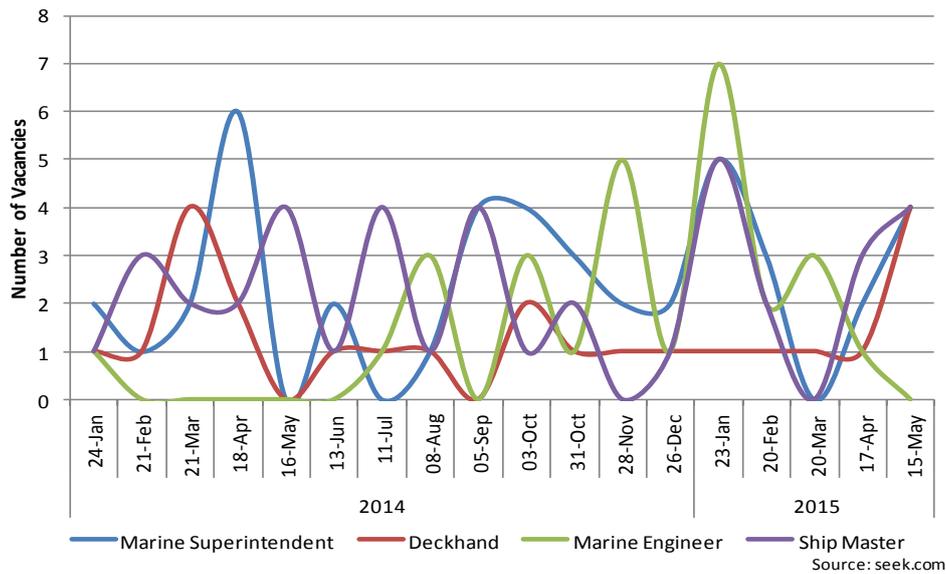
The figure above depicts online job advertisements for a selected group of maritime occupations in Western Australia, taken from seek.com.au. The extreme fluctuating nature of the job advertisements reflects the cyclical nature of employment in the Maritime sector. It must also be noted that Maritime companies have a history of advertising jobs on their webpages, so the above figures are also limited.

Regional Impact

Much of the activity in the maritime sector occurs throughout the regional ports and as a result of the offshore oil and gas activity, which includes the following:

North West Shelf – the State's largest hydrocarbon export project, operated by Woodside.

- Woodside Pluto project – processing gas from the Pluto and Xena gas fields. This is now an operating field requiring fewer marine personnel.

- Gorgon Project – on schedule to produce and export LNG at its processing plant on Barrow Island. The start-up of the gas plant and delivery of the first LNG cargo is planned for late 2015.[31] The project is entering the commissioning phase, which will see a wind-down of vessels over the next five to six months, however it is likely that a cargo vessel will be introduced, providing opportunities to train.

- Julimar Development Project – Development of the Julimar and Brunello natural gas fields in the Carnarvon Basin, off the WA coast are two of Apache's largest gas discoveries. The first production is expected in 2016. Ownership of the Project has now transferred to Woodside Petroleum.[32]

- Wheatstone Project – LNG and gas project developed by Chevron Australia, and supplied from the Wheatstone and large off-shore gas fields, is under construction and now 60% complete. [33]

- Ichthys Gas Field – approximately 440 km north of Broome and 800 km south west of Darwin. It covers an area of around 800 square kilometres in water averaging depths of around 250 metres and represents the largest discovery of hydrocarbon liquids in Australia in 40 years. The Ichthys LNG project currently under construction is ranked among the most significant oil and gas projects in the world. It is effectively three mega-projects rolled into one, involving some of the largest offshore facilities in the industry, a state-of-the-art onshore processing facility and an 889 km pipeline uniting

them for an operational life of at least 40 years.[34] Whilst the project is based in the Northern Territory, as with all oil and gas projects the majority of the companies are Perth based.[35]

The massive port activity expected to occur over the next five years will also impact heavily on the sector. As capacity increases at the ports, more maritime workers will be required to service it.

Regulatory Requirements

Maritime crews operating in international waters, eg crew on international cargo ships, are regulated by the Australian Maritime Safety Authority (AMSA) which administers the Seafarers' Training, Certification and Watchkeeping Code (STCW 95).

Marine crews operating in coastal waters (eg ferries, charter and fishing) are now regulated by AMSA under the auspices of the Department of Transport (Commercial Vessel Safety Branch) in accordance with the United Shipping Laws (USL) Code.

Marine crews operating in the offshore oil and gas industry (eg tugs, support vessels, barges, rigs etc) are primarily regulated by:

- Australian Maritime Safety Authority (primary regulator)
- Department of Mines and Petroleum
- Department of Transport (Commercial Vessel Safety Branch)
- All marine crews working in port are also regulated by WorkSafe WA.

On 1 July 2013, the Australian Maritime Safety Authority (AMSA) became the National Regulator for commercial vessel safety in Australian Waters. The National Law replaced state and territory laws governing the operational safety of domestic commercial vessels and ensures that standards, rules and subordinate legislation such as regulations and Marine Orders are applied consistently around the country.[36]

The National Law is also designed to apply the National Standard for Commercial Vessels (NSCV) throughout Australia. The NSCV is a set of standards covering commercial vessel operation, construction and crew qualifications developed by State and Territory transport agencies and agreed by Transport Ministers. The NSCV will be implemented through subordinate legislation made under the National Law.[37]

Transport Ministers representing all States and Territories decided in November 2014 that the Australian Maritime Safety Authority will assume responsibility for full delivery of services and funding for domestic commercial vessels by July 2019, with a two year transition period commencing in July 2017. This will see all regulation revert back to AMSA by 2019, when the WA Department of Transport will cease to be responsible.

For commercial vessel operators, this means nothing will change immediately. Regulatory services will continue to be delivered by State and Territory maritime agencies acting as delegates of AMSA, including the administration of certificates, on-water compliance and regulatory investigation. They will also continue to set charges and collect fees for these services. AMSA remains responsible for the development of standards and maintenance of regulations.

Gender/Age Participation

The maritime sector is a very male dominated industry, with approximately 78 per cent of workers being male.[38] Amongst deckhands there is approximately 96 per cent male dominance, with 97 per cent for marine transport professionals, which include Master Fisher, Ship's Master, Ship's Officer and Ship's Surveyor.[39] Of all the maritime occupations, Ship's Engineer has the least female participation, at less than one per cent.[40] This stems from a long history of men at sea, with women not entering many maritime professions until the last

few decades, when accommodation on vessels became more conducive to a female presence.[41]

The ageing of the seafarer workforce is a significant issue, with the average age being 44 years.[42] For deckhands the average age is 52 years and marine transport professionals 50 years.[43] This compares with the average of 39 years for the Australian workforce overall.[44] Approximately 42 per cent of the workforce is aged 45 years and older.[45]

The first big influx of new marine transport professionals does not occur until they are in their mid 20s. This is due in part to the difficulty in entry for younger people, but can also be attributed to the industry's perception of a need for a more mature worker who is prepared to spend long periods at sea.

The age profile can only be addressed by a substantial increase in training of new entrants, especially in technical occupations. Training of engineers is costly, especially if they leave a company on completion of their training for more lucrative opportunities. It is envisaged that the new national system will enable workers to move between vessels and up the career ladder with more ease, so younger deck and fishing hands may be able to take up some of the vacancies. [46]

Under-represented Groups' participation

Approximately 30 per cent of the workforce in this industry was born overseas[47], highlighting the need for increased cultural awareness and recognition of equity and diversity in the workplace.

Although statistics show a low employment rate amongst indigenous workers, some training has occurred in recent years, mostly in regional areas. The following figure shows indigenous training which has occurred since 2010. There has been a shift in training away from the lower level qualifications to Certificate III level.

Figure 2   Indigenous participation in training – Maritime

Traineeships	2010	2011	2012	2013	2014
Certificate II in Coastal Maritime Operations - Coxswain	0	0	1	0	0
Certificate III in Maritime Operations	0	1	0	0	0
Certificate III in Maritime Operations - Integrated Rating	3	11	9	14	3
Institutional Training	**2010**	**2011**	**2012**	**2013**	**2014**
Certificate I in Maritime Operations	5	14	24	0	0
Certificate I in Maritime Operations (Coxswain Grade 2 Near Coastal)	0	0	0	0	1
Certificate II in Maritime Operations	13	32	0	30	1
Diploma of Maritime Operations - Deck Watchkeeper	0	1	2	0	0
Certificate II in Maritime Operations (Coxswain Grade 1 Near Coastal)	29	24	78	64	24
Certificate III in Maritime Operations - Integrated Rating	6	5	0	2	4
Certificate III in Marine Engine Driving - Grade 2	1	3	1	0	0
Certificate III in Maritime Operations (Master Up To 24 Metres Near Coastal)	0	0	0	0	5
Certificate III in Coastal Maritime Operations - Master Class 5	2	2	2	1	15
Certificate IV in Coastal Maritime Operations - Master Class 4	1	2	0	0	1
Total	**60**	**95**	**117**	**111**	**54**

Source: VESU data cube

Major Challenges and Barriers

The skills shortage of marine engineers, officers, masters and marine pilots is related to both a global shortage and the decline of the blue water fleet. While there are still shortages at the high end of these skills, this will ease as a result of the current consolidation of skills due to the lack of training berth space.[48] The Australian shipping industry has seen a dramatic decline over the past two decades in its domestic capacity to recruit, train and employ local seafarers.[49]

One of the key challenges for marine engineer training, like many other maritime occupations, is the requirement for an industry sponsor, which includes employment and time spent upon a ship. The lack of available training berths – related to the falling number of Australian-flagged commercial vessels – makes gaining mandated sea time difficult for trainees.[50]

The sector is feeling the pressure of an ageing workforce, particularly in engineering roles. Compounding this problem, efforts to attract new workers are hampered by the high cost and length and complexity of existing training requirements. The lack of available and suitable training berths makes gaining mandated sea time difficult, particularly within an environment of dwindling fleet numbers. Innovation is somewhat restricted by regulatory requirements. A big challenge to the sector is the capacity to maintain safety, efficiency, international competitiveness and appropriate environmental standards.[51]

Many organisations have few or no attraction and retention strategies in place, nor succession planning, which is vital as older workers retire, otherwise the skills and knowledge acquired over many years will be lost.

Young people are needed to revitalise this ageing industry. Whilst certain aspects of the industry may seem glamorous, the industry as a whole still suffers with a poor image and poorly identified pathways. Although some pathways have been identified, many young people are not aware of the available roles, and therefore do not consider the industry as a career option.[52]

In regional centres, where the nature of work is seasonal, workers are often left with little or no work during off-peak periods. This is especially true in the Fishing and Crayfishing sectors, where new quotas have had a major impact on the workforce. With underutilised skills and little incentive to remain in the region, they often seek more steady income streams in major cities. This is especially concerning in areas where the major workforce does not have the capacity to move to locations where other work opportunities may exist, eg aboriginal workers in the pearling industry, who are left unemployed during the off season or underemployed.

Traineeships and cadetships are problematic as the amount of time in college is costly and workers are being paid, even while the college has time off. There is an issue of time at sea coinciding with training time. Trainees and cadets appear to be spending longer in training, yet a lot of time is wasted through days off or a free week as they cannot be sent to sea for such a short period of time. It could be as long as four years before some theory is put into practice. Trainees can be highly over-trained before they get a certificate of competency.[53]

As a highly regulated industry, previous training was linked to regulatory requirements and not necessarily qualifications, so many workers were not given the opportunity to complete whole qualifications. However, changes to regulatory requirements instigated by AMSA, means that all seafarer's tickets are now aligned to a Training Package qualification.[54]

The lack of equity in funding for different programs makes the high cost of the practical component of training prohibitive to many, particularly those wishing to progress their maritime tickets to move into larger vessels. This is exacerbated by loss of income while training, as well as the cost of training, and in some instances accommodation and the loss of wages during practical periods.

Lack of training places for integrated ratings and marine trainees is also a major issue for this

sector. Training can involve 12 continuous weeks at sea, which takes between 6 and 12 months to complete. There has been a national push to free up berth space, but the decline of the Australian blue water fleet means there is now a reliance on foreign registered vessels to make spaces available, which is not adequate.

Shipping companies operating in the North West and moving ore are struggling to keep up with the demand, with the activity expected to continue to grow over the next decade. Companies also need to offer staff other incentives to work in the North West, such as car, house, subsidies, and longer annual leave, as many do not stay long due to family concerns.[55]

New and Emerging Skills

The increased use of dynamic positioning (DP), a computer-controlled system to automatically maintain a vessel's position, particularly in the offshore oil industry, requires deck officers to have a DP ticket which involves a minimum time on a vessel, plus completion of a relevant course and can take between 6 and 12 months.[56]

Automation is having an impact on the structure of work and skill requirements for both marine and land operations in ports. Skills development opportunities exist in areas of cargo and land-based maritime operations in ports, including business skills, project management and engineering.[57]

Occupations in Demand (ANZSCO Code)

The following occupations are currently on the State Government's Skilled Priority Occupation List. *Please refer to glossary for details of rankings.

ANZSCO Code	Occupation	Ranking*
231211	Master Fisher	2A
231212	Ship's Engineer	2A
231213	Ship's Master	2A
231214	Ship's Officer	2A

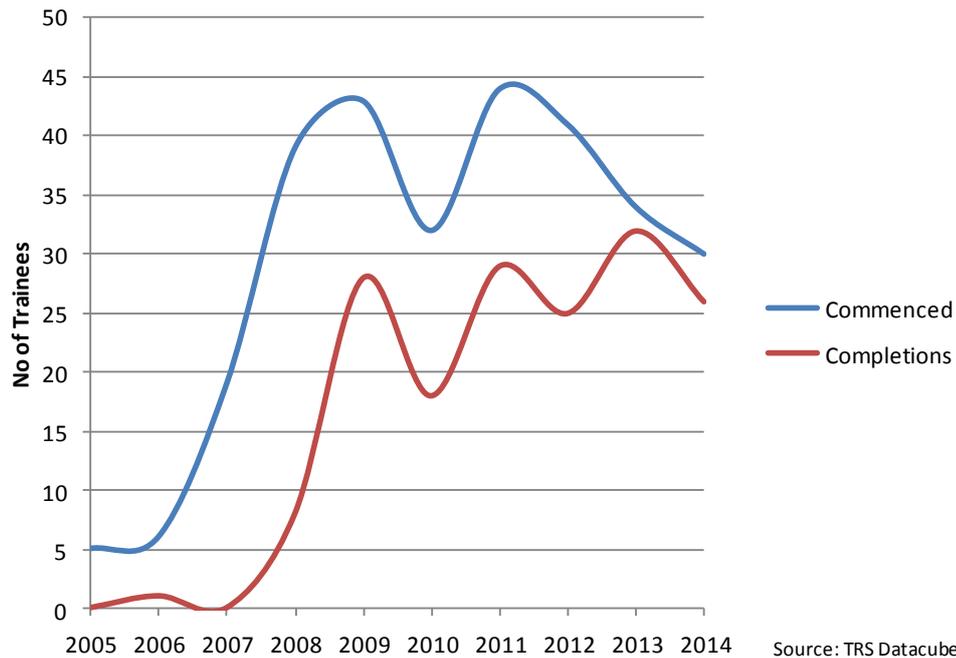## Workforce Development Opportunities

Due to the current age profile, there needs to be a substantial increase in training new entrants, especially in technical occupations. The emerging trend of poaching experienced workers from other companies, or even the navy or customs, has resulted in not enough new trainees being taken on. It is vital the sector trains its own workforce to ensure a viable future in the Maritime industry.[58]

VET Training Data by Qualification – Enrolments and Completions

Apprenticeships and Traineeships

The following figure shows commencements and completions by quarter from 2005 until 2014. Although the numbers of completions are less, they follow the same pattern as commencements, suggesting a certain number leave the sector. In 2013 the increase in the number of completions can be attributed to a shortage of workers, so those in training were encouraged to stay.

Figure 3   Maritime traineeships, commencements and completions

Source: TRS Datacube

Higher Education Pathways

ANZSCO code	Title	Qualification
231212	Ship's Engineer	Bachelor of Applied Science (Marine Engineering) Master of Maritime Engineering (Specialisation) Bachelor of Engineering (Marine and Offshore Engineering) Bachelor of Engineering (Ocean Engineering) Bachelor of Engineering (Naval Architecture) Bachelor of Engineering (Co-operative Engineering Program)
231214	Ship's Officer	Bachelor of Applied Science (Nautical Science) Advanced Diploma of Applied Science (Nautical Science)

Industry Issues

- The maritime industry has been dominated by a cohort of male workers for many decades, due to the physical nature of the work and working conditions. This has included extended periods of time away from home, eg time at sea, which has not always suited a female workforce with family commitments. Whilst many work practices have changed to reflect the more inclusive work environment, there is still a major shortage of women in the workforce.

- The industry has previously had a poor image, being seen as unappealing with no incentive to join. It also has a negative image of itself in regards to attraction, career prospects and even longevity. It is important that this image be changed to reflect the current industry which has become cleaner and more vibrant, with much more reliance on modern technology.

- The industry has traditionally been seen as having few career opportunities or pathways. Although some pathways have been identified, many young people are still unaware of the existence of the industry or have not considered it as a career option. It is imperative that this cohort be attracted into the industry and that pathways be developed and promoted through schools and career development centres. In recent times there has been both national and global recognition of the importance of the supply chain and therefore transport and logistics is becoming an industry of choice.

- The job role of Master has changed, with leadership now a more important role, but it is not covered by training for lower tickets such as Master 5 or Master 3. There is a need to learn how to manage the boat, crew and other stakeholders, especially in the offshore sector, which is causing concerns for those who have not had the opportunity to train in a blue water environment where some of these skills may have been transferred.

- The ageing workforce is a major issue, with many workers in their 60s and 70s. Due to the impending retirement of many of these workers and the skills shortage, it has been recognised that there is a need to keep older workers in the workforce. There may be reluctance by some workers to undergo the training required to fulfill their job requirements, and their current role may no longer be a viable option. It is important to utilise these workers to the best advantage, retaining their skills and knowledge whilst focusing on succession planning.

- Creating cultural change at company and industry-wide levels via communication, involvement and participation, to ensure openness to change and create long-term sustainability of the industry, will also be necessary.

- Just as local companies are sourcing skilled staff from interstate and overseas to complement their workforce; skilled local workers are also being sourced by other states/countries. Companies are competing against each other on a global scale using both monetary and non-monetary benefits to attract the best candidates suited for the role.

- The industry is heavily regulated, and for many companies training is linked to regulatory requirements, not qualifications. This means that many workers have completed skill sets but do not have any whole qualifications and funding is not currently available to employers for skills sets.

- There is a lack of equity in funding for different programs, especially where extensive practical training is required on top of the theoretical component, eg 6-12 months at sea. The high cost of the practical component of training is prohibitive to many, especially for those wishing to progress their maritime tickets to move onto larger vessels. This cost is further exacerbated by loss of income and in some instances accommodation costs while training, as well as the actual cost of training and the loss of wages during practical periods.

- The maritime sector, with its huge presence in the North West, often has to send employees to Perth for training. Many require simulators which are exorbitantly costly and difficult to access. Training for small companies in regional centres is also difficult as they may not necessarily have the numbers for Perth-based trainers to visit on a regular basis, nor the staff to supervise their trainees to the extent required in the meantime.

- Cyclical work practices in the offshore maritime sectors creates a demand for both experienced and trainee seafarers, but when these projects finish they then find a surplus occurs where sea time has not been achieved by those in training. This is an ongoing issue, as industry trains to berth availability, not to industry needs. Many trainees, especially Integrated Ratings, complete their theoretical training but are not able to get a berth.

- Training for Integrated Ratings consists of 78 weeks in total, consisting of 13 weeks at college completing a Certificate III qualification, two weeks' leave and 12 weeks of supernumerary sea time. This is broken into six weeks on, one week off, six weeks on and two weeks off, after which the Provisional Integrated Rating Certificate is issued. The trainee then completes 24 weeks of sea time on an 'even time' roster, ie each day at sea accrues a day of leave, so the trainee works cycles of four or five week duty and leave. Other maritime tickets such as those for marine engineers and deck watchkeepers have the same issues while in training. There are not enough training places for the number of maritime trainees which are needed by industry. Although there has been a national push to free up berth space, with the decline of the Australian blue water fleet there is now a reliance on foreign registered vessels to make spaces available, which is not giving the results needed. Although there is potential in the offshore oil and gas sector, the cost attached to having a person on a vessel not being able to participate in any earning activity, is impacting on availability for berth space as well.

- There is a long lead time to train some workers, with many requiring three to four years, yet with fluctuations in the industry, commitment to train is a problem. Whilst there is a strong commitment to train in some companies, there are many obstacles, eg lack of berth space.

- As the workforce ages, employers are continually faced with the challenge of replacing their retiring workers who have accumulated vast amounts of tacit knowledge over the years. This information is difficult to transfer by written or verbal means. Without the appropriate measures in place there is looming uncertainty which negatively impacts the long term viability of both the company and the industry.

SECTION 4 - INDUSTRY ISSUES AND STRATEGIES FOR WORKFORCE DEVELOPMENT PLAN

Skilling WA: Strategic goal 1		
Increase participation in the workforce particularly among the under-employed and disengaged, mature-aged workers, Aboriginal and Torres Strait Islander and other under-represented groups.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Poor participation by females in the workforce The transport and logistics industry has been dominated by male workers for many decades, due in many instances to the physical nature of the work and the working conditions. This has included extended periods of time away from home, eg time at sea, on the road or in the air, which has not always suited a female workforce with family commitments. Whilst many work practices have changed to reflect the more inclusive work environment, there is still a major shortage of women in the transport workforce.	The LTC is working closely with industry groups representing women in transport to promote job roles currently being undertaken and identify other roles that could potentially be filled by women. This is being done in the following ways: • Creating a dynamic group of female industry champions to promote the industry's benefits to a future female workforce. The LTC is working with industry to identify these champions and develop strategies to promote them, eg school forums, website. • Development of a resource tool promoting women in the workplace, to be added to the Department of Training and Workforce Development's Workplace Essentials website.	1.1.02, 1.1.06, 1.1.08
Ageing workforce A major factor affecting all sectors of this industry is the ageing workforce, with many workers in their 60s and 70s. Due to the impending retirement of these workers and the current skills shortage, it has been recognised that there is a need to keep older workers in the workforce. It is important to utilise these workers to the best advantage, retaining their skills and knowledge whilst focusing on succession planning.	The DTWD has created a website to assist small to medium enterprises by providing relevant information on issues such as dealing with the ageing workforce and the attraction and retention of workers. The Chief Executive Officer of the LTC is a member of the Steering Committee developed to assist in the preparation of relevant materials for the "Workplace Essentials for Better Business" website. Many brochures have been developed, with Brochure 4 – 'Attracting and recruiting the people you need', one of these. Two further relevant brochures are in draft format – 'Investing in the experience of mature-aged workers' (to be released in October 2015), and 'Talent management and succession planning' (to be released in December 2015).	1.5.01, 1.1.06 Crossover 3.4.07

Skilling WA: Strategic goal 3		
Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Attraction and retention of workers The movement out of traditional freight roles into other more highly paid roles has been seen as the biggest barrier in all sectors, particularly road transport and rail, where skills are easily transferable into other industries. However, the downturn in the mining sector has minimised the impact somewhat. The loss of younger workers from regional locations also depletes the levels of available skilled and semiskilled labour pools. Many leave to pursue further studies in specialised subject areas and higher level qualifications at university. Others leave in search of broader career prospects that are not offered locally. It is often left to older workers to shoulder the increased workloads and longer hours. The prospects for retirement are further delayed with no one to take over.	The DTWD has created a website to assist small to medium enterprises by providing relevant information on issues such the attraction and retention of workers. The CEO of the LTC is a member of the Steering Committee established to assist in the preparation of relevant materials for the "Workplace Essentials for Better Business" website. Many brochures have been developed, including Brochure 4 – 'Attracting and recruiting the people you need'. Two further relevant brochures are in draft format – 'Investing in the experience of mature-aged workers' (to be released in October 2015), and 'Talent management and succession planning' (to be released in December 2015).	3.4.03, 3.4.05, 3.4.07
Lack of succession planning As the workforce ages, employers are continually faced with the challenge of replacing their retiring workers who have accumulated vast amounts of tacit knowledge over the years. This information is difficult to transfer by written or verbal means. Without the appropriate measures in place there is looming uncertainty which negatively impacts the long term viability of both the company and the industry.	The DTWD has established a website to assist small to medium enterprises by providing relevant information on issues such as dealing with the ageing workforce and the attraction and retention of workers. The CEO of the LTC is a member of the Steering Committee established to assist in the preparation of relevant materials for the "Workplace Essentials for Better Business" website. A Brochure has been developed, 'Talent management and succession planning', which should be released in December 2015. Through facilitation and links to success stories, companies will be provided with the tools on how to implement succession planning measures. Suitable workers can be identified and prepared over time to transition into upcoming roles.	3.4.03, 3.4.07

Skilling WA: Strategic goal 3		
Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Keeping up with rapidly changing technology With technology changing at such a rapid pace, it is difficult for industry, government and Registered Training Organisations (RTOs) to keep up-to-date, and to implement new technology and processes into the workplace. It is also an ongoing expense, particularly for small companies who cannot afford to keep up with their larger counterparts. As well as having a profound impact on logistics management, with the introduction of Radio Frequency Identification (RFI) and inventory monitoring and control mechanisms, new technology includes remotely operated trains and trucks, modernised shipping vessels and remotely automated aviation systems.	Industry stakeholders will be consulted on what competencies/attributes they would prefer employees to have to cope with evolving work practices. The LTC will also investigate and assist the entity responsible for national training package development to incorporate technological elements into training requirements or skill sets. This will be achieved through the continuous improvement register. Driven by industry, this will ensure that relevant elements of rapidly changing technology are incorporated. Skill sets for industry will offer up-to-date skills needed to complement the theoretical aspects of training offered. Using a best practice model as a benchmark is another method that could be investigated.	3.4.03, 3.4.07

Skilling WA: Strategic goal 4		
Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Poorly identified pathways The transport industry has traditionally been seen as having few career opportunities or pathways. Although some pathways have been identified, many young people are still unaware of the existence of the industry or have not considered it as a career option. It is imperative that this cohort be attracted into the industry and that pathways be developed and promoted through schools and career development centres. In recent times there has been both national and global recognition of the importance of the supply chain and this provides an opportunity for transport and logistics to become an industry of choice. Focussing on online shopping and supply chain concepts may also assist in attracting young workers.	The LTC is creating flexible, clear and relevant pathways and opportunities for advancement in the rail and maritime sectors, including aligning job roles to qualifications; illustrating career progression and opportunities; and creating innovative materials which can be used at expos and distributed to schools and career development centres. The pathways will be authentic with clear outcomes in terms of actual jobs and qualifications, ranging from VET level through to tertiary level. Resources have already been developed for the Supply Chain, Road Transport and Aviation sectors.	4.2, 4.3.01
Limited opportunities and interest through VET in Schools Whilst there has been a high success rate where VET in Schools (VETiS) programs have been introduced through targeted projects, there has been a limited uptake of opportunities by schools generally. This can be attributed to a number of factors, including a lack of knowledge of the industry by both school careers advisers and students. The industry is not seen as interesting or exciting with limited pathways available for students, especially when compared to more highly visible and highly paid careers. In some cases employers would like to engage with students, but may not have a relationship with a school and may not know how to proceed.	The LTC will continue to promote opportunities in the industry to school careers advisors and VET coordinators to highlight VET in schools programs and school based traineeships. This will include the establishing of suitable school based traineeships, eg Yard Operations. The LTC will also be exploring the proposed launch of a Small School Cluster Careers Guidance Pilot Program in the South West Metropolitan region, in association with other Training Councils and the State Training Board.	4.2.05, 4.3.01, 4.3.03, 4.3.04

Skilling WA: Strategic goal 4		
Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Road Transport: Training linked to regulatory requirements only The transport industry is heavily regulated, and for many companies training is linked to regulatory requirements, not qualifications. Currently there are no mandatory requirements in WA for drivers to have any formal training, apart from the relevant licence, which does not provide the background and knowledge required to become a truck driver. The freight task has increased dramatically in recent years, resulting in an increasing number of heavy vehicles sharing the roads with motorists. The safety of all road users is paramount and truck drivers, in particular, need to be skilled and competent to do their jobs. The number of crashes involving heavy vehicles is cause for concern and needs to be addressed.	Promotion of training that will meet regulatory requirements as compliance-based, and building the capacity of the organisation through additional skills contained in the qualifications. The LTC is continuing to work with key stakeholders to identify suitable training once a licence has been achieved so drivers are job ready and more employable. The Heavy Vehicle Industry Safety and Training Alliance (HVISTA) has now been formed to establish strategies to address the issues and move forward.	4.5.05
Poor language, literacy and numeracy skills Poor language, literacy and numeracy (LLN) skills have been identified in a number of sectors including warehousing and logistics, road transport and stevedoring. Employers are reporting that job roles are becoming more multi-skilled, the impact of which is compounded by underlying literacy and numeracy issues and the ability to successfully complete paperwork. This will also impede the upskilling and career progression of staff.	The inclusion of foundation skills which include LLN in new training packages and the requirement for trainers to complete an LLN unit for training and assessment qualifications will ensure that trainees have the best opportunity to improve their levels of LLN. The LTC will also encourage and support RTOs providing training for their staff in the LLN specialisation.	4.1.01, 4.1.02 Crossover 2.3.03

Skilling WA: Strategic goal 4		
Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Limited regional delivery, especially for niche industries with expensive training requirements Some sectors, eg maritime, with their large presence in the north west, have to send employees to Perth for training. Many require simulators which are exorbitantly costly and difficult to access. Training for small companies in regional centres is also difficult as they may not necessarily have the numbers for Perth-based trainers to visit on a regular basis, and may not have the staff to supervise their trainees to the extent required in the meantime.	A coordinated and cooperative approach between industry partners, providers and the LTC is required to successfully run training in regional areas, and includes the following: • Promotion of training and coordination of training dates and venues by appropriate regionally based organisations, followed by training en masse in regional centres to ensure local access is cost effective. • Larger companies with the ability to run their own courses in regional centres to invite companies to participate in training sessions if places available, so it is cost-effective. • Stronger partnerships and auspicing between RTOs and industry, both state and nationally, to strengthen regional access. • Greater support for RTOs in thin markets, especially in a coordinating role and with greater financial incentives. Other strategies could include travel and accommodation funding for regional trainees to visit metropolitan depots of industry partners and the use of E-learning to improve remote delivery capacity for industry.	4.4.01, 4.4.10, 4.5.01

Skilling WA: Strategic goal 4		
Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Shortage of high level workers to run the industry and low investment in training of WA managers There is currently a shortage of high level workers to run the industry. Whereas once staff were promoted from operational backgrounds, many companies are now seeking staff with higher level business skills, which operational staff may not necessarily possess. This applies particularly to the area of project management. It has also been identified that some employers have low levels of investment in the training of their managers.	Core skills required by supervisors and managers at all levels of a business need to be highlighted as this will assist with career progression. Case studies of successful managers are a useful tool, especially those with the ability to inspire others. The use of traineeships and or cadetships would be of great benefit in addressing the training needs of industry. A process where skills gaps are identified amongst new and existing workers will significantly lower the operational challenges associated with inadequately skilled workers as they can be upskilled where required. Through clearer identified pathways into management positions, there is likely to be more interest in the positions that are difficult to fill as awareness becomes more prominent along with greater flexibility in meeting training requirements (especially for those that have to juggle work duties and study).	4.5.05, 3.4.07 Crossover 1.3.03
Long lead time to train workers in some sectors There is a long lead time to train some workers, with many requiring three to four years, yet with fluctuations in the industry, commitment to train is a problem. Whilst there is a strong commitment to train in some companies, there are many obstacles, eg lack of berth space on ships or required flying time.	Companies need to work together to identify opportunities to job share their workforce. This is done in aviation where larger commercial airline cadets work in regional areas to accrue their flying time. It is also necessary to recognise alternative pathways to gaining skills and knowledge, especially in the maritime industry which is still undergoing regulatory changes to streamline processes.	4.4.06, 4.5.05 Crossover 3.4.03, 3.4.07

Skilling WA: Strategic goal 4		
Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.		
Issue (from Section 3)	**Strategy**	**Skilling WA Priority Action**
Aviation: Future predicted shortage of experienced pilots There has been a major resurgence in the Aviation Sector with many new airlines entering the sector and those already operating expanding into new markets. This has seen an increased demand for experienced pilots who, as a result of the reduction in cadet training in recent years, are now thin on the ground. This has been exacerbated by a lack of training opportunities at Perth Airport utilising the Instrument Landing System (ILS).	The Logistics Training Council, under the guidance of the Department of Training and Workforce Development, is due to commence work on the development of a State Aviation Training Strategy. The task at hand will be to further investigate and ascertain the current and future skills needs of the Aviation training sector in Western Australia. This was identified as one of several key strategies put forward by the Department of Transport in its 2015 State Aviation Strategy Paper.	4.5.05 Crossover 5.2.03, 5.2.04
Aviation: Shortage of experienced instructors for pilots There is a shortage of experienced instructors for pilots. An example of this is for pilot training in the aviation industry, where trainers are only paid for flying time, not time on the ground making preparations and conducting briefings and debriefings. Many new pilots take on instructor roles as a way to gain flying time, but this is not always the preferred option.	Stakeholders of the WA Aviation Training Strategy initiative include employers, regulatory authorities, government agencies and training providers. With a focus on training related aspects, the consultation process will assist with the development of an appropriate action plan that will meet the needs of industry moving forward.	

SECTION 5 - RECOMMENDED PRIORITY ACTION PLAN

Skilling WA Strategic Goal 1: Poor participation by women
Strategy from Section 4: Work closely with industry groups representing women in transport to promote job roles currently being undertaken and identify roles that could potentially be filled by women.

Recommended Priority Action(s)	Steps to Implement Actions	Priority	Date to be completed
1. Create a dynamic group of female industry champions to promote the industry's benefits to a future female workforce. The LTC will work with industry to identify these champions and develop strategies to promote them, eg through school forums and the website.	• Organise a steering committee of stakeholders who are interested in promoting the roles of women in industry and utilising the industry association "Transport Women". • Source and engage industry champions through industry associations and business contacts. • Create industry profiles for champions. • Upload profiles to website and promote in newsletters. • Speak at industry forums highlighting women in transport. • Conduct a launch to introduce industry champions with appropriate guest speakers.	High	Ongoing
Lead Agency: Logistics Training Council			

Skilling WA Strategic Goal 1: Poor participation by women			
Strategy from Section 4: Work closely with industry groups representing women in transport to promote job roles currently being undertaken and identify roles that could potentially be filled by women.			
Recommended Priority Action(s)	**Steps to Implement Actions**	**Priority**	**Date to be completed**
2. Develop a resource tool promoting women in the workplace to be added to the DTWD's Workplace Essential website.	• The LTC, working with other stakeholders, eg Chamber of Commerce and Industry (CCI), DTWD, Training Councils and Department of Commerce, will establish a working group to gather relevant information for the leaflet. • Desktop research will be carried out to identify appropriate materials and strategies to be used in the leaflet. • The Working Group will draft the leaflet, following guidelines established by the DTWD. • Draft leaflet will be presented to Workplace Essentials for Better Business Steering Committee. • Any suggested changes will be made before final leaflet is produced by DTWD and placed on their Workplace Essentials for Better Business website.	High	June 2016
Lead Agency: Logistics Training Council in conjunction with DTWD			

Skilling WA Strategic Goal 3: Ageing Workforce
Skilling WA Strategic Goal 3: Attraction and retention of workers
Skilling WA Strategic Goal 5: Lack of succession planning

Strategy from Section 4: Work with the DTWD on the Steering Committee formed to create materials for the "Workplace Essentials for Better Business" website to address the above issues raised in Section 4:

Recommended Priority Action(s)	Steps to Implement Actions	Priority	Date to be completed
3. The CEO will participate on the "Workplace Essentials for Better Business" Steering Committee to develop resources and strategies to address the following: ▪ Ageing workforce ▪ Attraction and retention of workers ▪ Succession planning	• Attend Steering Committee meetings, where possible. • Actively engage with other members to develop resources. • Work with the committee to identify further strategies for the promotion of the website, resources and other beneficial information. • Identify promotional opportunities. • Promote the Workplace Essentials for Better Business website and resources through the LTC website, newsletters, industry and RTO forums.	High	Ongoing
Lead Agency: Department of Training and Workforce Development			

Skilling WA Strategic Goal 4: Poorly identified pathways			
Strategy from Section 4: Create flexible, clear and relevant pathways and opportunities for advancement in the rail and maritime sectors, to be used at expos and distributed to schools and Workforce Development Centres.			
Recommended Priority Action(s)	**Steps to Implement Actions**	**Priority**	**Date to be completed**
4. Create flexible, clear and relevant pathways and opportunities for advancement in the rail and maritime sectors, including aligning job roles to qualifications; illustrating career progression and opportunities; and creating innovative materials which can be used at expos and distributed to schools and career development centres. The pathways will be authentic with clear outcomes in terms of actual jobs and qualifications, ranging from VET level through to tertiary level. Resources have already been developed for the Supply Chain, Road Transport and Aviation sectors.	For each of the Industry Pathways Guides to be developed, the following steps will occur: • Establish a steering committee to plan methodology and management. • Conduct research to ascertain what materials are currently available. • Conduct surveys and meetings with stakeholders to gain information and feedback. • Investigate alignment of qualifications to job titles. • Formulate case studies based on success stories and focus on career progression. • Analyse research and prepare templates. • Liaise with stakeholders and obtain feedback. • Generate materials and supporting documentation. • Upload materials onto website. • Distribute materials to schools and career development centres. • Gain feedback and evaluation of project.	Acute	June 2016
Lead Agency: Logistics Training Council			

Skilling WA Strategic Goal 4: Limited opportunities and interest through VET in Schools
Strategy from Section 4: Promote opportunities in industry to school careers advisors and VET coordinators to highlight VET in schools programs and school based traineeships.

Recommended Priority Action(s)	Steps to Implement Actions	Priority	Date to be completed
5. Promote opportunities in industry to school careers advisors and VET coordinators to highlight VET in schools programs and school based traineeships. This will include the establishing of suitable school based traineeships, eg Yard Operations. The LTC will also be exploring the proposed launch of a Small School Cluster Careers Guidance Pilot Program in the South West Metropolitan region, in association with other Training Councils and the State Training Board.	• Develop a list of school careers advisors with access to the main transport hubs and make contact to arrange meetings to discuss and outline strategies to be implemented. • Identify appropriate schools and conduct targeted visits. • Promote opportunities in the industry to career advisors and distribute relevant materials at VET coordinator functions. • Target industry to identify their specific needs in regards to Yard Operations, with this information provided to the TLISC. • Survey companies to gauge the possible take up of Yard Operations and if the feedback is positive, apply for the qualification to become a school based traineeship. • At the completion of the project ascertain the number of students taking up traineeships in transport and logistics. • Explore the proposed launch of a Small School Cluster Careers Guidance Pilot Program in the South West Metropolitan region, in association with other Training Councils and the State Training Board.	Acute	June 2016 and ongoing
Lead Agency: Logistics Training Council, also school careers advisors in collaboration with the lead agency.			

Skilling WA Strategic Goal 4: Road Transport: Training linked to regulatory requirements only
Skilling WA Strategic Goal 4: Road Transport: Concerns over safety issues

Strategy from Section 4: Promotion of training that will meet regulatory requirements as compliance-based, and building the capacity of the organisation through additional skills contained in the qualifications.

Recommended Priority Action(s)	Steps to Implement Actions	Priority	Date to be completed
6. Work with the Heavy Vehicle Industry Safety and Training Alliance (HVISTA) to identify suitable training once a licence has been achieved, and to develop strategies to address the issues and move forward.	• Identify skills required by Heavy Vehicle Truck Drivers in order for them to gain competence to be a truck driver. • Identify issues facing the licensing and training of heavy vehicle truck drivers. • Develop strategies to address them. • Work with key stakeholders to prioritise actions and identify appropriate steps to be taken. • Present findings and recommendations to the relevant Government Departments.	High	Ongoing
Lead Agency: Logistics Training Council			

Skilling WA Strategic Goal 4: Shortage of high level workers to run the industry and low investment in training of Western Australian Managers			
Strategy from Section 4: Apply for traineeships in higher level qualifications, which will address the training needs of industry and encourage companies to invest in training.			
Recommended Priority Action(s)	**Steps to Implement Actions**	**Priority**	**Date to be completed**
7. The use of traineeships and or cadetships will be of great benefit in addressing the training needs of industry. A process where skills gaps are identified amongst new and existing workers will significantly lower the operational challenges associated with inadequately skilled workers. Through clearer identified pathways into management positions, there is likely to be more interest in the positions that are difficult to fill as awareness becomes more prominent along with greater flexibility in meeting training requirements (especially for those that have to juggle work duties and study).	• Consult with industry stakeholders regarding requirements of supervisors and managers. • Survey companies to gauge the possible takeup of the Certificate IV and Diploma of Logistics. • Identify pathways into management positions. • Investigate the flexibility options of employers to allow staff to train. • Approach suitable registered training organisations regarding their capability to deliver the Certificate IV and Diploma of Logistics. • Submit an application to the State Training Board for the establishment of a traineeship in Logistics.	High	June 2016
Lead Agency: Logistics Training Council			

Skilling WA Strategic Goal 4: Predicted future shortage of experienced pilots
Skilling WA Strategic Goal 4: Shortage of experienced instructors for pilots

Strategy from Section 4: The Logistics Training Council, under the guidance of the Department of Training and Workforce Development, is due to commence work on the development of a State Aviation Training Strategy.

Recommended Priority Action(s)	Steps to Implement Actions	Priority	Date to be completed
8. The Logistics Training Council, under the guidance of the Department of Training and Workforce Development, is due to commence work on the development of a State Aviation Training Strategy. The task at hand will be to further investigate and ascertain the current and future skills needs of the Aviation training sector in Western Australia. This was identified as one of several key strategies put forward by the Department of Transport in its 2015 State Aviation Strategy Paper. Stakeholders of the WA Aviation Training Strategy initiative include employers, regulatory authorities, government agencies and training providers. With a focus on training related aspects, the consultation process will assist with the development of an appropriate action plan that will meet the needs of industry moving forward.	• Define project scope and responsibilities. (DTWD) • Establish a Steering Committee and set Terms of Reference. (DTWD) • Consult with metropolitan and regional stakeholders. • Liaise with and obtain input from interstate counterparts engaged in similar endeavours: (eg members of the Aviation skills and training working group; Department of Infrastructure and Regional Development) • Collate and prioritise industry training needs based on feasibility. • Allow for stakeholders to provide feedback and comments. • Review and confirm the proposed strategy with the Steering Committee. • Generate a report and present recommendations to the Steering Committee for final sign off. • Present final report to WA Department of Training and Workforce Development.	Acute	Late 2016
Lead Agency: Department of Training and Workforce Development			

SECTION 7 – APPENDICES

Western Australian Port Authorities Imports and Exports for 2014[59]

SECTION 8 - LIST OF TABLES

SECTION 9 - GLOSSARY

Occupations in Demand Ranking

An occupation listed on the SPOL may be assigned to one of five separate categories:

State Priority 1	These are the highest priority occupations. They will generally be of the highest skill level (critical occupations), statistically ranked very highly and experiencing unmet demand.
State Priority 2A	These are at the second highest level of priority. They will be of the highest skill level and statistically ranked very highly meaning that it is desirable to maintain supply in these occupations, despite there being little evidence of unmet demand.
State Priority 2B	These are at the second highest level of priority. They are not necessarily occupations of the highest skill levels, but they will be statistically ranked very highly and they are experiencing unmet demand.
Priority 3	These are the third tier and represent industry or regional-level priority occupations. They tend to be either occupations experiencing unmet demand or highly-skilled occupations. Statistically, they will be ranked at a lower level than State priorities.
Other Identified Occupation	This category refers to occupations where issues have been identified through consultations undertaken across various industries or regions; however at the current time there is not enough evidence to support the existence of widespread unmet demand or other, non-market factors which would see their elevation to a priority status.
	These occupations are being closely monitored by DTWD for any evidence which may see them elevated to a priority status in the future.

Endnotes

[1] Australian Government, Department of Infrastructure and Transport, Stronger Shipping for a Stronger Economy

[2] Ports Handbook Western Australia 2014, Department of Transport

[3] Industry consultation

[4] Ports Handbook Western Australia 2014, Department of Transport

[5] Transport and Logistics Industry Skills Council 2013 Environmental Scan

[6] 2011 Census of Population and Housing

[7] The Australian Maritime Census January 2013, Department of Infrastructure and Transport

[8] The Australian Maritime Census January 2013, Department of Infrastructure and Transport

[9] Job Outlook – www.joboutlook.com

[10] Australian Government (2011) Job Outlook – www.joboutlook.gov.au

[11] Industry consultation

[12] Transport & Logistics Industry Skills Council 2012 Environmental Scan

[13] Australian Workforce Development Strategy May 2013, Department of Infrastructure and Transport

[14] Australian Government, Department of Infrastructure and Transport, Stronger Shipping for a Stronger Economy

[15] Stronger Shipping for a Stronger Economy, Department of Infrastructure and Transport

[16] Industry consultation

[17] Ports Handbook Western Australia 2014, Department of Transport

[18] Ports Handbook Western Australia 2013, Department of Transport

[19] Ports Handbook Western Australia 2014, Department of Transport

[20] Australian Maritime Workforce Development Strategy, Federal Department of Infrastructure

[21] Transport & Logistics Industry Skills Council website, www.tlisc.org.au

[22] Industry consultation

[23] TLISC Environmental Scan 2015

[24] Ports Handbook Western Australia 2014, Department of Transport

[25] Industry consultation

[26] Industry consultation

[27] Industry consultation

[28] Industry consultation

[29] Transport and Logistics Industry Skills Council 2013 Environmental Scan

[30] Australian Government (2015) Job Outlook – www.joboutlook.gov.au

[31] Chevron Australia website – www.chevronaustralia.com

[32] Offshoretechnology.com

[33] Chevron Australia website – www.chevronaustralia.com

[34] Inpex website – www.inpex.com.au

[35] Industry consultation, March 2013

[36] Department of Infrastructure and Transport, National Maritime Safety Regulator, website: www.infrastructure.gov.au

[37] Department of Infrastructure and Transport, National Maritime Safety Regulator, website: www.infrastructure.gov.au

[38] 2011 Census of Population and Housing

[39] Job Outlook – www.joboutlook.com.au

[40] The Australian Maritime Census January 2013, Department of Infrastructure and Transport

[41] Industry consultation

[42] The Australian Maritime Census January 2013, Department of Infrastructure and Transport

[43] Job Outlook – www.joboutlook.com

[44] 2011 Census of Population and Housing

[45] Transport & Logistics Industry Skills Council 2013 Environmental Scan

[46] Industry consultation

[47] 2011 Census of Population and Housing

[48] Industry consultation

[49] Australian Maritime Workforce Development Strategy May 2013, Department of Infrastructure and Transport

[50] Transport & Logistics Industry Skills Council 2015 Environmental Scan

[51] Transport & Logistics Industry Skills Council 2012 Environmental Scan

[52] Industry consultation

[53] Industry consultation

[54] Australian Maritime Safety Authority – www.amsa.gov.au

[55] Industry Stakeholder consultation

[56] Industry consultation

[57] TLISC Environ mental Scan 2015

[58] Australian Maritime Workforce Development Strategy May 2013, Department of Infrastructure and Transport

[59] Ports Handbook Western Australia 2014, Department of Transport