‘Resourcing the Future’ Discussion Paper of the National Resources Sector Employment Taskforce Response

Australian Industry Group and
Australian Constructors Association

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Introduction

The Australian Industry Group and the Australian Constructors Association are pleased to have this opportunity to provide a submission to the National Resources Sector Employment Taskforce. The direct and indirect employment which it is anticipated will be created by the major resources projects in the pipeline is so considerable that it has the potential to impact across the economy, across the country. The scale of the challenges is well captured in the National Resources Sector Employment Taskforce discussion paper, 'Resourcing the Future'.

About The Australian Industry Group

The Australian Industry Group (Ai Group) is a leading industry association in Australia. Ai Group member businesses employ around 750,000 staff in an expanding range of industry sectors including: manufacturing; engineering; construction; automotive; food; transport; information technology; telecommunications; call centres; labour hire; printing; defence; mining equipment and supplies; airlines; and other related service industries.

About Australian Constructors Association

The Australian Constructors Association (ACA) represents the nation's leading construction contracting organisations. ACA is dedicated to making the construction industry safer, more efficient, more competitive and better able to contribute to the development of Australia.

ACA member companies operate in a number of market sectors including residential and non-residential building, engineering construction, process engineering, contract mining, maintenance and services, oil and gas operations, telecommunications services and environmental services.

Association members operate globally, with member companies operating in Australasia, Europe, Asia, North and South America and the Middle East. Collectively ACA member companies have a combined annual revenue in excess of $50 billion and employ over 100,000 people in their Australian and international operations.

In preparing this submission AiGroup has drawn on the expertise of its Education and Training Policy team and also its member advisors located in Queensland, New South Wales and South Australia who are dealing directly with member companies on a day-to-day basis on skilling issues.

In developing this response AiGroup and ACA have sought to address the specific concerns, issues and questions identified by the Resources Sector Taskforce. However, it is our firm view that in addressing the employment issues this sector will undoubtedly face in the return to growth, three key organising principles must be adhered to. These principles have been carefully constructed with the view to balancing short term opportunities, economic and social considerations and importantly the long term effects of the resources boom to leave a positive legacy.

The principles are:

Principle1: The right to extract resources owned by Australia brings with it a commensurate obligation. The legacy effect of mining operations in Australia must be the development of a skilled labour force able to work within and beyond the resources sector over the foreseeable future.

Principle 2: The development of a skill labour force brings both public and private benefits. The costs of skills development must be shared by the enterprise, the government and where relevant, the individual. This is an investment.

Principle 3: Expansion of the resources sector must bring with it appropriate investment by the public and private sectors in associated economic and social infrastructure and the development of sustainable, viable and healthy communities.

RESOURCE SECTOR OPERATIONS

Does the information in the discussion paper provide an accurate outlook for the resources sector? What alternative sources of data will the taskforce need to examine?

The discussion paper sets out the current ABARE intelligence on new major projects. Individual companies can provide informed comment on the accuracy of the ABARE list and its classification into Advanced or Less Advanced projects.

There are a number of other sources of information that could contribute to a more complete picture of developments in the resources sector. These include data from the Australian Bureau of Statistics, market reports produced by Access Economics, BIS Shrapnel, Macromonitor and IBISWorld.

The Australian Industry Group and the Australian Constructors Association also publish the Construction Outlook Report. The most recent (unpublished) report includes the following observations:

Total employment continued to expand in the year to February 2010, although the rate of growth (1.3%) was slower than the increase of 2.3% recorded during the previous 12 months. Across the industry, the number of on-site and off-site employees increased by 3.5% and 2.9% respectively, while the number of sub-contract tradesmen declined by 3.3%.

It is expected that employment will increase at a higher rate over the remainder of 2010 and during the first half of 2011. Over the period February to December 2010 total employment is forecast to rise by 2.8%, with increases expected to be at the highest level among off-site employees (4.5%).

Thereafter to June 2011, total employment is expected to register a further increase of 4.8%. Over this period employment growth is led by solid growth of 6.7% in on-site employees, with the expected higher level of new project work in 2011 set to place the strongest demand on on-site resources.

Supply constraints continue to exert significant pressures on the industry. In particular, demand for labour remains high due mainly to the lift in resource related construction and scale of projects in the pipeline. Reflecting this, almost one in every two companies surveyed (48.5%) reported either major or moderate difficulty in the recruitment of qualified labour during the six months to February 2010. This was in line with the proportion (48.6%) citing this level of difficulty in the previous six months period. With respect to the sourcing of sub-contractors, 27.2%, down slightly from 29.7% in the previous six months period.

For capital supplies, 33.3% (up from 27.8%) reported major or moderate difficulty in the sourcing of building materials, while 9.2% (down from 16.2%) reported major or moderate difficulty in the hiring and purchasing of equipment.

Supply constraints are expected to exert increased pressures in the short term. Over the six months to September 2010, a higher proportion of firms expect major or moderate

difficulty in the recruitment of qualified labour (54.9%), the sourcing of sub-contractors (35.4%), the sourcing of building materials (41.9%) and the hiring and purchasing of equipment (9.7%)

THE DEMAND FOR LABOUR AND SKILLS

What is the best way to identify the skills needs of the resources sector? How do we create the market that allows for the best match between skills and job opportunities?

ACA member companies are involved in the construction of mine infrastructure or act as contract miners for a mine owner. They are also responsible for the construction of infrastructure to extract and process oil and gas products and for infrastructure required to transport and ship product and for the construction of supporting community infrastructure including accommodation for workers.

Increasingly major contractors through their maintenance and services operations have also played a critical role in providing infrastructure services through the life of projects.

From a contractor's perspective the issue of identifying new projects is important but the timing of project initiation is even more important. At some stage a project horizon translates into a pipeline of project work. The capacity of the industry to respond depends greatly on the scheduling of this pipeline of work. Where the pipeline is "lumpy" with a number of major projects coming to market at the one time, inevitably there will be competition for scarce resources with the potential for significant price escalation.

Where the scheduling of major projects is orderly, the industry can respond more efficiently and the resourcing of these projects will be more effective.

We also recognize that the scheduling of projects is both finance and market driven. In that context it will be extremely difficult to develop a model that can predict with any certainty the timetable for project initiation.

Contractors continue to be agile organisations that can respond to the market place with reasonable speed. But there will be bottlenecks and ultimately resource tightening will have an impact on the cost of project development and ultimately the client's decision to proceed.

It is questionable whether it is possible to establish planned equilibrium between skills and job opportunities. What is not questionable is that the core of skills needed by the industry should be "home grown". This brings with it a number of challenges including, increasing school retention rates, raising youth engagement in the sector, improving the quality and quantity of education and training and improving the skills of the existing workforce.

Immigration policy and flows between sectors will assist to maintain the balance if the core is strong. The challenge is for Australia to maintain the core supply of professional and technical skills and to provide a working environment that maximizes participation by sectors of the labour market that have become disengaged.

What is the most appropriate role for the resources sector in meeting its future skills needs? What should be the role of the Australian Government, state governments, enterprises and projects, regions and industry associations in skills formation and labour retention?

Clearly the skilling of Australia is a responsibility which must be shared between Australian governments, enterprises and individuals. The resources sector has a key role to play in skilling the workforce it will need to underpin its operations. That role includes the provision of funding and making available skilling opportunities across all of the skill levels of this workforce. The role also extends beyond direct employment into contract employment and in many cases indirect employment. Given the projected scale of the demand for skills the sector must work cooperatively – and quickly – to put in place the mechanisms to aggregate demand and to support innovative and flexible training delivery.

What role does off-site fabrication currently play in the construction of resources operations? What are the benefits and opportunities of using off-site fabrication?

Off-site and off-shore fabrication has played a significant part in the development of major resource projects.

This has implications for Australian fabrication capability, its international competitiveness and for Australian manufactured product (particularly steel) used in fabricated components.

Many of Australia's resource projects are procured internationally. It is not unusual to have a USA-based EPCM contractor with engineering design managed from the UK and fabricated components manufactured in Singapore or Korea. In these circumstances Australian firms must be able to compete on both price and technical capability.

The Australian Government has supported the Industry Capability Network (ICN) through the Supplier Access to Major Projects (SAMP) program to match Australian companies with supply opportunities. The ICN can provide project proponents and procurement managers with advice on Australian industry capabilities.

An Australian Industry Participation Plan is also required for projects wishing to access the Enhanced Project By-law Scheme (EPBS).

On 20 November 2009, Senator the Hon Kim Carr announced the appointment of the Supplier Advocate for the Steel Sector, Mr Cyril Benjamin. The prime focus of the Steel Advocate will be to improve opportunities for Australian steel and fabrication businesses to win major procurement contracts. The Steel Advocate's initial activities will include meeting project developers and end-users to follow up opportunities and provide feedback to the industry and government.

The Federal Government established the Steel Industry Innovation Council in July 2009. The Council has commenced an industry capability study to support work by the Steel Supplier Advocate to increase access by Australian suppliers to major infrastructure projects. The Steel Council is also working to identify priority opportunities for the Advocate to work with Enterprise Connect and the Industry Capability Network.

What are the positive and negative impacts of resources projects on the demand for labour and skills in other industries, and how can these be addressed?

The Australian Industry Group and the Australian Constructors Association member companies provide skilled labour at several stages of the project life cycle and engage a variety of high level professional, technical, and specialist trade skills including the following:

Infrastructure

- Project Managers
- Civil engineers
- Human resources specialists
- Workplace health and safety specialists
- Community relations managers
- Contract administrators
- Estimators
- Mechanics (Diesel and Plant)
- Electricians
- Equipment/Plant Operators
- Supervisors, Foremen and Leading Hands
- Pipe layers
- Administrative staff (accounting, procurement, contract)

Mining

- Project management and high level engineering skills (civil, mining, electrical, process, mechanical, electronic and environmental)
- Human resources specialists
- Workplace health and safety specialists
- Community relations managers
- Mechanics (Diesel and Plant)
- Electricians
- Metal Fabricators
- Fitters and machinists
- Equipment Operators
- Miners
- Supervisors, Foremen and Leading Hands
- Administrative staff

Oil and Gas

- High level project engineers – offshore and onshore installation, (including structural, electrical, instrumentation, mechanical, process, design, piping, HVAC)
- Human resources specialists
- Workplace health and safety specialists
- Contract administrators

- Estimators
- Electricians
- Equipment/Plant Operators
- Supervisors, Foremen and Leading Hands
- Riggers /scaffolders
- Welders
- Pipe layers
- Trades assistants
- Administrative staff (accounting, procurement, contract)

Labour Hire

- Technical and trade skills

Infrastructure spending in Australia is estimated to increase by over 20% in 2010 with significant public sector commitments to social infrastructure spending (particularly in education, social and defence housing and health), transport, telecommunications (the NBN is due to start in 2010) and water projects.

This is in addition to electricity and mining related transport projects.

The impact of this spending is that resource projects will be competing for labour with significant infrastructure projects not only in Queeensland and Western Australia, but in Victoria, New South Wales and South Australia.

QANTAS has recently announced that it will be operating flights direct to Karratha from Sydney and Melbourne. Fly-in and fly-out operations are already in place direct between Queensland and Western Australia's north west.

The construction sector meets demand through direct employment - recruitment and retention strategies are at the centre – the use of specialist contractors and subcontractors, and use of labour hire firms.

In bidding for a new project contractors will assess their own capability and where necessary joint venture with other contractors who can provide supplementary technical and construction skills and who are prepared to share the construction risk.

Contractors tend to segment their businesses – building, civil, mining/resources, maintenance/services. These skills are however extremely mobile. For example, if there are no major projects in an eastern state, a contractor will focus its business development activities on those states and regions that offer opportunity. When major project capability moves from one state/region to another the market in that state is less competitive.

What is less clear is the impact of the resources projects in Western Australia and Queensland on regional Australia and this needs further investigation.

In the previous boom, AiGroup's considerable manufacturing sector membership was adversely affected by the drawing power of the major resource companies which could offer significantly higher wages to attract many of the skilled workers on which the

manufacturing sector relies. This resulted in both labour and skills shortages for this sector. An increased commitment to entry-level skilling by the resources sector would go some way to offsetting the negative impacts; there is a strongly held view that the resources sector's approach is to rely on other sectors to undertake initial trades training and then offering a premium for skilled workers to change employers.

INCREASING THE SUPPLY OF LABOUR

What are the opportunities for increased participation by women in the resources sector? What strategies could be used to get more women to work on resource operations?

The discussion paper cites the Unearthing New Resources - attracting and retaining women in the Australian minerals industry report.

The report notes that women comprise 18% of the minerals industry workforce (site and corporate) compared to the then national participation rate of 45% with women representing just over 3% of all employees at mine sites and minerals processing operations.

The report also noted the structural elements of working in the minerals industry that militated against a higher participation by women including:

- The low level of part time work available in the industry when nationally and across all industries 40% of female employment is part time;
- The industry's culture of long hours and intensity had a more negative impact on women than men;
- The remote nature of the industry's operations was an inhibiting factor.

The report made a series of recommendations under a number of key headings:

- Industry leadership
- Attraction strategies
- Recruitment strategies
- Workplace policies, systems and processes
- Retention strategies
- Workplace culture and
- Career development.

What is not clear is how much progress has been made on the implementation of these strategies. It is our view that this report and its recommendations provides a blueprint for collaboration between the private and public sectors including the education sector and its implementation should be encouraged and promoted.

What do you consider are the opportunities for increased workforce participation by older workers in the resources sector?

Recruiting and retaining older workers will be an increasingly important challenge for the resources sector as it faces a shrinking pool of labour, systemic skill shortages and confronts poaching of employees and spiraling labour costs.

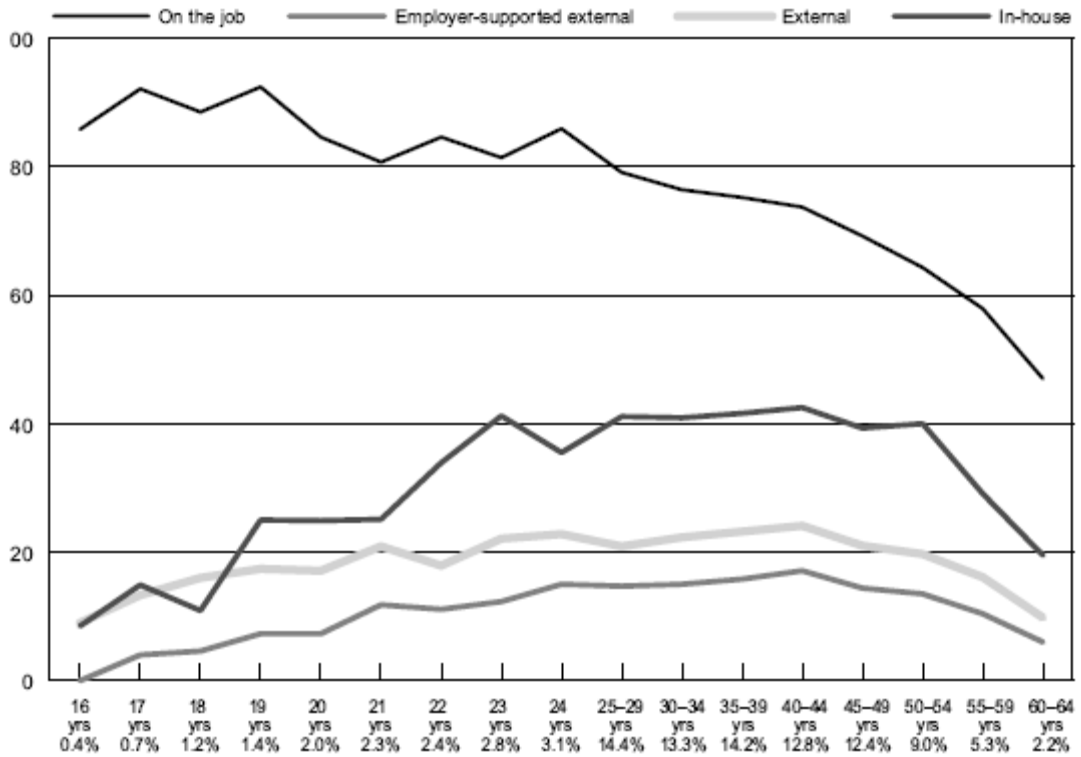
For every new young person entering the labour market there are seven aged over 45. Over the next decade one third of the current workforce will approach retirement.

However, increasing life expectancy (20 years longer than in 1920) and the fact that older Australians are healthier and are better educated provides an opportunity for them to stay in the workforce longer if flexible options were available.

Employers often prefer to hire workers from particular age groups and that is an attitude or policy barrier that will need to be challenged. They will need to ignore popular stereotypes of mature age employees and have strategies in place to retain older workers eg older workers can't or won't change.

This may include developing phased retirement and mentoring schemes and other initiatives which are attractive to older workers such as flexible work arrangements like flexible job roles which allow people to move into less physically demanding roles and flexible employment which allows people to work for a period and then to take a relatively extended period of leave – before returning to work again.

Importantly employers need to plan for a balance of youth and experience and develop the strengths and skill levels of all staff regardless of age. Participation in all forms of learning for those in the workforce declines with age as the chart below clearly demonstrates[1]. The challenge will be to work against this trend and to ensure that older workers have the skills needed to underpin increased participation levels.



[1] Richardson S, *Employers Contribution to Training*, NCVER 2004

What do you consider the opportunities for increased workforce participation by the underemployed in the resources sector?

There are opportunities for increased participation by those who are underemployed, marginally attached to the labour market and unemployed. In this regard the resources sector is no different from any other sector, although geographical factors would be a particular barrier to increased participation for these groups.

The main area to be addressed in this regard is more likely to relate to the relative levels of language, literacy and numeracy within these cohorts. This problem is not unique to any sector of the economy, although Ai Group research indicates that certain occupational groupings are more affected by low levels of literacy and numeracy – for example, 45% of companies reported that labourers and process workers were significantly affected.[2] A sustained strategy to address these difficulties will be required.

Other supports will also be necessary to assist people who have been underemployed to successfully make the transition to higher levels of employment including mentoring and possibly the availability of employee assistance services.

What do you consider are the opportunities for increased indigenous workforce participation?

Companies have been asked to respond separately regarding their current levels of indigenous participation and strategies to achieve indigenous employment goals.

We therefore frame our comments on the broader issue of indigenous employment.

On 24 February 2010 the Federal Government convened a Business Leaders Forum in Canberra to discuss indigenous employment issues.

There were a number of key actions arising from the Forum:

I. The establishment of the Indigenous Employment and Enterprise Network;
II. The development of a Roadmap that focused on the key areas of
    - School to work transition and employment pathways
    - Effective recruitment and retention strategies
    - Building and growing indigenous enterprises and
    - Mentoring and role models.
III. The establishment of a targeted action group to action priorities.

The Forum was not focused on the resources sector although a number of resource sector related enterprises participated including – BHP Billiton, Chevron, Fortescue Metals Group, Leighton Contractors, Lend Lease, Ngarda Civil and Mining, Oz Minerals, Rio Tinto Australia, Santos, Shell Australia, SKM, Skilled Australia, Transfield Services,

[2] National Workforce Literacy Project 2010 – Ai Group

Westfarmers, Woodside, as well as the Aboriginal Employment Strategy, Australian Employment Covenant, Australian Indigenous Education Foundation, Clontarf Foundation, Central Queensland Indigenous Development, Indigenous Business Australia, National Centre for Indigenous Excellence participated in the Forum.

With this initiative now underway it is strongly recommended that the NRSET and the Indigenous Employment and Enterprise Network combine resources in addressing indigenous employment strategies in the resources sector.

What role can fly-in fly-out (FIFO) play in addressing unemployment in regions with high numbers of job seekers while meeting the resources sector's needs?

FIFO arrangements have operated since the late 1940s originating in the offshore oil industry in the Gulf of Mexico. In the North Sea in the 1980s it was estimated that 60,000 workers operated on a FIFO basis.

From all reports FIFO is a demanding lifestyle with workers typically working three weeks on and one week off.

The utilization of FIFO in onshore operations is an attractive option where there is no sustainable community infrastructure to support a more traditional employment pattern. The benefit to workers is that they have regular contact and access to their families and home communities and are not required to dislocate partners from their careers or dependent children from their schools.

As noted earlier FIFO arrangements are now in place from Perth, Brisbane and shortly in Sydney and Melbourne.

It is therefore possible to provide the unemployed or underemployed from regional Australia the option to utilize their existing skills via FIFO operations although it is unlikely to ever provide a main source of skilled labour.

It is an option that warrants further investigation via a pilot scheme to determine whether FIFO can deliver a cost-effective option to addressing regional unemployment. Though again, it will be important to build in a range of supports to help unemployed people to make the transition to full employment especially given the intensity of the FIFO model.

What strategies can be used to encourage unemployed Australians, including those who lost their jobs during the global recession and disadvantaged job seekers, to get jobs in the resources sector? How can Job Services Australia providers best service the needs of the resources sector?

These job seekers need clear information on what skills are in demand in the resources sector and assistance from both the resources sector and the Australian Government and relevant State or Territory Government to gain those skills. A significant proportion of this group will require language, literacy and numeracy skill development and this must be made readily available. AiGroup research has shown that literacy deficits are a safety issue and this will be particularly problematic in an inherently dangerous workplace. Information must be available on conditions in the areas being mined including housing availability and also the services available. Relocation assistance will be essential as many of these people will have limited financial resources.

What can be done to encourage and increase interstate/intrastate labour mobility, including for apprentices? Do you have any ideas for increasing intra/interstate migration?

It must be noted that models designed to specifically increase the mobility of skilled labour from the source of its development do so at the expense of labour and skill supply in non resources areas. The resources sector has in the past used significantly higher wage levels than possible in other locations as its key recruitment strategy. Ai Group and ACA expect that this pattern will re-emerge particularly as skill shortages intensify with continued improvements in economic conditions. Thus, it is questionable whether an 'organised and sanctioned' strategy of encouraging labour to relocate to geographically remote locations for work related to the resources sector is necessarily in the interests of all enterprises across the country and the economy. The economic rewards do accrue to the individual and they respond accordingly.

There is, possibly, a different position to consider in relation to apprentices. In the past, the resources sector has low employment rates of apprentices. The reasons for this, whilst varied, generally relate to some state-based legislative restrictions preventing mine operators employing people under the age of 18; safety concerns; poor or no training facilities and the lack of a culture to facilitate apprenticeship arrangements; and difficulties young people face when 'isolated'.

It is the view of Ai Group and ACA that the development of skilled labour, ie through apprenticeships, needs to be tackled head on. The first and most obvious method would be to require resource companies to employ a ratio of at least 10% of their labor force as apprentices. This is consistent with the recommendation from the COAG Apprenticeship Taskforce in relation to all forms of public tendering and procurement, particularly as it relates to stimulus spending. Obviously resource and construction companies would be required to invest in this space by providing suitable training arrangements and workplace support. It does not require a lot of imagination to identify a range of strategies that would be beneficial in this respect. The obvious starting point is strong partnerships with TAFE or other capable providers. Logic tells us that if workers can be flown in and out so too can trainers. Greater utilizations of e-learning and other arrangements should also complete the mix.

- Other models to explore include development of a 'group training' model to specifically address the unique needs of the resourcing sector. Attached is summary information of an innovative model piloted by AiGroup for the air warfare destroyer project in South Australia – a project which has some strong similarities with resources sector projects.

- Gap-year within apprenticeship arrangements (happens informally, but institute a sanctioned model)

- Greater utilization and skill development of local indigenous population. This would require a specially developed and customised apprenticeship model.

What role should immigration play in meeting the skilled labour needs of the resources sector? How can the resources sector's needs be balanced with other regional and national skills needs?

The construction industry is looking at the prospect of a re-emergence of acute skill shortages. To address this, a supply of temporary skilled labour as provided by the 457 visa program will be absolutely essential for the foreseeable future.

This is due to a number of factors including the demographic pressures of our ageing population and increasing demand for skilled labour as the recovery regains momentum.

Ai Group research, Skilling Business in Tough Times, found that skills shortages continue to be a major strategic issue for business. The survey in late 2009 anticipated skills shortages for a range of occupations. Most prominent among these are skills essential for the construction industry: 28.1% of companies expect shortages of technicians and trades workers and 15.3% of companies expect shortages of engineers.

Boosting the level of training in our own workforce in these critical skills is also essential, and is happening, but training is of itself not sufficient to meet our skills requirements. Permanent and temporary immigration programs will therefore remain an important part of the skills solution and the skilled trades and engineering need to remain priority occupations in both programs.

How can we fully understand the future skills requirements of the resources sector and best allow the market to match skill requirements to available work opportunities?

Resource companies need to develop and articulate skill requirements over short and medium term cycles as a standard part of operating a business in any environment. The labour market will respond to skill requirements according to the desirability of arrangements and benefits that flow from them. Unfortunately, large and often short term spikes in demand can present difficulties in the labour market/skills planning. Nonetheless, just as companies plan for capital, infrastructure and investment they must also plan for skills. In order for publicly funded systems, ie the national training system, to help prepare to meet these needs such plans, at least at the top level, need to be aggregated and shared. This could be a task undertaken by industry skills councils with coverage of the relevant occupational groupings. However, public planning will only be as good as the data supplied from the relevant enterprises and investment groupings.

How responsive is the education and training system to the resource sector's skills requirements? How could responsiveness be improved? How effectively are the resource's sector skill requirements conveyed to the education and training sector?

It is difficult to prepare and respond to any event or trend without accurate and reliable information. The education and training sector will need a high level of responsiveness and agility to meet the needs of the resources sector and the subsequent effects on other sectors in the Australian economy. This is best done through the development of mature and sustainable partnerships between the resources sector/companies and training and higher education providers. There are numerous examples of good partnerships. However, they need to be further developed and expanded. Consideration needs to be given to the impediments that have traditionally prevented such partnerships from developing to another improved level. Many of these impediments exist within the training system, ie funding models, record keeping

systems, staff capability, etc. A quarantined, in-depth partnership between a significant resource sector project and an RTO would be beneficial. This project would aim to generate real and workable solutions but at the same time identify impediments that exist more broadly. These impediments could then be considered with the view to adjustment by the appropriate authority within the education and training system.

Responsiveness can only be improved with the right information and resources.

What reforms would make the apprenticeship and wider skill formation system more sustainable for the resources sector and less vulnerable to shifts in economic demand? How can apprentice completion rates be improved?

Ai Group and ACA fully support the recommendations of the COAG Apprenticeship Taskforce as accepted by COAG December 2009.

Ai Group and ACA are also mindful that apprenticeship completion rates can be negatively impacted by many things, including growth in the resources sector. It will be increasingly important over the short to medium term to heighten our focus in enhancing apprentice completion rates.

According to the latest NCVER Apprenticeship data (September 2009) there were 425,500 apprentices and trainees in-training as at 30 September 2009; a decrease of 2.4% from the previous year.

In the 12 months to 30 September 2009, compared with the previous year:

- commencements decreased by 6.9%, to 269 000
- completions increased by 5.8%, to 158 700
- cancellations and withdrawals decreased by 4.8%, to 127 500.

For seasonally adjusted data, comparing the September quarter 2009 with the June quarter 2009:

- commencements in trades occupations decreased by 0.6%
- commencements in non-trades occupations increased by 1.0%
- completions increased by 1.1%
- cancellations and withdrawals decreased by 0.7%
- in-training numbers decreased by 0.2%.

The number of commencing apprentices in the 12 months ending 30 September 2009 was 269,000, a decrease of 6.9% from one year earlier. Of this, trades commencements decreased by 20.5% whilst non-trades commencements decreased by 0.8%.

The number of completions in the 12 months ending 30 September 2009 was 158 700, 5.8% higher than the 150 100 completions recorded in the 12 months ending 30 September 2008.

Furthermore, NCVER reports that trades commencements have declined over the last six consecutive quarters, with a 25.1% decrease between the March quarter 2008 and the September quarter 2009. However this decline has steadied, with only a 0.6% decrease between the June quarter 2009 and September quarter 2009.

In focusing upon completions (Karmel et al 2010) identified the following key messages:

- Most of the reasons given for not completing an apprenticeship or traineeship vary by how far the individual is into their training contract, with the patterns being largely consistent between the three groups (trades, non-trades (male) & non-trades (female).
- The desire to do something different (ie, university study) or better (ie, better paid job) is the only reason remaining constant throughout the duration of the training contract. It appears that apprentices and trainees are always looking out for a better alternative.
- By contrast, poor working conditions or non-sympathetic bosses or workmates have an immediate effect for many, but then decrease in importance with duration.

It is helpful to note that drop out rates tend to be higher at the beginning of an apprenticeship, with 10% of apprentices and trainees withdrawing within the first three months and 20% withdrawing within the first six months (NCVER 2009b).

It is apparent that there are three key areas to consider when devising arrangements to lift the apprenticeship completion rates. These areas are: the individual; the workplace; and training arrangements.

Ai Group and ACA make the following comments and suggestions for activity within these three areas:

1. The Individual

Some of the identified reasons individuals do not complete their apprenticeship include:

- Wrong career choice
- Identification or preference for other options
- Lack of peer support
- Wages opportunities available elsewhere, ie resources sector
- Lack of appropriate core skills, including language, literacy and numeracy.

Whilst not all of these identified areas can be addressed specifically, some strategies worth pursuing include the provision of high quality industry-based careers advice which would be beneficial to assist informed choice. A range of pathways from school into apprentices, such as VET in Schools, work experience, school-based apprenticeship and pre-apprenticeship programs would help the process of choice, preparation and transition.

2. The Workplace

Workplaces are all different. Accordingly, this variability brings with it opportunities but also disappointments. Areas that have been identified within a working environment that contribute towards an apprentice's decision to leave their apprenticeship include:

- Poor or inadequate supervision and interaction within the workplace
- Lack of mentoring
- Unappealing workplace culture
- Lack of incentives (including for the employer).

The COAG Apprenticeship Taskforce has already identified the need to re-examine employer incentives. This work should be progressed in a substantial way. The issues of workplace culture and work practices are more specific to each enterprise and therefore more difficult to address unilaterally. However, Ai Group has developed an Apprentice Supervisor program and a First 100 Days Guide to assist employers develop and maintain constructive and beneficial relationships and other arrangements with their apprentices.

3. Training Arrangements

Too often individuals and employers experience less than optimal training experiences. Many factors contribute to this but the key and consistent comments include:

- Poor quality delivery
- Inflexible arrangements
- Lack of relevance and low or non-existent levels of customization.

Addressing these issues is vital in order to develop and supply the skilled workers of the future.

What are the appropriate models of trade training which could be utilized in the resources sector? What are alternative models of trade training that might be trialed in the resources sector?

The Australian Industry Group's landmark report World Class Skills for World Class Industries identified that future competitiveness will depend on enterprises being able to access skills at higher levels, individuals acquiring broader skills and skills being updated more often. The challenge now is how to respond to these identified needs. This challenge applies to all of industry, including the resources sector.

Ai Group and ACA believe that a fresh approach to delivering trade skills, that combines accelerating trade training and giving quicker-learning apprentices earlier access to higher level training, will simultaneously address both skill shortages and the demand for higher level skills. This can be achieved quickly and by fine tuning existing qualifications and re-organising training arrangements.

We believe that the development of targeted vocational graduate certificates and vocational graduate diplomas that build on qualifications and competencies in existing nationally endorsed training packages is an innovative approach to delivering higher skilled workers for the needs of the modern labour force.

Trade qualifications based on training packages can be accelerated without the need to dismantle the apprenticeship system. Instead, continued reform that ensures accelerated and higher level trade options that deliver genuine vocational outcomes need to be the focus. Ai Group and ACA maintain that trade skills can only be properly acquired in the context of employment, whereas higher level technical skills can be acquired through other pathways.

In supporting improved trade outcomes Ai Group and ACA endorse the following guiding principles:

- must be attractive to participants
- must have genuine employment outcomes
- must have the support of employers and industry
- must embody excellence in delivery arrangements

This approach to trade skills development must be built upon the key reforms of the national industry-led training system. This policy framework includes:

- Competency based delivery with genuine competency progression
- Utilisation of nationally endorsed training package qualifications with clearly articulated vocational outcomes
- Compliance with Australian Qualifications Framework
- Integration of learning and work to ensure true workplace outcomes in accordance with training packages
- Utilisation of a contract of training
- Mandatory upfront recognition (including RPL, credit transfer)
- Flexible, valid, reliable and fair assessment; and
- Industry Skills Councils to articulate training package options for higher, faster, smarter skill development, including the development of new vocational graduate certificate and graduate diploma qualifications.

Ai Group and ACA believe that the key to achieving faster, smarter and higher trade outcomes relies upon using all of the delivery options currently available. Training packages currently accommodate all vocational outcomes over a range of qualification levels. Accordingly RTOs need to focus on flexible and responsive teaching, learning and assessment methodologies including good recognition practices. Funding models, reporting approaches and compliance requirements must actively support these approaches.

Features of a responsive and agile delivery system include:

- Funding models that encourage accelerated trade programs
- Excellent learning and assessment resources
- Excellent facilities and equipment
- High performing professional staff
- RTO delivery that commences as soon as practical upon sign up of apprentice
- Meaningful engagement with learner in mandatory recognition process.

Ai Group and ACA are also fully supportive of the recommendations, as adopted at the December 2009 COAG meeting, from the Apprenticeship Taskforce. Ai Group is participating on the MCTEE Apprenticeship Implementation Action Group as part of its commitment to these recommendations and keen interest to progress these reforms.

Whilst the Apprenticeship Taskforce was established in the shadow of the Global Financial Crisis its findings and recommendations are sound and relevant for all parts of the economic cycle. The principle of establishing the taskforce was to 'agree to actions to maximise the number of apprentices who commence and who complete apprenticeships and to strengthen the apprenticeship system'. This principle is equally applicable in the context of a boom in the resources sector.

Many of the key recommendations, as summarised below, are sensible and overdue:

- develop and implement a more seamless apprenticeship access, re-entry, deferral and support system
- develop and implement nationally-consistent standards for training plans
- develop and introduce a reformed pre apprenticeship system
- review apprenticeship and traineeship incentives to target better quality outcomes and commencement and retention of trade apprentices, including consideration of strengthened financial support for trade apprentices in areas of skill shortages
- strengthen mentoring and support for out of trade apprentices and those at risk of losing their apprenticeships
- facilitate arrangements for effective implementation of competency-based progression and completion for apprentices.

It must be stressed that Ai Group and ACA do not support the use of the Department of Immigration and Citizenship/Trades Recognition Australia Job Ready Program for the training and assessment of trade outcomes within the domestic context. It is essential to note that DIAC/TRA implemented this model to put in place appropriate checks and balances to ensure the qualification, skill and experience outcomes of individuals seeking skilled migration to Australia on the basis on a trade based qualification not achieved under an employment contract or trade Apprenticeship pathway. Employers have consistently strongly resisted these types of institutional pathways for trade outcomes. There is no confidence in the quality or efficacy of the outcomes without rigorous workplace application and assessment. This is best and most efficiently achieved through apprenticeship based employment arrangements. This does not militate against considerable reforms to the apprenticeship system. Instead it maintains its key strength – the nexus of learning through work.

How can the resources sector contribute to the identification and development of skills for sustainability in preparing for its future skill needs?

Essentially, resources sector companies must be prepared to work closely with relevant Industry Skills Councils and with universities to identify the skills for sustainability. This will involve a considerable commitment of time and other resources but community concern, including that of the future workforce, is such that this is an important commitment for the resources sector to make.

Having identified the skills which will be incorporated into education and training products, the sector must commit to the upskilling of its workforce.

How do FIFO arrangements impact upon apprenticeships, training and skill development?

The fact that FIFO arrangements are so prevalent in the resources sector indicates that there is a significant commercial return for both the company and the individual to persist with these arrangements. They have, however, militated against many workforce development and training approaches. It is not unreasonable to suggest that if it is possible to have FIFO employment conditions that FIFO training arrangements could be similarly implemented. This could work two ways. Trainers could become FIFO trainers on-site within the resources sector. Alternatively, employees needing training that is not

site-dependant, particularly apprentices, could undertake training when returning to their original location. This would require an adjustment of FIFO arrangements where these recipients of training require additional time away from the mine site for the purposes of training (often hundreds or thousand kilometers away). Importantly, this off-site learning would need to be transferred and carefully mentored upon return to the workplace.

What more could be done to increase the number of school leavers employed in the industry, including under Australian Apprenticeship arrangements?

This issue is addressed across other responses in this submission.

How can the resources sector make best use of the accredited and non-accredited (qualifications versus skills) training system (including Australian Apprenticeships) to prepare for its future skills needs?

Enterprises effectively preparing for their future develop business plans supported by human resource and training plans. These plans need to have five to 10 year horizons and factor in the levels of skill demand, likely sources of recruitment, retention strategies as well as development strategies. Companies in the resources sector should be expected to have these plans.

This process would also identify the occupational groupings requiring development, whether this is through apprenticeship arrangements or other upskilling options.

What more can be done to recognise the skills that resources sector employees acquire 'on the job' and through unaccredited training?

The methodology that can be utilized to recognise the skills that employees acquire on-the-job and through unaccredited training in the resources sector already exists. The key here is to develop a fit for purpose Recognition of Prior Learning (RPL) model that meets the needs of the unique and often complex requirements of both the employees and the sector as a whole. This model will require maximum flexibility and a high degree of customization. It should also consider the development and inclusion of skills passports, unique student identifiers and a more overt consideration of the recognition of skill sets in order to establish an efficient and accessible gap training model.

The 'silent' issue in this context relates to funding. RPL has, at best, been variably funded through the public training system which has contributed to the relatively low levels of uptake. This has also been compounded by some models of RPL that tend to be overly complex and institutionally derived and focused. It is clear that the model to be developed for the resources sector must focus on work as it relates to competency, skill sets and qualifications rather than the other way round. It would be also reasonable to suggest that companies could share the cost of the development and application of the model.

Under the new demand-driven system of funding universities, how can we ensure an adequate number of higher education graduates in disciplines that are relevant to the resources sector?

This issue is addressed across other responses in this submission.

What else needs to be done to encourage people to pursue careers in the resources sector, both in the construction and operational areas? To what extend can it be promoted as a pathway to careers in other sectors?

The best way to encourage people into particular careers is generally the provision of well-informed career advice, genuine pathways within and beyond the industry and where possible, personal experience.

A range of careers advice is already available, particularly in the secondary schooling system. However, this advice is highly variable in both quality and accuracy and often is skewed towards post-school academic pathways. The best way to improve career advice is for it to be industry driven. There is a strong case for the provision of funding to support nationally applicable industry-driven career advice. Such advice was developed and supported in the recently lapsed Careers Advice Australian initiative. The cessation of this initiative has left a significant gap in the provision of industry advice into career advisory arrangements.

It is also important to note that this advice must not be limited to advice for the 'resources sector'. The reality is that many of the jobs utilized within the resources sector are developed in occupations traditionally 'outside' the sector. Occupations such as electricians, maintenance engineers, metal workers are such examples. Therefore the industry-based career advice needs to be broad in both its industry sectoral and occupational coverage.

The concept of career pathways needs to be equally broad. Many people may be willing to work in remote locations for a finite period of time. Hence, it is important to advise them of opportunities and careers advancement that relates both to the resources sector and beyond it.

One of the most effective ways to engage young people, particularly whilst still at school, is the provision of opportunities for direct experience. This can happen through structured workplace learning; school-based apprenticeships; and VET in Schools programs. The resources sector has not had a significant track record of engagement of this sort, however, in terms of future labour supply, consideration and development of such options is an imperative. The sector cannot merely abdicate these types of initiatives to other industry sectors.

How can the resources sector upskill its workforce to prepare for its future skill needs? What can be done to improve on-site skill development?

Ai Group has undertaken major research on effective models for the upskilling of existing workers Skilling the Existing Workforce Report can be accessed at www.aigroup.com.au

What are the barriers to young people's participation in courses that are relevant to the resources sector, including in VET and higher education? What are some potential strategies to increase participation?

The following are barriers to young people entering the sector:

- The image of the sector as being dirty, dangerous and, depending on the specific resource, contributing to global environmental problems.
- The isolation of many mining sites and the social dislocation which results.

- There are particular barriers for young women who in addition to the concerns raised above are also concerned about the extent to which their personal needs will be catered for, especially in rural and remote areas. They are also concerned about their personal safety.

Barriers to young people undertaking relevant education and training:

- Young people have limited information about career paths into mining and allied industries.
- In a strong economy with an ageing workforce, young people have many options and the wage and salary premium typically offered by the resources sector is not always sufficient to offset broader concerns they may have about the sector.
- The highly cyclical nature of the sector means that while there may be high demand for some specific skills at a point in time, over the course of the long lead time to develop these skills demand may have declined to the point where these skills are no longer required by the market. The global financial crisis demonstrated this and this experience will be fresh in the minds of young people (and their parents) who are making career decisions.
- There is often limited availability of relevant training, particularly apprenticeship-based pathways which have not been widely offered by resources companies. In some States there are legal age constraints but this is not always the case. More widely there is a culture of mining companies not offering apprenticeships and preferring to recruit skilled workers.

Strategies to increase participation:

- Need clear, current information on careers including the qualifications which underpin resources jobs. This is an ongoing and evolving challenge.
- The issues associated with encouraging women into this sector are discussed above.
- Resources companies need to be prepared to take on more apprentices and to look at innovative ways of partnering with elements of their supply chain to build skills and then promoting these options to schools.
- There are various scholarship and internship arrangements available in this sector. These initiatives should be expanded and information made available through a central source, rather than individuals who might be interested needing to source information company by company.
- One of the reasons why there is limited availability of training is because there are thin markets for training. Resources companies need to be prepared to work cooperatively with other companies in their area/in their supply chain to increase local demand for entry level training to make it economic for the public training providers to offer it.

What arrangements create an appropriate balance between government and the resources sector (including contractors) funding contributions to education and training? Who should meet the costs of equipment, systems and resources required for training purposes and what other support may be needed for trainers and assessors (noting that training facilities for advanced process operations may require expensive facilities)?

It is AiGroup and ACA's position that as a general principle skilling is a shared responsibility across industry, government and individuals. Determining the appropriate funding balance is not a simple matter but it is our view that the sector has both a responsibility and the capacity to make a very significant contribution to the cost of skilling its workforce. We are well aware of the sector's commitment to upskilling its existing workforce and this must be matched by a commitment to the skilling of its entry-level workers. Much of the capital equipment and other resources needed for training purposes are only available on site and there are opportunities for companies to cooperate to ensure access for training purposes.

Are Australian government incentives creating the best outcomes for Australia's skills needs? If not, what suggestions do you have? Which state and territory government incentives work best? Which do not?

The MCTEE Apprenticeship Implementation Group is reviewing incentive arrangements and AiGroup is part of these deliberations. While we don't wish to pre-empt the outcome of this work, the experience of the Kickstart incentives is instructive. Under Kickstart employer incentives for taking on an apprentice were tripled to $4850 and over a three month period 22,049 apprentices were taken on. Consideration could be given to a targeted Kickstart-type incentive to increase apprentice numbers though it would be important to ensure that this funding does not just support take up which would other wise have been there anyway.

What measures could be put in place to facilitate the interaction between industry and training providers, such as industry seconding staff to mentor and train trainers in practical industry requirements? What additional infrastructure is required to meet future training requirements?

The development of effective partnerships between the resources sector and the training system will deal with all of these matters as a critical aspect of the partnership.

AiGroup and ACA suggest identifying one critical resource project and setting up a best practice model of employment, training and skill development, including apprenticeships and group training. The learnings from this model could be utilized to inform future developments.