



**Supporting workforces
during industry transition:
Key elements for success**

Literature review

September 2018



**Jobs
Queensland**

Jobs Queensland engaged the National Centre for Vocational Education Research (NCVER) to undertake the *Supporting workforces during industry transition: Key elements for success* literature review. This document is informed by that final report provided by NCVER to Jobs Queensland.

FURTHER ENQUIRIES

For enquiries or further information about this report:

Telephone: 07 3436 6190

Email: info@jobsqueensland.qld.gov.au

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CONTENTS

INTRODUCTION	4
Aims of the literature review	5
Background	5
What are industry transition/structural adjustment assistance programs?	8
INDUSTRY TRANSITION/STRUCTURAL ADJUSTMENT ASSISTANCE PROGRAMS: WHICH ASPECTS WORK?	10
What works for displaced workers?	10
What works for employers and remaining workers?	12
What works for communities or regions?	15
The role of skills training and employment-based initiatives	16
Transferability of skills and enabling mobility between occupations	17
Is there a 'best practice' industry transition assistance model?	18
REFERENCES	19
APPENDIX	21
TABLES	
Table 1: Employment profile by key industries for Queensland and Australia, 1996, 2017	6
Table 2: Growing and declining occupations by employment, 2006, 2011, Queensland	7
Table 3: Growing and declining occupations by employment, 2011, 2016, Queensland	7
Table A: Employment profile by industry for Queensland and Australia, 1996, 2017	21

INTRODUCTION

Queensland industries, enterprises, individuals and regions are all being affected by industry transition.

Industry transition is a continual event in an industry's lifecycle. It is driven by domestic and/or international factors, often beyond the control of the industry affected. Depending on their speed, magnitude and severity, industry transitions can have significant economic and social impacts on enterprises and their workforce in regions and communities, requiring the development and implementation of appropriate adjustment responses.

An adjustment response arising from industry transition, commonly referred to as 'structural adjustment', involves the reallocation of the key components of production – land, labour and capital – from one activity to another (Productivity Commission 2013). It is a complex process due to the numerous parties involved – governments, individuals, employers, communities and regions – and the varying degrees of influence or impact each of those parties may have or experience (Aither 2014).

There are times when these changes may have adverse implications – when economic conditions, brought about by factors such as government policy or reform, fluctuations in financial markets or changes to the terms of trade, technological advancements or natural disasters impact negatively on the financial viability of industries with a roll-on effect to individuals and communities (Wibrow & Circelli 2016).

In some instances, such adverse conditions can lead to company closures and even the end of industries altogether.

Industry transition can also lead to positive outcomes for individuals, employers and regions in situations where an industry grows at a relatively fast pace or where there is industry renewal. This can bring with it many positives including reskilling or upskilling opportunities and broader employment options for individuals, productivity efficiencies for employers, and economic growth for regions (Aither 2014).

The expansion of industries can also affect workforces and training providers in meeting skills demand, and regions in terms of impact on local economies, employment and infrastructure demands.

Fluctuations brought about through the expansion of some industries, and an associated creation of new businesses and decline of less competitive industries, while having a significant impact at the individual or community level are nonetheless important for the long-term economic growth of the country (Australian Department of Industry 2014).

Jobs Queensland (in conjunction with the National Centre for Vocational Education Research [NCVER]) undertook research to better understand the impacts of, and strategies needed to support the workforce in, industries undergoing transition.

This document is a review of contemporary literature into what constitutes a 'best practice' model of support for workforces impacted by industry transition.

AIMS OF THE LITERATURE REVIEW

The broad aims of this literature review, encompassing both national and international literature, are to investigate the impact of industry transition on the workforce and skills supply and demand with a focus on identifying and defining 'best practice', and in doing so:

- investigate the factors that need to be taken into account in providing an effective solution to the issues arising from industry transition
- explore the role that skills training and re-training and employment-based initiatives play in mitigating the effects of industry restructuring on workers

- examine the extent to which the transferability of existing skills to new jobs and industries is known to be occurring
- gain a better understanding of the implications of industry transition for affected workforces in order to determine what workforces need to do to equip themselves to deal with or navigate industry transition.

This literature review will not focus on the impact on individuals of industry transition per se.

Where relevant though, reference will be made to reviews or reports focused on the impacts of industry transition on displaced individuals.

BACKGROUND

The expansion and contraction of industries is a relatively constant phenomenon and is in response to changes in market demand from factors including globalisation; technological, environmental and regulatory changes; and competition from new or substitute products. It may also be driven by policy changes, both domestically and internationally.

The key industries or sectors contributing to the Queensland economy are agriculture (mainly beef and sugar); resources (coal, natural gas, minerals such as copper, zinc and lead); construction (particularly engineering construction supporting the resources sector); and tourism which covers a number of industries such as accommodation and food services, transport services, retail trade, and arts and recreation services (Queensland Treasury 2017).

In terms of employment, the industries of health care and social assistance, and construction have grown over the past two decades to be positioned with retail trade as Queensland's largest employers.

In contrast, the share of agriculture and manufacturing employment, relative to total employment in the state overall, has declined while remaining important contributors to the Queensland economy.

The employment profile for these key industries over the last 20 years is presented in Table 1. The data for all industries can be found in Table A in the Appendix.

The work of Snell and colleagues (2016) on declining and growing industries in Australia also highlights the areas of greatest movement in occupational employment within Queensland.

Their analysis of 2006 and 2011 Census data found that the occupations that experienced the greatest growth between the two Census periods in terms of number of jobs were in the industries of health care and social assistance; mining; construction; and electricity, gas, waste and water services (Table 2).

Contrasting this, the top five occupations that experienced the greatest decline between the two Census periods, in terms of actual number of jobs, were in the manufacturing; agriculture, forestry and fishing; and administrative and support services industries (Table 2).

Table 1: Employment profile by key industries for Queensland and Australia, 1996, 2017.

Industry	Queensland				Australia			
	1996		2017		1996		2017	
	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total
Agriculture, Forestry and Fishing	86.4	5.8	55.4	2.3	402.9	4.9	304.4	2.5
Full-time	66.8	77.3	40.1	72.4	306.5	76.1	217.2	71.4
Part-time	19.6	22.7	15.3	27.6	96.4	23.9	87.2	28.6
Mining	21.2	1.4	60.5	2.5	85.6	1.0	226.2	1.9
Full-time	21.2	100.0	59.7	98.7	83.6	97.7	219.0	96.8
Part-time	-	-	0.8	1.3	2.1	2.5	7.2	3.2
Manufacturing	165.5	11.0	171.9	7.2	1056.4	12.7	904.7	7.4
Full-time	146.0	88.2	151.0	87.8	944.3	89.4	770.5	85.2
Part-time	19.5	11.8	20.9	12.2	112.1	10.6	134.3	14.8
Construction	120.5	8.0	239.6	10.0	594.0	7.2	1111.3	9.1
Full-time	102.1	84.7	208.0	86.8	515.1	86.7	938.0	84.4
Part-time	18.5	15.4	31.6	13.2	78.9	13.3	173.3	15.6
Retail Trade	174.3	11.6	240.0	10.0	943.3	11.4	1223.5	10.0
Full-time	98.8	56.7	123.6	51.5	543.5	57.6	622.7	50.9
Part-time	75.5	43.3	116.4	48.5	399.8	42.4	600.8	49.1
Accommodation and Food Services	102.0	6.8	191.6	8.0	536.0	6.5	893.0	7.3
Full-time	56.3	55.2	74.1	38.7	274.0	51.1	359.1	40.2
Part-time	45.6	44.7	117.5	61.3	262.0	48.9	533.9	59.8
Transport, Postal and Warehousing	89.8	6.0	130.8	5.4	430.8	5.2	624.2	5.1
Full-time	79.5	88.5	101.3	77.4	371.8	86.3	490.0	78.5
Part-time	10.3	11.5	29.6	22.6	58.9	13.7	134.2	21.5
Health Care and Social Assistance	135.8	9.1	327.9	13.7	759.2	9.2	1598.5	13.1
Full-time	89.3	65.8	194.5	59.3	460.9	60.7	883.0	55.2
Part-time	46.5	34.2	133.4	40.7	298.3	39.3	715.5	44.8
Arts and Recreation Services	24.2	1.6	46.1	0.6	114.3	1.4	221.3	1.8
Full-time	15.0	62.0	28.5	61.8	65.0	56.9	109.9	49.7
Part-time	9.2	38.0	17.5	38.0	49.4	43.2	111.5	50.4
Total	1499.1	100.0	2400.9	100.0	8297.1	100.0	12,214.8	100.0
Full-time	1130.2	75.4	1636.0	68.1	6230.6	75.1	8304.0	68.0
Part-time	368.9	24.6	765.0	31.9	2066.6	24.9	3910.8	32.0

Note: Full-time and part-time percentages are within industry.

Source: Australian Bureau of Statistics, 6291.0.55.003 – *Labour Force, Australia, Detailed, Quarterly, Aug 2017* [Data Cube EQ06]. <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6291.0.55.003Main+Features1Aug%202017?OpenDocument>.

Table 2: Growing and declining occupations by employment, 2006, 2011, Queensland.

Occupation		Employed people in 2006	Employed people in 2011	Change in number of jobs	% Change
Growing	Registered Nurses	32,627	41,240	8613	26.4
	Drillers, Miners and Shot Firers	9964	15,700	5736	57.6
	Contract, Program and Project Administrators	18,749	24,117	5368	28.6
	Aged and Disabled Carers	14,478	19,520	5042	34.8
	Electricians	20,550	25,234	4684	22.8
Declining	Product Assemblers	4898	3546	-1352	-27.6
	Crop Farmers	12,739	11,234	-1505	-11.8
	Livestock Farmers	17,054	14,825	-2229	-13.1
	Corporate Services Managers	4502	1540	-2962	-65.8
	Secretaries	17,184	11,673	-5511	-32.1

Note: Reproduced from Snell et al. 2016.

Source: Australian Bureau of Statistics, *Census of Population and Housing, 2006 and 2011*.

A similar analysis of occupational data to that conducted by Snell and colleagues, using 2016 Census data, is presented below (Table 3), showing that occupations related to education and training, and social assistance as growth areas (in terms of percentage change).

It is interesting to note the movement of 'drillers, miners and shot firers' from an occupation of growth (Table 2) to one purportedly declining (Table 3). This may reflect a downtrend in the mining/resources industry.

Table 3: Growing and declining occupations by employment, 2011, 2016, Queensland.

Occupation		Employed people in 2011	Employed people in 2016	Change in number of jobs	% Change
Growing	Sales Assistants (General)	93,727	106,322	12,595	13.4
	Education Aides	17,564	22,981	5417	30.8
	Child Carers	23,855	29,126	5271	22.1
	Receptionists	27,318	32,130	4812	17.6
	Secondary School Teachers	19,520	24,105	4585	23.5
Declining	Drillers, Miners and Shot Firers	15,700	13,024	-2676	-17.0
	Sales Representatives	16,066	13,304	-2762	-17.2
	General Clerks	41,409	38,646	-2763	-6.7
	Retail Managers	19,312	16,541	-2771	-14.3
	Secretaries	11,672	8089	-3583	-30.7

Note: Census counts by place of work.

Source: Australian Bureau of Statistics, *Census of Population and Housing, 2011 and 2016*.

WHAT ARE INDUSTRY TRANSITION/STRUCTURAL ADJUSTMENT ASSISTANCE PROGRAMS?

While the focus is on industry transition, learnings from recent structural adjustment programs and associated literature have been used to inform this literature review. Nevertheless, the distinction between industry transition and structural change/adjustment, as previously defined in the introduction, is maintained throughout the remainder of this literature review, and within the *Supporting workforces during industry transition: Key elements for success* report.

Programs or strategies implemented under the structural adjustment banner take a number of forms and Beer (2015) provides an excellent summary of the types of programs that have been employed in Australia in the last 15 or so years. Most commonly these programs or strategies are developed and funded by the Australian and/or state governments and are intended to have a wide reach.

Some strategies may arise more locally as an outcome of regional economic development or social planning by local government or community groups and are intended to mitigate the impact of structural adjustment on the local community.

Beer (2014) notes that in terms of funding programs, the majority comes from Australian Government expenditure with most structural adjustment programs to date having budgeted costs in the range of \$5 million to \$500 million.

There have been some, though, that are very large, such as the 2000–2008 Dairy Structural Adjustment Program (total budget of \$1.63 billion) and the Automotive Competitive Investment Scheme (with a budgeted cost of \$7 billion), which ran from 1 January 2001 until 2011 when it was replaced by the Automotive Transformation Scheme (Australian Department of Industry, Innovation and Science 2018b).¹

Beer describes four main types of programs:

1. Industry restructuring programs aim to help industries adapt or adjust to new economic conditions in order to remain viable in the longer term.

Financial assistance to help organisations diversify is often provided. The programs may also take the form of helping financially non-viable organisations leave the industry thus lessening the competition within that industry and providing the opportunity for more viable businesses to continue, or as compensation following changes to government policy which results in adverse impacts on the industry.

Industry restructuring programs are often applied to primary industries as opposed to manufacturing industries.

An example of such a program was the Queensland East Coast Commercial Net Fishing Reduction Scheme implemented in 2012–2013 which saw the Queensland Government expend \$9 million to buy back in-shore net fishing licenses in a bid to reduce overfishing along the east coast of Queensland by commercial operators and ensure overall viability of the industry (McVeigh 2012).

More recently, the Queensland Government implemented the 2015 Net Fishing Buyback Scheme and 2016 Net Fishing Buyback Schemes (Business Queensland 2017) targeted at commercial fishing operations in the Cairns, Mackay and Rockhampton areas.

The buyback scheme was offered in response to the Queensland Government implementing net-free fishing zones in those areas so as to protect the marine environment and attract more recreational anglers to the area.

2. Enterprise assistance programs help individual enterprises remain in the industry.

The most recent and high profile example is the assistance given to the car manufacturing industry. Programs include the Automotive Industry Structural Adjustment Program implemented in 2008 (Government of South Australia 2015) with applications extended through to 2019 (Australian Department of Industry, Innovation and Science 2018a); and the Automotive Transformation Scheme implemented in 2011, funded through to 2020 (Australian Department of Industry, Innovation and Science 2018b).

1. The Automotive Transformation Scheme, which aims encourage competitive investment, innovation and economic sustainability in the Australian automotive industry had a capped budget of \$1.5bn for activities funded between 2011 and 2015, and \$1bn for activities funded between 2016 and 2020.

The first of these aimed to provide assistance to businesses such as components suppliers as well as workers to help them take up new opportunities in other industry sectors.

The second provided businesses with cash payments for investing in plant and equipment (up to 15 per cent) and research and development (up to 50 per cent) in an effort to encourage innovation.

The cessation of car production by Ford, Toyota and Holden highlights that enterprise assistance programs cannot ensure the viability of an enterprise and that such assistance brings with it the risk of bonding a region's economy to an industry that is potentially unsustainable.

3. Labour market programs focus on individual workers who are displaced by the closure of an organisation or other major economic impact such as that sustained through natural disasters.

Labour market programs provide assistance in the form of support from Australian job service providers; career advice and job preparation assistance (e.g. résumé writing, information about job opportunities, job fairs); and training/re-skilling/recognition of prior learning assistance.

A recent example of such a program is the North Stradbroke Island – Workers Assistance Scheme (Queensland Treasury 2018) offered to workers displaced or facing displacement resulting from the planned cessation of the sand mining industry on North Stradbroke Island in 2019 (Department of State Development, Manufacturing, Infrastructure and Planning 2018).

This program came into effect in May 2016 and has budgeted funding for five years. It has a number of components including support for job searching, training and skills development, and income supplementation. There is also financial assistance to encourage displaced workers residing on the Island to remain.

4. Investment attraction strategies are funding pools made available to attract new investment into a region.

The money may solely come from the Australian Government, or it may be made available from a mixture of public (Australian, state and local government) and private funders. The result of investment attraction strategies may be the expansion of existing enterprises or the development of new businesses in a region.

Recent examples of investment attraction strategies are the Structural Adjustment Fund for South Australia which was available from 2004–2006 in response to the closure of the Mitsubishi Motors plant in the southern suburbs of Adelaide (Armstrong et al. 2008), and the Illawarra Region Innovation and Investment Fund, implemented between 2011–2014 in response to the restructure of the BlueScope Steel plant at Port Kembla (Bulletpoint 2012).

Such investment strategies have been criticised in the past because of their lack of substantial job creation given the investment size (Productivity Commission 2001; Daley & Lancy 2011). Daley and Lancy's work also notes that job attraction schemes have failed to achieve desired outcomes.

Beer (2015), however, believes that it is not enough to focus on job creation issues, it is also important to consider the flow-on or multiplier effects and the intangible benefits that emanate from such investments.

Another criticism of the investment strategy approach is the application of minimum thresholds for investment which often prevent local businesses from participating in the scheme (Beer & Thomas 2007, cited in Beer 2015).

INDUSTRY TRANSITION/STRUCTURAL ADJUSTMENT ASSISTANCE PROGRAMS: WHICH ASPECTS WORK?

Given the number of parties – individuals, enterprises, communities, regions – that may be impacted when industry transition occurs it becomes apparent then that there can never be a simple fix or one program or initiative that can be expected to mediate the change. As such there are often times multiple initiatives enacted in response to the same economic event.

So what can be learnt from examples of industry transition and structural adjustment assistance programs or initiatives that have been applied both in Australia and internationally?

WHAT WORKS FOR DISPLACED WORKERS?

Interventions need to be implemented early as it can take time for workers to make future plans and act on them.

For example, the BHP Steelworks' Pathways Program was set up in 1997, well before the actual closure of the steelworks in Newcastle in 1999, giving BHP time to work with unions, the community and the New South Wales and Australian Governments to develop initiatives that would assist workers to make a positive transition (Callan & Bowman 2015b).

Similarly with the recent closures of the Ford, Toyota and Holden car manufacturing plants, structural adjustment programs to assist affected workers were established well in advance (up to four years) of the closures of the plants between 2016 and 2017.

As one example, the Ford Transition Program (FTP) commenced in 2013 and has funded the provision of counselling and information sessions on services and job opportunities; careers and training advice; and skills recognition and training.

While the Ford manufacturing plant ceased operating in October 2016, the FTP was funded to continue to service the affected workforce until April 2017 (Callan & Bowman 2015b). Indeed, the evaluation of the Ford Transition Program undertaken recently by ACIL Allen (2017) made the point that a long lead time prior to closure is key to helping to successfully transition workers from a declining industry.

Mechanisms need to be in place to ensure a coordinated approach to the provision of services, particularly by government bodies, occurs.

For example, in past closures such as the Bridgestone tyre manufacturing plant in 2010 and closures in the Queensland tourism industry during the Global Financial Crisis, Local Employment Coordinators² played a critical role in acting as the conduit between various government services and ensuring affected workers received the assistance they required (OECD 2016).

Another mechanism is the implementation of 'rapid response teams'. These groups are set up by Australian and/or state or territory governments.

An example of such an approach is the Rapid Response Team in the Hunter Valley region of New South Wales. Over the last 15 years or so, this region has had several prominent companies close leaving many people unemployed.

The mass job losses occurred as recently as 2014, with the closing down of many coal-related companies (Callan & Bowman 2015b).

The Rapid Response Team is a coordinated, inter-agency group that gathers information about pending company closures or downsizing and plans (if any) by the business for retraining or redeployment of employees. The team works with the company to identify job losses and to gather information about the skill set of any potentially redundant workers.

The types of responses that might follow for the displaced workers may include information sessions, identifying employee skill sets and training needs, and providing access to a training coordinator whose role is designing case management services for the displaced workers (Callan & Bowman 2015b).

2. Local Employment Coordinators were established by the Australian Department of Education, Employment and Workplace Relations between 2008-2009 to work in 20 'priority employment areas' identified as needing extra assistance following the Global Financial Crisis (OECD 2014).

The practice of implementing rapid response teams or activities also occurs internationally. In the United States, under the *Workforce Innovation and Opportunity Act 2014* (previously the Workforce Investment Act), state governments are required to undertake 'rapid response' activities for displaced workers, which are designed to help retrenched workers quickly connect to public workforce assistance benefits and services such as career counselling and job search (Heidkamp & Kauder 2008, cited in Van Noy, Heidkamp & Manz 2013).

In Canada, legislation in three provinces and federally require employers who intend to have mass retrenchment of staff to establish a joint

committee with relevant public employment services and social partners to devise an adjustment program that will minimise the economic and social impact on affected workers.

For example, the Rapid Re-employment and Training Services in Ontario are in place to respond to large-scale retrenchments (50 or more workers). Here, once notified of the lay-off, the Ministry of Labour informs the Ministry of Training, Colleges and Universities which has the responsibility for enabling the rapid response activities. These involve the Ministry contacting the employer, the union and local employment service providers to organise assistance for the affected workforce (OECD 2016).

Helping displaced workers identify and access their skills and training needs is critical, including the completion of recognition of prior learning assessments.

For some workers, such as those with lower skills, older workers, or those who have been with the closing company for many years, getting help in determining where they may need to reskill and what training is required is essential. How this can be done is discussed in detail later in the 'The role of skills training and employment-based initiatives, and the transferability of skills' section.

One initiative that has been used to help displaced or soon-to-be-displaced workers identify their current skills and future skills needs is industry taster programs.

For example, during 2014 in Geelong, as part of an Australian Government-funded program to help workers in that region prepare for the closure of the automotive manufacturing industry, an industry taster program was implemented.

'Jobs 4 Geelong – The Front Foot' was a series of six workshops aimed at helping manufacturing and other retrenched workers discover new employment opportunities.

Each workshop focused on a different industry sector that was likely to be a jobs growth area in the future: transport, logistics and warehousing; construction/civil construction; advanced manufacturing; health and community services; prison officer, police and security; and information technology.

With each of the industry taster sessions, an employer and employee provided details and insights into the industry and potential career opportunities available (Callan & Bowman 2015b).

What are the key elements of a successful transition program aimed at helping displaced workers?

Callan and Bowman (2015a), through their review of past research and case studies of four regions in Australia undergoing structural change, summarised the key elements of a successful transition program for displaced workers.

The overarching factor was the requirement for effective partnerships with the organisations offering the various services in order to achieve:

- a common agenda – with a shared vision and understanding of the key challenges and agreed actions
- shared measurement systems – with transparent key performance indicators and accessible data to track progress
- mutually reinforcing activities – including space for different activities coordinated through a shared action plan
- continuous communication – that aspires to be consistent open communication and builds trust between organisations and with the displaced workers
- governance structures – to include an independent entity with staff possessing the appropriate skills to coordinate the participating organisations and to support implementation of actions to assist displaced workers.

WHAT WORKS FOR EMPLOYERS AND REMAINING WORKERS?

In organisations where retrenchments have occurred, workers who remain – the stayers – may often be considered the ‘lucky ones’ as they have retained their jobs. But they too may experience adverse effects as the general intent of a restructure is to improve the performance and efficiency of the organisation or industry.

Using European Union-wide and representative data sets from the European Restructuring Monitor, Hurley and colleagues (2012) found that higher work intensity, lower job security, and negative mental and physical health impacts were experienced by workers who remain after a restructure has occurred.

There are, however, a number of positive outcomes that stayers can experience as a result of the restructure such as a greater sense of autonomy and influence or involvement in how the work is organised, better access to training especially on-the-job training, and higher incidence of teamwork (Hurley et al. 2012; Aither 2014).

A focus on reskilling and training remaining workers: the Australia Post example

Australia Post has been forced to undergo significant change in response to digital disruption.

Emails, social networking media and improved telecommunication services have reduced the need for sending traditional mail with the result impacting on the letter delivery service arm of the business. Between 2008 and 2014, 1.2 billion fewer letters were mailed (SEEK Insights & Resources nd).

Furthermore, the rise of e-commerce has changed the way Australians buy and sell goods with the result now being Australia Post is a key competitor in the global e-commerce parcel delivery market (Committee for Economic Development of Australia nd).

To minimise the number of redundancies brought about by the reduction in letter delivery services, and retain as many workers as possible to ensure they have the right skills to meet the demands that come with the ever growing e-commerce market, in 2013 Australia Post launched its ‘Post People 1st’ initiative.

This has had positive implications for both Australia Post and its employees. The premise of this program was to offer more opportunities for career transition for the existing workforce through the provision of training and re-skilling.

Some of the key components of ‘Post People 1st’ include:

- Jobs are advertised internally first. Previously only 25 per cent of advertised jobs went to internal applicants and now that has increased to more than 60 per cent of positions, or around 2500, being advertised and filled internally.
- Free online training courses to help people upgrade their skills and free phone coaching services to help with writing résumés, role-play interviews, career advice and where to go for pre-retirement financial advice.
- A mobile website to ensure the program is accessible to all Australia Post employees, including those with disability (Australia Post 2014).

Industry restructuring programs aimed at diversification

An approach taken to help employers remain viable is to provide financial assistance to support diversification.

A past example of this type of support was the Industry Development Assistance component of the Forest Industry Structural Adjustment Package (FISAP).

The FISAP was implemented in 1995 in New South Wales and Western Australia and ran until the mid-2000s. It was primarily funded by the Australian Government with some financial commitment from the New South Wales Government.

The FISAP was implemented in response to government policy changes that reduced access to timber from publicly-owned native forests.

An evaluation of the components of the FISAP found that the Industry Development Assistance did increase diversity within businesses, as well as encouraging the production of value-added products that increased profits.

But, like most industry assistance packages, the financial support received did not cover the full costs of the diversification or business development and hence there was an increased debt incurred by some recipients (Loxton, Schirmer & Kanowski 2013).

The evaluation of the FISAP also highlighted how time (i.e. length of implementation) is critical to the success of a structural adjustment program.

The FISAPs in New South Wales and Western Australia were both funded until the mid-2000s, much longer than the original timeframe (which was a five-year period to 2000).

This extension in timing, though, recognised that it can take longer than first expected for businesses to understand the support available to them (and what it may mean for their business), to utilise the resources, and make the necessary changes to their business (Loxton, Schirmer & Kanowski 2013).

Another key aspect of structural adjustment programs or strategies highlighted by Loxton and colleagues was monitoring and evaluation: regular monitoring to ensure strategies are working as intended or whether modifications are required; evaluation to investigate the broader implications for all stakeholders.

One example is the Automotive Supplier Diversification Program (ASDP) funded by the South Australian Government in response to the closure of the car manufacturing sector in Australia, and specifically the closure of the General Motors Holden manufacturing plant in Adelaide.

The ASDP is targeted at financially viable manufacturing companies operating within the automotive supply chain.

The South Australian Government has budgeted \$16.65 million for the period of 2013-14 to 2018-19 to support eligible businesses successfully diversify and secure alternate revenue streams to drive sustainable growth, long-term employment and potential for export revenues (Government of South Australia 2017).

The South Australian Department of State Development expects that around 55 of the 74 automotive supply chain firms in South Australia will continue to operate and remain viable, having successfully diversified their business and found new markets.

As a result, the overall job loss impact in South Australia is likely to now be around 5000 jobs, including those directly lost through the closure of the Holden plant as well as in the supply chain (Bowman & Callan 2017).

This is far less than initially estimated in the lead up to the closure where estimated job losses ranged from 8390 jobs (Productivity Commission, August 2014) to 13,200 jobs (Burgan & Spoehr, November 2013; both cited in Bowman & Callan 2017).

Another example of a restructuring program aimed at diversification is the Australian Government's \$220 million Regional Jobs and Investment Packages that were implemented in 2016-17.

This program is being piloted in ten regions across Australia to help diversify local economies, stimulate long-term economic growth and deliver sustainable employment (Australian Department of Industry, Innovation and Science 2018c). As it has only recently commenced, it is too early to determine the impact and success of this investment.

The implementation of short-time working models

But what can employers do to try and minimise the impact of restructuring, or the need to restructure altogether?

Short-time working (STW) initiatives are used in many countries such as Mexico, Germany and the Netherlands in response to restructuring and job loss (International Labour Organization 2013). It has not tended to be an initiative implemented by affected employers in Australia (Cahuc & Carcillo 2011).

Germany is often considered an example of best practice in applying STW strategies as it has used them since 1990. More recently, STW was implemented in Germany in response to the Great Recession of 2008–2009 (International Labour Organisation 2013) that followed the Global Financial Crisis.

STW strategies allow employers to retain workers during times of economic crisis. It involves an employee working less than full-time but for a co-determined number of hours per week and being paid an agreed proportion of their full-time wage.

Co-determination – employee participation and involvement – ensures the effective application of reduced working hours so that the (lower) demand for a product is met but redundancies are avoided (Aricò & Stein 2012).

The application of STW in response to the Great Recession is considered to be one of the factors that helped the German labour market recover relatively quickly after the downturn.

Indeed, since 2010, employment rates in Germany have risen (Aricò & Stein 2012). This is because the employer did not lose the skilled labour and therefore is able to increase production quickly upon a return to more favourable economic conditions.

In Germany, there are particular conditions applied to the implementation of STW schemes for organisations undergoing restructuring to mitigate the effects of an economic crisis.

These are:

- STW cannot be applied for longer than 12 months
- income support constitutes full salary for the hours worked and 60 per cent (or if employee has one or more children, 67 per cent) of the usual net salary
- the employee must be employed after the restructuring finishes
- the employer pays all social security contributions, plus the health insurance contributions usually paid by the employee (International Labour Organization 2013).

WHAT WORKS FOR COMMUNITIES OR REGIONS?

As we often see with particular industries such as automotive manufacturing and sugar cane farming, operations tend to be geographically concentrated, with the supply chain organisations tending to operate in geographical proximity (Barnes 2016).

In such cases where an industry goes into decline, the impacts on employment can be more widespread in a community or region than solely for the declining industry's workforce. These impacts may be even more severe for those regions or communities, such as Elizabeth in Adelaide's north, which are already relatively disadvantaged in socio-economic terms.

A regional risk analysis is critical to informing strategy development

In an analysis of the impacts of large firm closures undertaken by the Nous Group in 2013 on behalf of the then Australian Department of Industry, Innovation, Science, Research and Tertiary Education, the authors note that to a large degree *"most firm closures are...predictable in both their timing and their impact"*.

As such, regular (3-5 yearly) undertaking of risk assessments by local and state governments is advocated as a way of informing an integrated regional strategy and assessing the **adaptive capacity of the region**.

A risk assessment needs to consider the:

- trends in regional and sectoral growth
- concentration of industries in the region, including those from sectors in decline
- business confidence and economic outlook
- investment attraction and performance (Nous Group 2013).

When considering specifically the impact of large firm closures, a risk assessment should also consider the:

- broad skill base of the workers likely to be retrenched
- degree to which supply chains are interdependent
- levels of unemployment in the region
- regional income and skills levels, and
- degree and location of socioeconomic disadvantage (Nous Group 2013).

While the Nous Group report focuses on the closure of firms, the undertaking of a risk assessment is also valid in those circumstances where a significant industry or organisation expansion occurs.

The expansion of industries can impact on local workforces and training providers in terms of meeting skill demand, and the region more broadly in terms of impact on local economies, employment and infrastructure demands.

The analysis by the Nous Group also highlights the importance of a risk assessment to take into account the capacity of local leaders or institutions, including employers and educational providers, to respond to an industry transition event in a region.

This includes not only practical strategies such as financial assistance (local, state or Australian government funding for example), or the provision of appropriate reskilling programs locally, but intellectual input to drive ideas and strategies for industry diversification and moving the region forward.

Often the full impact of retrenchment on the health of individuals as well as the resilience of the affected community may not appear until a number of years after the event.

For the individual, retrenchment generally results in lower income, at least in the short-term, and even periods of unemployment that in turn may impact negatively on an individual's mental health.

It can also lead to social isolation for some individuals, and it is this loss of being part of a community or regular social interaction through employment that can often be overlooked in the implementation of industry transition programs.

A key lesson learnt from the aftermath of the 2004 closure of the Mitsubishi Motors Australia plant in South Australia was the need for a community action plan to address community and health issues to have been in place in readiness for the closure (International Labour Organization 2013).

THE ROLE OF SKILLS TRAINING AND EMPLOYMENT-BASED INITIATIVES³

This section focuses on the role that skills training and re-training and employment-based initiatives play in mitigating the effects of industry restructuring on affected workforces. Further, the extent to which the transferability of existing skills to new jobs and industries is known to be occurring is also examined.⁴

As noted in the 2016 Australian Industry Report, with the transitioning of industries in response to structural change workers need the skills that allow them to adapt to improvements in technology, knowledge and innovation (Australian Department of Industry, Innovation and Science 2016).

Losing one's job, or the prospect of losing a job, is a major stressor for any individual. At such times, people generally take stock of their skills and expertise so that they can look for new employment with some confidence. However, some individuals may struggle to either identify the skills they have, and/or place those skills in another occupational context. It is in these situations where vocational education and training may have a role.

A common response to industry restructuring is to focus on the re-skilling of workers. In a review of job training and retraining programs implemented in response to adverse economic and industry conditions, Hansen (2012, cited in Callan & Bowman 2015a) identified the following factors that increased the effectiveness of such programs:

- temporary reduction in regular working hours in periods of downturn provides the opportunity for workers to access skills training
- short training programs can help facilitate retrenched workers into new jobs, can act as a form of compensation for loss of income and can keep retrenched workers attached to the labour market
- the training needs to be relevant to current or anticipated labour market requirements.

There are mixed reviews though on the economic returns from training for retrenched workers (Jones 2011), particularly for those who temporarily forgo employment to retrain.

Research by Cavaco, Fougere and Pouget (2013) shows that the intensity and timing of the training are critical if benefits are to be realised. More intensive retraining programs and those provided to retrenched workers soon after their job loss have better outcomes in terms of future wages and employment.

However, it is imperative that training programs are not applied to affected individuals as a 'one size fits all'. Programs need to be tailored to the characteristics and needs of the person, and recognise upfront peoples' strengths and transferable skills (Australian Workforce & Productivity Agency 2014).

Older workers who have been displaced, for example, are more willing to participate in training when the program has been modified to acknowledge their life and work experience, and provide them with new skills that allow them to be competitive in a changing workplace (Meyers, Billett & Kelly 2010; Callan & Bowman 2015a).

Another approach to industry restructuring is to provide displaced workers with the opportunity to receive accreditation for their current skills through recognition of prior learning (RPL). However, this approach may not appeal to some workers as they may feel they are being accredited for skills that are becoming obsolete. Others find RPL to be a rather daunting or complex process so are less likely to engage with it (Snell, Gekara & Gatt 2016a).

Often it is considered that any sort of training, such as the development of skill sets, is better than no training when looking for a job. However, Snell, Gekara & Gatt (2016a) argue that the development of skills through in-house training, which is specific to a company, is of little value for workers who find themselves displaced. The development of skills in this manner decreases their ability to be transferred into other workplaces.

In a labour market where qualifications are becoming increasingly important, undertaking formally recognised accredited training is far more beneficial for workers as it results in qualifications that are recognised nationally. Employers are more likely to be able to recognise the transferable skills of workers if they have formally recognised qualifications (Wibrow & Circelli 2016).

3. There is a sizeable amount of literature focused on the impact of industry restructuring and the role of education and training in mitigating these impacts. As such, the reader is encouraged to investigate the material collated by NCVETs VOCEDplus online international tertiary education research database, and made available on the 'industry restructuring' podlet, <http://www.voced.edu.au/podlet-industry-restructuring>.

4. This section is primarily based on Wibrow and Circelli (2016).

TRANSFERABILITY OF SKILLS AND ENABLING MOBILITY BETWEEN OCCUPATIONS

An alternative is to focus on the identification of transferable skills of workers to help them find employment in other areas.

Increasing awareness of transferable skills

A common issue identified in Snell, Gekara & Gatt (2016a) and the NCVER 2015 'When one door closes' research forums, is the lack of understanding of transferable skills among workers.

Snell, Gekara & Gatt (2016a) considered transferable skills to be those which encompassed 'soft' skills such as communication and team work as well as generic technical skills (e.g. knowledge of workplace health and safety).

They found that retrenched, or soon-to-be retrenched workers do not have a good grasp of their transferable skills, particularly if they have been with the same employer for many years.

Many workers did not realise or appreciate the wider application of the array of 'soft' and generic technical skills they had acquired during their current employment, and instead focused on their specific technical skills when applying for new jobs.

Transition programs and supporting agencies such as jobactive providers could play a more active role in helping these workers to understand their transferable skills and how these skills can help them when finding alternative employment.

Reconfiguring training packages

The work of Snell, Gekara & Gatt (2016b) suggests that training packages could be reconfigured into clusters based on the occupational cluster framework. This will enable greater sharing of units of competencies across qualifications, which will encourage more transferability in the labour market.

Another aspect of this will allow the mapping of how different occupations draw upon the skill sets. While such a process may help increase cross-occupational mobility for workers in the future, it will not help workers who are currently displaced.

Improving knowledge of local labour markets

Both Callan and Bowman (2015a) and Snell, Gekara and Gatt (2016a) point to the need for improved local labour market analyses as part of worker transition programs.

With greater knowledge of the local labour market conditions, career counsellors and support services staff can more accurately identify potential job opportunities or encourage retraining in growth areas for displaced workers.

Undertaking a local labour market analysis or skills needs analysis would enable jobactive providers (and other agencies supporting displaced workers) to help workers decide which areas to train in (Callan & Bowman 2015a).

Snell, Gekara & Gatt (2016a) suggest that regular regional labour market analyses could:

- better identify viable job and career opportunities
- make more informed decisions about how best to approach RPL
- provide knowledge on where to retrain and upskill to deliver the best job outcomes.

Labour market analyses could also form part of regional risk assessment practices as suggested by the Nous Group (2013).

IS THERE A 'BEST PRACTICE' INDUSTRY TRANSITION ASSISTANCE MODEL?

When industry transition or structural adjustment occurs, there are a number of parties that may be impacted – individuals, enterprises, communities, regions. As such, asking whether industry transition or structural adjustment assistance programs 'work', or attempting to define a 'best practice' model to respond to such events, masks the complexities associated with the implementation of strategies aimed at helping individuals, employers and/or regions often simultaneously.

Beer (2015) suggests that to determine the answer to the question of whether or not a structural adjustment program has worked, it is important to delve more into which strategy has worked best under which circumstances, and provides a summary of factors that were also common in the work of the Nous Group (2013), Callan and Bowman (2015a) and Snell, Gekara and Gatt (2016a).

These factors form the basis of the following key elements to be considered in the development of a tailored, individualised response to an industry transition event.

- **Time:** Industry transition has a long-term impact. While responding to industry transition needs to be timely, expecting results from these responses in the short-term is unlikely to yield beneficial personal or economic outcomes.
- **Anticipatory planning:** Most industry transitions can be anticipated; it is not generally something that happens suddenly (Nous Group 2013). Anticipating the need for assistance and implementing initiatives early will reduce the likelihood, scale and scope of adverse events and provides time to plan for the future.
- **Governance and information dissemination:** A review of who in the enterprise, industry, community or region is impacted by industry transition needs to be incorporated in the process to give key players ownership of the changes that are required to move forward. Importantly, the broader community must be kept informed of the change process.
- **Focus on the affected region:** Industry transition assistance initiatives should target those localities affected by change, recognising that in the main, Australia's workforce is immobile (Snell, Gekara & Gatt 2016a).
- **Human capital:** Providing education and training opportunities for affected workforces should be an imperative of industry transition initiatives, for both displaced workers and those who remain. It is important to be realistic about how easy it will be for workers to transition to other occupations, especially those occupations that require intensive retraining.
- **Economic diversification:** Regions may look to diversify and reposition their economies but they should do so by building upon their existing capacities (human and physical capital).

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APPENDIX

Table A: Employment profile by industry for Queensland and Australia, 1996, 2017.

Industry	Queensland				Australia			
	1996		2017		1996		2017	
	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total
Agriculture, Forestry and Fishing	86.4	5.8	55.4	2.3	402.9	4.9	304.4	2.5
Full-time	66.8	77.3	40.1	72.4	306.5	76.1	217.2	71.4
Part-time	19.6	22.7	15.3	27.6	96.4	23.9	87.2	28.6
Mining	21.2	1.4	60.5	2.5	85.6	1.0	226.2	1.9
Full-time	21.2	100.0	59.7	98.7	83.6	97.7	219.0	96.8
Part-time	-	-	0.8	1.3	2.1	2.5	7.2	3.2
Manufacturing	165.5	11.0	171.9	7.2	1056.4	12.7	904.7	7.4
Full-time	146.0	88.2	151.0	87.8	944.3	89.4	770.5	85.2
Part-time	19.5	11.8	20.9	12.2	112.1	10.6	134.3	14.8
Electricity, Gas, Water and Waste Services	15.0	1.0	22.5	0.9	85.9	1.0	122.9	1.0
Full-time	14.2	94.7	21.6	96.0	81.8	95.2	113.0	91.9
Part-time	0.8	5.3	0.8	3.6	4.1	4.8	9.9	8.1
Construction	120.5	8.0	239.6	10.0	594.0	7.2	1111.3	9.1
Full-time	102.1	84.7	208.0	86.8	515.1	86.7	938.0	84.4
Part-time	18.5	15.4	31.6	13.2	78.9	13.3	173.3	15.6
Wholesale Trade	72.6	4.8	63.1	2.6	417.5	5.0	400.3	3.3
Full-time	62.0	85.4	56.8	90.0	359.2	86.0	335.5	83.8
Part-time	10.5	14.5	6.3	10.0	58.3	14.0	64.8	16.2
Retail Trade	174.3	11.6	240.0	10.0	943.3	11.4	1223.5	10.0
Full-time	98.8	56.7	123.6	51.5	543.5	57.6	622.7	50.9
Part-time	75.5	43.3	116.4	48.5	399.8	42.4	600.8	49.1
Accommodation and Food Services	102.0	6.8	191.6	8.0	536.0	6.5	893.0	7.3
Full-time	56.3	55.2	74.1	38.7	274.0	51.1	359.1	40.2
Part-time	45.6	44.7	117.5	61.3	262.0	48.9	533.9	59.8
Transport, Postal and Warehousing	89.8	6.0	130.8	5.4	430.8	5.2	624.2	5.1
Full-time	79.5	88.5	101.3	77.4	371.8	86.3	490.0	78.5
Part-time	10.3	11.5	29.6	22.6	58.9	13.7	134.2	21.5
Information, Media and Telecommunications	27.3	1.8	31.1	1.3	200.9	2.4	214.6	1.8
Full-time	23.8	87.2	24.1	77.5	174.1	86.7	167.7	78.1
Part-time	3.5	12.8	7.0	22.5	26.8	13.3	46.9	21.9

Industry	Queensland				Australia			
	1996		2017		1996		2017	
	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total	Total number employed ('000)	% of Total
Financial and Insurance Services	47.7	3.2	68.5	2.9	322.4	3.9	430.2	3.5
Full-time	38.6	80.9	54.2	79.1	267.0	82.8	354.9	82.5
Part-time	9.0	18.9	14.3	20.9	55.4	17.2	75.3	17.5
Rental, Hiring and Real Estate Services	26.3	1.8	49.2	2.0	109.8	1.3	215.0	1.8
Full-time	19.3	73.4	34.7	70.5	88.4	80.5	159.0	76.2
Part-time	7.0	26.6	14.4	29.3	21.5	19.6	55.9	23.8
Professional, Scientific and Technical Services	80.0	5.3	168.9	7.0	508.9	6.1	1038.6	8.5
Full-time	65.0	81.3	125.4	74.2	410.3	80.6	791.9	76.2
Part-time	15.0	18.8	43.5	25.8	98.6	19.4	246.7	23.8
Administrative and Support Services	41.5	2.8	72.7	3.0	237.7	2.9	406.4	3.3
Full-time	26.3	63.4	41.4	56.9	152.4	64.1	231.3	56.9
Part-time	15.2	36.6	31.3	43.1	85.4	35.9	175.1	43.1
Public Administration and Safety	82.9	5.5	179.0	7.5	464.5	5.6	791.2	6.5
Full-time	70.9	85.5	131.9	55.0	405.3	87.3	621.5	78.6
Part-time	11.9	14.4	47.1	45.0	59.2	12.7	169.7	21.4
Education and Training	114.5	76.0	183.3	13.7	609.9	7.4	987.0	6.5
Full-time	81.4	71.1	100.9	59.3	416.8	68.3	582.0	78.6
Part-time	33.1	28.9	82.4	40.7	193.1	31.7	169.7	21.4
Health Care and Social Assistance	135.8	9.1	327.9	13.7	759.2	9.2	1598.5	13.1
Full-time	89.3	65.8	194.5	59.3	460.9	60.7	883.0	55.2
Part-time	46.5	34.2	133.4	40.7	298.3	39.3	715.5	44.8
Arts and Recreation Services	24.2	1.6	46.1	0.6	114.3	1.4	221.3	1.8
Full-time	15.0	62.0	28.5	61.8	65.0	56.9	109.9	49.7
Part-time	9.2	38.0	17.5	38.0	49.4	43.2	111.5	50.4
Other	71.6	4.8	99.1	4.1	417.0	5.0	501.3	4.1
Full-time	53.4	74.6	64.3	64.9	310.6	74.5	337.8	67.4
Part-time	18.2	25.4	34.8	35.1	106.4	25.5	163.5	32.6
Total	1499.1	100.0	2400.9	100.0	8297.1	100.0	12214.8	100.0
Full-time	1130.2	75.4	1636.0	68.1	6230.6	75.1	8304.0	68.0
Part-time	368.9	24.6	765.0	31.9	2066.6	24.9	3910.8	32.0

Note: Full-time and part-time percentages are within industry.

Source: Australian Bureau of Statistics, 6291.0.55.003 – *Labour Force, Australia, Detailed, Quarterly, Aug 2017* [Data Cube EQ06].

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6291.0.55.003Main+Features1Aug%202017?OpenDocument>.



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