

Australia's looming skills shortage

ACTU Background Paper — July 2004

Australian industry is facing a severe skill shortage in the coming years — largely as a result of an ageing industry workforce and a decline in the rates of apprentices in training.

There are estimates that an ageing manufacturing industry workforce means that in the next five years, 170,000 tradespeople will leave industry, yet only 40,000 will enter it. This suggests a shortage of 130,000 skilled workers in the next five years.

Research by Dr Phillip Toner of the University of Western Sydney confirms a long-term decline in the proportion of apprentices in training which the ACTU estimates translates to a shortfall of up to 25,000 apprentices a year.

Official Government figures show there are already severe skills shortages in country and regional towns as well as in suburban metropolitan areas — see Attachment.

Government figures also show that job vacancies in the trades have risen 20 per cent in the past year and are now at the highest level for fifteen years.¹

A recent survey of business by employer group ACCI found for the first time ever that skill shortages were now the number one constraint on business investment.²

There are increasing reports of shortages coming from different States:³

- A recent AIG study showed that 60% of businesses in rural NSW are suffering from skill shortages.
- In Western Australia, the State Education Minister has appealed to industry to do more to provide training for workers needed to help build the 62 development projects in the pipeline, worth an estimated \$44 billion. A new report estimates these projects alone will produce a demand for 8600 tradespeople - many more than the 5000 to 6000 believed to be working in the sector. Mr Carpenter said the state's TAFE system would be unable to meet the increase in demand for skilled workers, and companies had to do more.⁴

Decline in 'traditional apprentices'

The Federal Government spent \$2.3 million in the first 6 months of this year claiming success with its New Apprenticeships program. But traditional trades apprenticeships account for just under one third of New Apprenticeships places and numbers are failing to keep pace with a looming skills shortage in the traditional trades.

As at 31 March 2004 there were 416,800 apprentices and trainees in training but only 32% of these are traditional trades apprentices. The number of traditional trades apprentices was 133,376 — see table below.

¹ DEWR figures reported in *SMH* 22/7/04.

² *Survey of Investor Confidence*, ACCI, July 2004.

³ See also the recent Senate report: http://www.aph.gov.au/Senate/committee/eet_ctte/skills/report/index.htm

⁴ Reported in *The Australian* 25/06/04.

Table 1: New Apprenticeships Program — March 2004

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
'Traditional apprentices'	42,336	35,804	26,790	9,785	13,205	3,160	286	2,251	133,376
Other apprentices & trainees	89,964	97,296	43,710	22,615	12,995	10,640	2,314	3,849	283,424

While raw numbers of traditional trades apprenticeships have slightly increased in recent years, they have not kept pace with the growth in the overall workforce.

A recent study by Dr Phillip Toner of the University of Western Sydney shows that overall the training rate of traditional trades apprentices has declined by 15.2% in the period 1987 to 2001.⁵

Table 2: Traditional trades apprentices in training — 1987-2001

<i>Trade</i>	<i>Average change from 1987-1992 to 1993-2001</i>
Metal	-26.3%
Electrical	-23.0%
Building	-9.3%
Print	-38.2%
Vehicle	-10.4%
Food	+22.5%
Other	-24.0%
Total	-15.2%

Fewer options for young people

For those apprentices in training, many drop out because of low wages and poor working conditions. Withdrawals and cancellations for apprentices and trainees have increased by 19% over the past 12 months.

An 18 year old entering an apprenticeship in the manufacturing industry is paid only \$6.20 an hour in their first year.

Compare this to a fast food trainee working in a fast food shop flipping burgers who starts out on between \$7.50 and \$8.70 an hour – a difference of \$50 to \$100 a week.

The lack of young people taking up apprenticeships and traineeships is indicated by figures showing close to a third of those joining the Federal Government's New Apprenticeships program are 25 years and older. In NSW more than 16 per cent of apprentices and trainees are over 45.

The lack of openings in traditional trades means that there has been a corresponding reduction in the youth labour market of 20,000 less full time jobs available every year.

⁵ 'Declining Apprentice Training Rates: Causes, Consequences And Solutions', Dr Phillip Toner, July 2003:
<http://www.dsf.org.au/papers/110.htm>

Cost of Skills Shortage

Current apprentice rates in traditional trades are around 2 percentage points lower than the early 1980s.

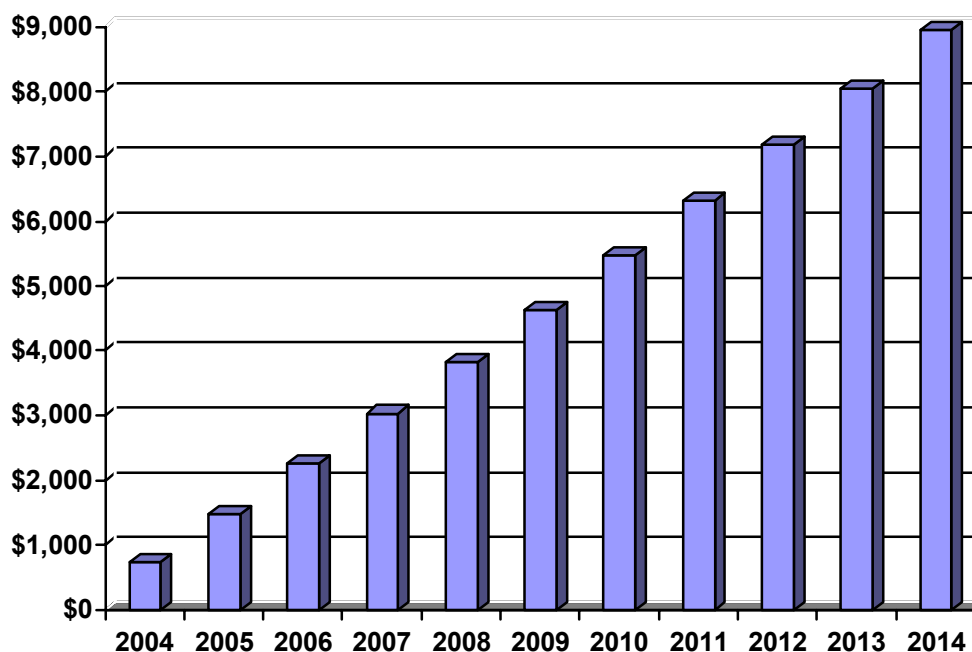
The ACTU estimates this translates to a shortfall of between 20,000 and 25,000 apprentices in training.

New apprentices fill the gap left when older skilled workers retire or leave employment. The age profile of workers with traditional trades skills is changing sharply, with a far higher proportion of older workers.

This means that the skills deficit estimates presented here are conservative, and likely to underestimate the future loss of output arising from the shortage of skilled workers

However, according to these parameters, the ACTU calculates that the skills shortage in traditional trades is set to cost the Australian economy up to \$735 million a year in lost output — or in real terms almost \$9 billion over the next ten years.

Cost of skills shortage 2004-10 (\$ millions)



Notes:

- Output per (full-time equivalent) person employed in Australia is approx \$90,000 a year. Assuming skilled workers' annual output is equal to the national average, and workers without trade skills produce two-thirds of this.

Table 3: Apprentice shortage & economic cost 2004-2014

<i>ACTU estimate</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
Shortage of apprentices	79,355	67,111	50,215	18,341	24,751	5,923	536	4,219	250,000
Economic cost (\$million)	\$2,839	\$2,401	\$1,797	\$656	\$886	\$212	\$19	\$151	\$8,944

Government approach is flawed

The Federal Government's current approach is not only failing to address the looming skill shortage, its television advertising is covering up this major economic problem.

The Federal Government spent \$2.3 million in the first 6 months of this year claiming success with its New Apprenticeships program.

But, as the data presented above shows, traditional trades apprenticeships account for just under one third of New Apprenticeships places and these numbers are failing to keep pace with the projected skills shortfall in the traditional trades.

A major problem with the New Apprenticeships program is that the financial incentives paid to employers by the Federal Government are biased against traditional trades apprentices.

Under the New Apprentices program the same payments are paid to both apprentices and trainees — \$1375 for a commencement and \$2750 for a completion, or a total of \$4125.

But some traineeships can be completed in one year, compared to a four year term of a metal, electrical, or construction apprenticeship.

As Dr Phillip Toner argues:

"The payments do not recognise the much greater investment of time and effort on the part of the apprentice employer. In theory, an employer could get four cycles of commencement and completion payments for trainees in the same time it takes an employer of an apprentice to get one cycle." (2003)

Dr Toner also points out that the additional \$1100 incentives for employers in areas where there are skill shortages are limited to only those employers in non-metropolitan regions. But in NSW, for example, around 75% of all apprentices are located in metropolitan areas.

On a broader level, Dr Toner argues that industrial relations changes that have reduced the scope of awards and promoted individual agreements have also contributed to a decline in the training of apprentices:

"There is prima facie evidence that industrial relations changes have contributed to reduced training rates." Research by Roan and Lafferty shows 72% of AWAs contained no reference to training. (2003)

ACTU calls for action

The ACTU calls on the Federal Government to:

- Commit to directly employing more apprentices and ensuring Government tenders require contractors to also create additional structured training places.
- Provide mentoring support for young apprentices.
- Establish partnership initiatives within enterprises to encourage and support the uptake of structured industry training including additional apprenticeship pathways for young people and mature aged workers in skill shortage areas.
- Supplement and increase apprentice wages for both young people and mature aged workers.

Appendix- Skill Shortage List – Trades		December 2003								
ASCO	Occupation	AUST	NSW	VIC	QLD	SA	WA	TAS	NT	
ENGINEERING TRADES										
4112-11	Metal Fitter*	N	S*	S	S	S	S		S	
4112-13	Metal Machinist*	N	S*	S	S	S	S		S	
4113-11	Toolmaker*	N	S*	S	S	S	D			
4122-11	Metal Fabricator*	N	S*	S	S	S	S	S	R	
4122-15	Welder*	N	S*	S	S	S	S	S	R	
4124-11	Sheetmetal Worker*	N	M*	S	S	S	S	S	S	
VEHICLE TRADES										
4211-11	Motor Mechanic*	N	S*	S	S	S	S	S	S	
4212-11	Auto Electrician	N	S	S	S	S	S	S	S	
4213-11	Panel Beater	N	S	S	S	S	S	S	S	
4214-11	Vehicle Painter	N	S	S	S	S	S	S	S	
ELECTRICAL/ELECTRONICS¹										
4311-11,13	Electrician*	N	S*	R-D	S*	S		S	D	
4312-11	Refrigeration and Airconditioning Mechanic*	N	S*	S	S	S		S	S	
4313	Electrical Powerline Trades			S						
4314	Electronic Instrument Trades				D					
4315	Electronic Equipment Trades*		S*		D	S*		S		
4316	Communication Trades*		S*							
CONSTRUCTION TRADES¹										
4411-11	Carpenter and Joiner*	N	M*	R-D	S			S	D	
4412-11	Fibrous Plasterer*	N	S*	S				S		
4413-11	Roof Slater and Tiler			R-D						
4414-11	Bricklayer	N	S	R, M-D	S	S	S	S	S	
4415-11	Solid Plasterer	N	S	S			D	S		
4431-11	Plumber*	N	S	D*	M, R-D	S	S	S	S	
FOOD TRADES¹										
3322	Chef*	N	S*	S	R		S*	R-D	S	
4512-11	Baker		S						S	
4513-11	Cook	N	S	S	R				S	
4512-13	Pastrycook*	N	S*	S	S			S	S	
PRINTING TRADES										
4911-11	Graphic Pre-press Trades				S					
4912	Printing Machinist		R		S	D				
4913-11	Binder and Finisher			D	S					
WOOD TRADES¹										
4921-11	Wood Machinist*		S*			S				
4922-11	Cabinetmaker	N	S	S	S	S	S		D	
OTHER TRADES										
4931-11	Hairdresser	N	S	S	S	S	S	S	S	
4942-11	Furniture Upholsterer*	N	S*	S	S	S	S	S		

¹ = Not all occupations assessed in all States

* = See comments on specialisations

N = National shortage

M = Shortage in metropolitan areas

D = Recruitment difficulties

M-D = Recruitment difficulties in metropolitan areas

S = State-wide shortage

R = Shortage in regional areas

R-D = Recruitment difficulties in regional areas