The economic impact of skills shortages

Presentation to the
SA Training & Skills Commission / CEDA
2006 Workforce Development Conference

Saul Eslake
Chief Economist
ANZ Bank

Festival Centre
Adelaide
31st October 2006

www.anz.com/go/economics
Australia is enjoying its longest run of continuous economic growth since at least 1900

Australian real GDP growth, 1901 - 2009

Note: data are for financial years ended 30 June.
Sources: Angus Maddison, Monitoring the World Economy 1820-1992; Reserve Bank; ABS; Economics@ANZ.
Unemployment is at a 30-year low, while the ‘employment rate’ is at a record high

Sources: ABS; Economics@ANZ.
A record proportion of businesses report labour shortages as a major constraint on growth

Source: National Australia Bank.
The long-term decline in labour force participation by older men appears to have reversed.

Labour force participation rates by age

55-59 year olds

60-64 year olds

Note: data shown as 12-month moving averages. Source: ABS; Economics@ANZ.
After picking up strongly during the 1990s, productivity growth has slowed this decade.

Sources: ABS; Groningen Growth and Development Centre (University of Groningen and The Conference Board Total Economy Database January 2006; Economics@ANZ.)
Possible reasons for the slowdown in productivity growth during the current decade

- As the economy approaches ‘full employment’, marginal additions to the work force may be ‘less productive’
  - ie skill shortages could be detracting from productivity growth
- Dearth of productivity-enhancing reforms in recent years
  - the overwhelming research consensus is that the acceleration in Australian productivity growth during the 1990s was the result of wide-ranging pro-competitive reforms undertaken from the mid-1980s onwards
  - there hasn’t been much by way of productivity-enhancing reform since the late 1990s
- Deluge of productivity-stifling legislation and regulation in recent years with the ostensible aim of enhancing ‘security’ and improving corporate governance
  - in practice requiring the employment of tens of thousands of people who do absolutely nothing useful themselves but prevent those who are doing something useful from doing it as quickly or cheaply as they otherwise would
  - and in reality probably don’t do much to enhance ‘security’ (if that really is under greater threat than hitherto) or reduce the likelihood of corporate malfeasance
Employment growth has been much more rapid among occupations calling for higher skill levels.
High-skilled occupations have accounted for nearly 2/3 of all jobs growth over the past five years.

Share of employment growth 2000-01 through 2005-06

Share of total employment 2005-06

Sources: ABS, Labour Force: Detailed Quarterly (6291.0)
There’s a clear correlation between educational attainment and employment experience

Unemployment rate by level of educational attainment, May 2005

Sources: ABS, Education and Work (6227.0), Economics@ANZ.
The number of Australians undertaking higher education has flattened out in recent years

Source: Department of Education, Science & Training
Australia is above the OECD average but behind the leaders in tertiary education attainment ...

% of population aged 25-64 with tertiary education

... and other countries are catching up more quickly

% of population aged 25-34 with tertiary education

The percentage of Australian adults with at least upper secondary education is below OECD average.

% of population aged 25-64 with at least an upper secondary education

A relatively high proportion of Australians leave school before reaching upper secondary level

% of population aged 25-64 whose highest level of educational attainment is lower secondary

Levels of educational attainment do matter

- Employment prospects improve with increasing levels of educational attainment
  - unemployment rate of those without post-school qualifications is more than double that of those with them
  - unemployment rate of university graduates is more than one-third lower than that of people with other (non-tertiary) post-school qualifications

- Incomes rise with educational attainment
  - early school leavers earn around 20% less than those completing high school
  - who in turn earn 20% less than those completing vocational education
  - who earn about 40% less than university graduates

- Analysis by the OECD suggests that an extra year of schooling lifts per capita GDP by about 6%

- This is broadly consistent with Australian research suggesting that a one-year increase in the average level of schooling
  - would increase annual GDP growth by 0.5 pc pt per annum
  - would ultimately increase the level of GDP by 8%

Sources: ABS Education & Work May 2005 (6227.0); Access Economics (2005); OECD Education at a Glance (2006); Steve Dowrick, 'The Contribution of Innovation and Education to Economic Growth (2002).
Although SA productivity growth has exceeded the national average the SA level is still below average.

**Labour productivity growth 1999-00 to 2004-05**

**Level of labour productivity 2004-05**

* Productivity defined as real gross State product per hour worked.

* Sources: State Accounts (5220.0); ABS Employed persons by sex, age, hours worked, state (6291.0.55.001); Economics@ANZ.
SA has more people who haven’t made it past year 12, and fewer who have, than average.

15-64 year olds with post-school qualifications

15-64 year olds who have not completed Year 12

Source: ABS, Education and Work, Australia, (6227.0); Australian Social Trends (4102.0) 2005.
South Australia has an above- (below-) average proportion of workers in high- (low-) skill jobs

Source: ABS, Australian Social Trends (4102.0) 2005.
The SA school system does well in improving student outcomes the longer they stay in school.

Average maths scores – Year 4

Average maths scores – Year 8

Average science scores – Year 4

Average science scores – Year 8

Source: Trends in International Mathematics and Science Study 2002-03
And SA produces students with above-average reading, maths and problem-solving skills

Source: Australian Council for Educational Research; Program for International Student Assessment (PISA).
But the proportion of SA students going to Year 12 is no longer above the national average

Source: ABS, Schools Australia (4221.0)
Summary: skill shortages and the economy

- There is evidence that skill shortages are adversely impacting growth in output in the Australian economy.

- Skill shortages are *not* deterring growth in demand.
  - To the extent that skill shortages are boosting the income of skilled workers, they may be boosting income growth and hence aggregate demand, at the margin.

- The combination of capacity-constrained output growth and buoyant demand is contributing to upward pressure on inflation (and hence interest rates) and to a widening in the current account deficit.
  - Although skill shortages are not the only (or even necessarily the most important) contributor to these problems.

- Increased immigration of skilled workers is the only short-term solution to the shortage of skilled workers.
  - And the Government is allowing higher permanent and temporary immigration of skilled workers.

- The only sustainable long-term solution is increasing the quantity and quality of education and training.
  - The increasing electoral clout of seniors is making this more difficult to achieve politically.