

**POLICY ISSUES FOR  
AUSTRALIA'S EDUCATION  
SYSTEMS:**

Evidence from International and  
Australian Research

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# Policy Issues

- How do we compare internationally?
- Do factors such as gender, socioeconomic background and schools make a difference?
- How can we improve achievement levels?
- Do we need to raise participation levels?

# Research Evidence: International

- Series of studies conducted by the International Association for the Evaluation of Educational Achievement
- Programme for International Student Assessment (PISA)

# Research Evidence: Australian

1978-today Youth in Transition (YIT)

1984-1997 Australian Longitudinal Survey (ALS)/  
Australian Youth Survey (AYS)

1995-today Longitudinal Surveys of Australian  
Youth (LSAY)

# Secondary Students' Performance: The Evidence

- Australian secondary students' performance in reading, mathematics and science is high by international standards.

*However,*

- There is no evidence that the performance of Australian students has improved over the last 30 years.

# Secondary Students' Performance: Policy Implications

- There are strong arguments to further increase students' achievement levels.
- There is a need to lift the performance of weaker students *without* undermining the performance of other students.

# Participation in Year 12: The Evidence

- Year 12 retention rates increased from 35% in 1980 to a peak of 77% in 1992.

*However,*

- Year 12 participation in Australian remains lower than that in many other countries.

# The Case *Against* Increasing Year 12 Participation Rates

- The majority of non-completers leave school for positive reasons such as to get a job or apprenticeship ... and most do obtain work.
- Relatively few say they left because they disliked school, or because of curriculum issues.



# The Case *For* Increasing Year 12 Participation Rates

- The labour market outcomes of early school leavers are poorer than those with university qualifications.
- Comparisons between early school leavers and Year 12 graduates without additional qualifications are more equivocal.

# The Case *For* Increasing Year 12 Participation Rates continued...

- Barriers to returning to education exist.
- Costs to employers.
- Need to assist young people experiencing unsuccessful transitions from school.

# VET-in-Schools: The Evidence

- Substantial growth throughout the 1990s.
- Very little research evidence about benefits of VET-in-schools.

# Participation in Higher Education: The Evidence

- Increasing levels of participation.
- Attrition and course withdrawal are of concern.

# Should Higher Education Participation Rates Be Increased?

- Issues for individuals
  - ◆ Unmet demand
  - ◆ Labour market outcomes of graduates
- Labour market issues
  - ◆ Labour market demand for graduates
  - ◆ Increased skill requirements
- Costs

# Post-Secondary Vocational Education and Training

- Participation
- Labour market outcomes
  - ◆ Unemployment
  - ◆ Income
- Changes in VET programs
- Issues to be debated

# Differences in Educational Participation and Outcomes

- Equality of access or opportunity
- Equality of outcomes
- Differences according to ...
  - ◆ Gender
  - ◆ Socioeconomic background
  - ◆ Ethnic and indigenous minorities
  - ◆ School sector
  - ◆ Individual schools

# Gender:

## Educational Participation

### ■ Year 12

- 1970s: males more likely to complete
- Early 1980s: females slightly more likely to complete (3 percentage points)
- Late 1980s: females more likely to complete (gap increased to 10 percentage points)

### ■ Tertiary education

- 1970s: males more likely to participate
- Early 1980s: no gender difference
- Late 1980s: females more likely to participate (9 percentage points)



# Gender:

## Educational Participation continued...

### ■ Completion of Tertiary Education

- First degrees- female graduation rates higher (58%)
- Second degrees- female graduations rates slightly higher (52%)
- Advanced degrees- females graduation rates lower (40%)
- Overall, females more likely to complete an award course

# Gender:

## Achievement Outcomes

### ■ Literacy

- Average (OECD countries) difference 32 points (1/3 sd) favouring females
- Australian difference 34 points, favouring females
- Decline in proportion of males achieving mastery

### ■ Numeracy and science

- 1994 TIMSS- no significant difference
- 1999 TIMSS- no significant difference

# Gender:

## Achievement Outcomes continued...

- Tertiary entrance scores
  - More females in top percentile bands (NSW, Vic, WA);
  - More males in lower percentile bands (Vic, WA);
  - Females outperform males in most subjects (NSW, Vic, WA);

*However,*

- Qld found more males in top and bottom bands, with more females in high and middle bands.

# Socioeconomic Background

- International evidence:

SES is associated with both educational participation and educational outcomes.

- Declining effects in Australia.

- But more can be done.

In some other countries the influence of SES is weaker than in Australia.

# Ethnic Minorities

- Educational participation:
  - often less early school leaving, and
  - higher participation rates for Year 12 and higher education.

# Ethnic Minorities continued...

- Achievement outcomes:
  - Students with LBOTE tend towards lower mean achievement at primary levels;
  - Minimal difference at middle school levels, but
  - Higher performance at secondary levels and for tertiary entrance.

# Indigenous Australians

- Educational participation:
  - retention in middle school and higher secondary levels less than half the rate of non-Indigenous students;
  - only 2% of 20-24 year old Indigenous people hold a university qualification.

# Indigenous Australians continued...

## ■ Achievement Outcomes:

- lower levels in reading literacy, mathematical and scientific literacy (PISA);
- tertiary entrance scores are, on average, 11 points less than non-Indigenous students.



# School Sector

- Shift from government to non-government schools:
  - 1984- 75% of students enrolled in government schools
  - 2000- 69% of students enrolled in government schools
  - Shift is greater in the secondary years

# School Sector continued...

## ■ Educational Participation:

- Early 1980s- only 30% in government schools participated in Year 12 (Catholic schools- 44%; Independent schools- 88%);
- Late 1990s- 71% in government schools participated in Year 12 (Catholic schools- close to Independent; Independent- unchanged).

# School Sector continued...

- Achievement Outcomes:
  - Performance for Tertiary entrance (ENTER scores) are, on average, higher for students in Independent schools, followed by student in Catholic school and then government schools.
  - Differences are reduced (by 20-50%) by controlling for prior differences in achievement (Year 9) and socioeconomic background.

# School Effects

- Differences between schools in achievement outcomes are largely the result of differences between schools in the socioeconomic and academic mix of the students.
- Only in a minority of schools (11-17%) does the individual school significantly influence student performance net of other factors.
- Schools that succeed in lifting student performance above that expected given the social and academic intake, are labelled *effective* schools.

# Characteristics of *Effective* Schools

- Strong educational leadership;
- Emphasis on acquisition of basic skills;
- Orderly and secure environment;
- High expectations of student achievement
  - Students
  - Parents
  - Teachers
- Frequent assessment of student progress
- Academic climate important for tertiary entrance performance

# Concluding Comments

- How do we compare internationally?
- Do gender, socioeconomic background and schools make a difference?
- How can we improve achievement levels?
- Do we need to raise participation levels?