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# Four Imperatives for a Revolution in School Education

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**There have been steady increases in the education levels of young Australians in recent decades.**

**For example, the percentage of Australian 25-34 year olds with at least a bachelor's degree:**

<b>1995</b>	<b>14%</b>
<b>2005</b>	<b>29%</b>

## Countries Outperforming Australia (Scientific Literacy)

2000	2003	2006
Korea Japan	Finland Japan Hong Kong C Korea	Finland Hong Kong C Canada
32	41	57

(Japan and Korea tied with Australia in 2006)

## Countries Outperforming Australia (Mathematical Literacy)

2000	2003	2006
Japan	Hong Kong C Finland Korea Netherlands Liechtenstein Japan Canada	Chin. Taipei Finland Hong Kong C Korea Netherlands Switzerland Canada Macao C
32	41	57

## Countries Outperforming Australia (Reading Literacy)

2000	2003	2006
Finland	Finland Korea	Korea Finland Hong Kong C Canada New Zealand
32	41	57

(2006: increase in Hong Kong-China, decline in Australia)



**However,**

**The percentage of Year 8 students meeting ‘high’ international standards in mathematics:**

<b>Australia:</b>	<b>7%</b>
<b>Singapore:</b>	<b>44%</b>



**Australian students have an unusually low secondary school completion rate by international standards.**



**The percentage of 20-24 year olds who have  
neither completed secondary school nor  
are in education:**

**Australia: 16.9%**

**Norway: 4.3%**

- 
- 1. improve levels of teacher expertise and practice**
  - 2. improve the monitoring of individual student needs and progress**
  - 3. establish greater consistency and relevance in school curricula**
  - 4. increase resources and better target resources on needs**

## Imperative #1

improve levels of teacher expertise  
and practice

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and practice**



**The best-performing school systems recruit teachers from the top 30% of high school graduates:**

**South Korea: 5%**

**Finland: 10%**

**Singapore: 30%**

**Hong Kong: 30%**

## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**make *literacy* and *numeracy* levels an element  
of selection for entry into pre-service teacher  
education programs**

## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**evaluate and support teacher education programs  
on the extent to which they prepare teachers with  
a sound training in *evidence-based* pedagogical  
practices**

## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**require beginning teachers to demonstrate the achievement of at least minimal standards of English literacy, numeracy and science literacy for registration to practice**

## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**introduce and provide incentives for *specialist subject teachers* in primary schools  
(eg, mathematics, science, languages)**

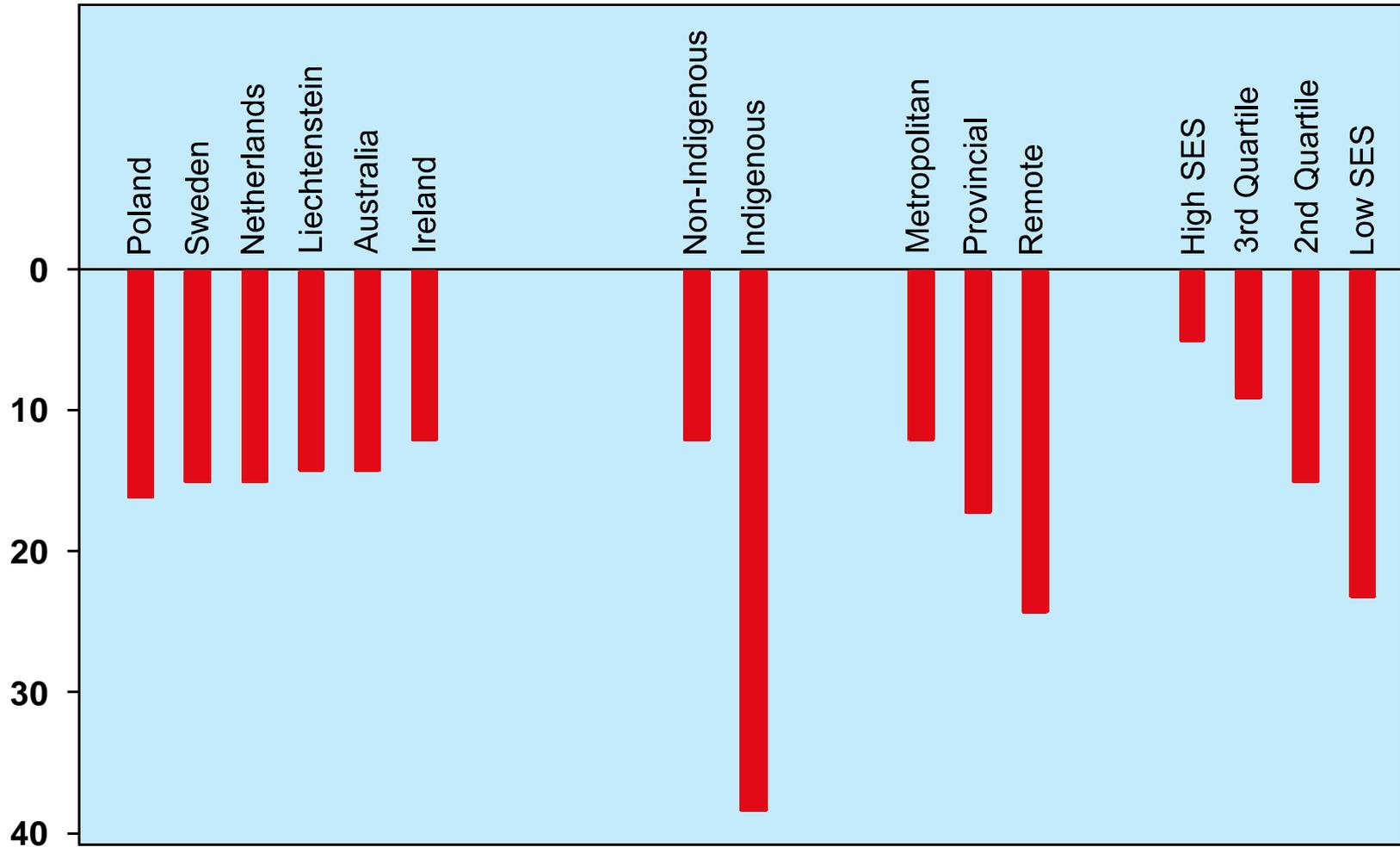
## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**increase financial incentives for teachers to teach  
in remote, rural and socially-disadvantaged areas  
of Australia**

## Percentage below OECD baseline (Reading Literacy)



PISA, 2006

## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**establish national standards for highly accomplished teaching, a system of rigorous external assessment against those standards, and national certification for teachers who meet the standards**

## Imperative #1

improve levels of teacher expertise  
and practice

### Strategy...

**increase levels of remuneration for teachers who  
meet high standards of professional practice**

## Imperative #2

improve the monitoring of individual student needs and progress

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### Strategy...

**assess every child prior to commencing school to establish developmental levels and school readiness and to diagnose potential learning difficulties**

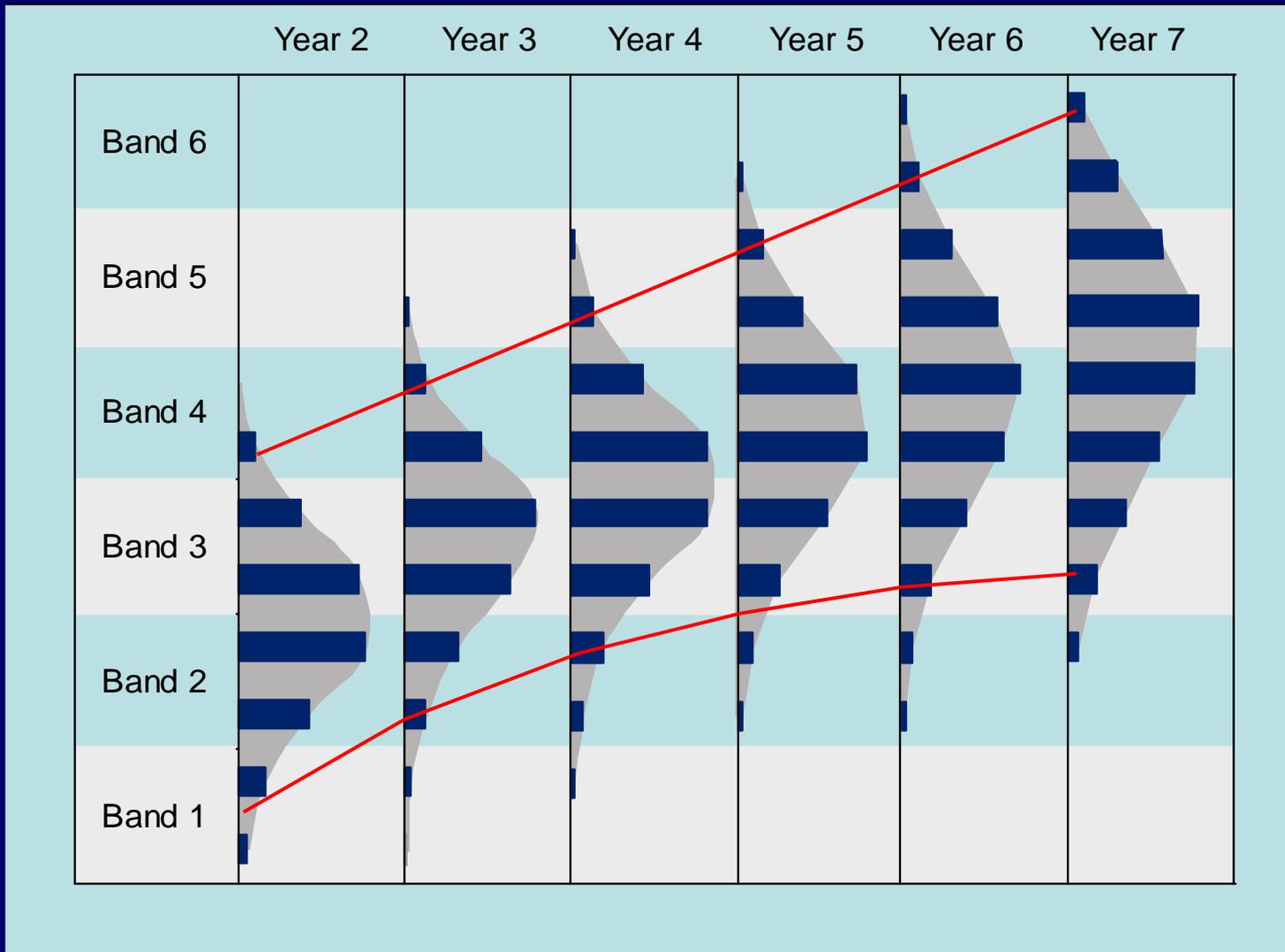
## Imperative #2

improve the monitoring of individual student needs and progress

### Strategy...

**introduce improved methods of *monitoring individual progress* across the years of school – particularly in reading, writing, numeracy and science – and develop improved ways of sharing this information with parents and across a child's teachers**

mathematics achievement



## Imperative #3

set national standards and increase  
relevance in school curricula

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### Strategy...

**remove unnecessary differences across states and territories (eg, in terminology, basic requirements for the award of a senior certificate, and formats for reporting Year 12 subject results)**

**ACT** a grade (E, D, C, B, A)

**NSW** a mark out of 100, placing the student's result in one of six 'bands' (Band 1, Band 2,... Band 6)

**QLD** an 'achievement level' (Very Limited, Limited, Sound, High, Very High Achievement)

**SA/NT** a score out of 20, placing the student's result in one of five grades (E, D, C, B, A)

**TAS** an 'achievement level' (Preliminary, Satisfactory, Commendable, High, Exceptional Achievement)

**VIC** a score out of 50

**WA** currently: a grade (E, D, C, B, A)  
were proposing: a 'level' (3, 4, 5, 6, 7, 8) and a 'band' (first/medium/high) within that level

## Imperative #3

set national standards and increase  
relevance in school curricula

### Strategy...

**introduce a system of (optional) national Year 12  
examinations in key subjects**

## Imperative #3

set national standards and increase  
relevance in school curricula

### Strategy...

**make the achievement of at least minimal standards  
in literacy, numeracy and ICT literacy a requirement  
for the award of a senior certificate**

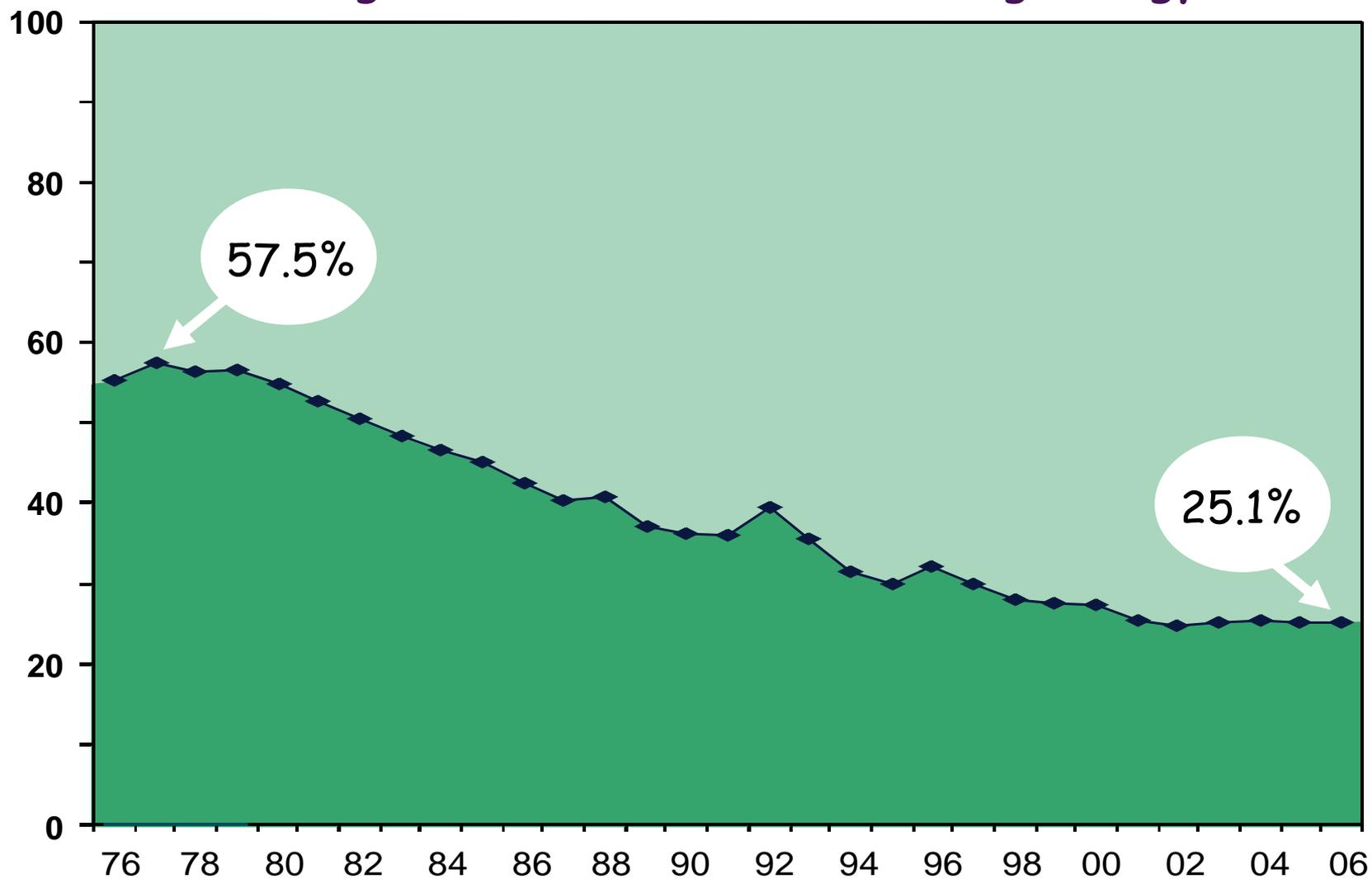
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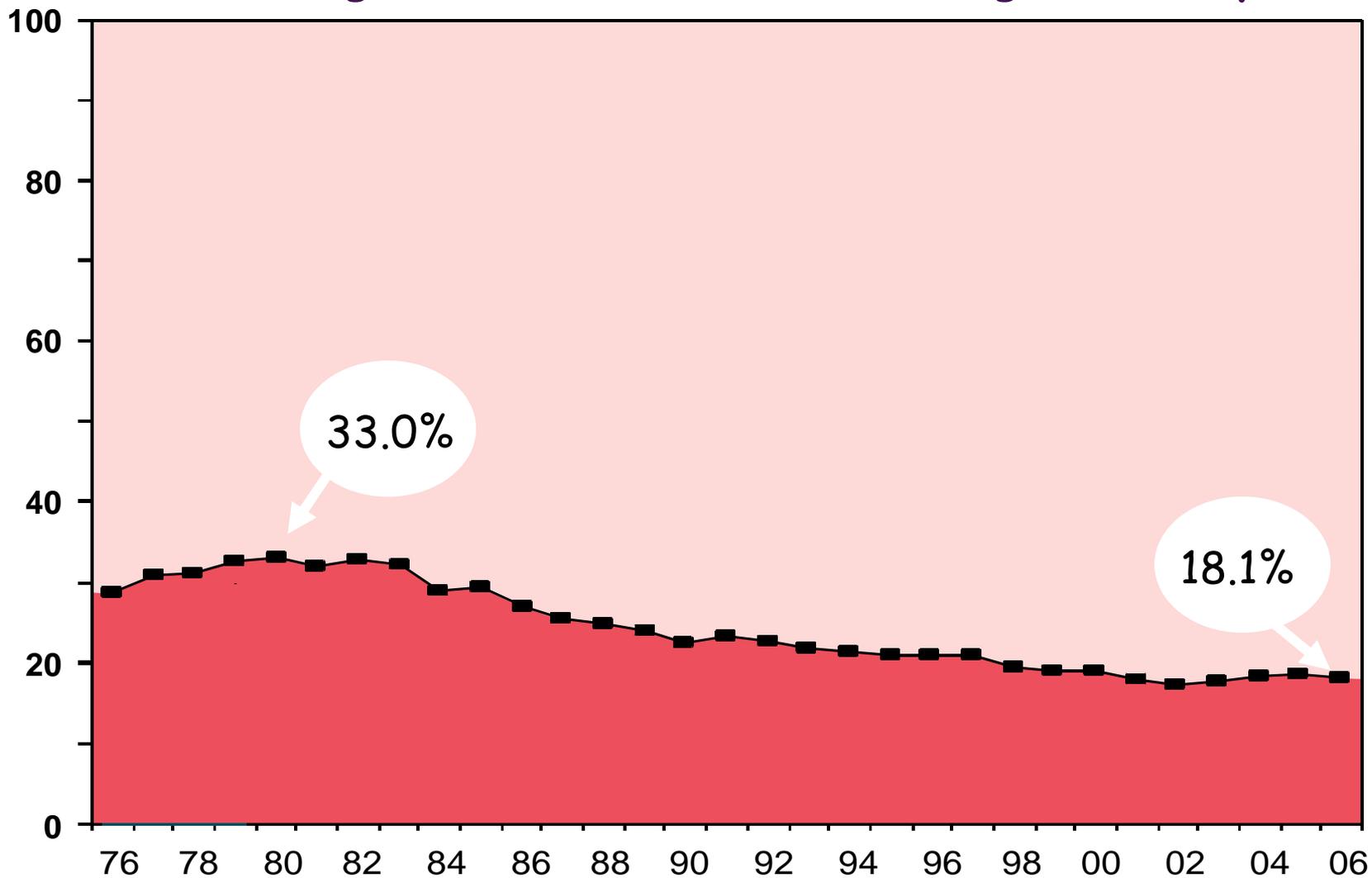
### Strategy...

**develop new, high quality, national mathematics  
and science courses for the middle and senior years  
of school that connect mathematics and science  
learning to real-world applications (providing both  
rigour and relevance)**

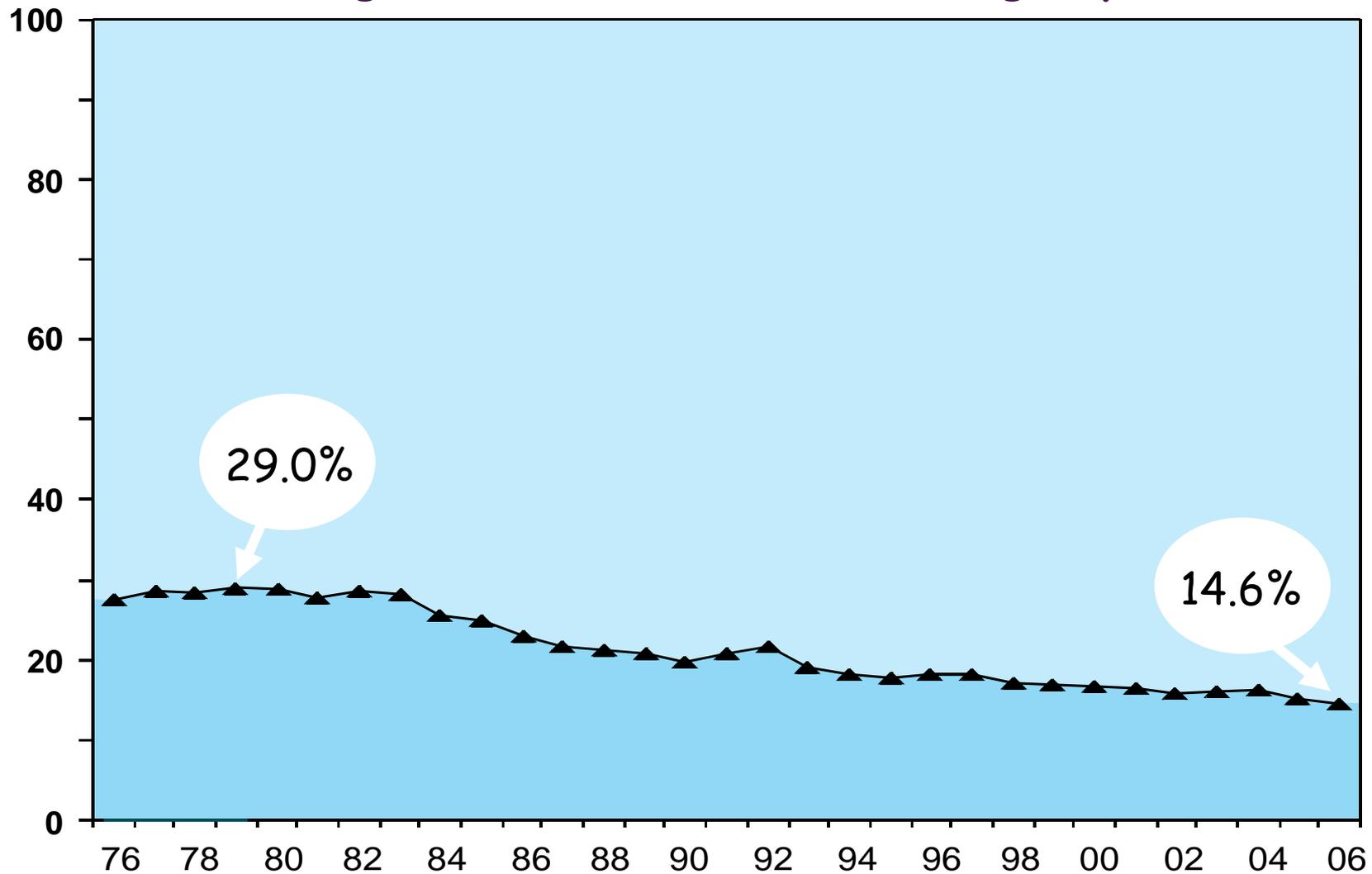
## Percentage of Year 12 students taking Biology



## Percentage of Year 12 students taking Chemistry



## Percentage of Year 12 students taking Physics



## Imperative #4

increase resources and better target  
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## Strategy...

**increase total government investment in  
school education**

OECD: Australia's overall investment in all education  
places us 18<sup>th</sup> among 29 countries.

(public investment below the OECD mean, and we  
rely more heavily than most on private income).

## Imperative #4

increase resources and better target  
resources on needs

### Strategy...

**develop a more consistent national approach to  
funding schools on the basis of need, taking into  
account current school resources, levels of  
achievement and special school circumstances**

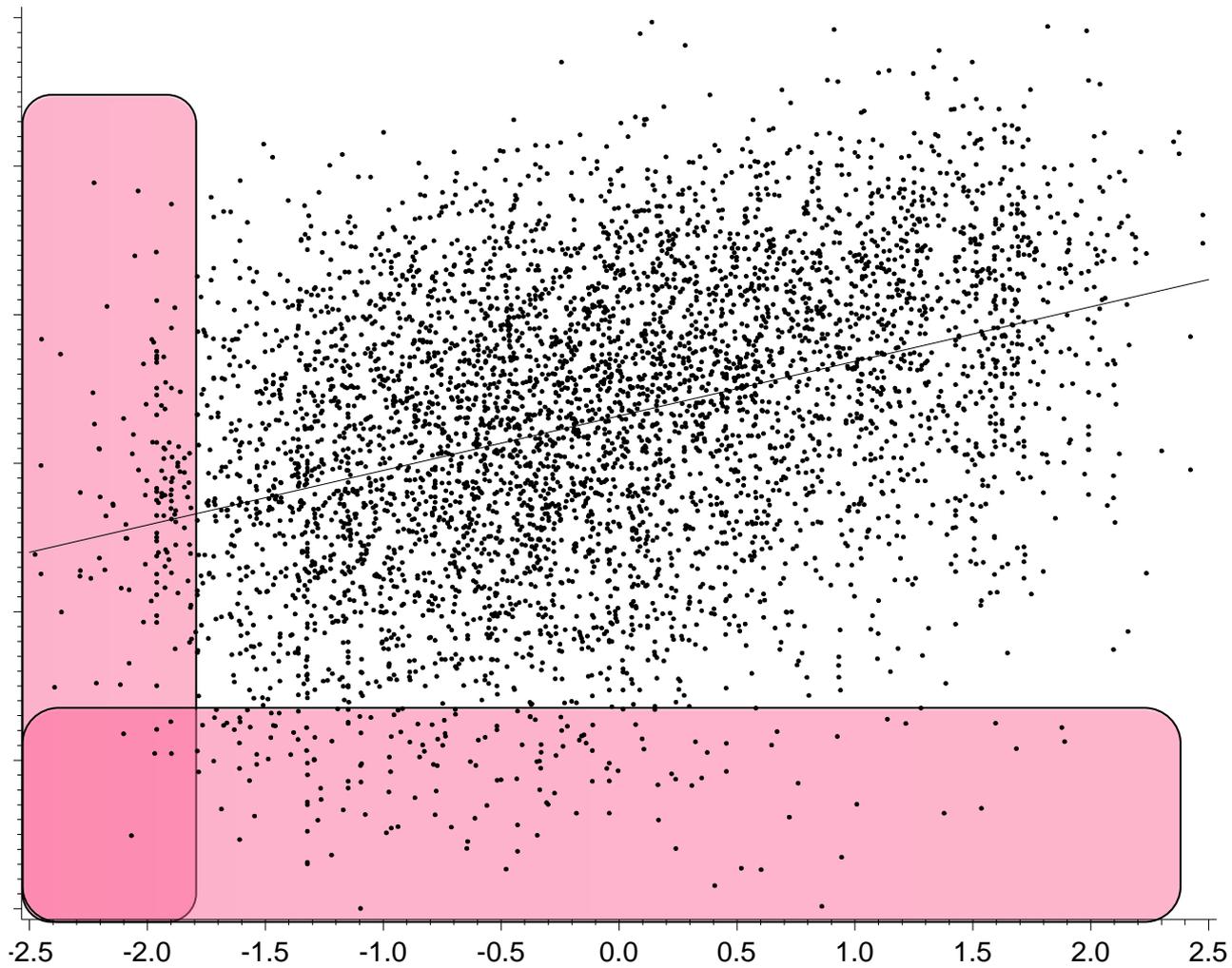
## Imperative #4

increase resources and better target  
resources on needs

## Strategy...

**target resources and interventions on *individuals*  
who are most at risk of school failure**

reading achievement (PISA)



socioeconomic status



[acer.edu.au](http://acer.edu.au)

*improving learning*