



Education Strategy Review

Phase One

14 December 2001

This represents the Strategy Unit's analysis.
This is not a statement of government policy

Education and Skills: Strategic Review

Phase 1: Analysing the data

Our Challenge:

- To identify the long terms trends affecting education:
 - The knowledge and skills needs of individuals.
 - The needs of the most deprived.
 - The skill needs of the economy.
- And thus to identify the long term challenges for the education system.

Executive Summary

- **Our educational performance has improved significantly over recent years.** Attainment has been increasing at all levels, and we now compare favourably with international benchmarks. We have more people involved in education than most countries, and the numbers with no qualifications has fallen dramatically. We can realistically and plausibly aspire to having a world class education system by 2010, if not before.
- **This strong performance is a powerful endorsement for the current education strategy** - which has been applied with increasing rigour and confidence in recent years. It may also reflect a sea-change in the expectations and aspirations of parents and children and provide us with a real opportunity to establish a culture that values education and engages us all in its pursuit as students, parents, teachers, employers and citizens.
- **However, there are still significant performance challenges to meet.** Attainment at some levels may be starting to plateau. We still have a significant number of relatively weak schools and the children in those schools continue to suffer. Children themselves are getting harder to teach - given all the stimulus and influences on their behaviour. Independent schools continue to have a disproportionate effect on perceived standards and on parental choice, particularly in London. Performance in the post-compulsory sector is patchy.

Executive Summary - continued

- **We face acute challenges in meeting the needs of high risk groups.** Of greatest concern is our failure to break decisively into the cycle of social deprivation and educational under-achievement which persists across the generations. This study has confirmed the adverse effect of social background, gender, ethnicity and early failure. We have identified six high-risk segments of the population for whom current efforts may need to be intensified and accelerated.
- **Projections to 2010 indicate the scale of this challenge.** Significant number of children will continue to leave school with no qualifications. There will still be 3.5 million adults with no qualifications - whilst employers will need 2 million more highly skilled workers than today.
- **To accelerate progress, we will need to address the underlying root causes** - which appear to lie in the shortcomings of our educational institutions and infrastructure: in the quantity, quality, motivation and methods of teachers; the variable standards of institutional leadership; the lack of a clear vocational route; the limited take-up and use of technology; the antiquated nature of many educational premises; and the backlog effect created by past under-investment in education. They may also lie in the limited ways in which users are able to exert pressure on the education system, and its muted responsiveness to that pressure.
- **Phase 2** will examine in greater detail the root causes of our continuing educational problems in pursuit of two primary objectives - to continue the strengthening of overall standards and performance throughout the education system; and to meet the specific needs of particular high-risk segments. We will develop a long term, holistic strategy to achieve world class education in England by 2010 - an education system that engages and inspires us all.

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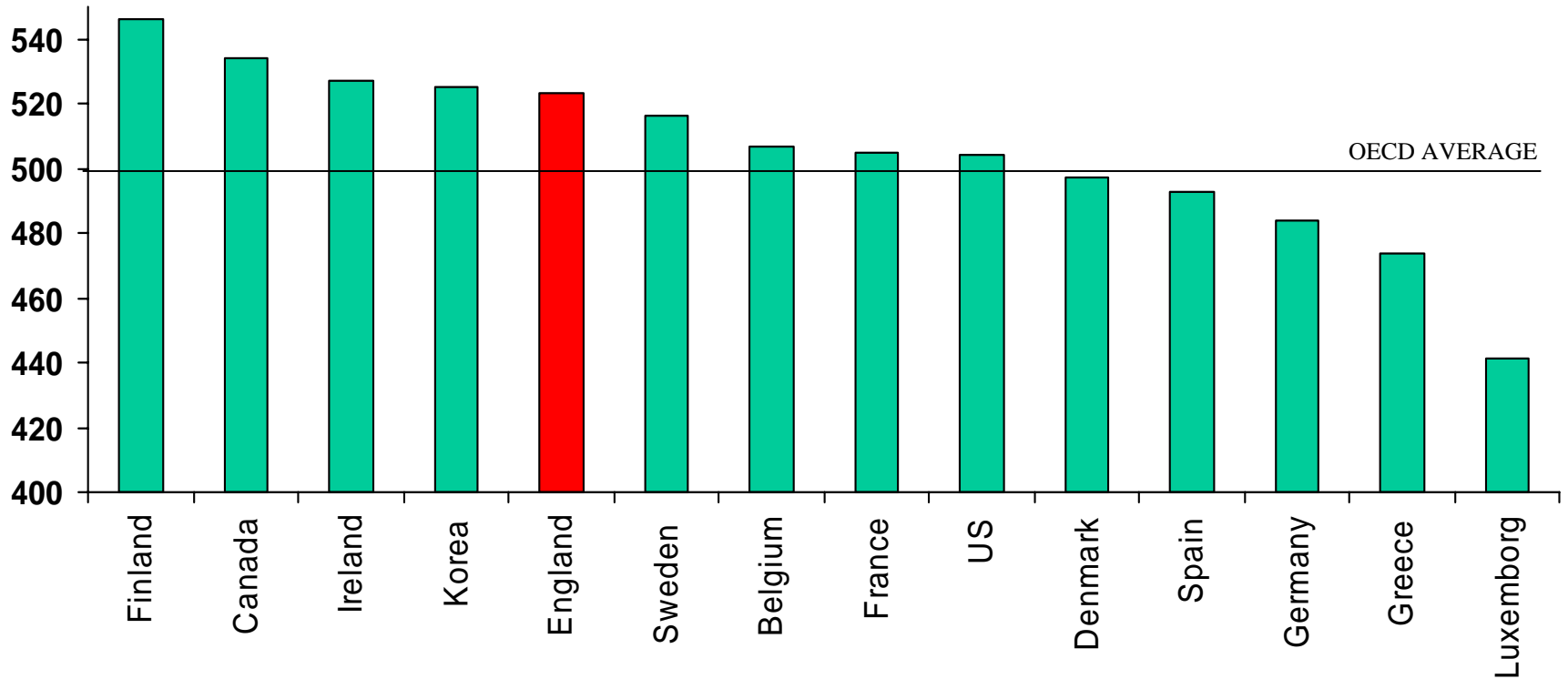
**Our educational performance
has improved greatly over
recent years**

Our educational performance has improved greatly over recent years

- Our educational results now compare well with international benchmarks, and we are approaching world class levels.
- Attainment has been increasing at all levels, and key targets are being met and passed.
- The proportion leaving school with no qualifications is way down, and post-compulsory education attainment is rising.
- HE participation and graduation has seen a massive expansion, and is now amongst the highest in the world.
- More people are directly involved in education than any other leading countries.

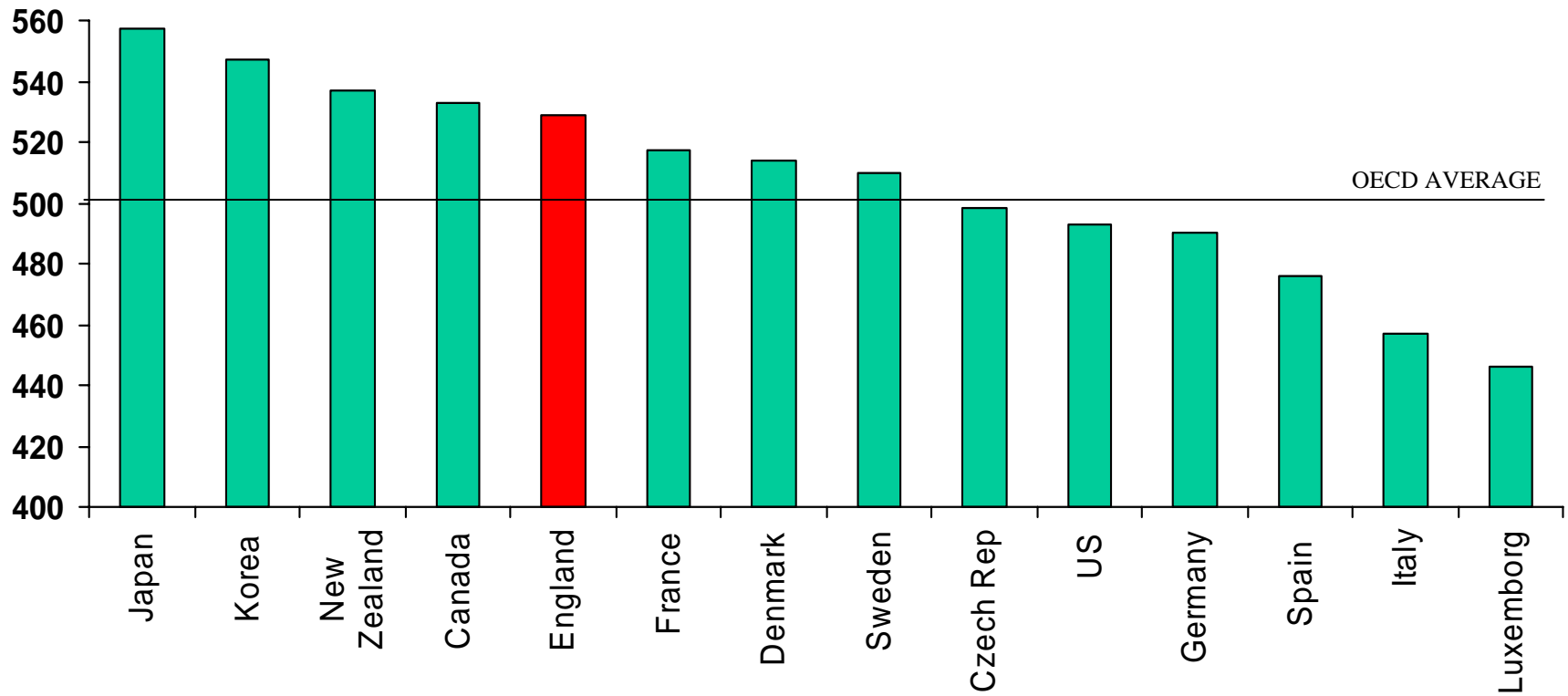
We are now performing better than the OECD average on age 15 literacy ...

MEAN LITERACY SCORES AT 15 (2000)



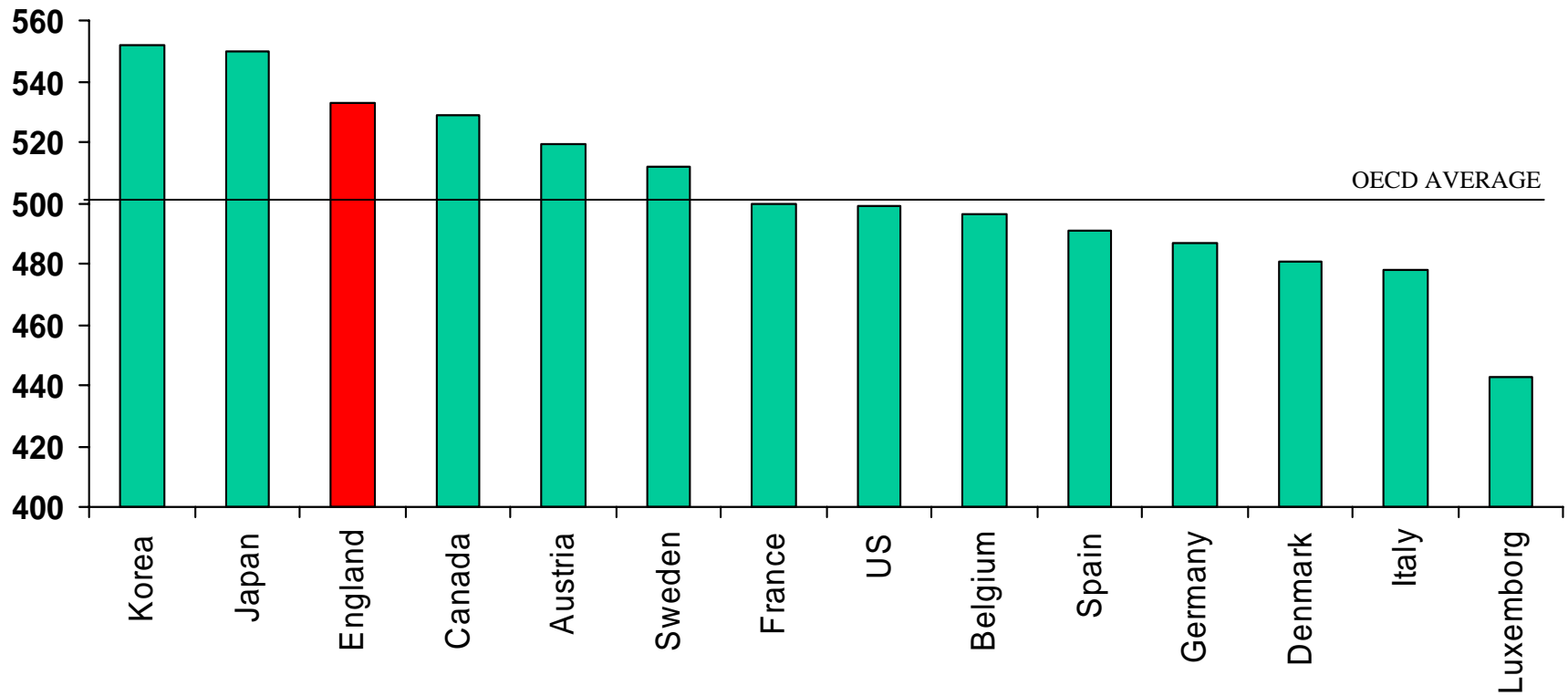
... and on age 15 numeracy...

MEAN NUMERACY SCORES AT 15 (2000)



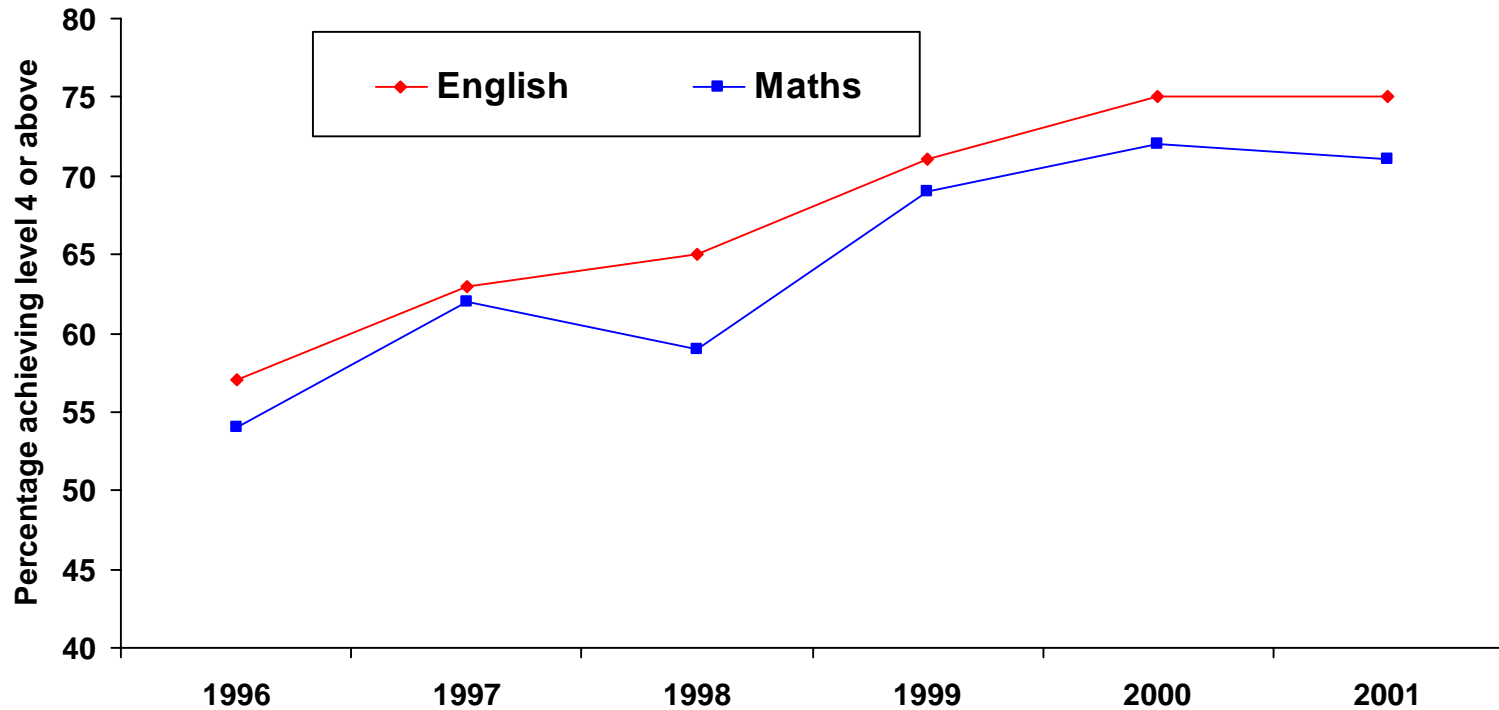
... and science.

MEAN SCIENCE SCORES AT 15 (2000)



Attainment at age 11 (Key Stage 2) has increased dramatically over the last 5 years.

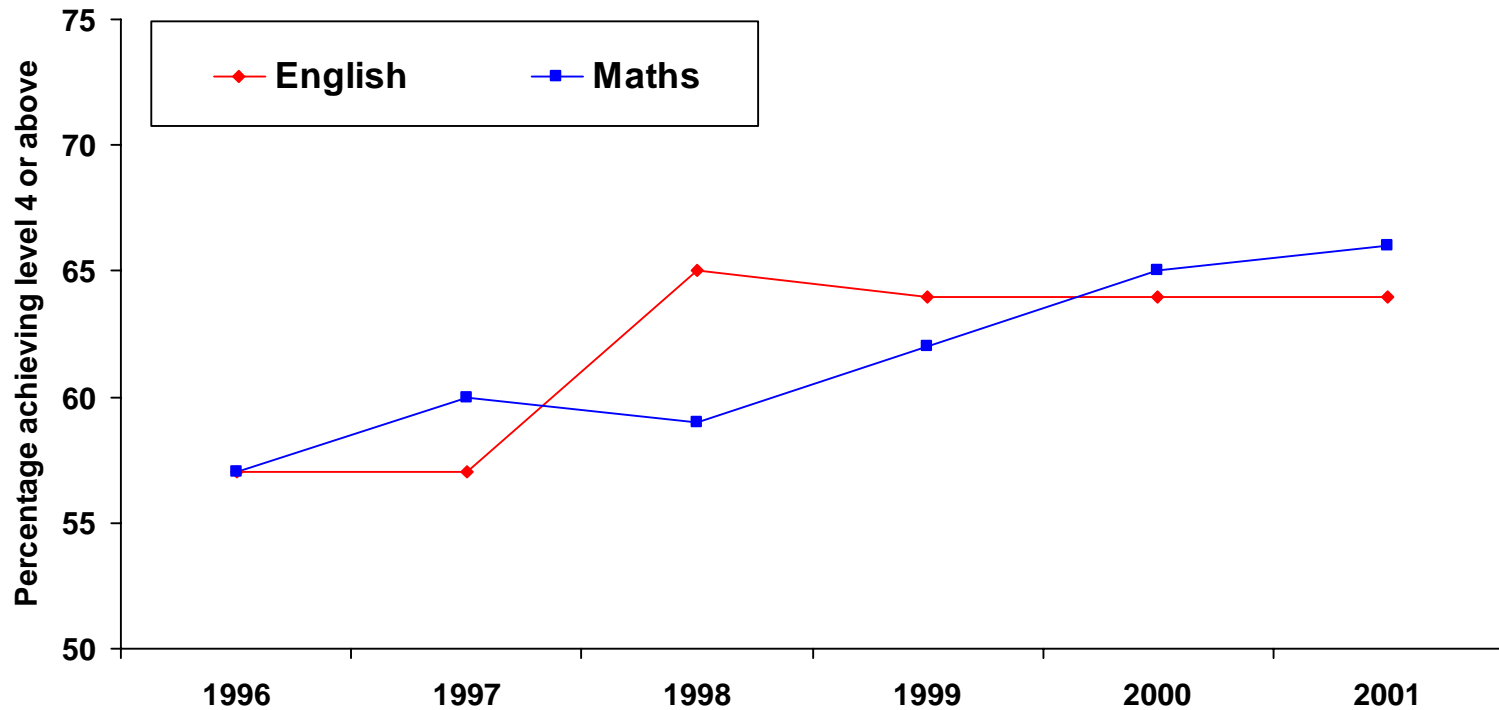
KEY STAGE 2 RESULTS (PERCENTAGE ACHIEVING LEVEL 4 OR ABOVE)



SOURCE: DfES

Attainment at Key Stage 3 (age 14) has also improved - although at a significantly slower rate.

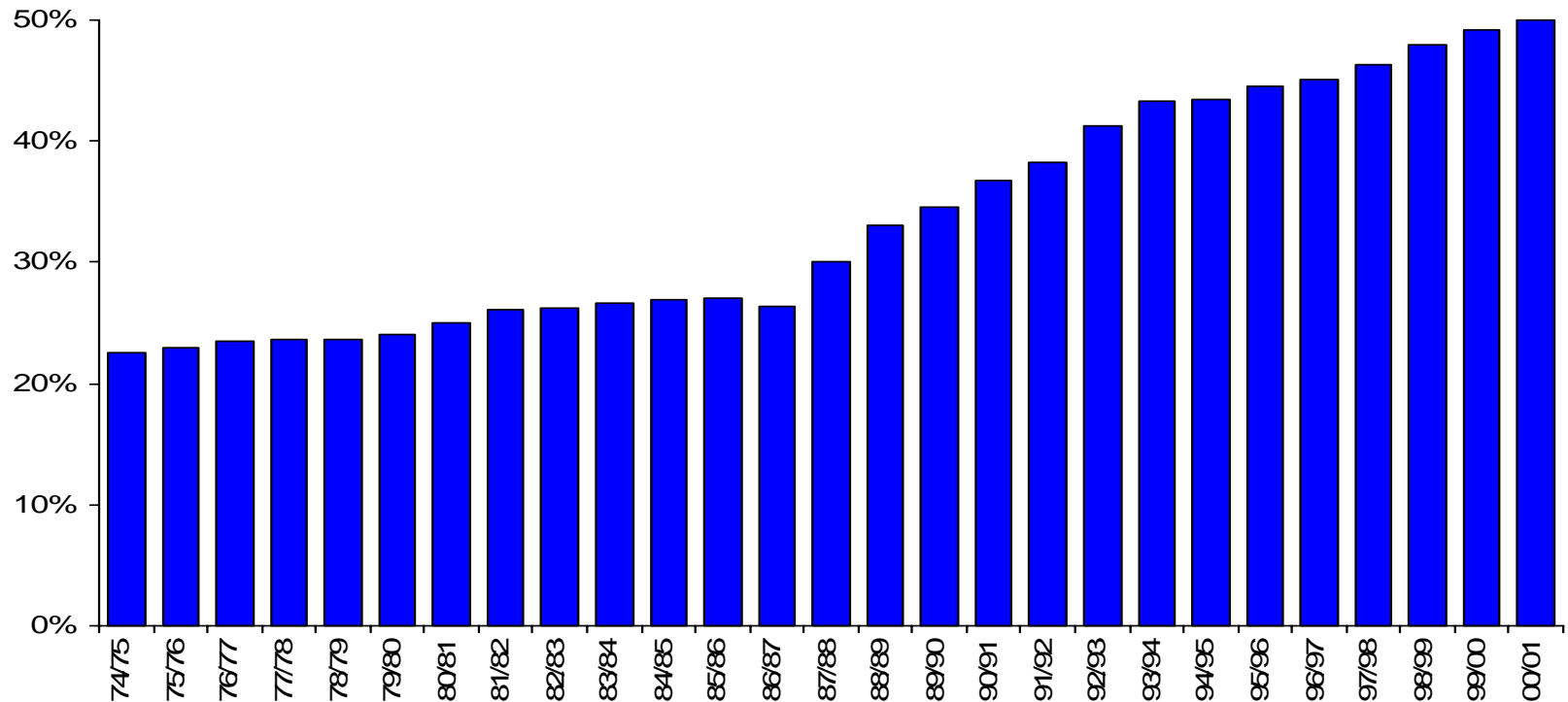
KEY STAGE 3 RESULTS (PERCENTAGE ACHIEVING LEVEL 5 OR ABOVE)



SOURCE: DFES

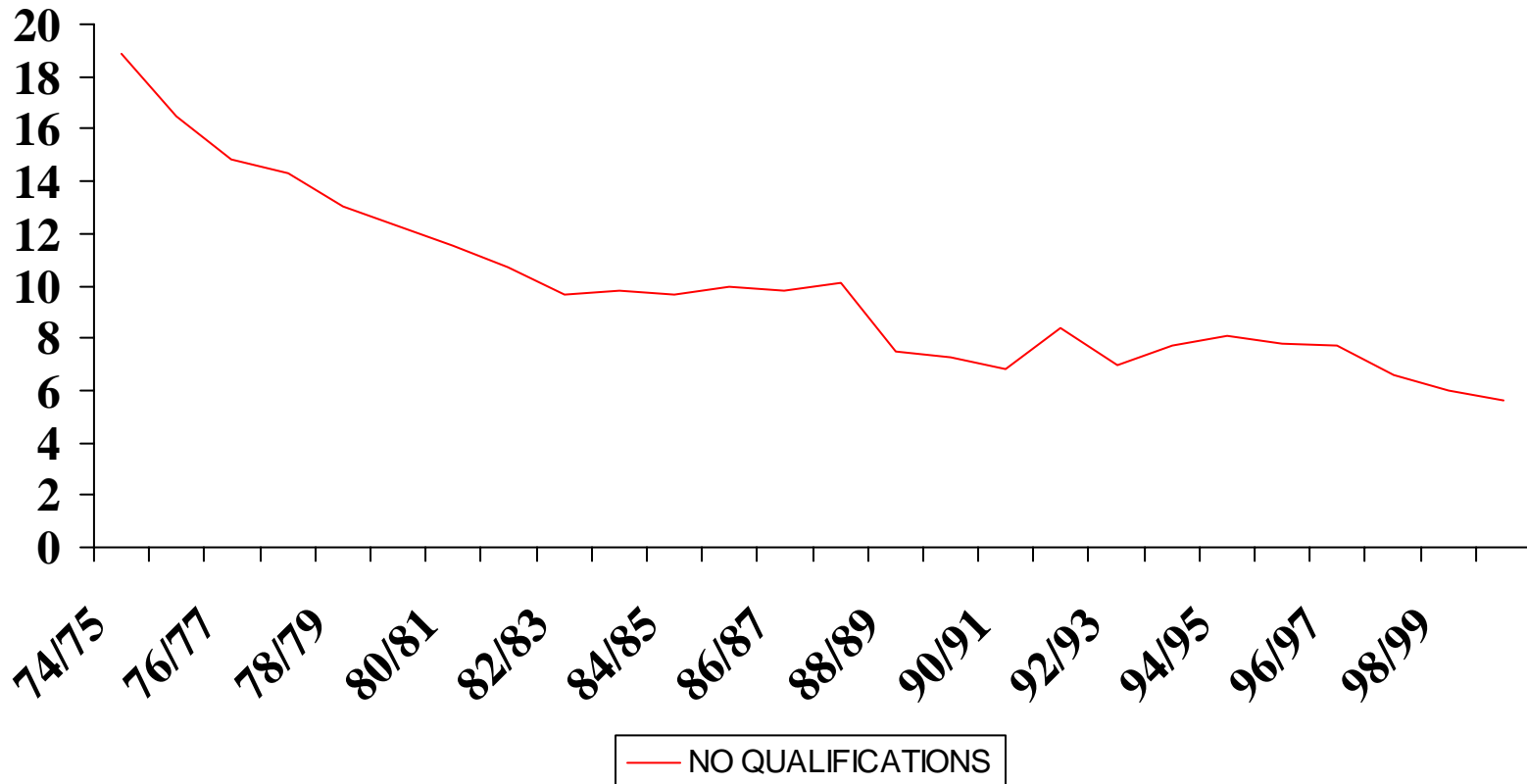
The Government's target for 50% of all pupils to achieve five good GCSEs has been achieved this year

PROPORTION ACHIEVING 5+ GCSE (A*-C) AT AGE 15, ENGLAND



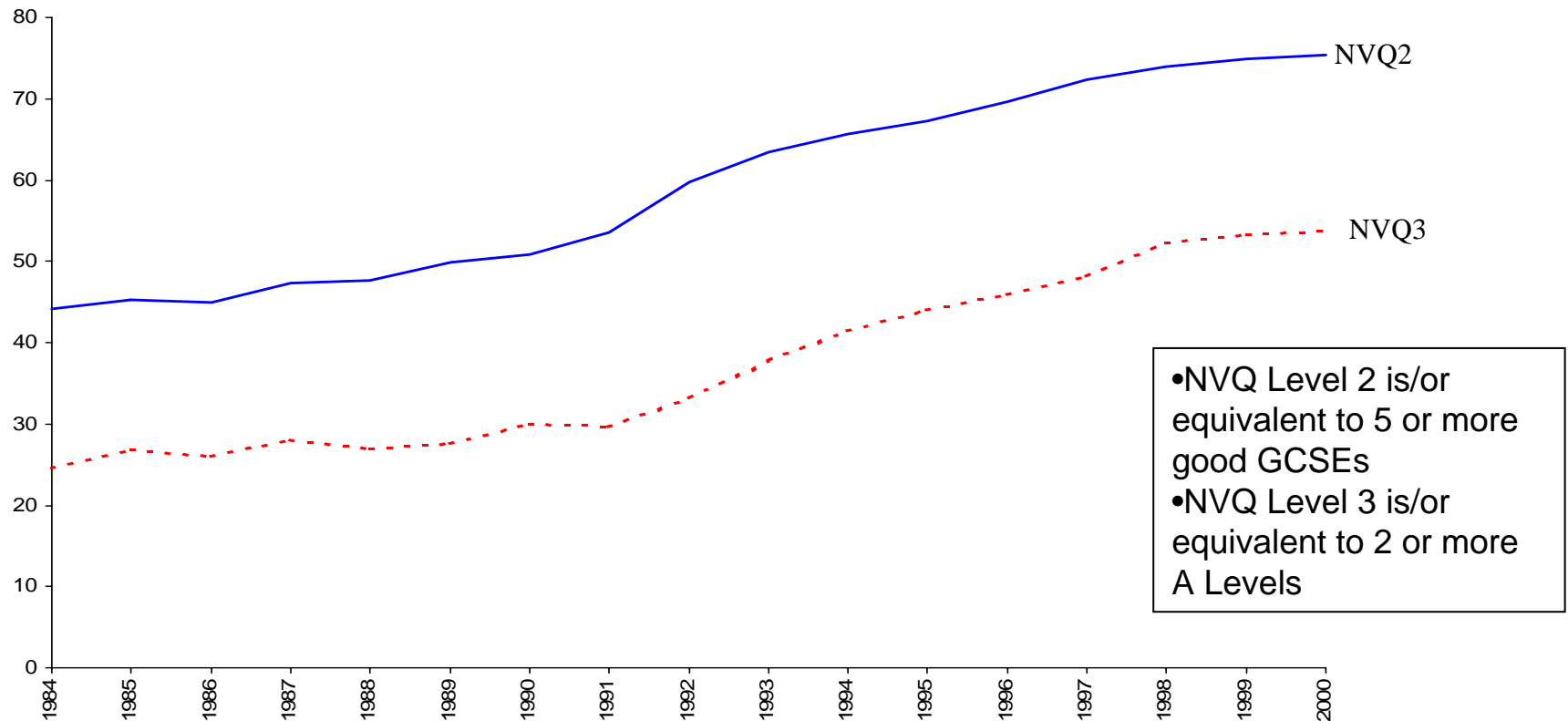
The proportion leaving school with no qualifications has fallen from 1 in 5 in the mid 1970s to just 1 in 20.

THE PROPORTION OF PEOPLE GETTING NO QUALIFICATIONS AT AGE 16



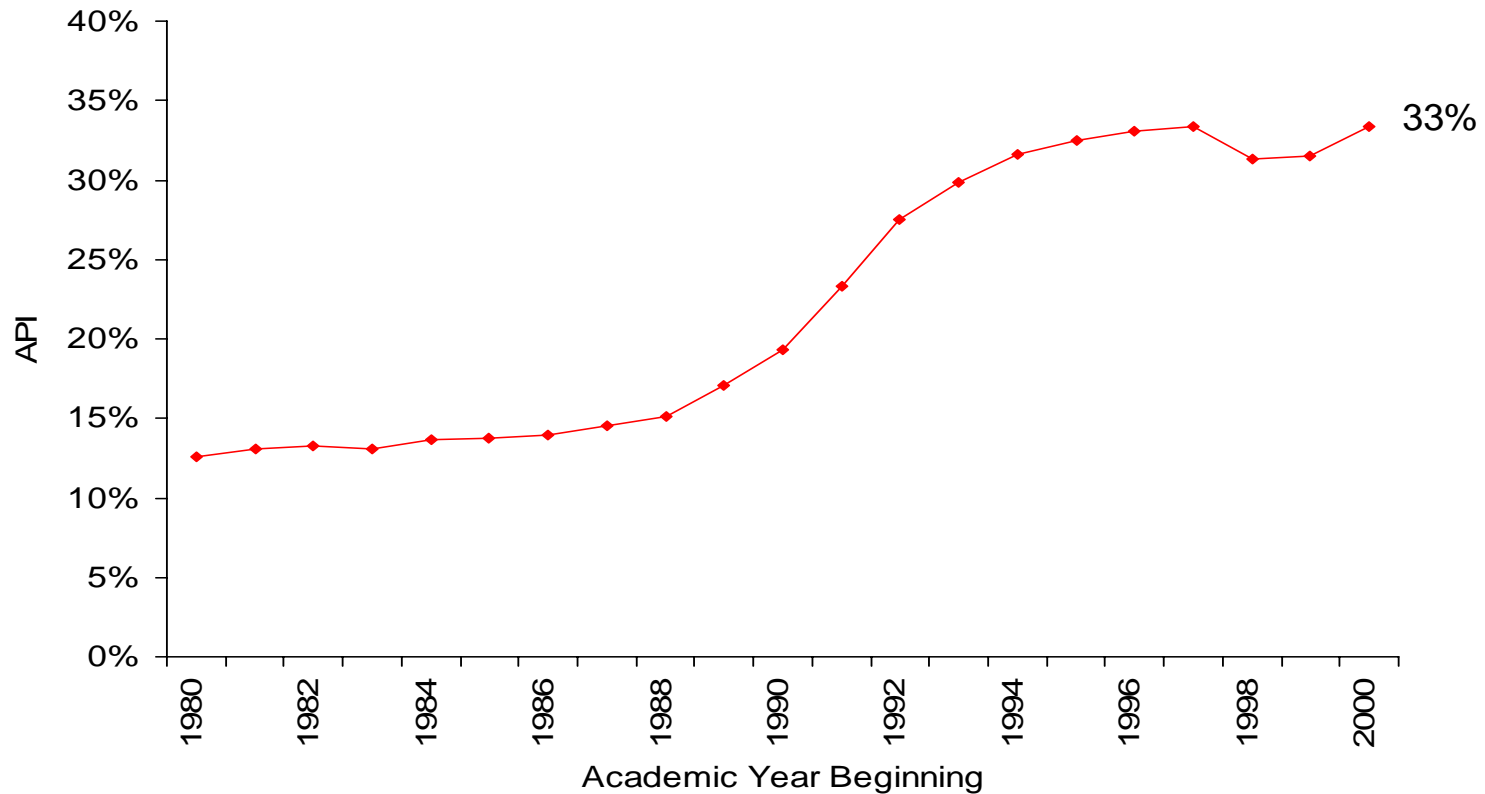
Three quarters of 19 year olds now achieve NVQ Level 2, and half of 21 year olds achieve NVQ Level 3.

ATTAINMENT AT 19 AND 21 (%)



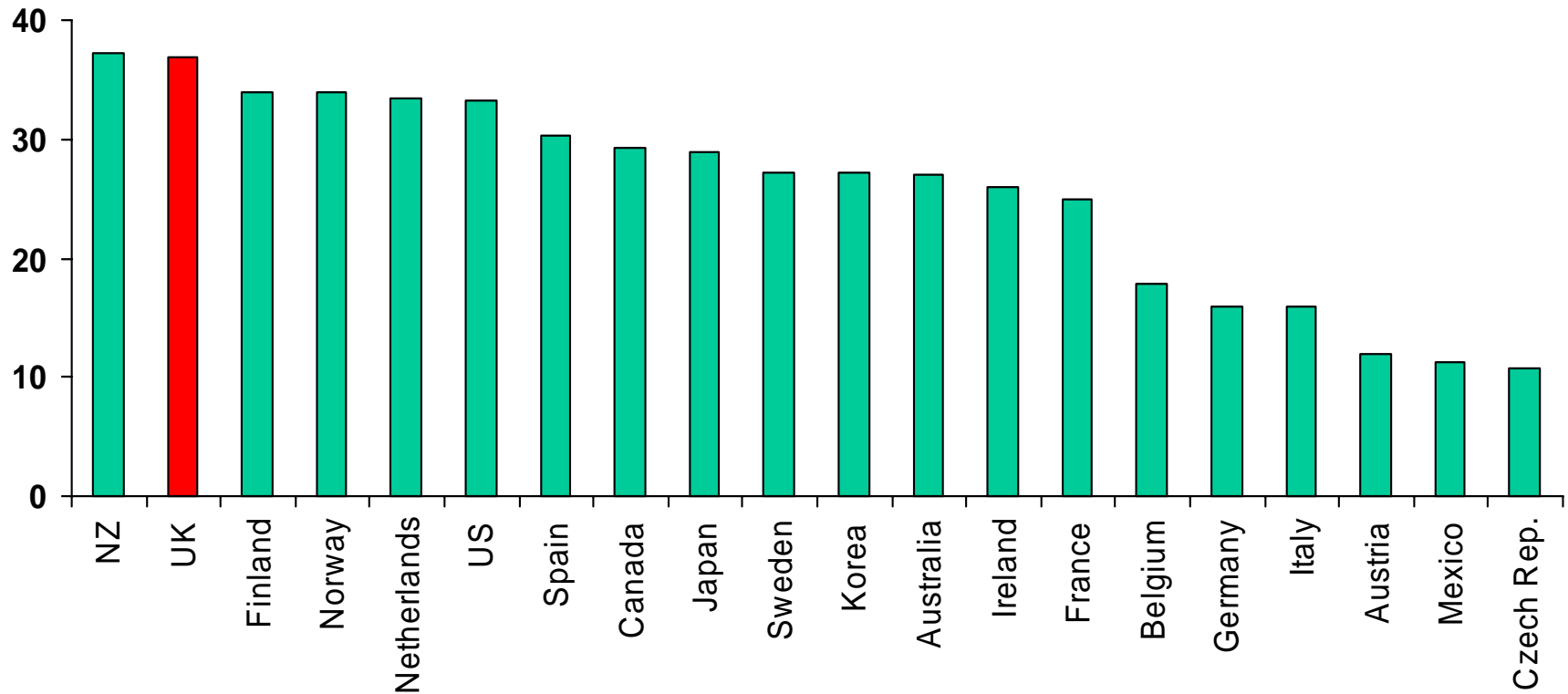
Participation in HE has seen a massive expansion in the last 20 years.

THE GB AGE PARTICIPATION INDEX FOR YOUNG PEOPLE



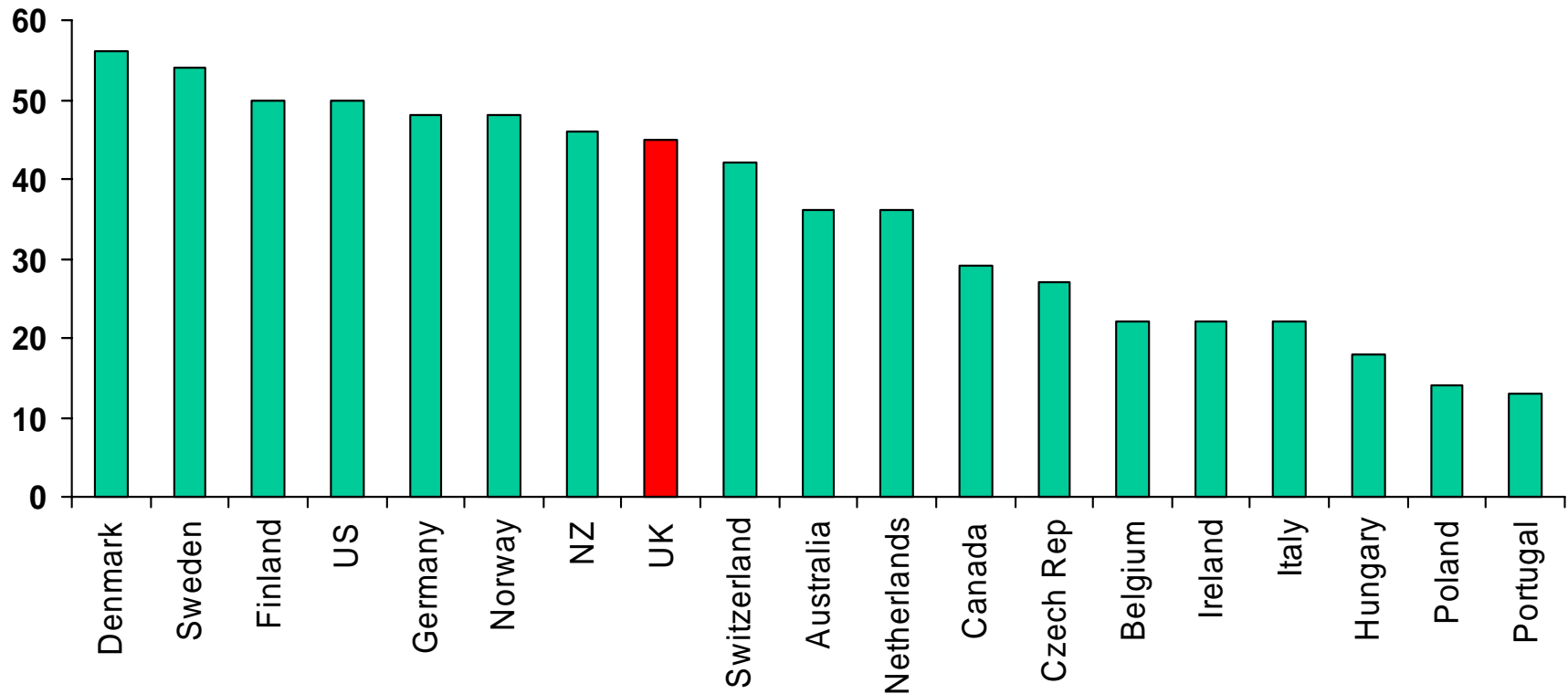
We now have one of the highest levels of university graduation in the world.

FIRST DEGREE GRADUATION RATES 1999



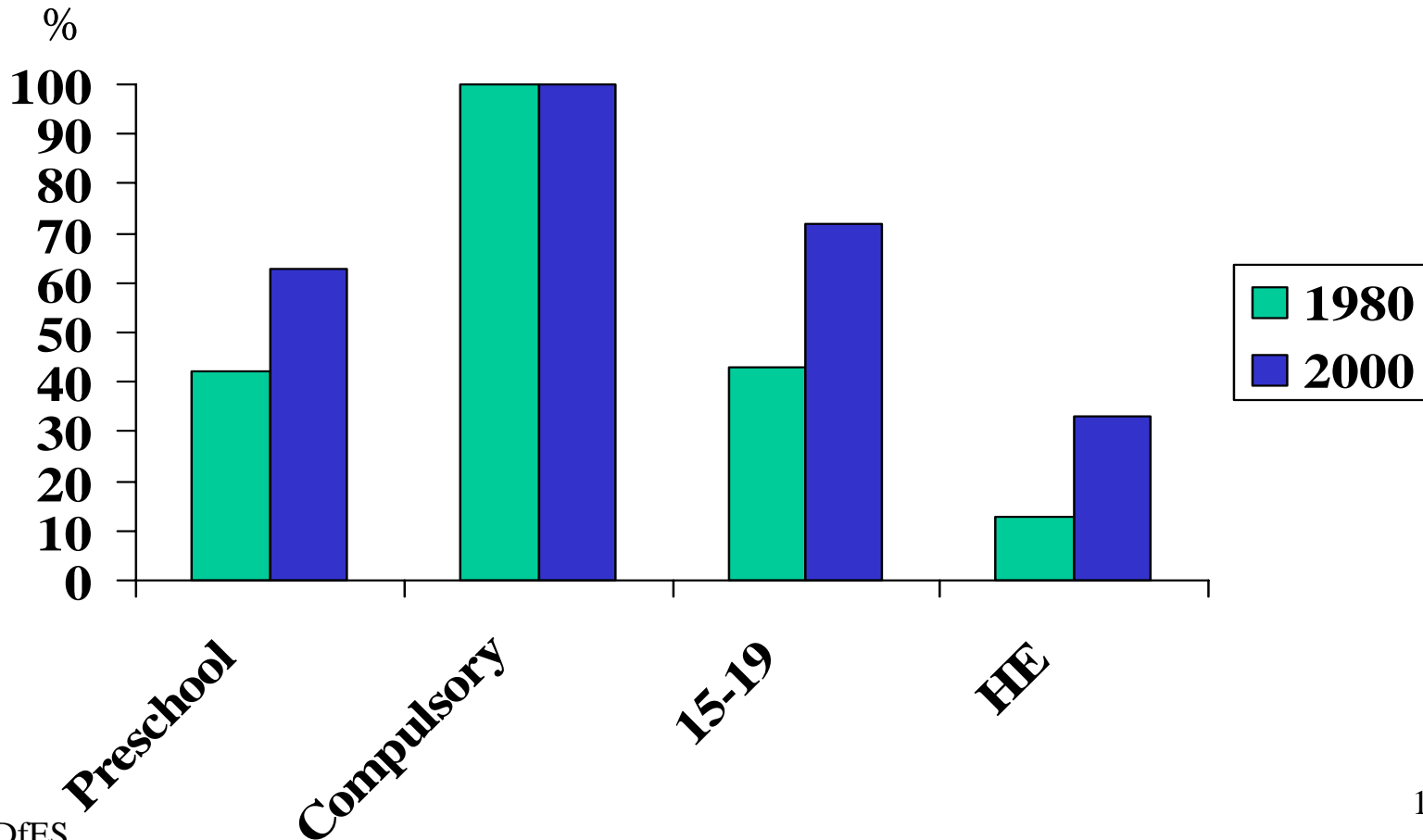
We also have a high rate of adult participation in post-compulsory education.

PERCENTAGE OF ADULTS (25-64) PARTICIPATING IN CONTINUING EDUCATION AND TRAINING 1994-1998



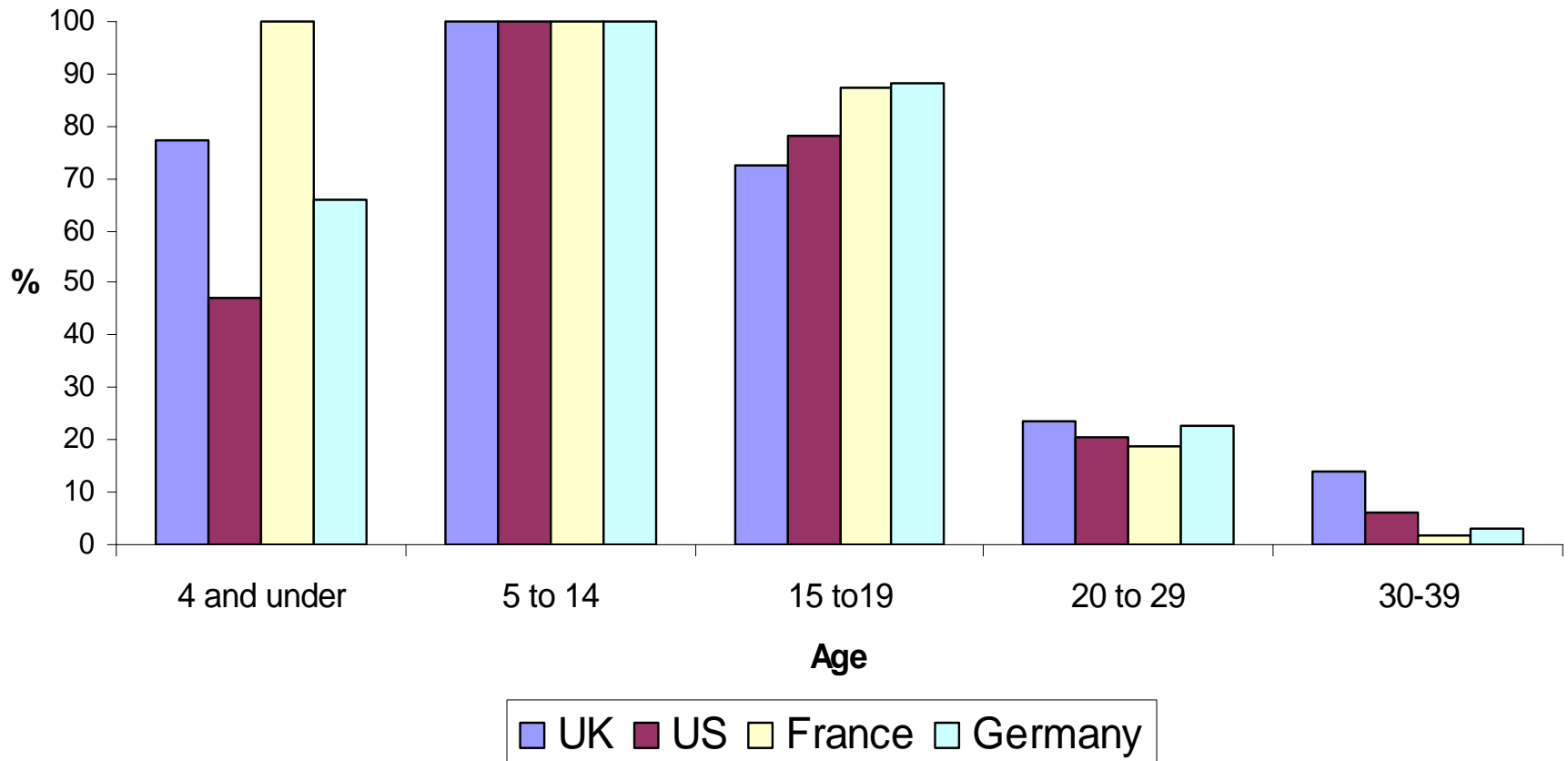
More and more people are directly involved in education.

PARTICIPATION IN EDUCATION BY AGE GROUP



We have one of the highest rates of participation in education amongst leading countries, except ages 15-19.

ENROLMENT RATES, FULL-TIME AND PART-TIME, BY COUNTRY, 1999



This strong performance is a powerful endorsement of the current educational strategy

This strong performance is a powerful endorsement of current strategy.

- The strategy of standards, accountability and discipline is clearly having a profound effect.
- There may be a sea-change in the value attached to education.
- Most children clearly understand the importance of education to their future life chances.
- And most parents are keen to be actively involved in their children's education.

The prevailing education strategy focuses on standards, accountability and discipline.

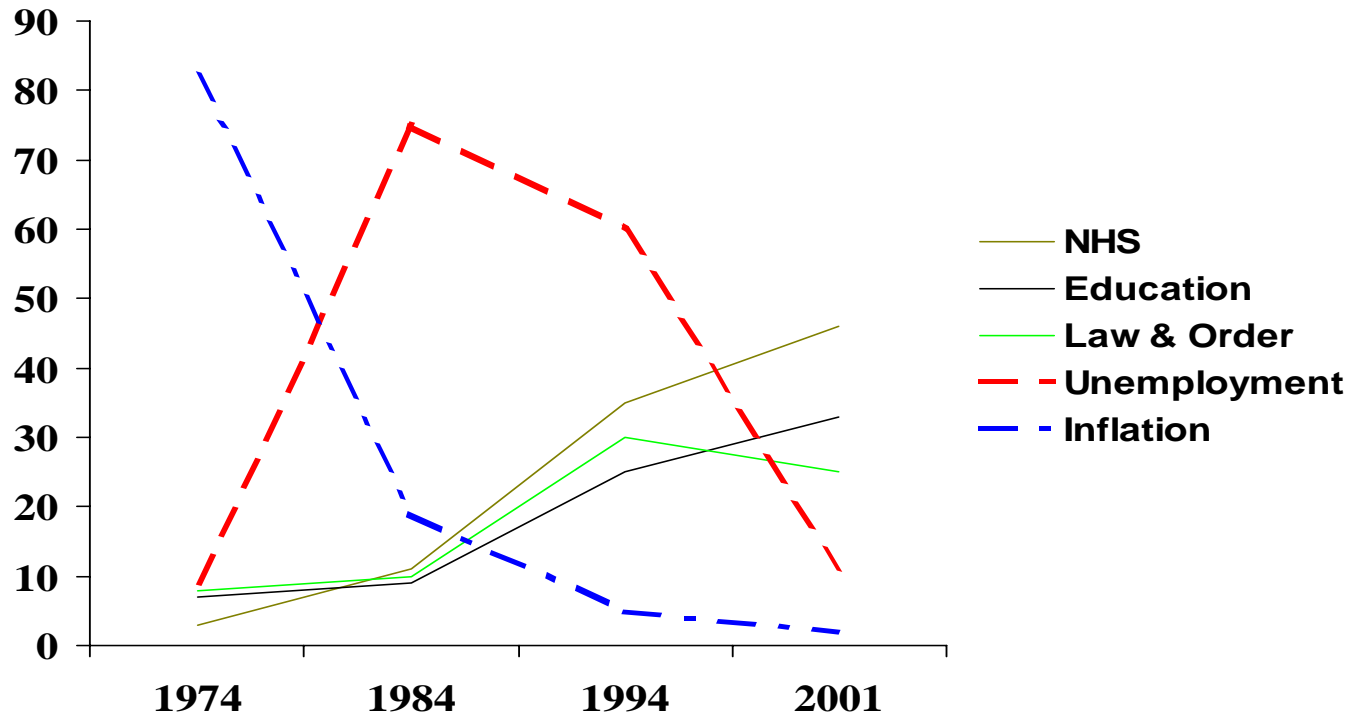
- The National Curriculum was introduced through the 1988 Education Reform Act, and led to greater consistency and openness in the teaching of children aged 5-16.
- School and college performance tables were introduced during the 1990s in order to raise standards, increase accountability, and enable choice.
- From 1998 schools have been required to set and publish performance targets for their pupils at age 11 and age 15.
- Also in 1998 a compulsory literacy hour was introduced and in 1999 a compulsory numeracy hour.
- The School Standards and Framework Act was passed in 1998 and enabled intervention in failing schools.
- Statutory inspection was extended to inspection of LEAs from 1998.
- In addition to educational outcomes, new standards have been set in other areas, for example in 1999 nutritional standards for school meals were introduced.

There is a growing understanding of the value created by a strong education system.

- **Education increasingly drives economic output and productivity** Each extra year of full time education increases output per capita by 6 per cent.
- **Education boosts personal incomes and wealth creation opportunities.** Each additional year of education increases incomes by 5-15%.
- **Education reduces crime.** Persistent offenders are almost three times more likely to have no educational qualifications, and 45% of them were excluded from school.
- **Education improves health and life expectancy.** Education leads to better diet, living and working conditions, lower stress, and better awareness of health factors.
- **Education enhances quality of life.** Graduate men are less than half as likely to suffer depression as people with below A-level qualifications.
- **Education increases social tolerance.** Graduates are nearly twice as tolerant as non-graduates.
- **Education strengthens civic engagement and social capital.** Graduates are twice as trusting and half as cynical and 2-3 times more likely to be involved in voluntary activity.

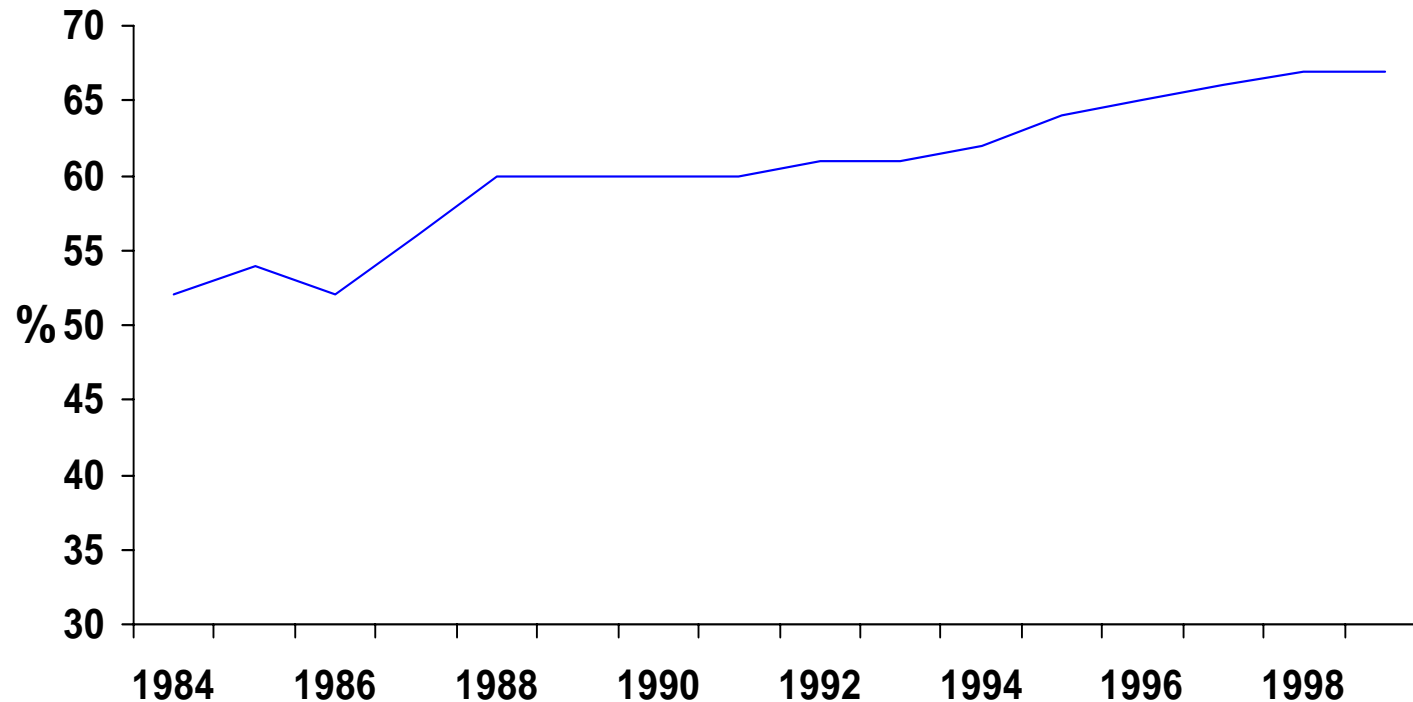
People in Britain now place greater than ever importance on education.

RESPONSES TO MORI SURVEY – WHAT IS THE MOST IMPORTANT ISSUE FACING BRITAIN TODAY?



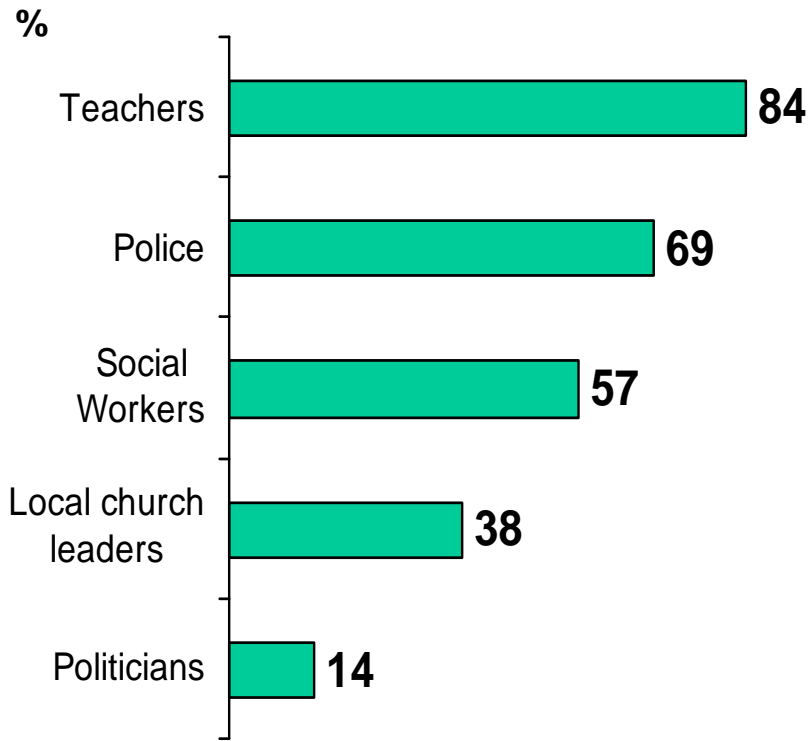
The majority of children value education as a means of achieving their life goals.

% AGREEING THAT "SCHOOL HAS TAUGHT ME THINGS WHICH WOULD BE USEFUL IN A JOB"



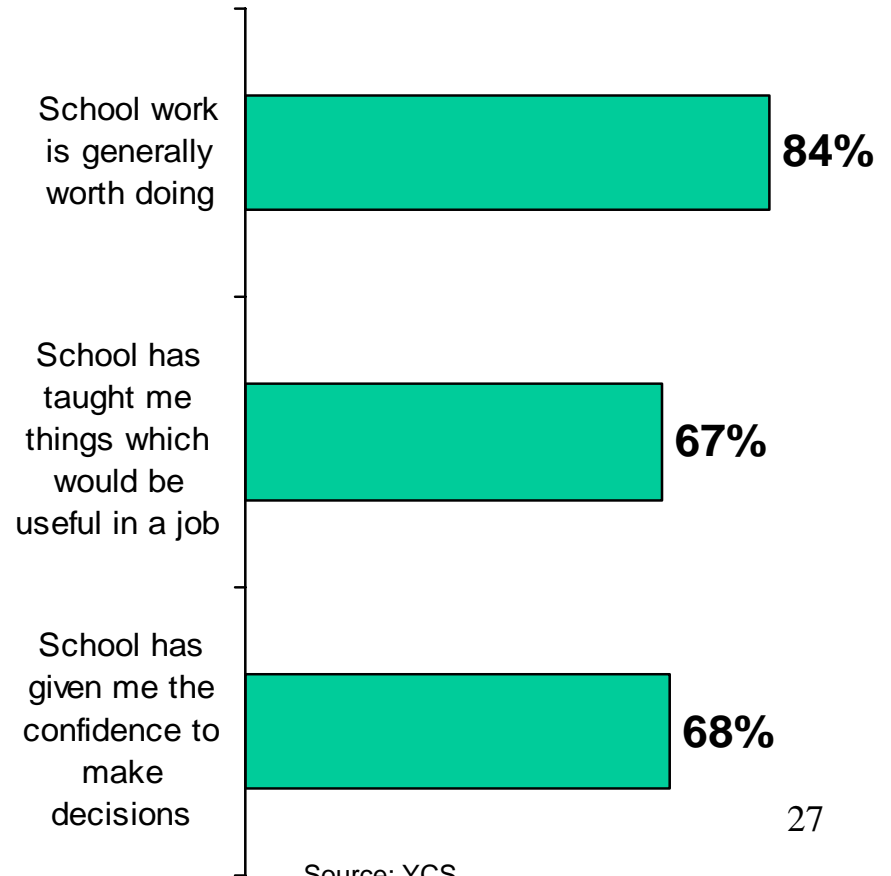
The majority claim to respect their teachers and to like school

16-24 YEAR OLDS EXPRESSING CONFIDENCE IN PROFESSIONALS



Source: Salvation Army/Henley Centre Report (2001)

PUPILS' VIEWS OF SCHOOL

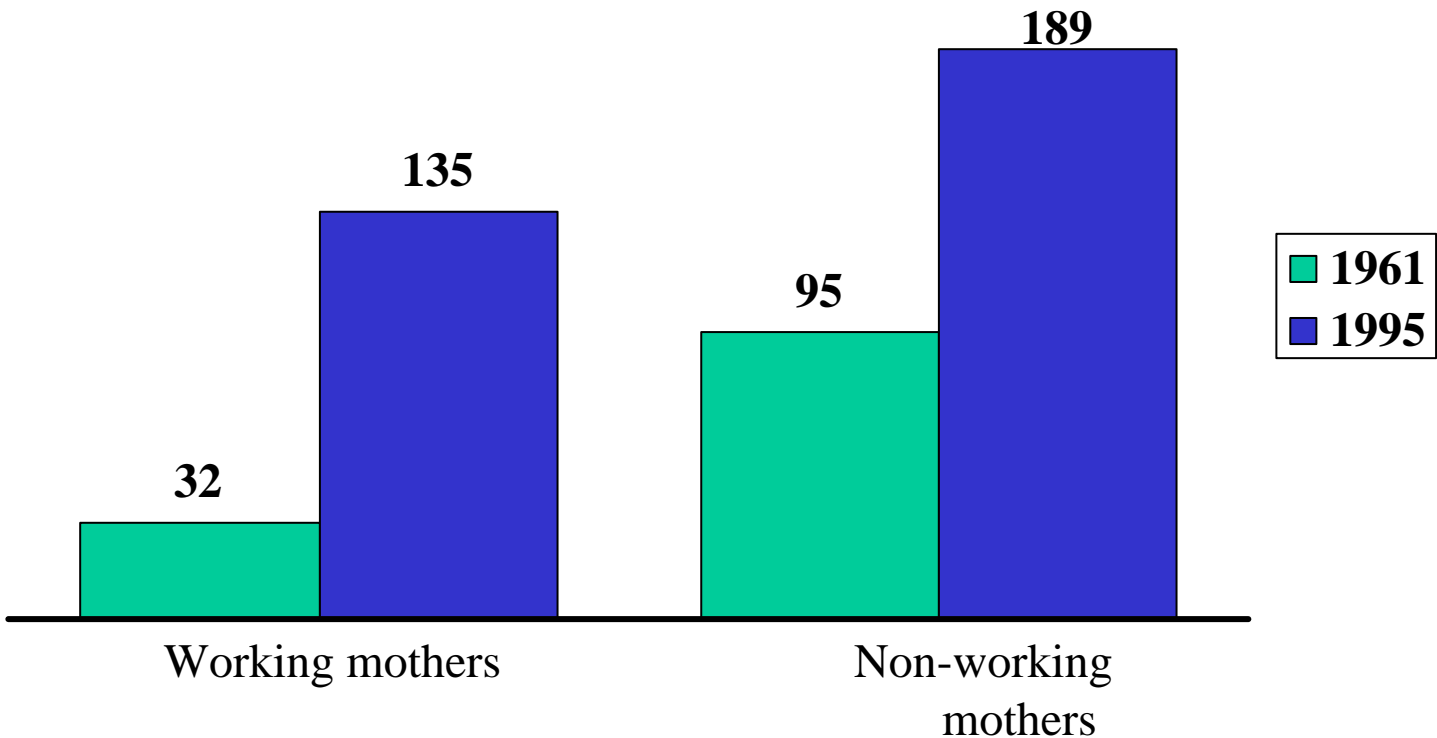


Source: YCS

On average, parents today spend more time with their children.

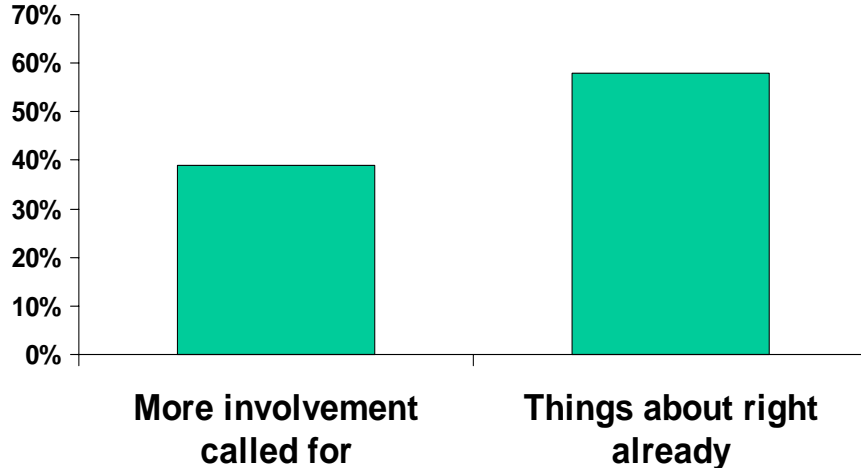
TIME SPENT READING TO OR CARING FOR YOUNG CHILDREN

Minutes per day

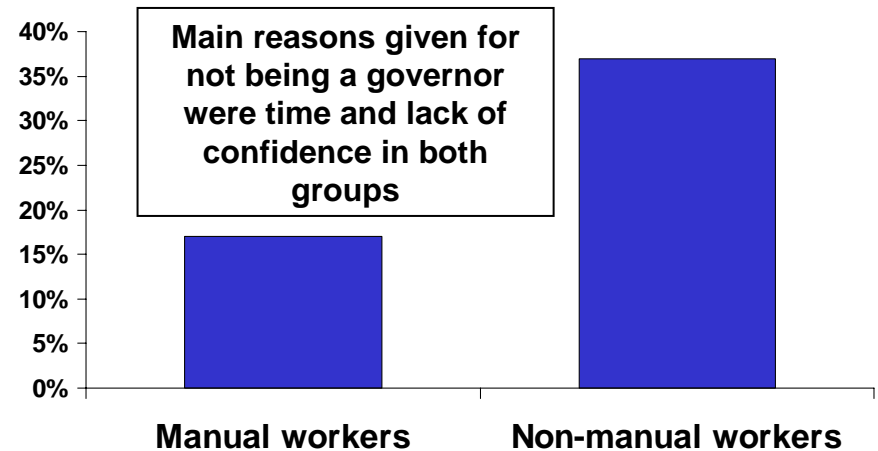


A significant number of parents are keen to participate more fully in their children's education.

DESIRE FOR PARENTAL INVOLVEMENT – PARENTS VIEW



% OF PARENTS WANTING TO BE A SCHOOL GOVERNOR BY OCCUPATION



- Parents were generally in favour of testing. Those in manual occupational groups were most in favour.
- Parents found information on examination results published in prospectuses useful when making decisions about schools – league tables were slightly less useful.

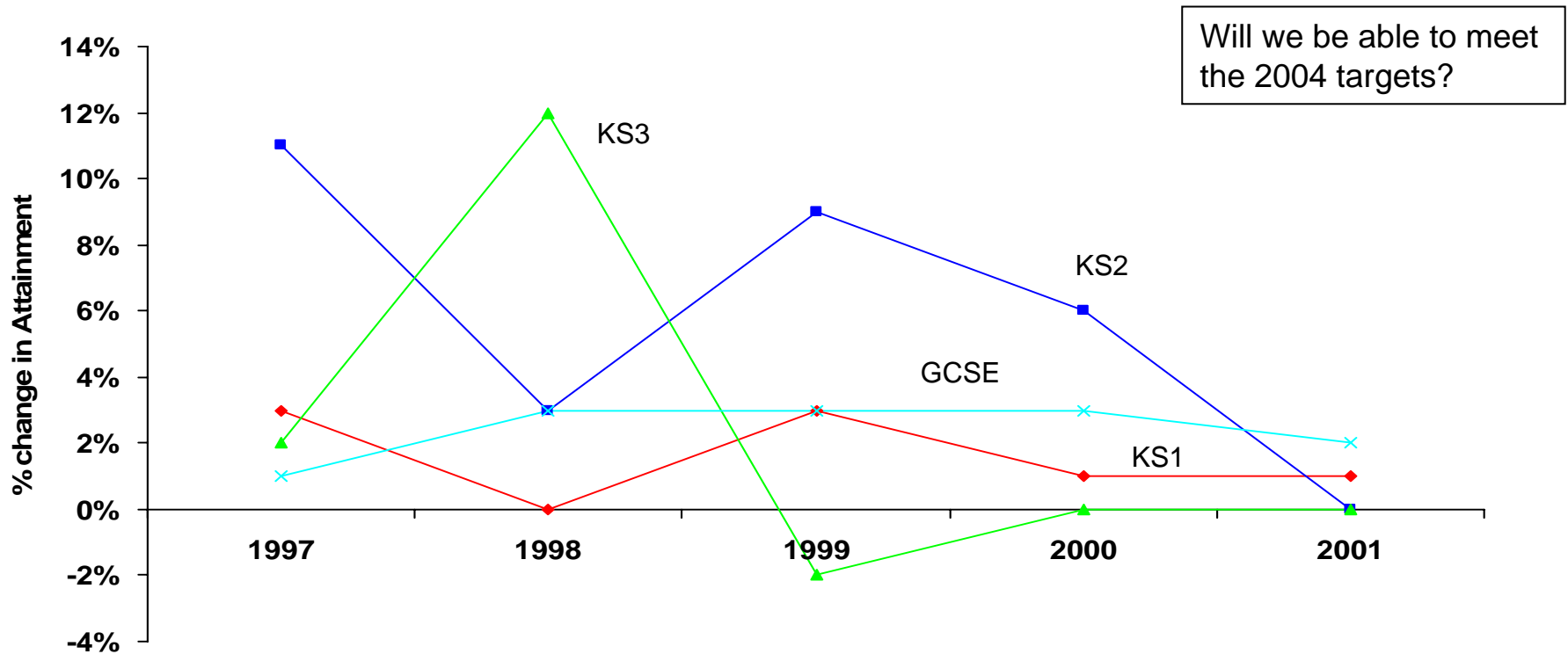
**However, there are still
significant performance
challenges to meet**

However, there are still significant performance challenges to meet in schools.

- Performance improvements may be starting to plateau, leaving substantial numbers of children struggling to achieve the expected standards.
- We still have a significant number of relatively weak schools, and the children in those schools continue to suffer.
- Children themselves are getting harder to teach, given all the stimulus and influences on their behaviour.
- Independent schools continue to have a disproportionate effect on perceived standards and on parental choice, particularly in London.

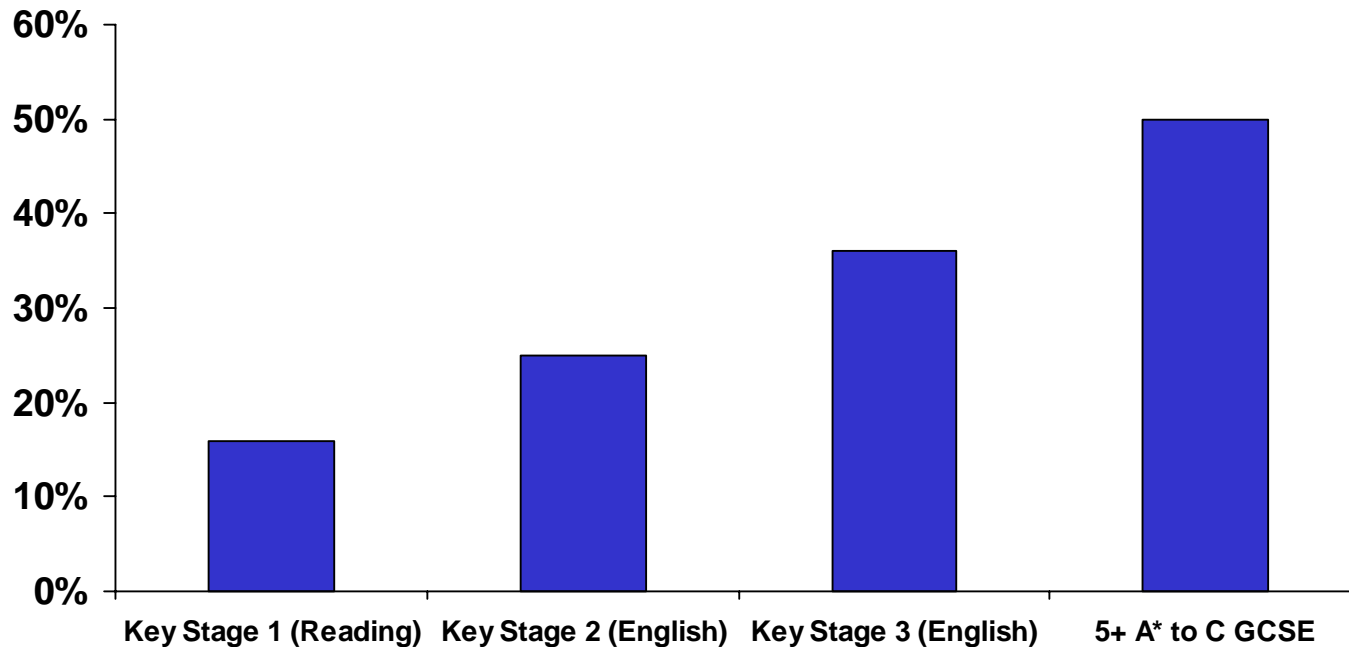
Performance improvements may be starting to plateau.

ANNUAL PERCENTAGE CHANGE IN ATTAINMENT LEVELS



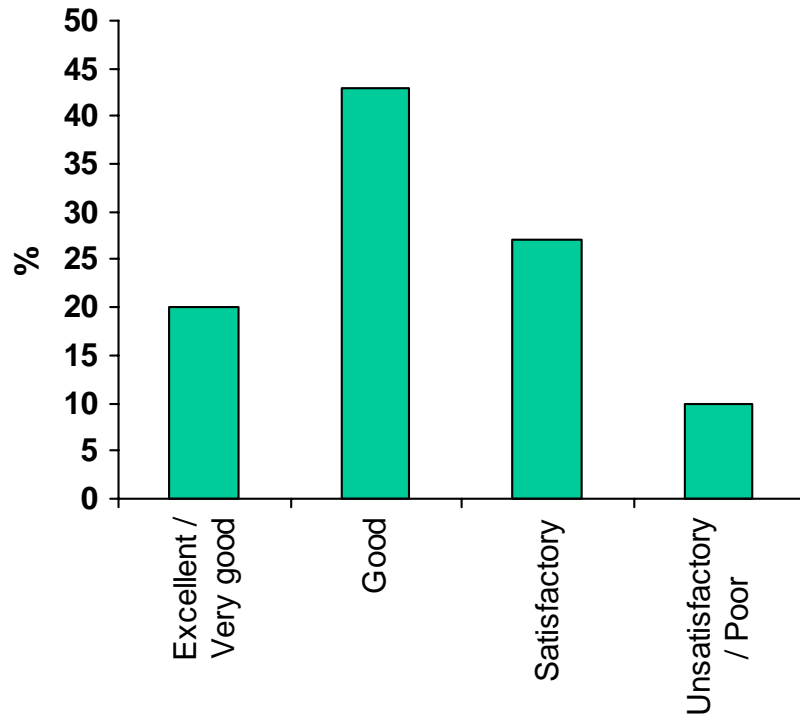
Significant numbers are still failing to achieve the expected standards - especially at age 14.

% NOT REACHING EXPECTED LEVEL AT EACH STAGE IN CURRENT SYSTEM

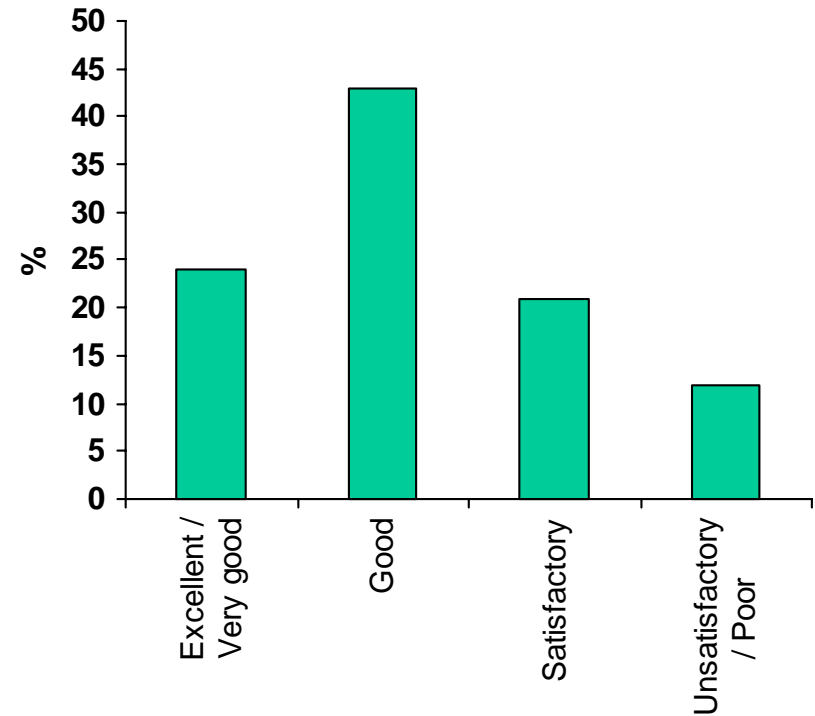


Despite improvement, a number of schools are still performing poorly.

OVERALL EFFECTIVENESS OF PRIMARY SCHOOLS, 2000

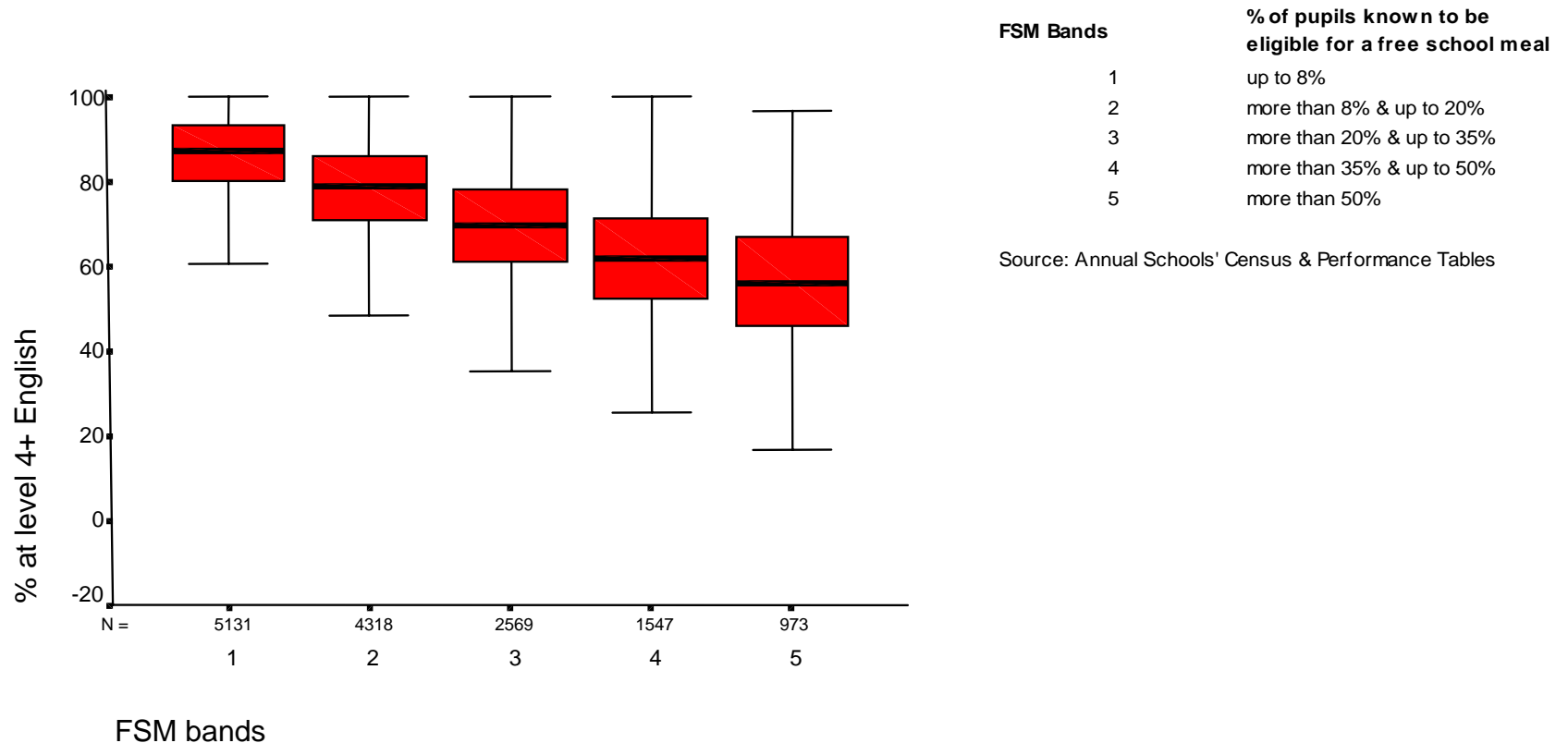


OVERALL EFFECTIVENESS OF SECONDARY SCHOOLS, 2000



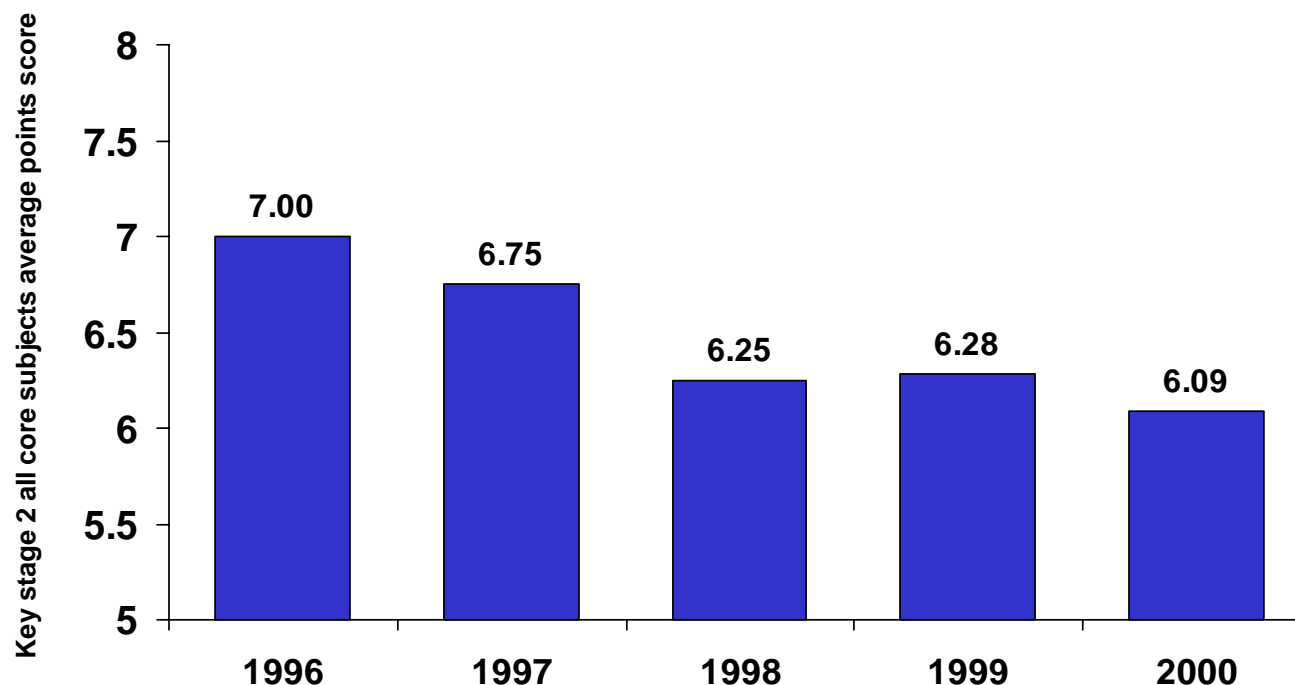
This is reflected in wide variations in performance between schools, even when disadvantage is considered.

KEY STAGE 2 – % PUPILS OBTAINING LEVEL 4+ IN ENGLISH TEST BY FSM STATUS OF SCHOOL



These variations in performance between schools are narrowing , but they remain substantial.

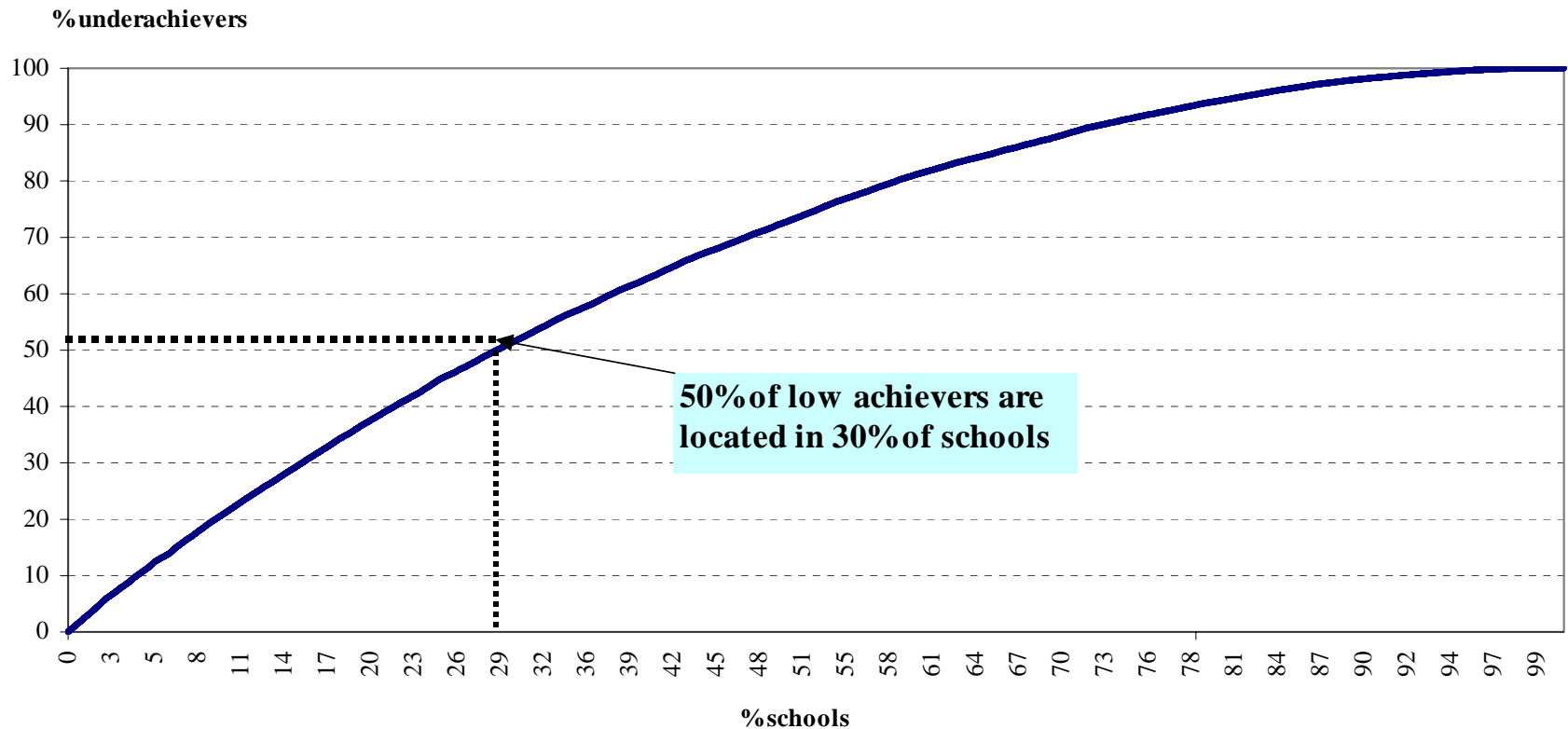
DIFFERENCE BETWEEN AVERAGE KS2 POINTS SCORES IN SCHOOLS IN THE 5TH AND 95TH PERCENTILE FOR 1996 TO 2000



Median Average Points Score:	25.2	26.0	25.9	27.0	27.5
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A third of schools are responsible for half of the under-achievers.

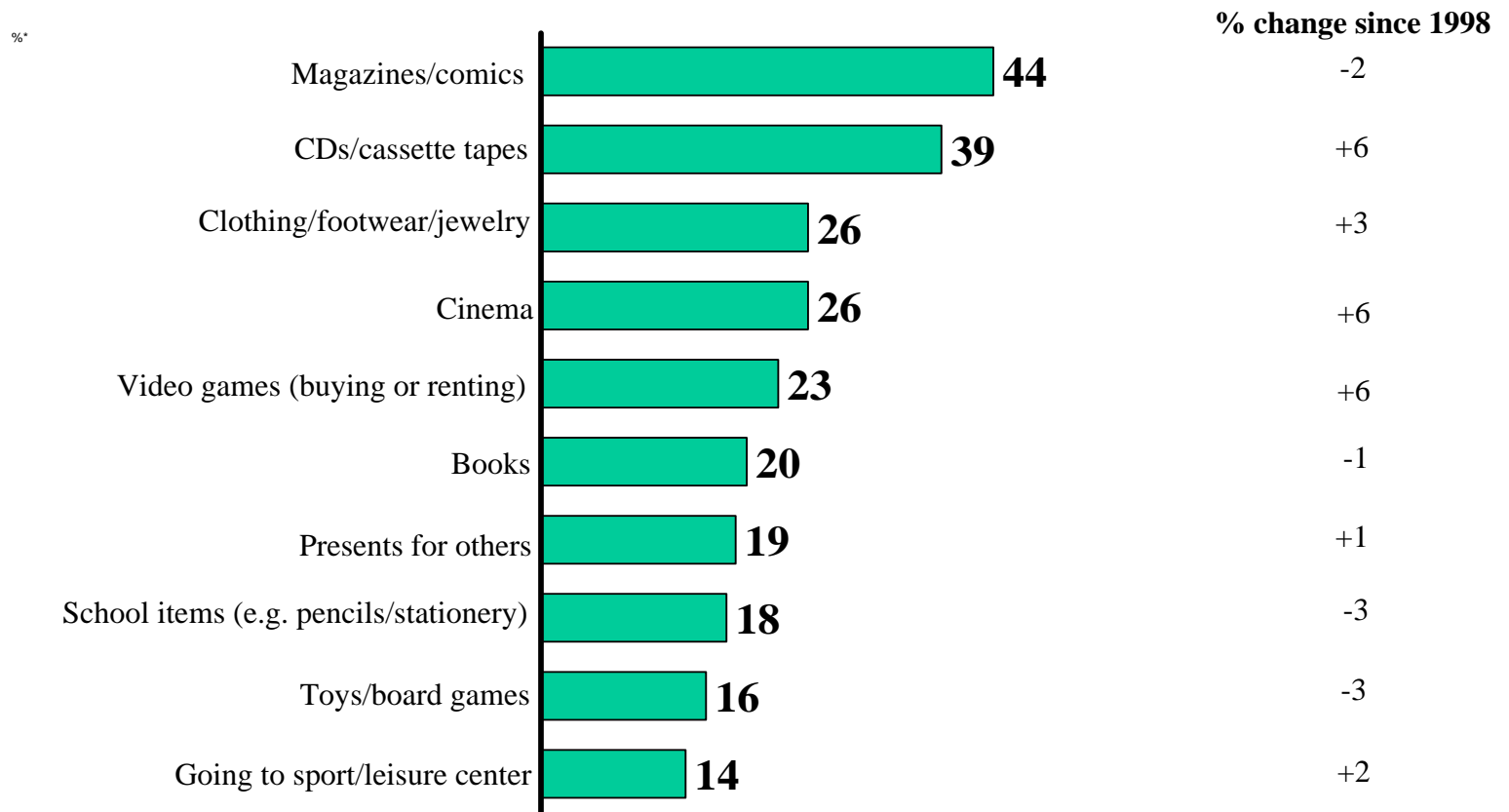
UNDERACHIEVEMENT AT KEY STAGE 2



Source: School performance data, 2000.

Kids are "graduating" from childhood at a very early age as evidenced by their patterns of consumption.

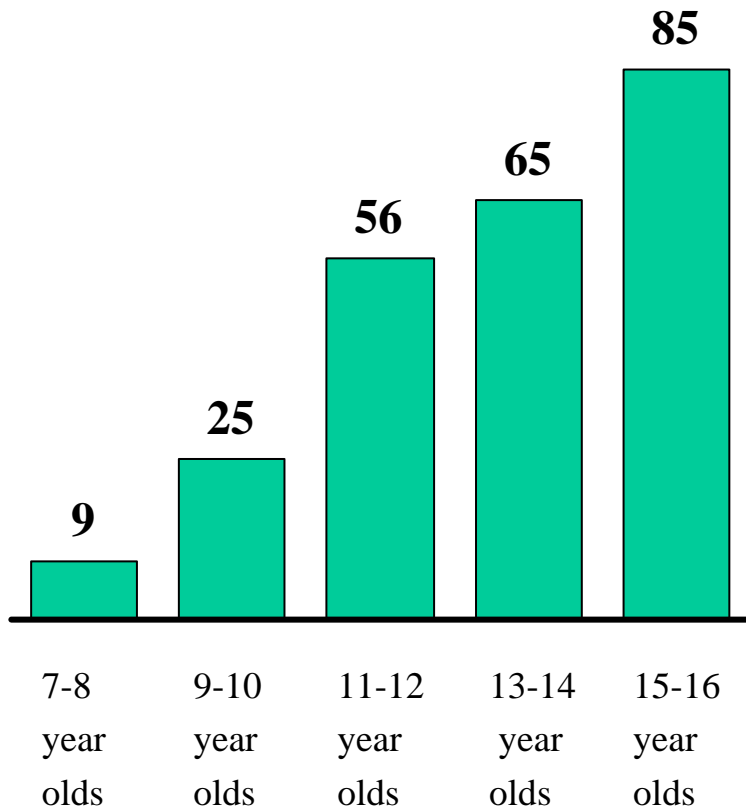
ANSWERS TO THE QUESTION 'WHICH OF THESE DO YOU REGULARLY SPEND YOUR MONEY ON?'



They are increasingly technologically sophisticated and self sufficient.

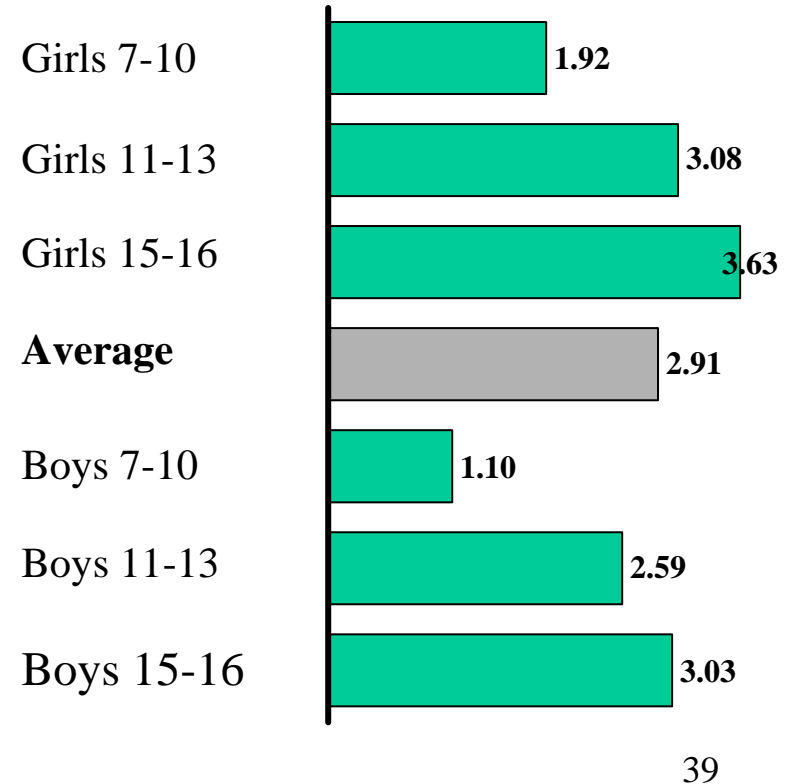
OWNERSHIP OF MOBILE PHONES

Per Cent



USE OF TEXT MESSAGING

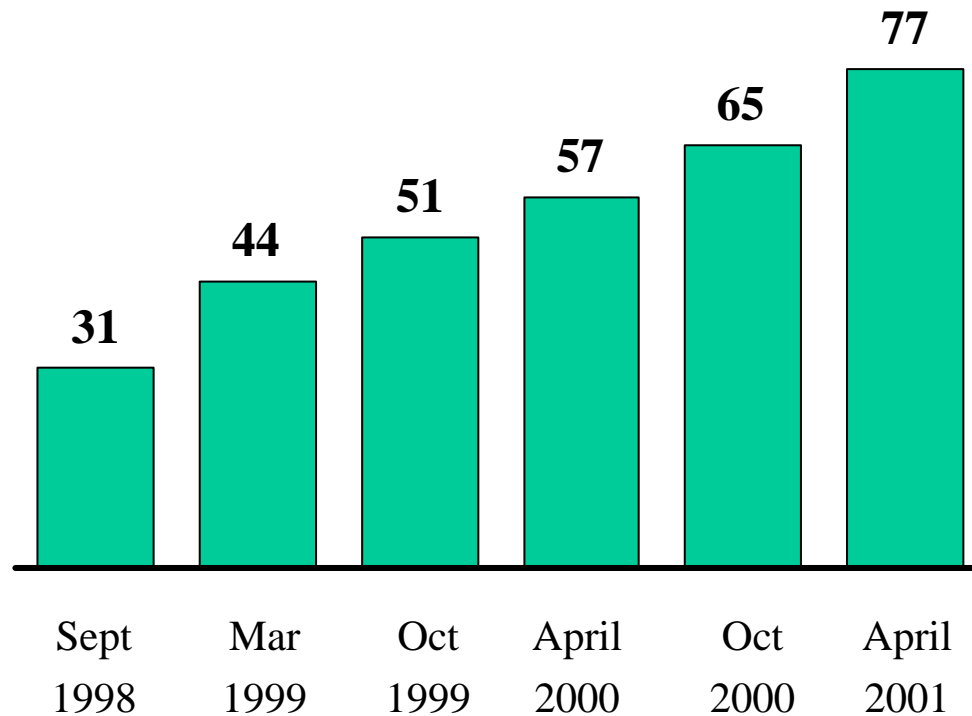
Messages sent per day



Children have access to the internet at home...

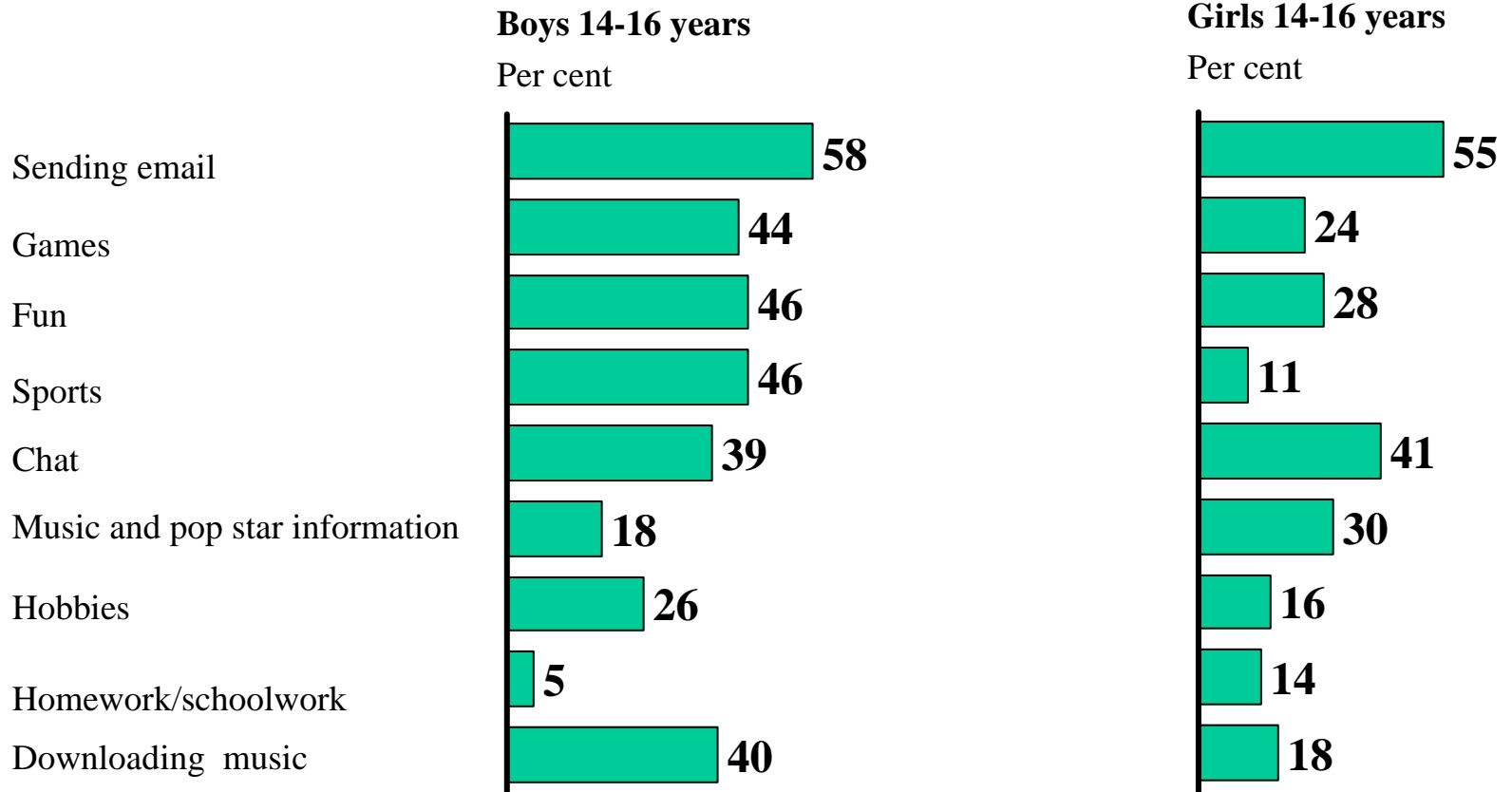
HOME INTERNET PENETRATION AMONG CHILDREN (7-16)

Per cent



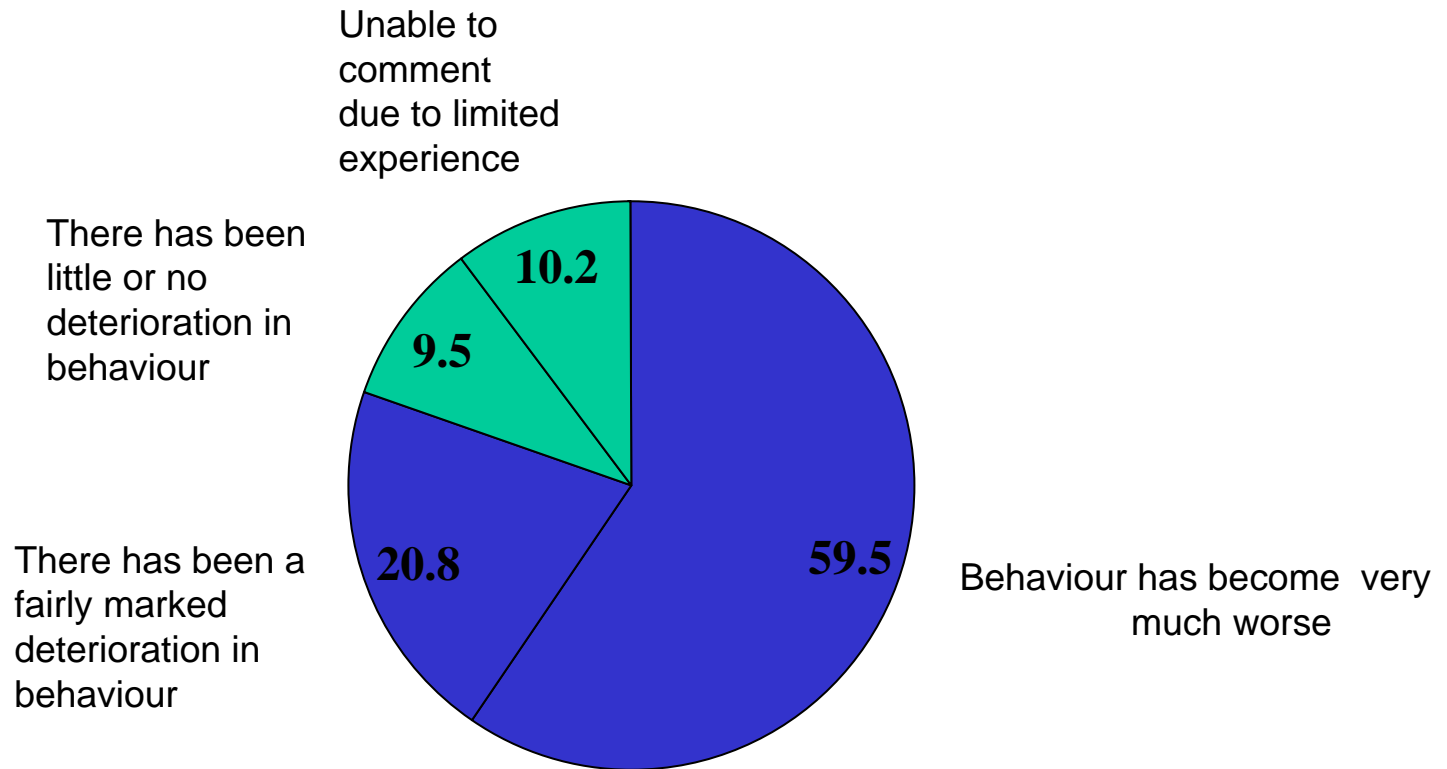
...but it is relatively little used for schoolwork.

CHILDRENS USE OF THE INTERNET



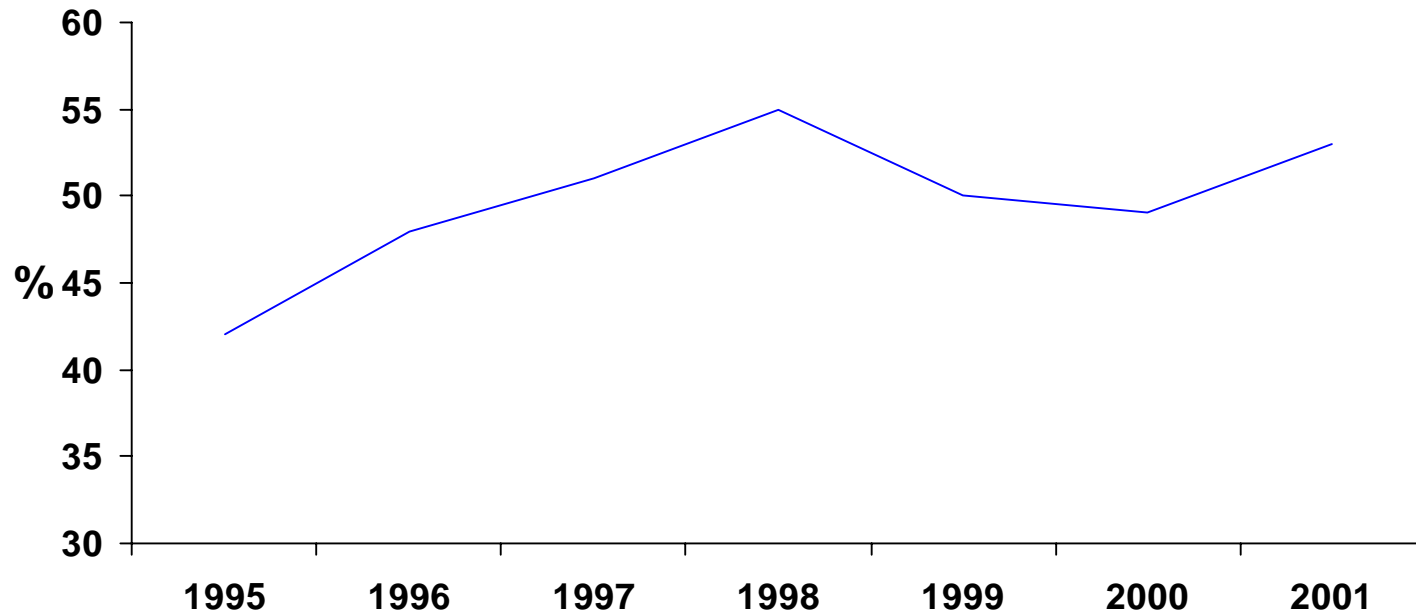
But the perceived level of disruptive behaviour and bullying in schools is on the increase.

TEACHERS' PERCEPTION OF DETERIORATION IN PUPIL BEHAVIOUR



More than 50% of parents say they would like to send their children to independent schools "if they could afford it".

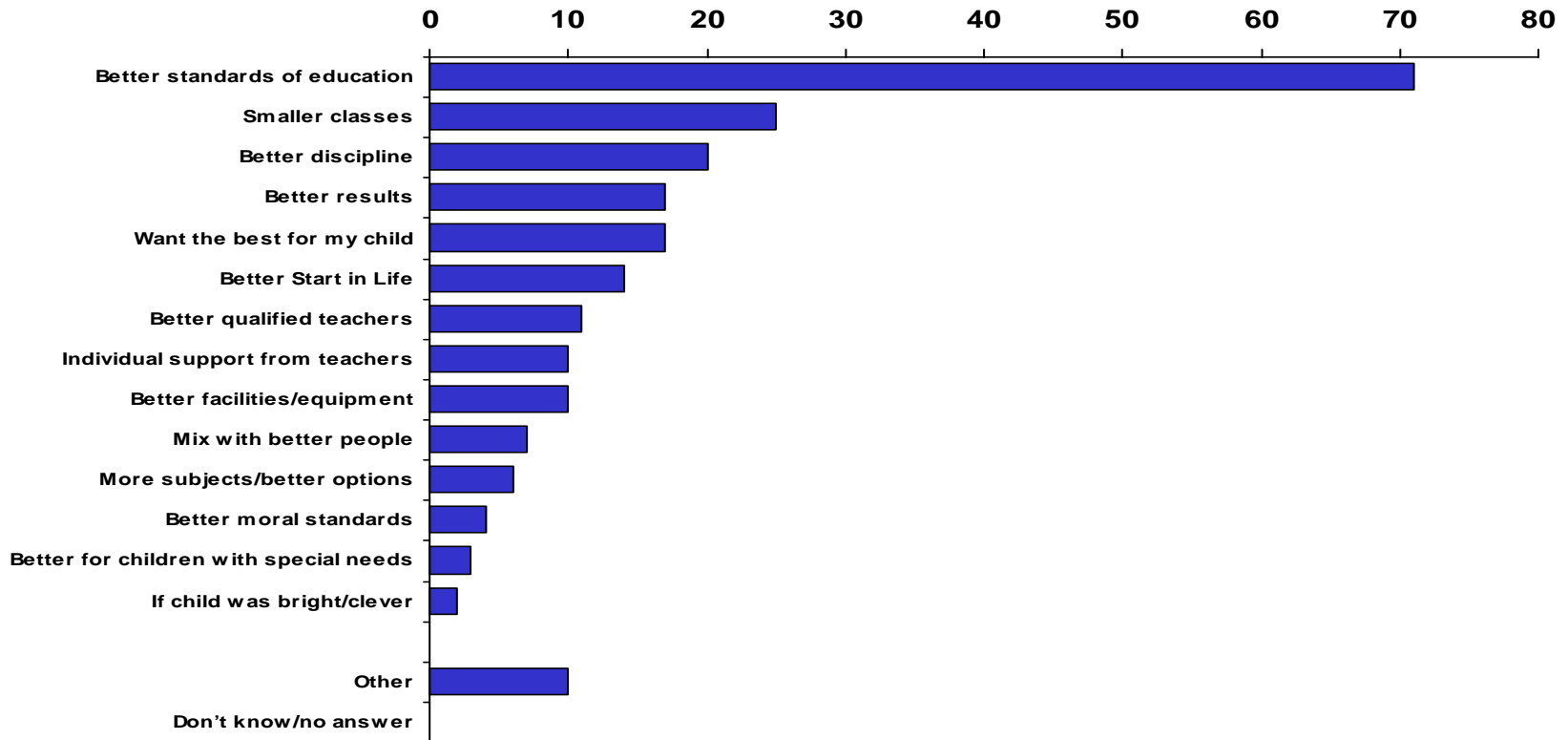
PERCENTAGE OF ADULTS WHO WOULD SEND THEIR CHILDREN TO INDEPENDENT SCHOOL IF THEY COULD AFFORD TO



Independent schools are perceived to have higher standards of education.

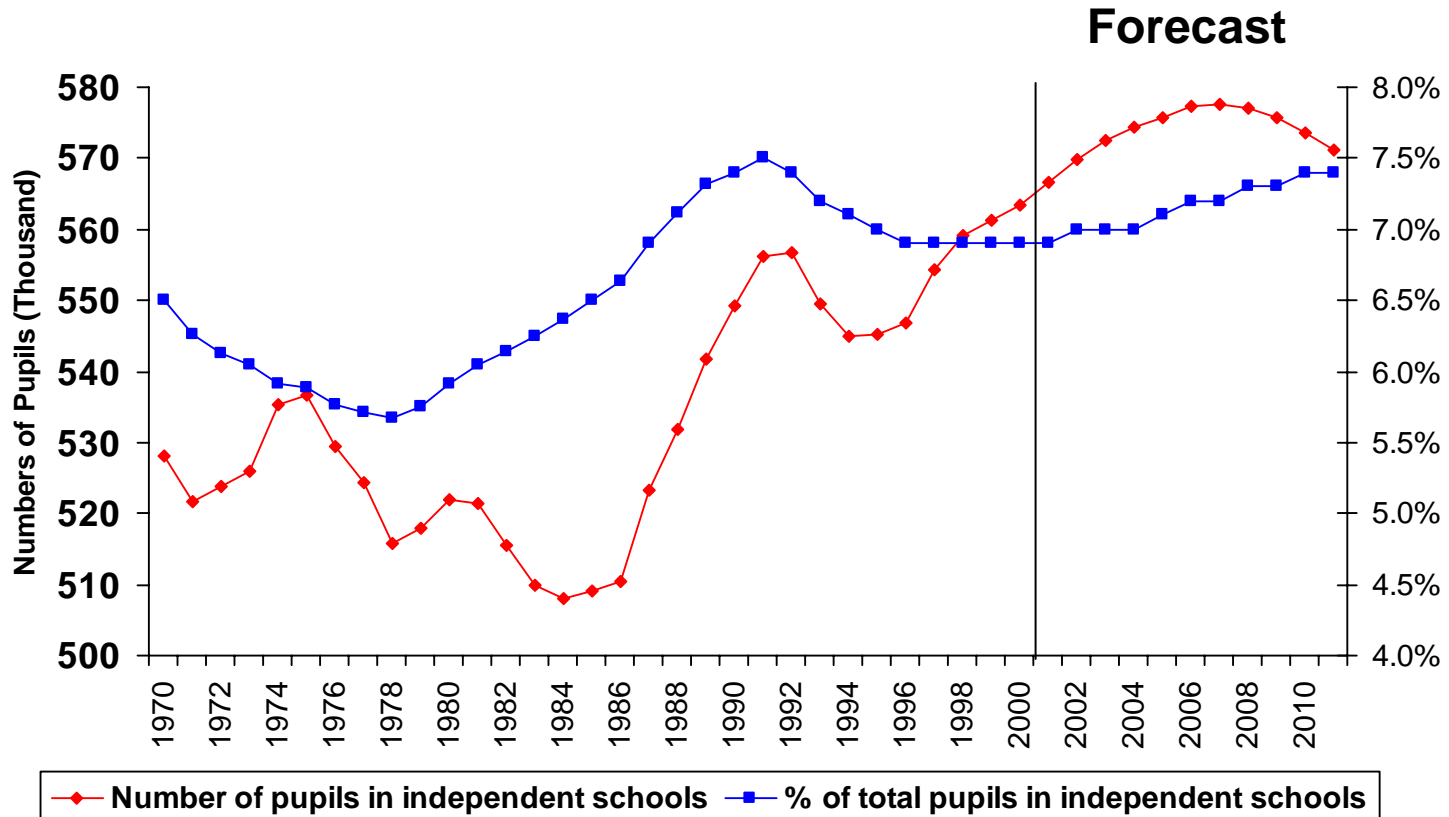
REASONS FOR ADULTS WANTING TO SEND THEIR CHILDREN TO AN INDEPENDENT SCHOOL

%



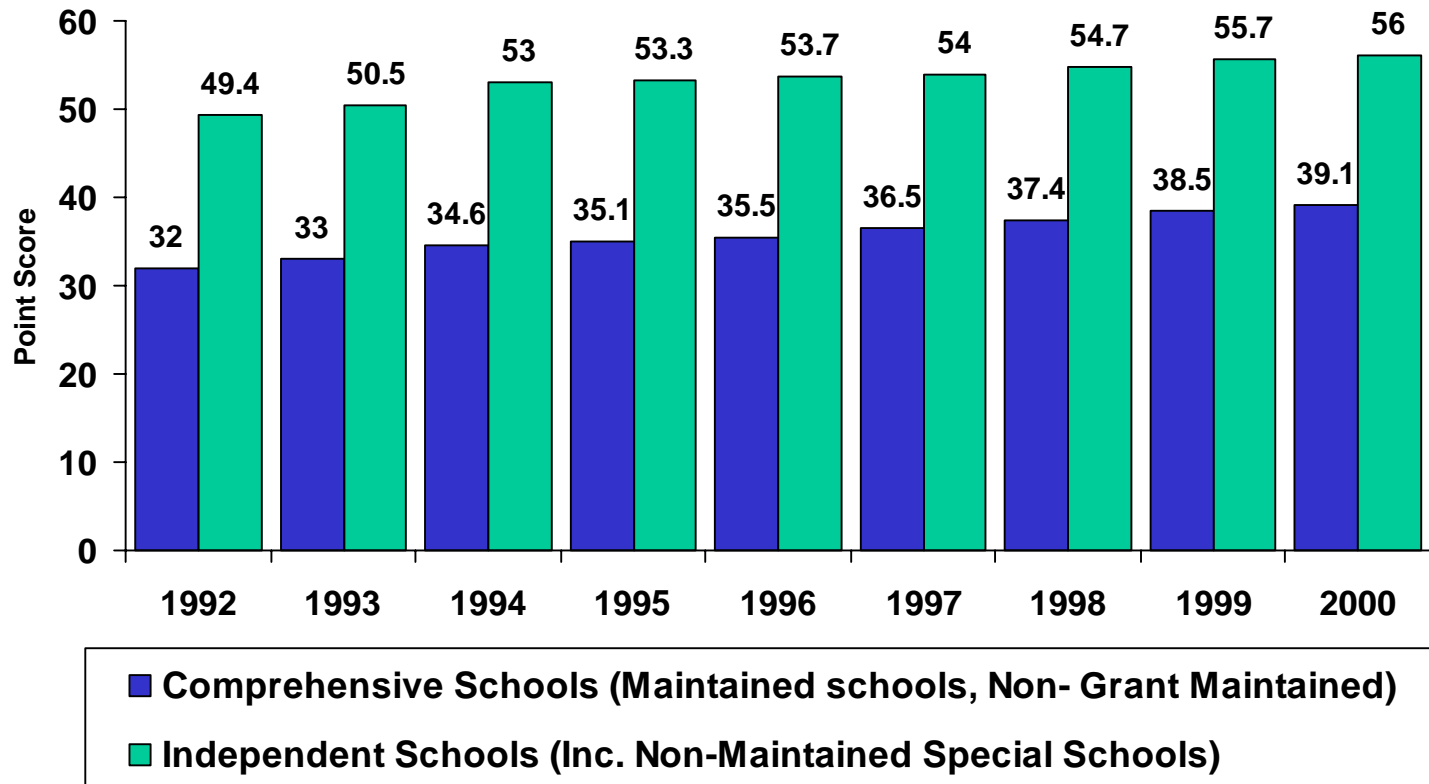
The proportion of pupils in independent schools has remained remarkably constant.

NUMBERS AND % PUPILS IN ENGLAND ATTENDING INDEPENDENT SCHOOLS



Independent schools do achieve stronger results than maintained schools at age 15

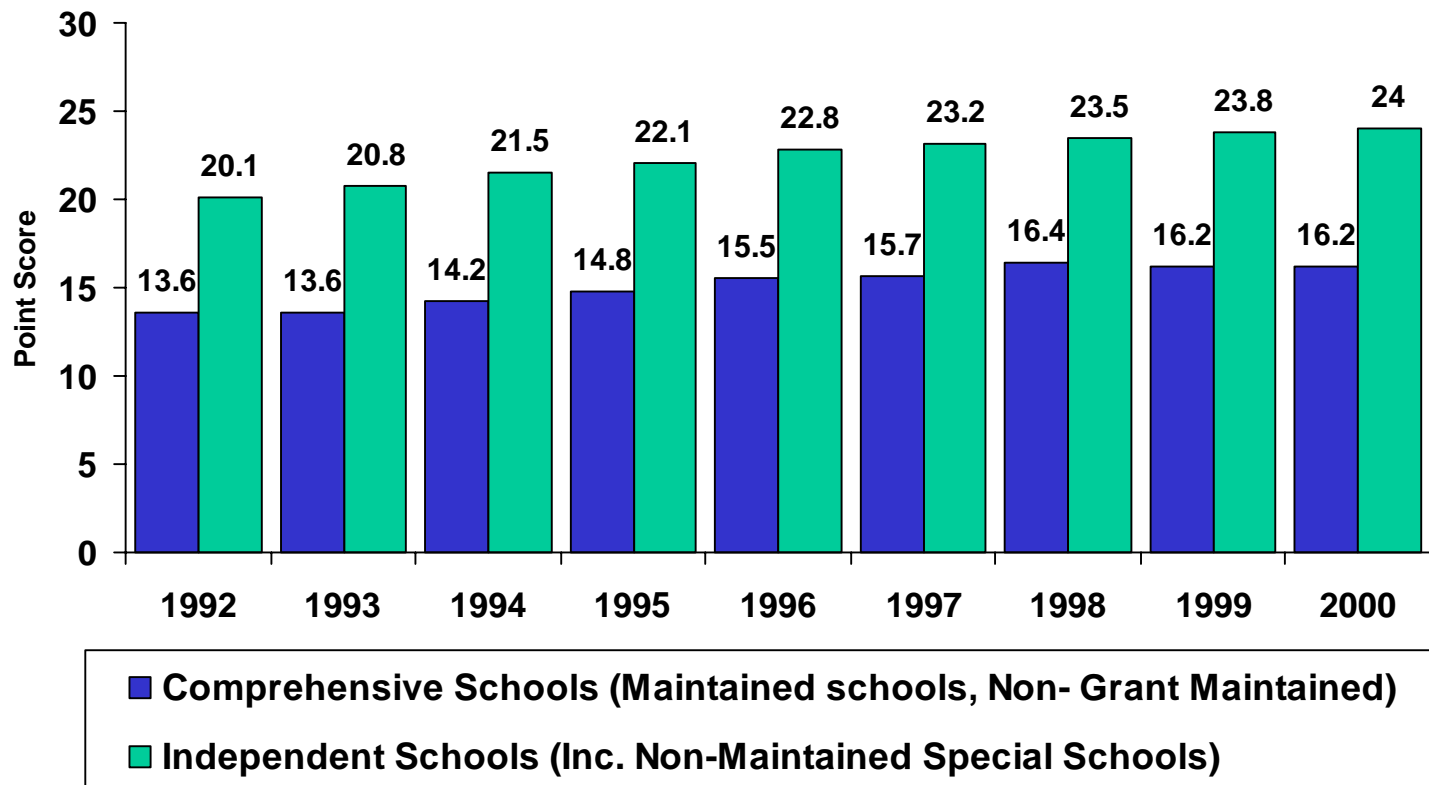
AVERAGE GCSE/GNVQ POINTS SCORE AT 15



Source: 'Statistics of Education: Public Examinations in England 1992-2001', DfES

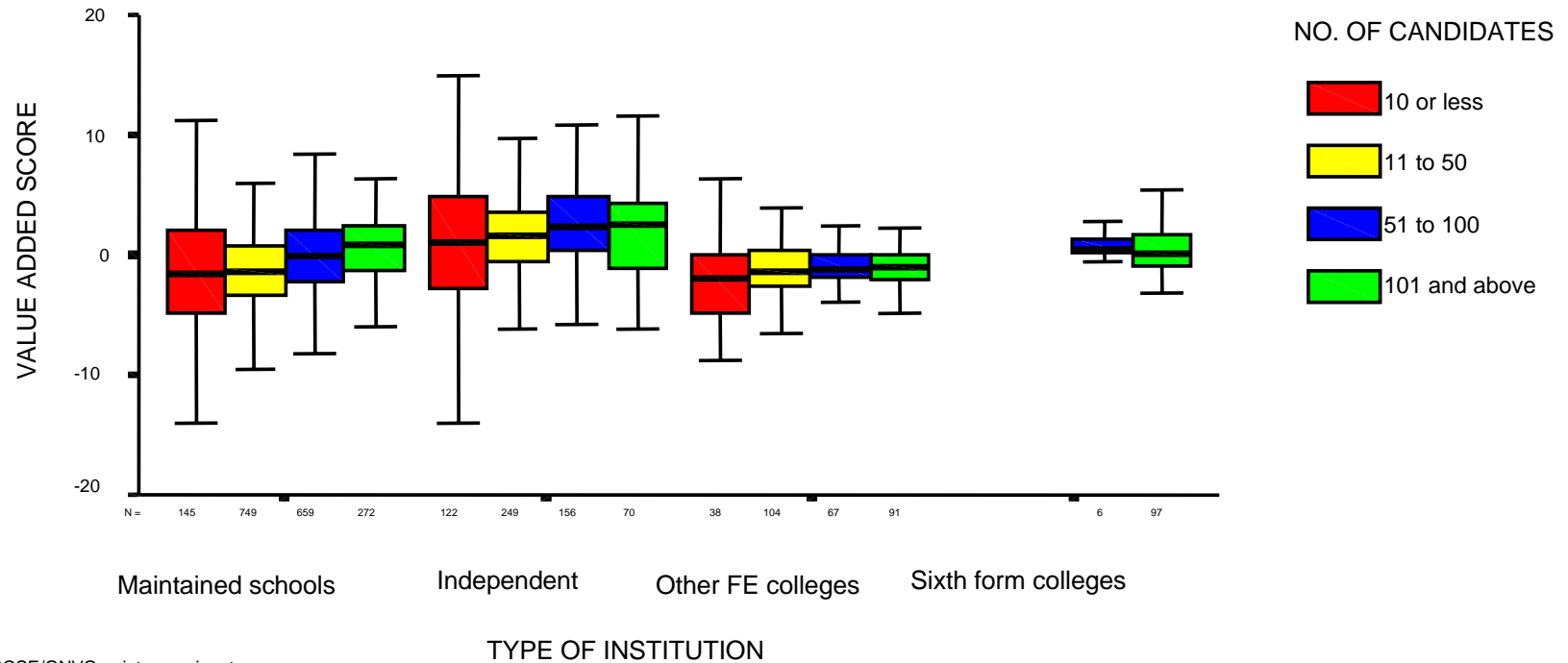
And the gap between independent and maintained schools at A-Levels has been widening.

AVERAGE GCE/A-LEVEL POINTS SCORE AT 17



But the value added by independent schools is barely higher than maintained schools.

DISTRIBUTION OF VALUE ADDED SCORES 1999/00

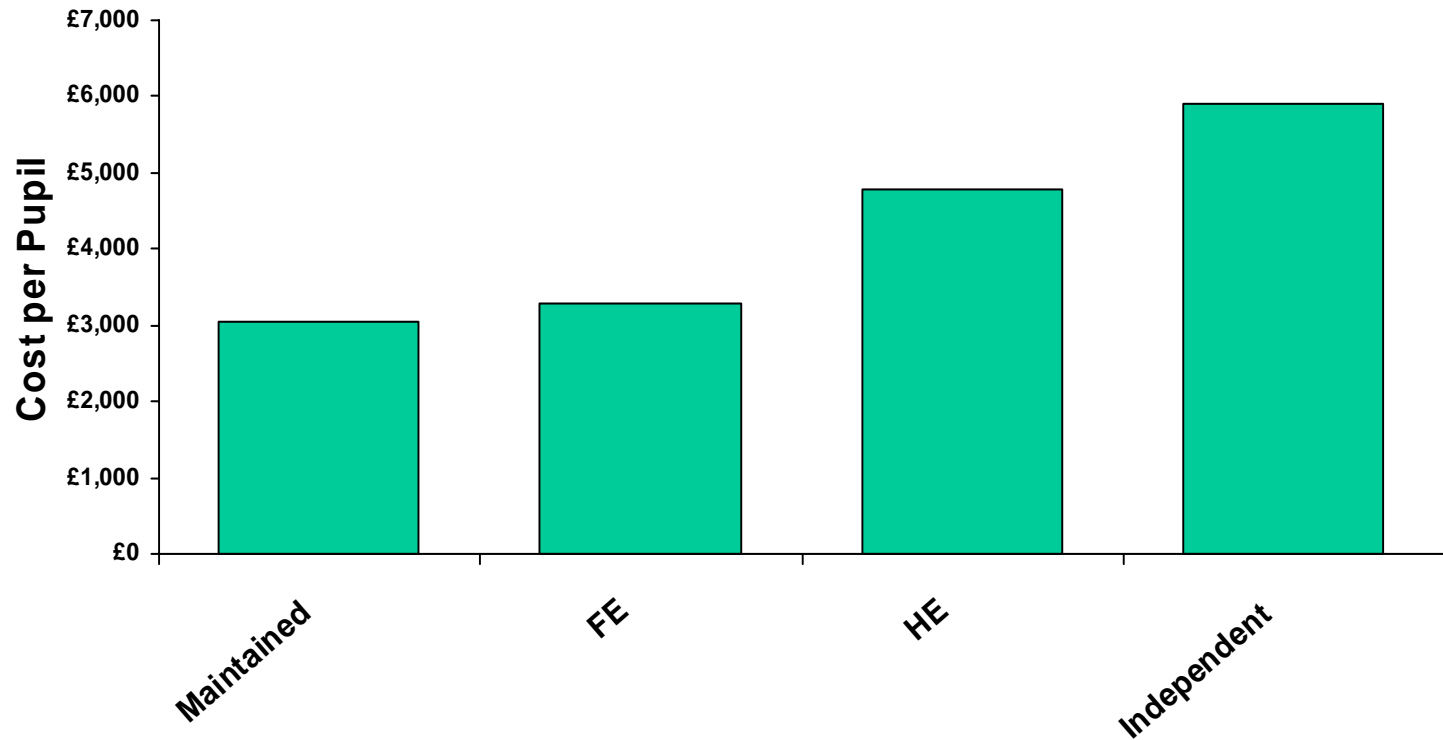


Total GCSE/GNVQ point score input measure

For those candidates aged 17 attempting 2+ A/AS/aGNVQ qualifications

..and independent schools invest far more in their pupils than maintained schools.

INDEPENDENT SCHOOL REPRESENTATION AS % OF POPULATION

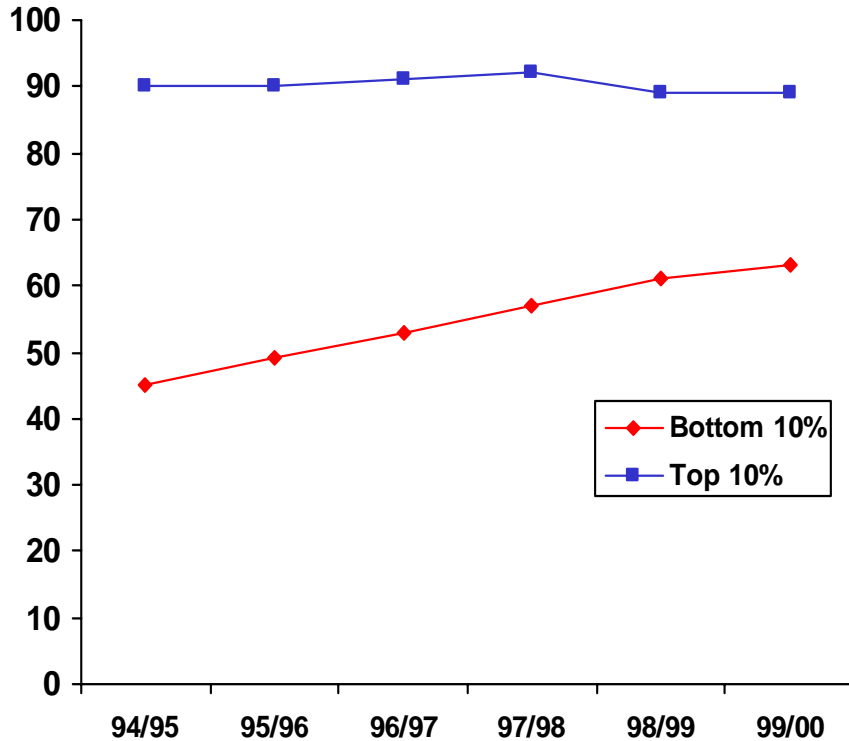


There are also significant performance challenges to meet in post-compulsory education.

- FE college performance is variable, although there have been improvements and the poorer performers are catching up.
- Pay for FE teachers has fallen compared with school teachers.
- Fifty per cent of lectures are delivered by casual or part-time members of staff - half of whom have no teaching qualification and inspection evidence shows that their performance is less good than that of full-time staff.
- Educational participation at age 17 is relatively low, as is attainment at NVQ Level 2 and 3.
- The overall rate of participation in adult continuing education is comparable with other countries (but behind the Scandinavian countries), although on average our adults spend fewer hours in education and training. This has left us with a legacy of a low-skill workforce,
- Most employers are doing little to rectify this, with work based training aimed at more highly qualified employees.

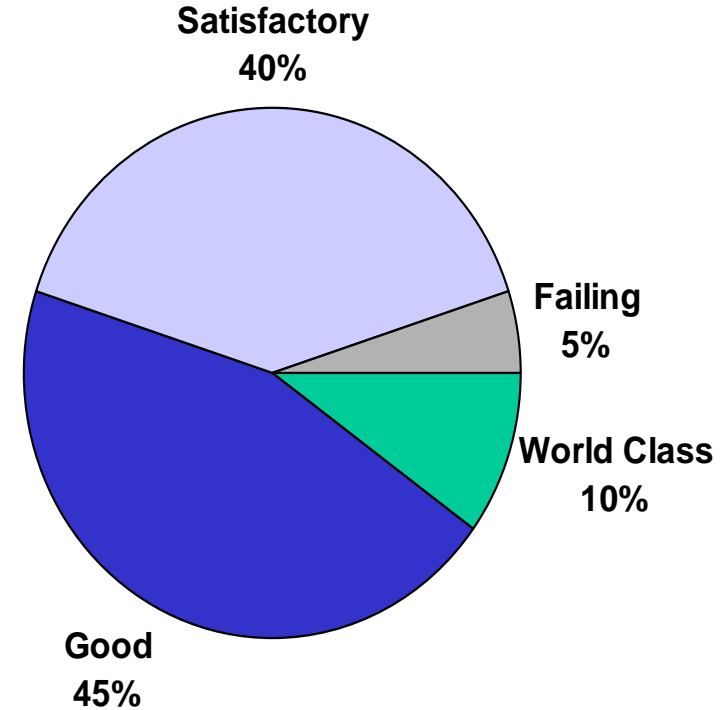
There is still great variability between colleges, though the poorer performers are catching up.

FE COLLEGE ACHIEVEMENT RATES



Source: FEFC

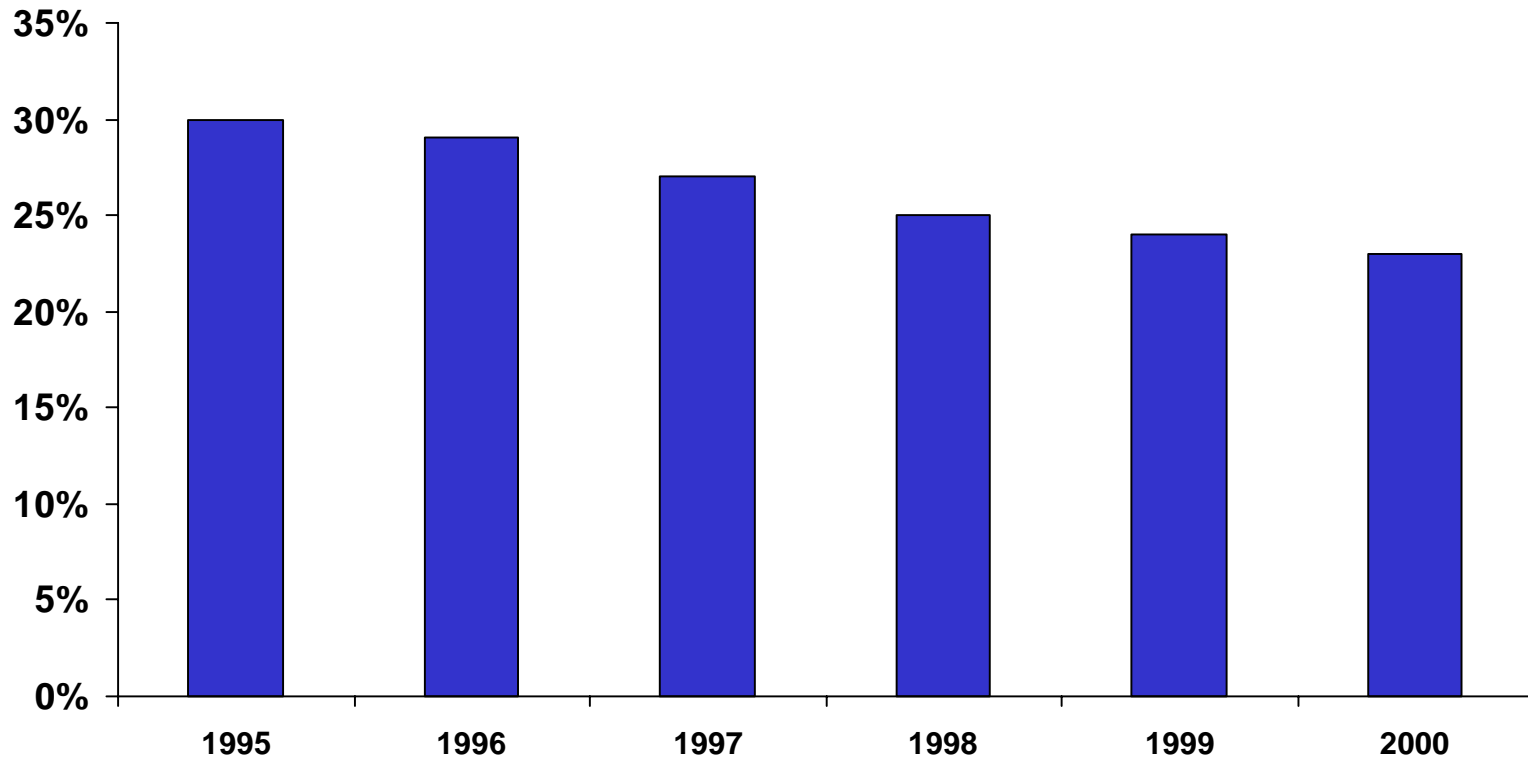
FE COLLEGE INSPECTION RESULTS



Source: FEFC

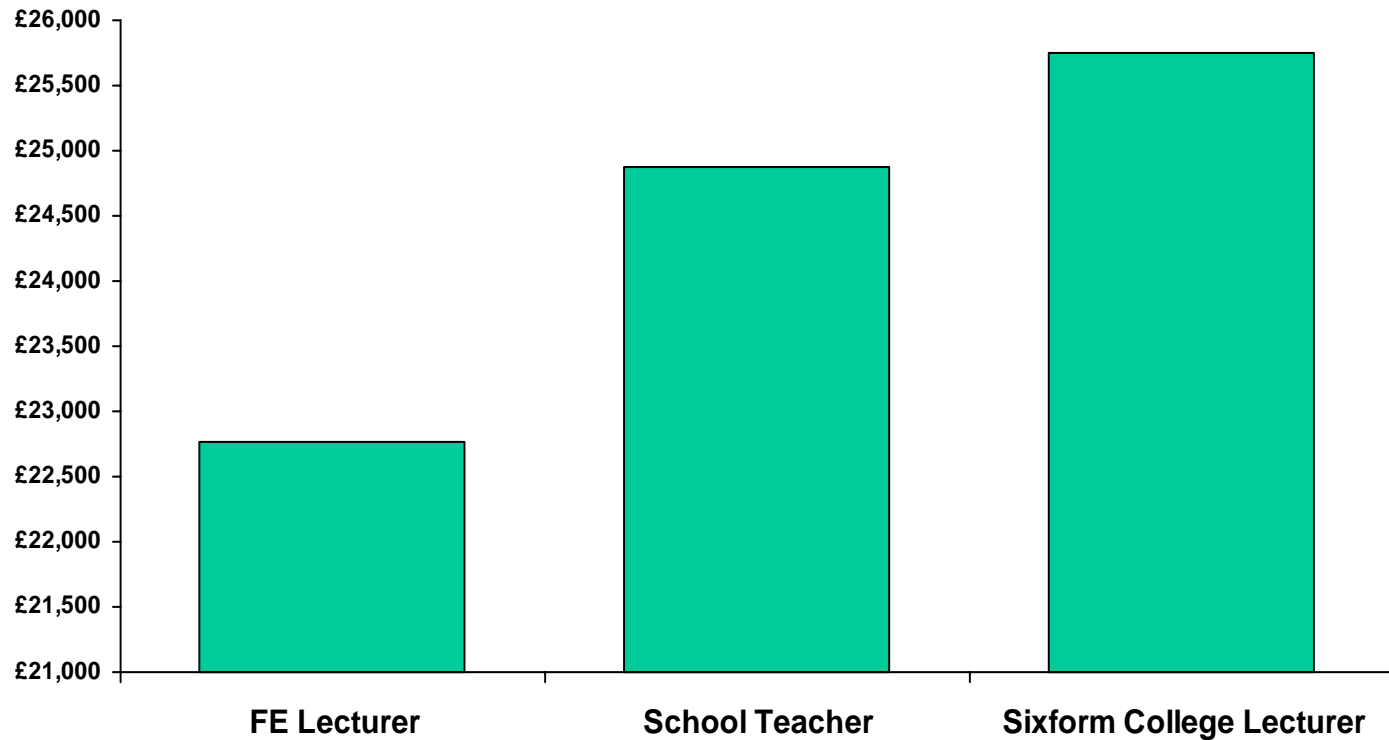
The performance of colleges is improving, but is still low.

% OF FE COLLEGE STUDENTS WHO DO NOT ACHIEVE THEIR STUDY AIMS.



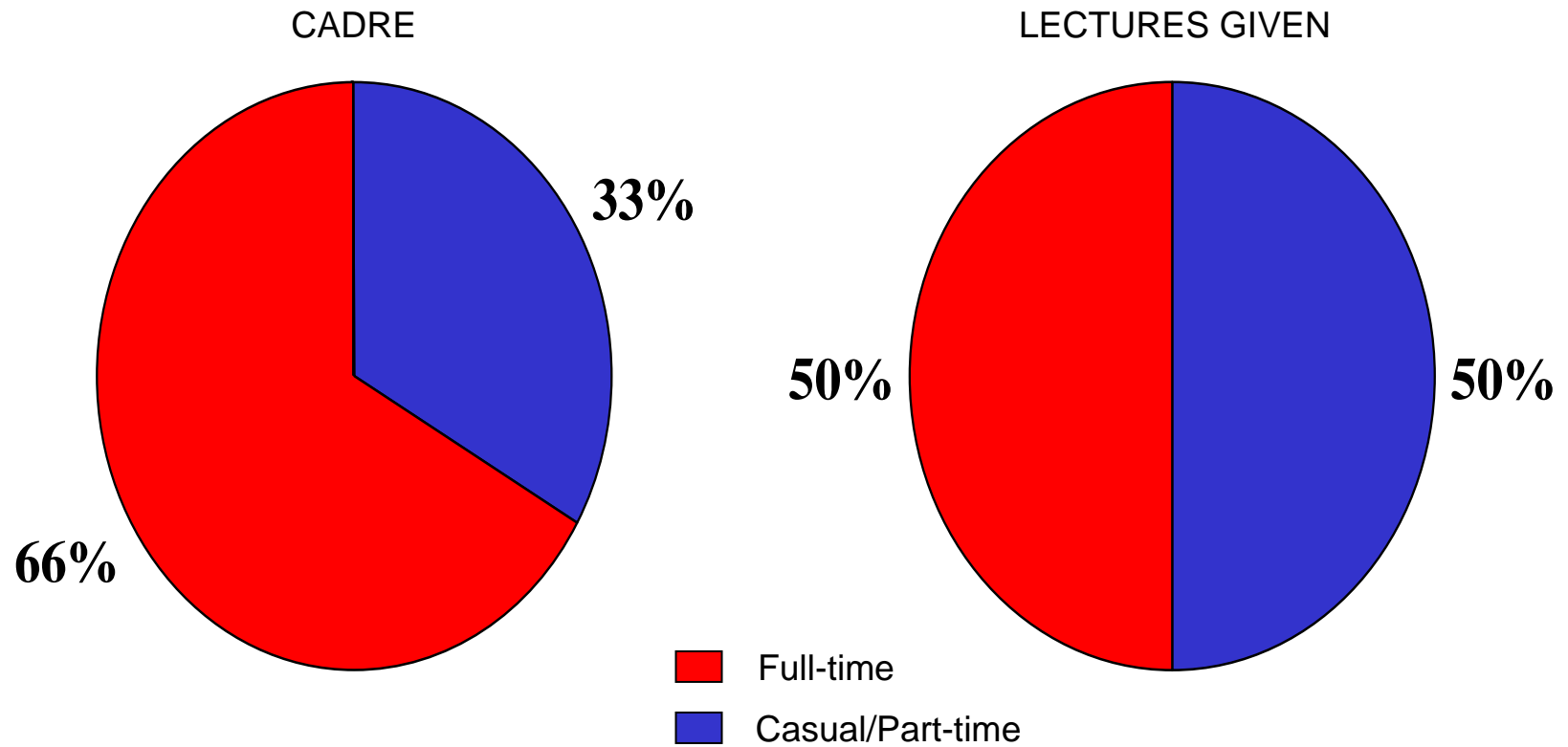
FE Lecturers are paid significantly less than school teachers.

PAY OF SCHOOL TEACHERS, FE LECTURES AND SIXFORM COLLEGES (2001)



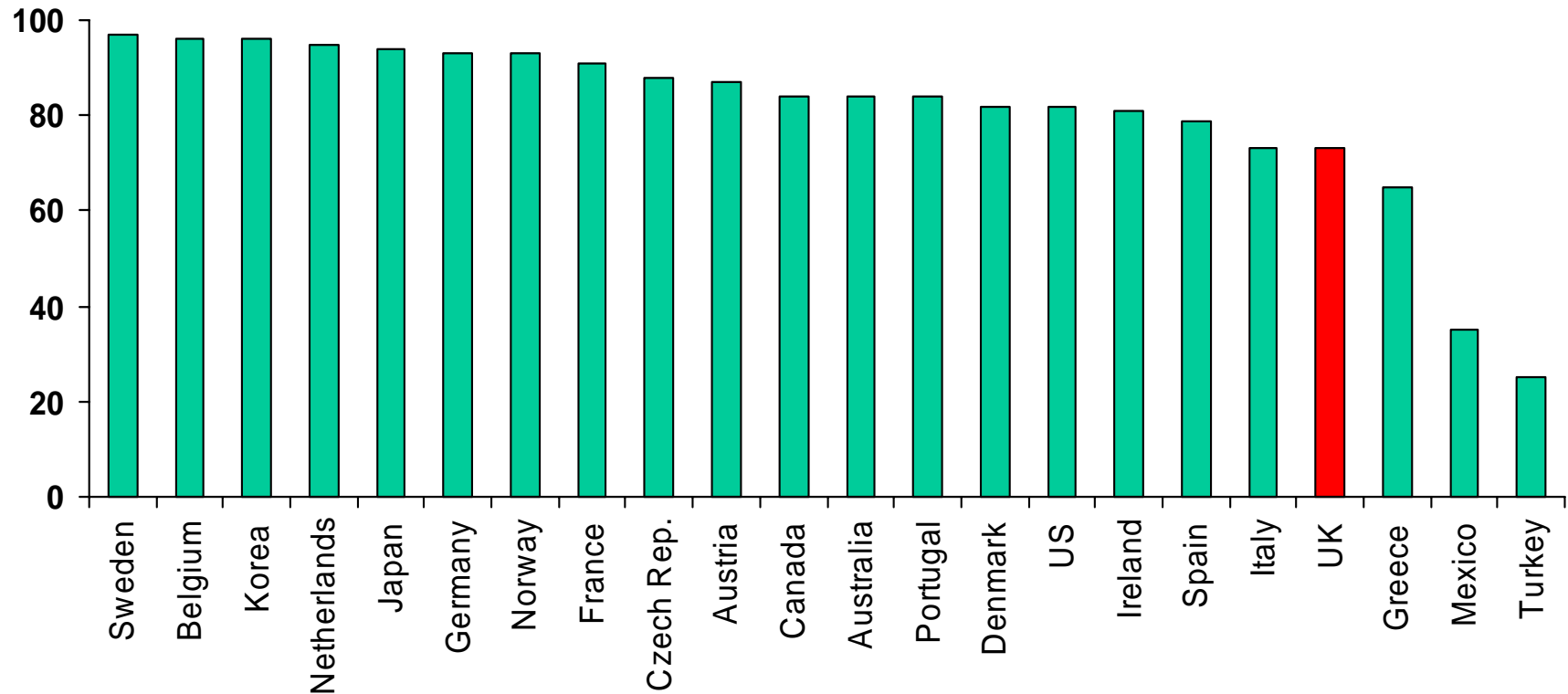
Around a third of FE lecturers are on casual or part-time contracts and they deliver half of all lectures.

CADRE AND ROLE OF CASUAL AND PART-TIME FE LECTURES (2000)



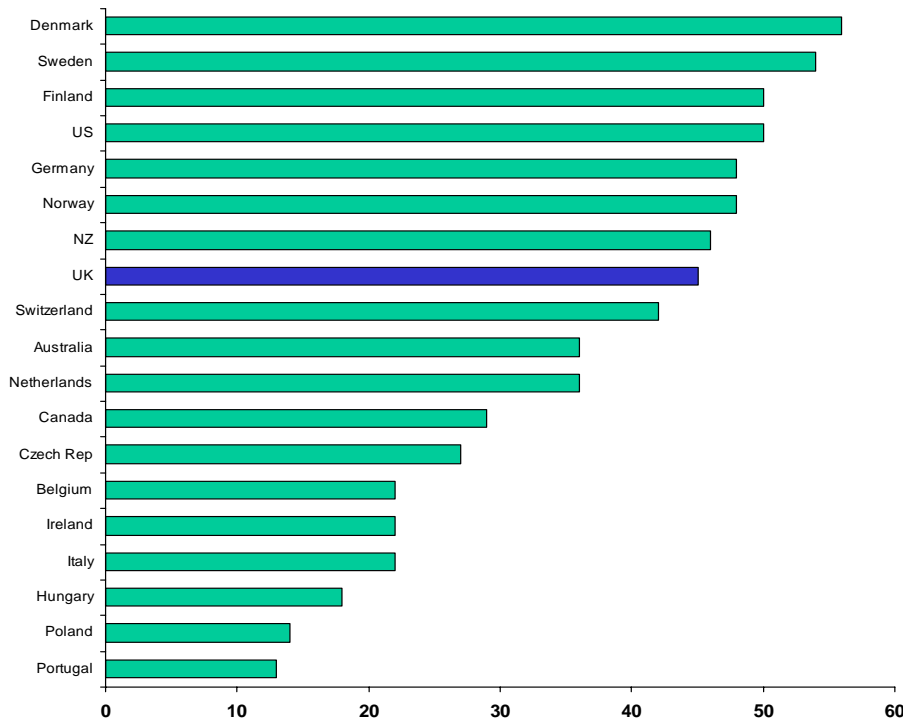
We have one of the lowest participation rates for 17 year olds in formal education.

PROPORTION OF THE POPULATION AGED 17 ENROLLED IN FORMAL EDUCATION, 1999

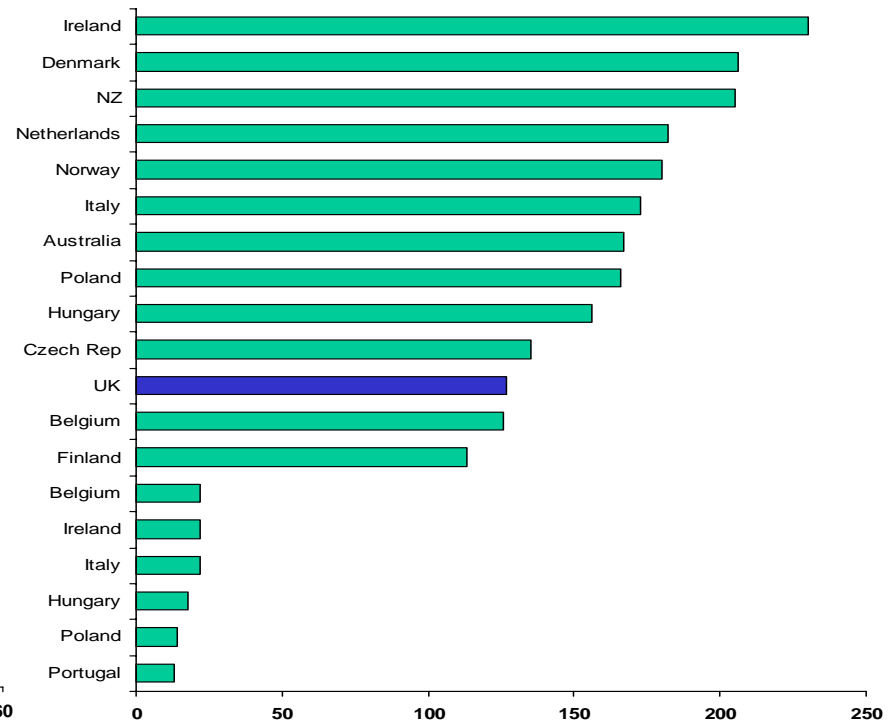


Participation in adult education is comparable, although participants spend less time in education and training

PERCENTAGE OF ADULTS (25-64) PARTICIPATING IN CONTINUING EDUCATION AND TRAINING 1994-1998

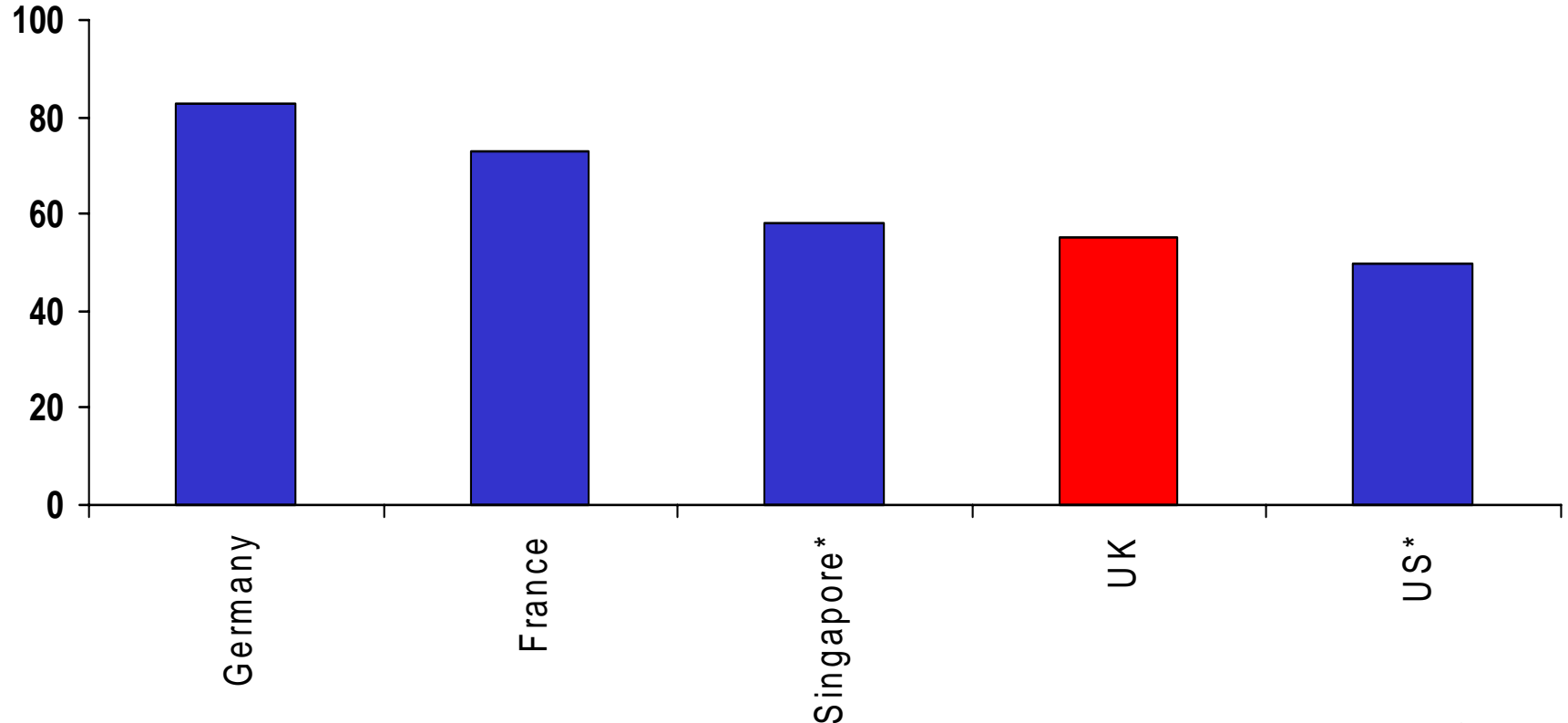


MEAN HOURS OF PARTICIPATION BY PARTICIPANTS IN CONTINUING EDUCATION AND TRAINING BY ADULTS (25-64)



And despite increases we remain behind our European competitors in attainment at NVQ Level 2 and 3.

PROPORTION OF THE WORKFORCE QUALIFIED TO “LEVEL 2” OR ABOVE

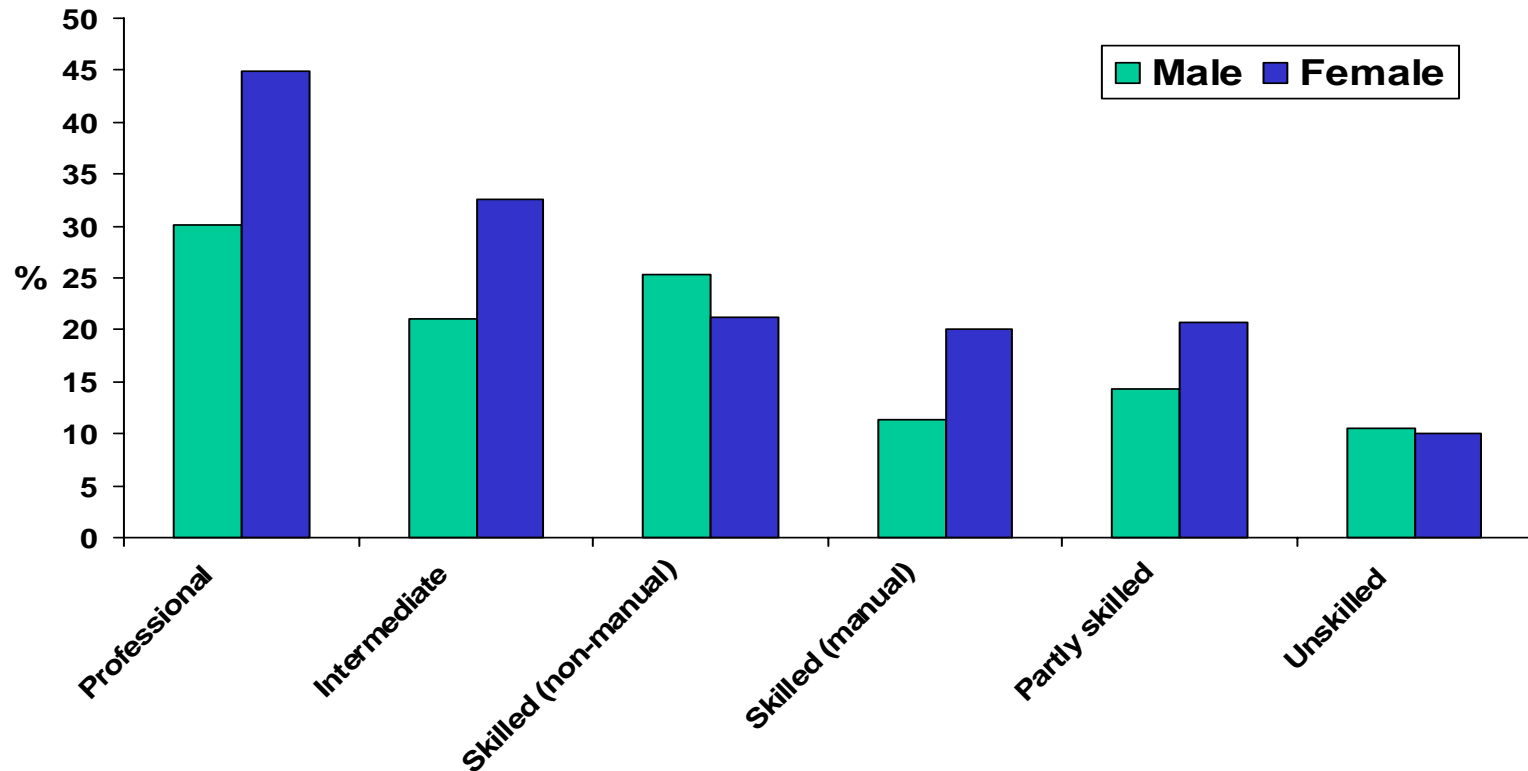


SOURCE:: National Skills Task Force Research Report (Update to the Skills Audit – Steedman 1999)

NOTE: US and Singapore 1994 figures

Employers typically focus training on their more highly qualified workers.

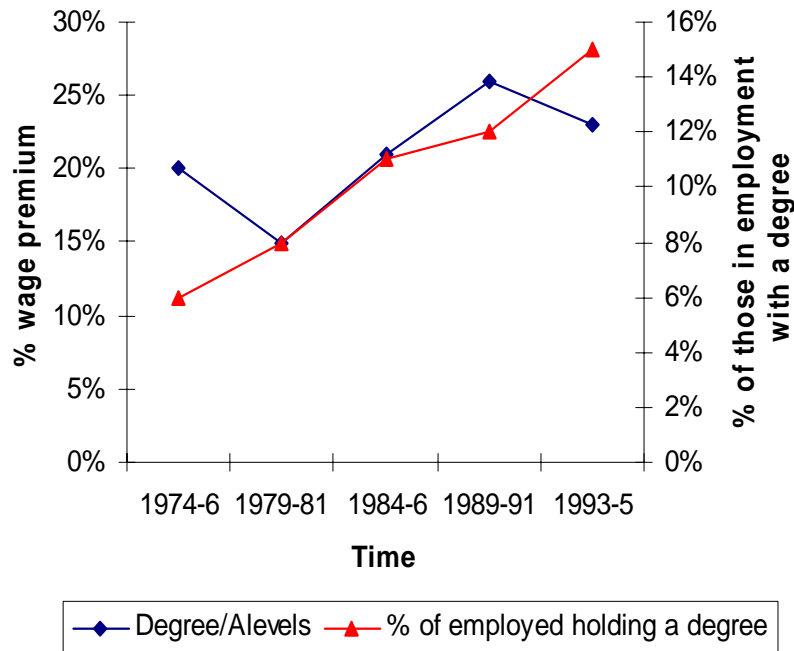
PARTICIPATION IN TRAINING BY CLASS AND GENDER



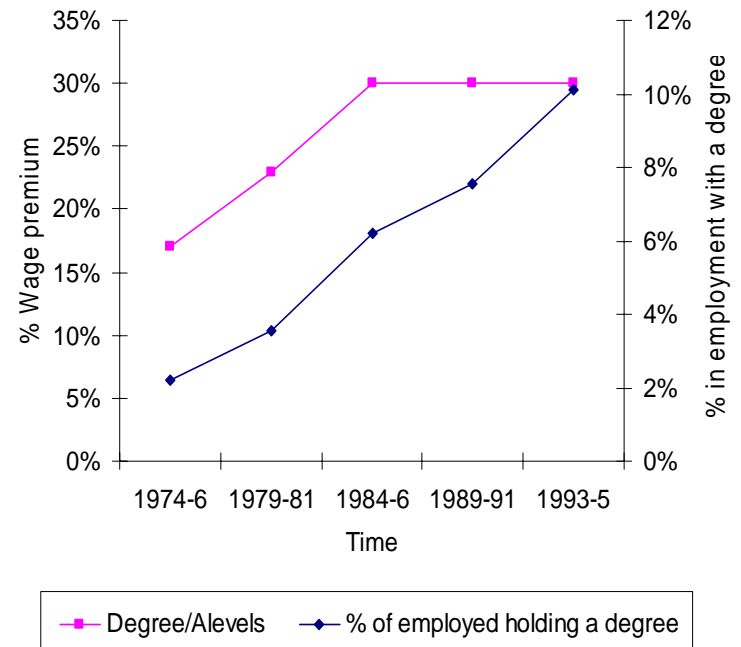
And employers are increasingly willing to pay a premium for higher level skills.

GRADUATE WAGE PREMIUM AND THE GROWTH IN THE NUMBER OF GRADUATES

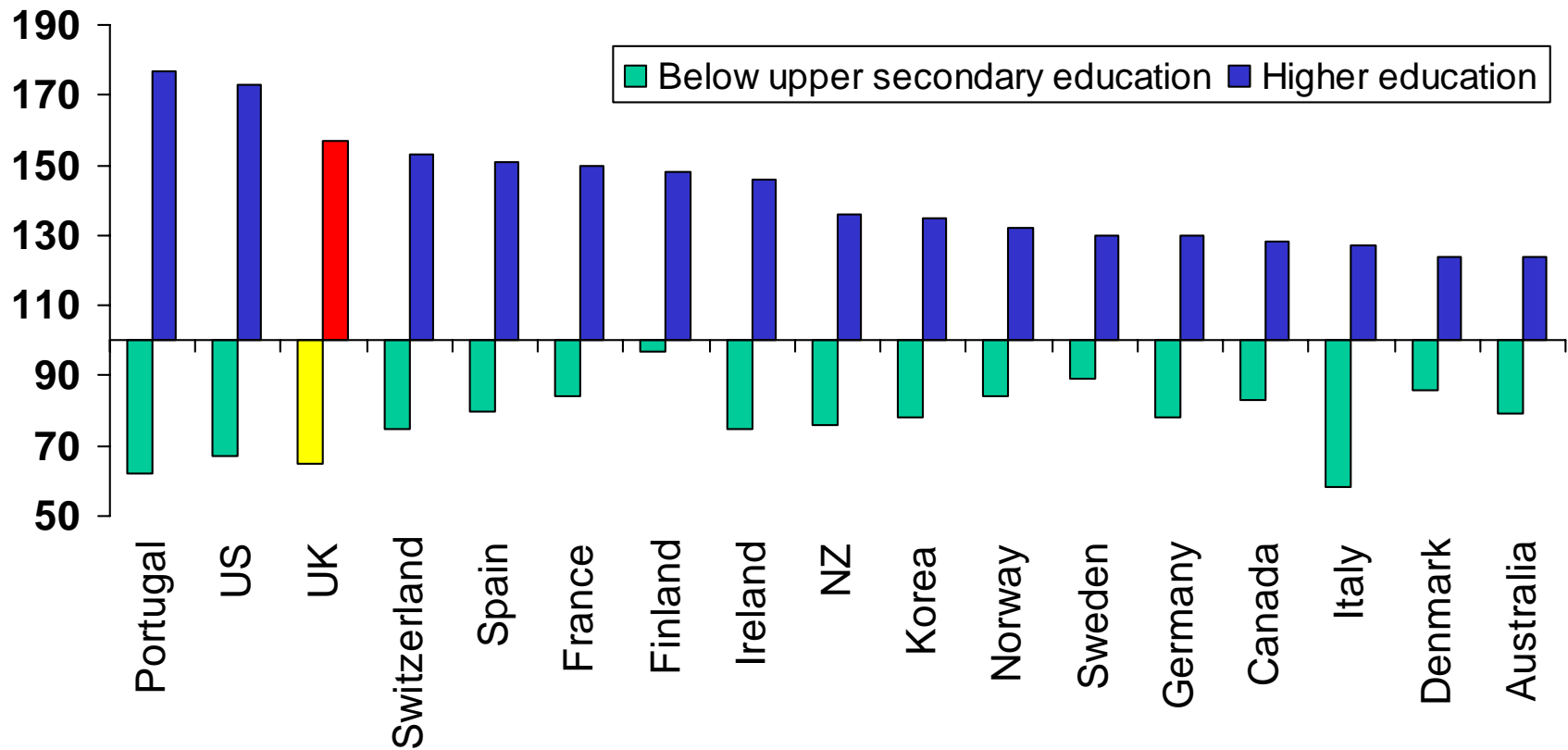
Men



Women

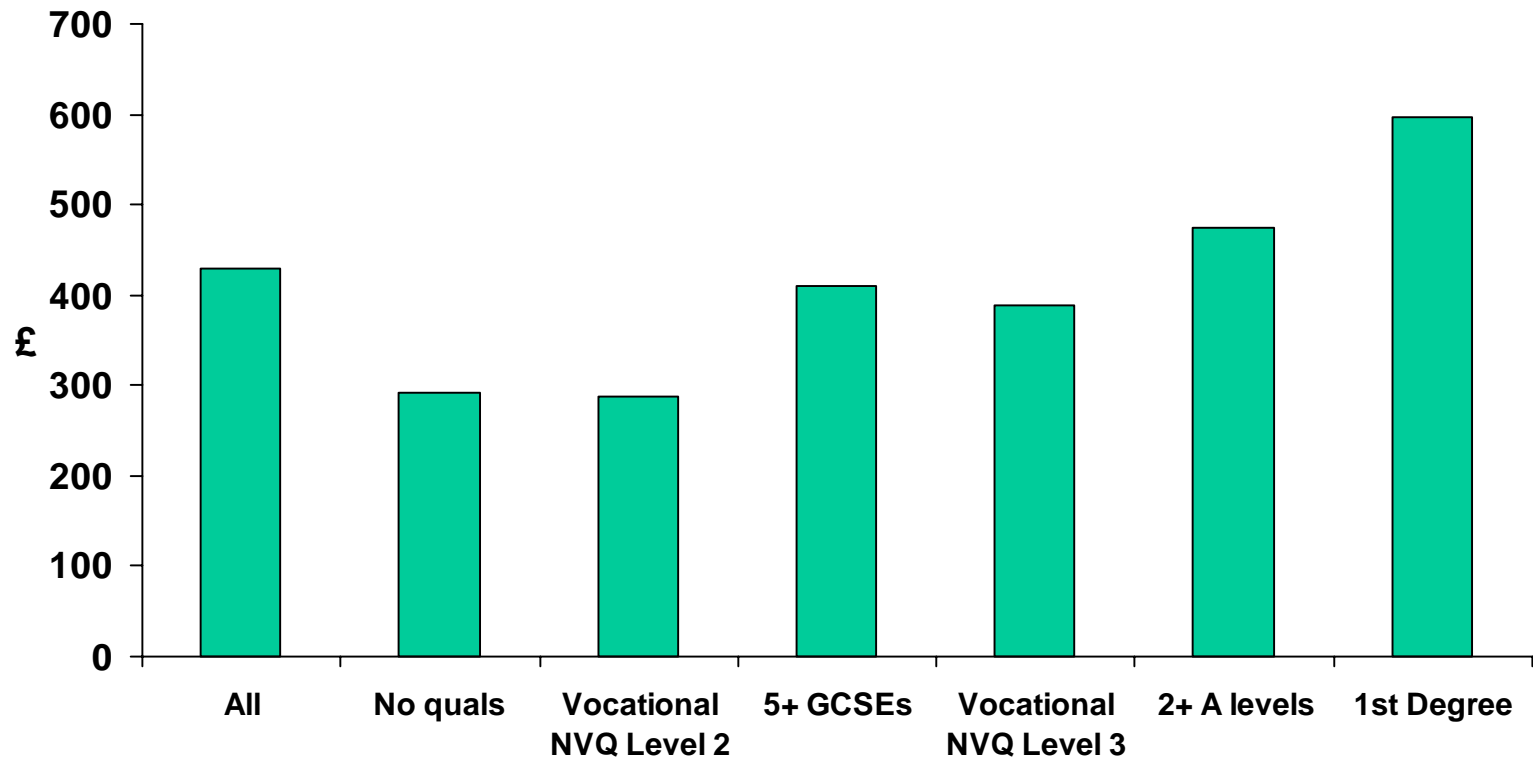


The wage premia at secondary and tertiary level are greater in the UK (and the US) than in European countries



The returns to Vocational qualifications, particularly at NVQ level 2, appear minimal

MALE GROSS WEEKLY EARNINGS BY QUALIFICATION LEVEL



We face acute challenges in meeting the needs of particular high risk segments

We face acute challenges in meeting the needs of particular high risk segments

- The problem of educational under-performance becomes particularly acute when you look beneath the aggregate statistics. Our study has revealed 6 substantial and overlapping segments of the population who are significantly at-risk in our current system. These are:
 - **The socio-economically disadvantaged.**
 - **Ethnic minority groups.**
 - **“Early failures”.**
 - **Unskilled adults.**
 - **Boys (in comparison with girls).**
 - **Londoners.**

The socio-economically disadvantaged

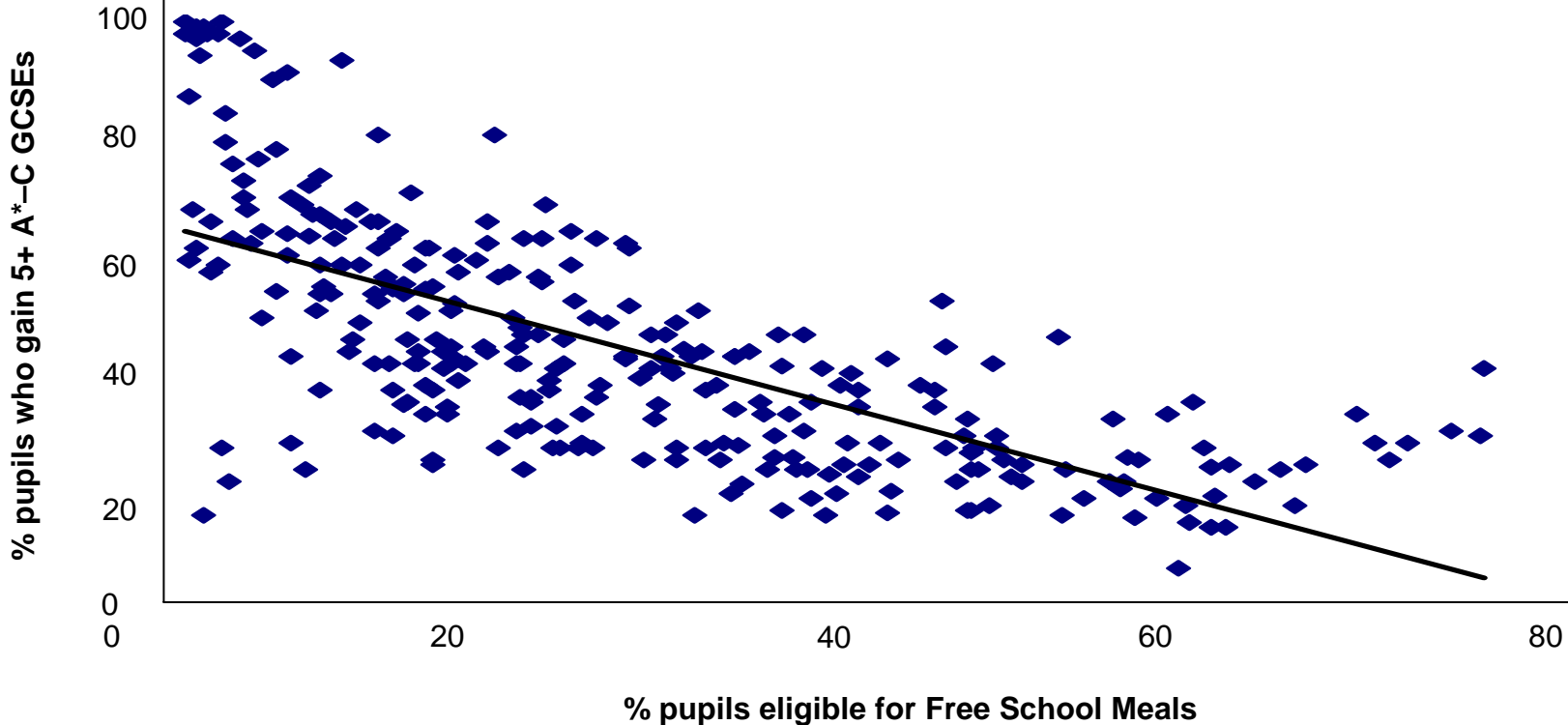
- Our education system is failing to break decisively into the vicious cycle of socio-economic disadvantage, educational under-attainment and social dysfunction.
- Efforts to address this problem are having some impact. The increases in literacy and numeracy at age 11 have brought the lower performing groups and areas up faster than the higher performing ones, narrowing the gap. Government policies for Key Stage 3 and for 14-19 year olds are intended to move in the same direction.
- Nevertheless, the evidence remains overwhelming that those from a socially deprived background have a much greater than average chance of educational under-achievement.
- For instance, 70 per cent of 16 year-olds from unskilled manual backgrounds fail to achieve 5 good GCSE passes, as against 31% from higher social groups. At the extreme, 81% of children living in council accommodation fail to achieve this level.
- The cycle is perpetuated by low levels of participation in post-compulsory education amongst the socially disadvantaged – for instance, only 15% of those from unskilled manual backgrounds participate in higher education, as against 75% for higher social groups.
- And the cycle is perpetuated by being passed from generation to generation - the children of those with poor educational qualifications are more likely to achieve poor qualifications themselves.
- The cycle is completed by the high levels of truancy, unemployment, crime and drug dependency amongst educational under-achievers.

There is a strong correlation between levels of deprivation and pupil performance.

INFLUENCE OF DEPRIVATION ON PUPIL ATTAINMENT

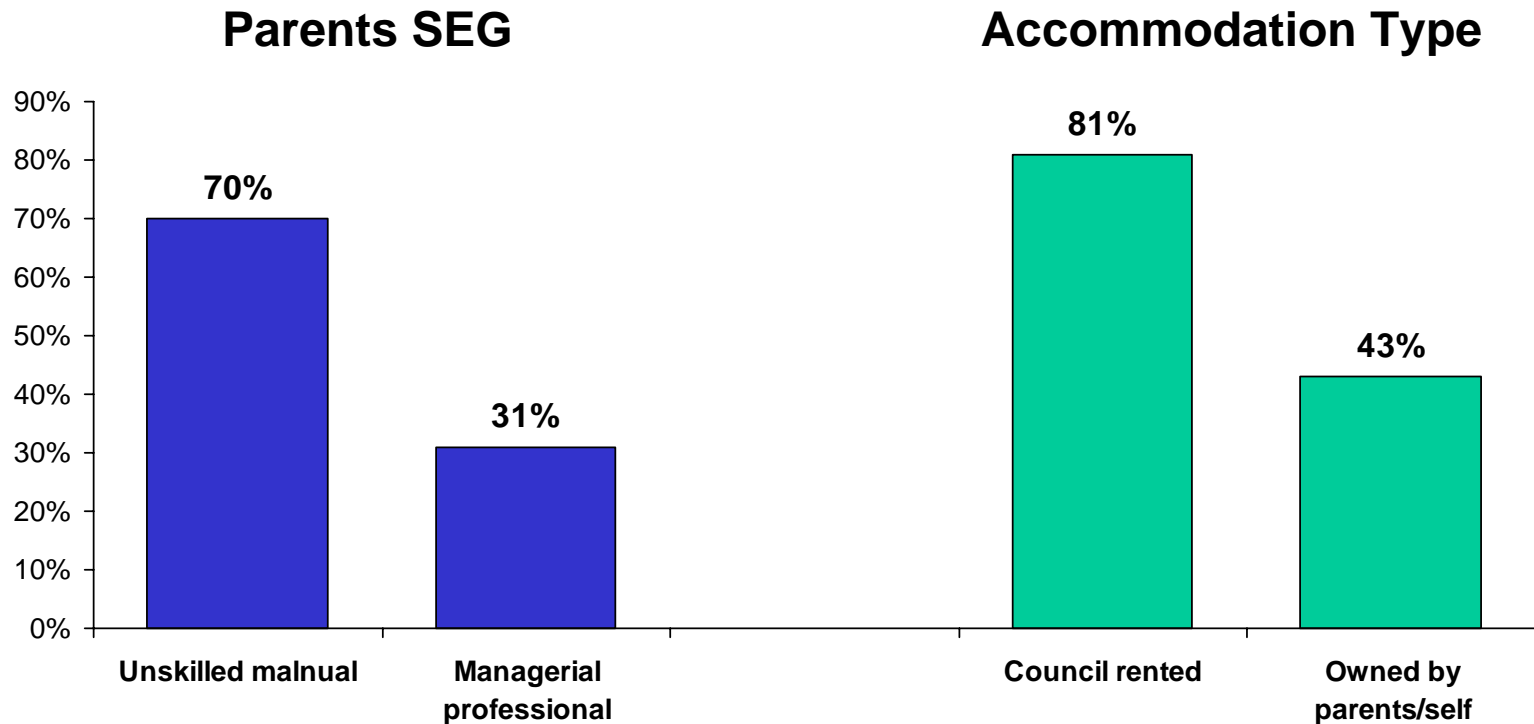
Schools in London: (1996–2000)*

Correlation: -69%



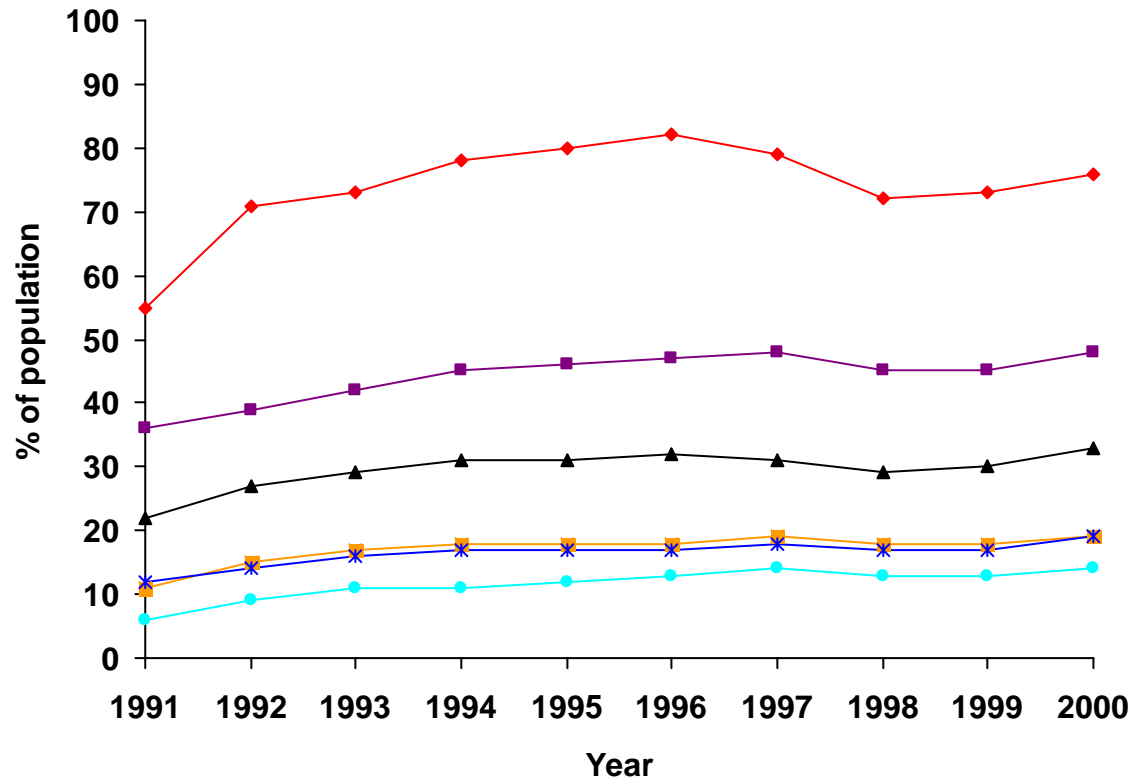
Those from a socially deprived background are much more likely to underachieve.

PERCENTAGE OF CHILDREN NOT ACHIEVING 5+ A*-C GCSE PASSES BY:



Similarly, participation in HE reveals a very wide disparity between social groups.

THE GB AGE PARTICIPATION INDEX FOR YOUNG PEOPLE BY SOCIAL CLASS FROM 1991 TO 2000.



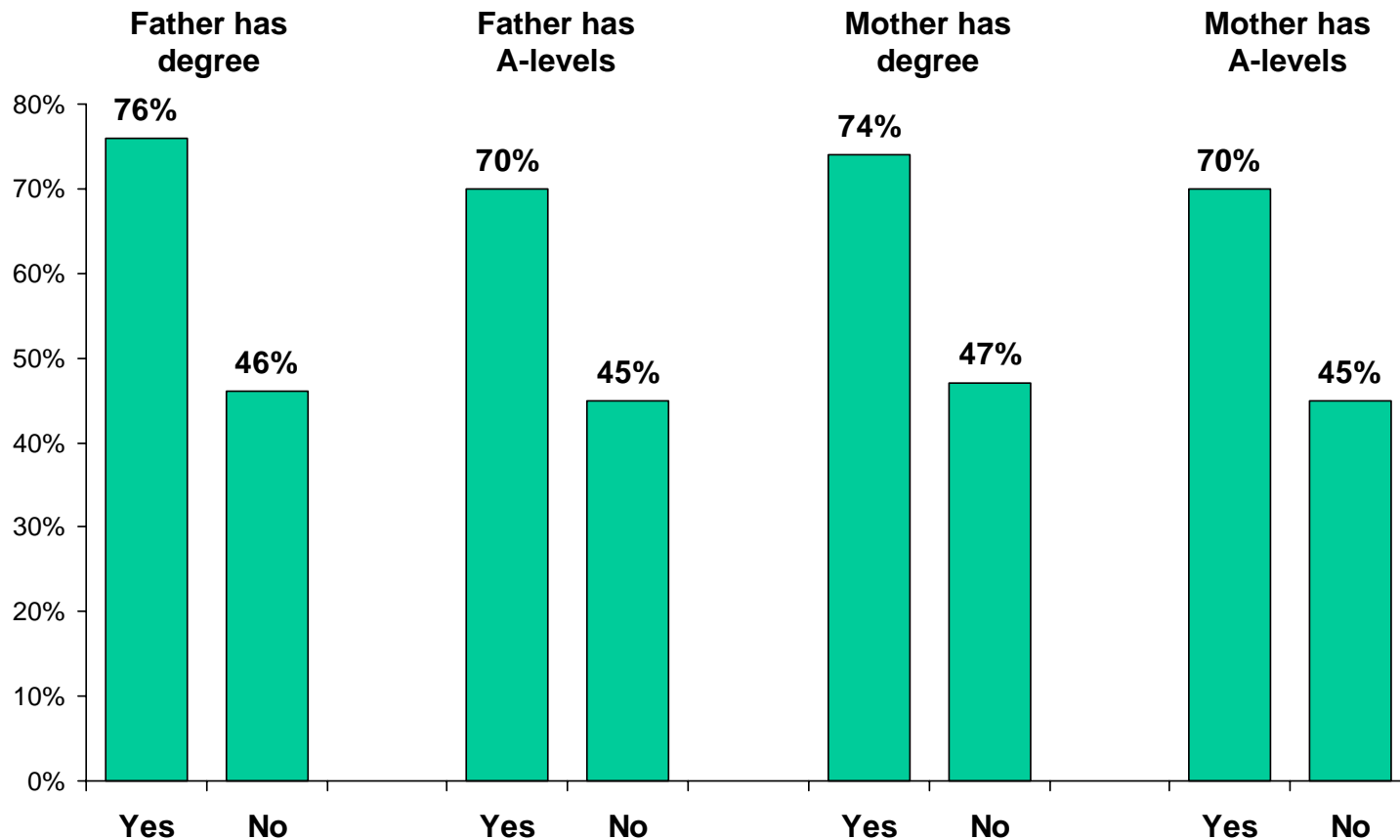
76% of children from higher social groups (professional or managerial) enter HE, but only 14% of those from unskilled manual backgrounds

- ◆— I Professional
- II Intermediate
- ▲— IIN Skilled non manual
- IIIM Skilled manual
- *— IV Semi skilled
- V Unskilled

Source: Further Education Statistical Record, Universities' Statistical Record, Higher Education Statistics Agency, Admissions Agencies & National Census.

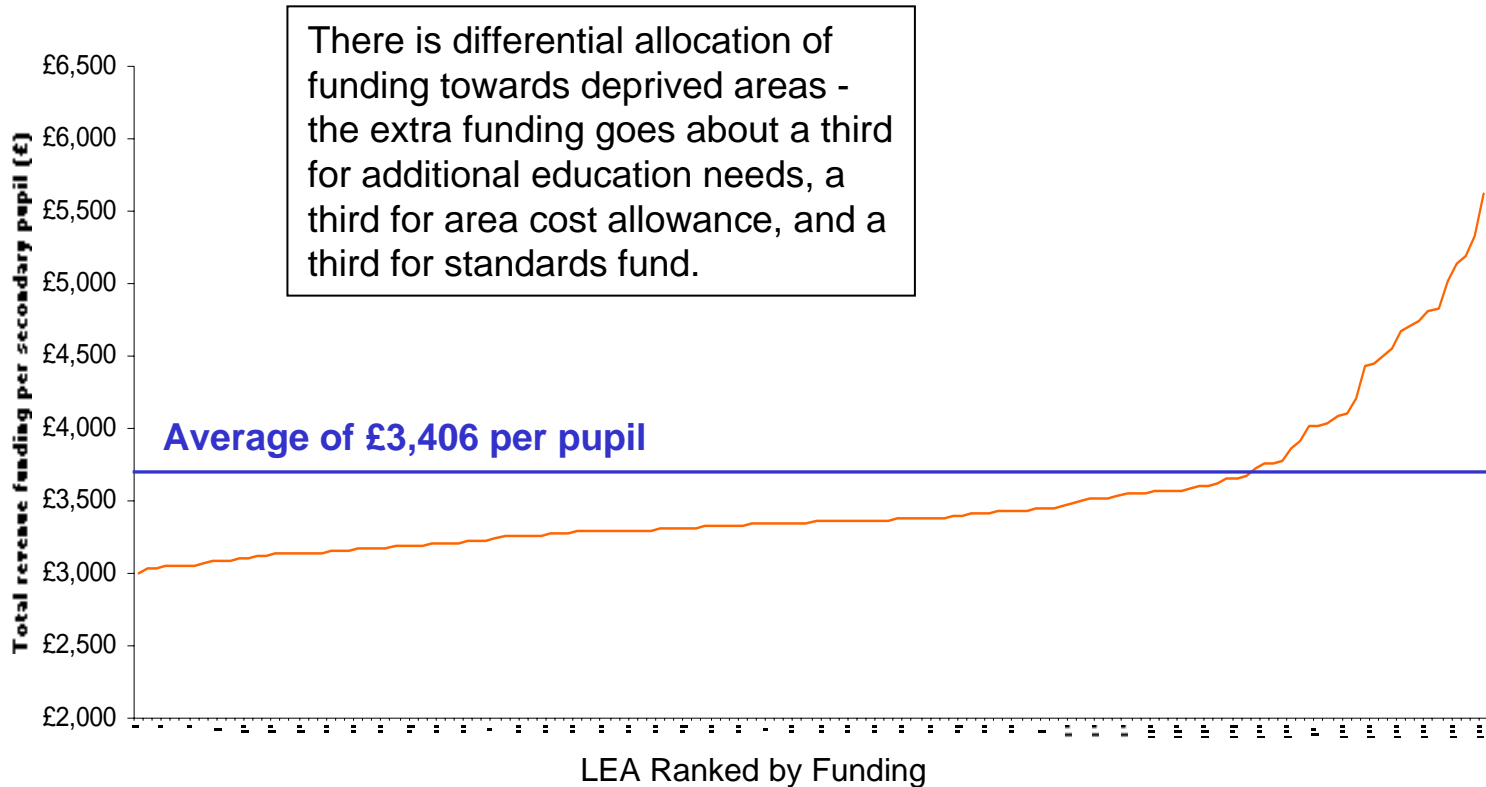
Low achievement of individuals is perpetuated by low attainment of their children.

ATTAINMENT OF 5+ GCSES AT A*-C BY PARENT'S QUALIFICATION LEVEL



This is despite disproportionate resources being spent in areas of social deprivation.

TOTAL REVENUE FUNDING PER SECONDARY PUPIL AGED 11-15, 2001/02

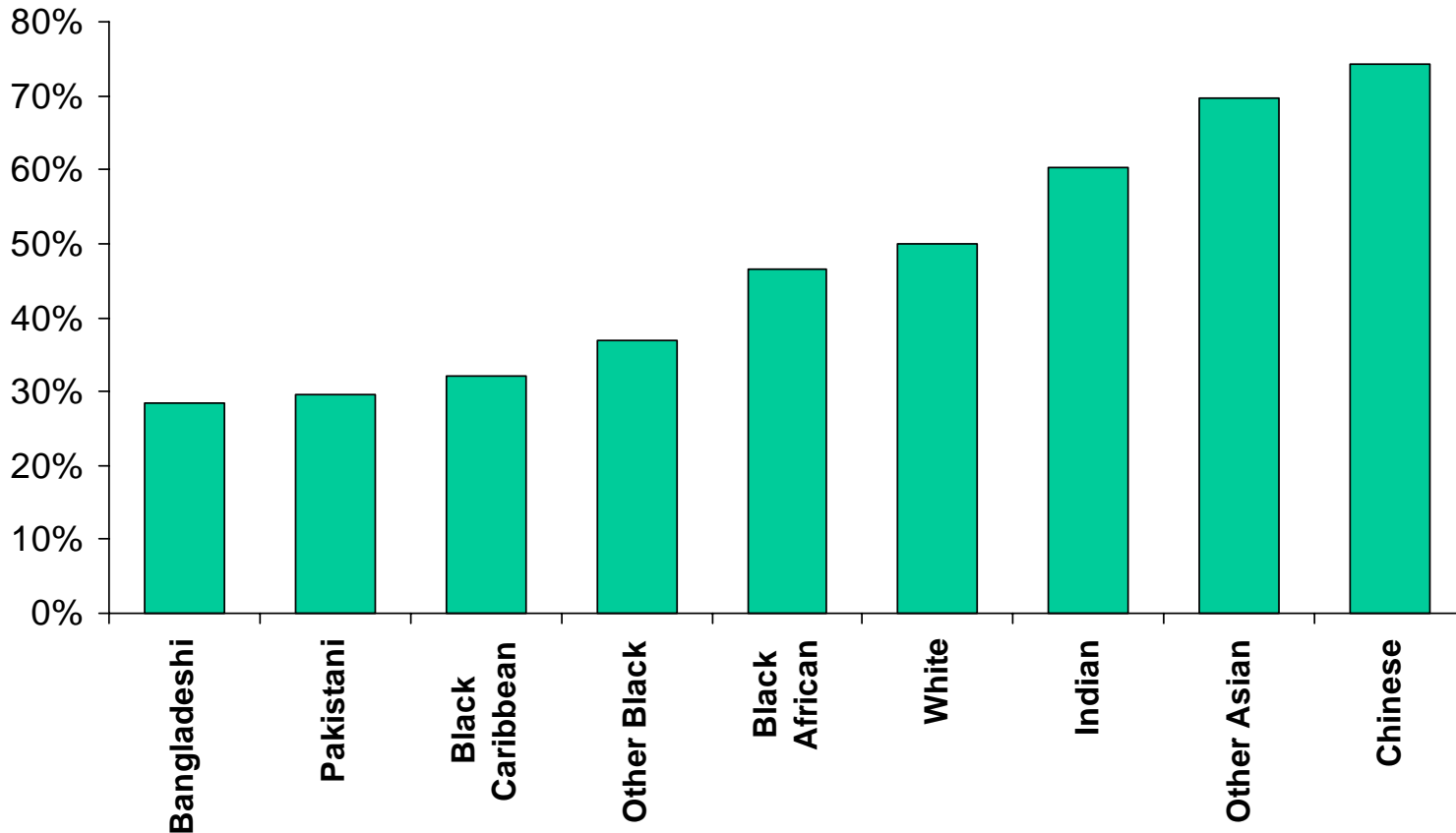


Ethnic Minorities

- The apparent effect of ethnicity on educational achievement is complex - varying substantially between and within different racial backgrounds.
- For instance, children from Caribbean, Bangladeshi and Pakistani backgrounds have only a 30% chance of achieving 5 or more good GCSE's, against the national average of 50%. But those from Chinese or other Asian background are outperforming the national average, with 70% achieving that level.
- Performance amongst Black children is further complicated by evidence that they start primary school with higher average ability levels, but that their performance deteriorates in relative terms at each subsequent stage.
- All ethnic minorities have higher participation rates post 16 than whites, but certain groups do lower level courses and/or overall achieve lower qualifications.
- Indian, Black African and Chinese men tend to be better qualified than white men, but nearly a quarter of Black Caribbean men and a large numbers of Pakistani and Bangladeshi men have no qualifications.
- All ethnic minority groups have higher unemployment rates than whites, but rates are especially high for black, Pakistanis and Bangladeshi groups.

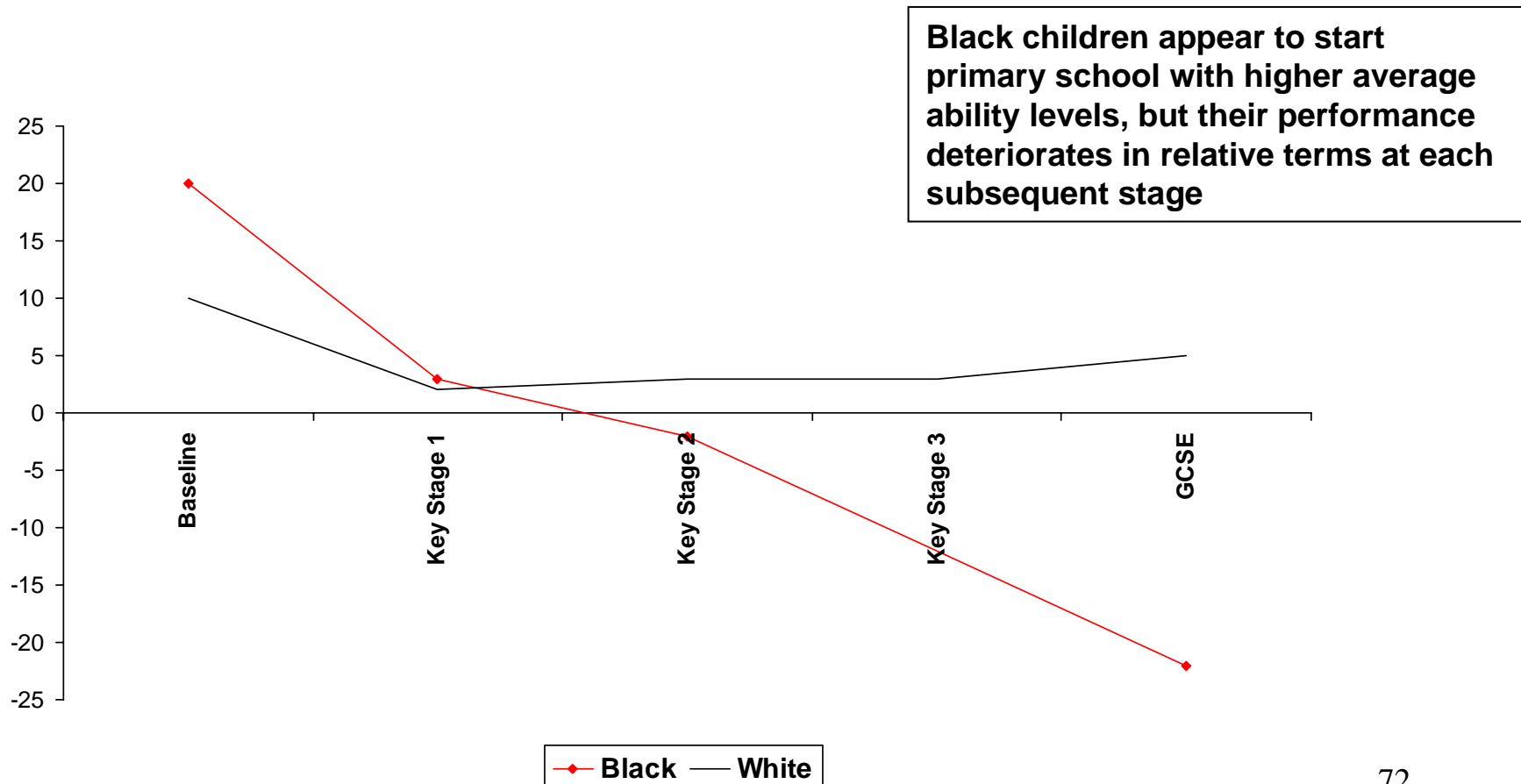
Attainment varies substantially between different ethnic minorities.

PROPORTION OF ETHNIC GROUPS ATTAINING AT LEAST 5 A*-C GRADE GCSE



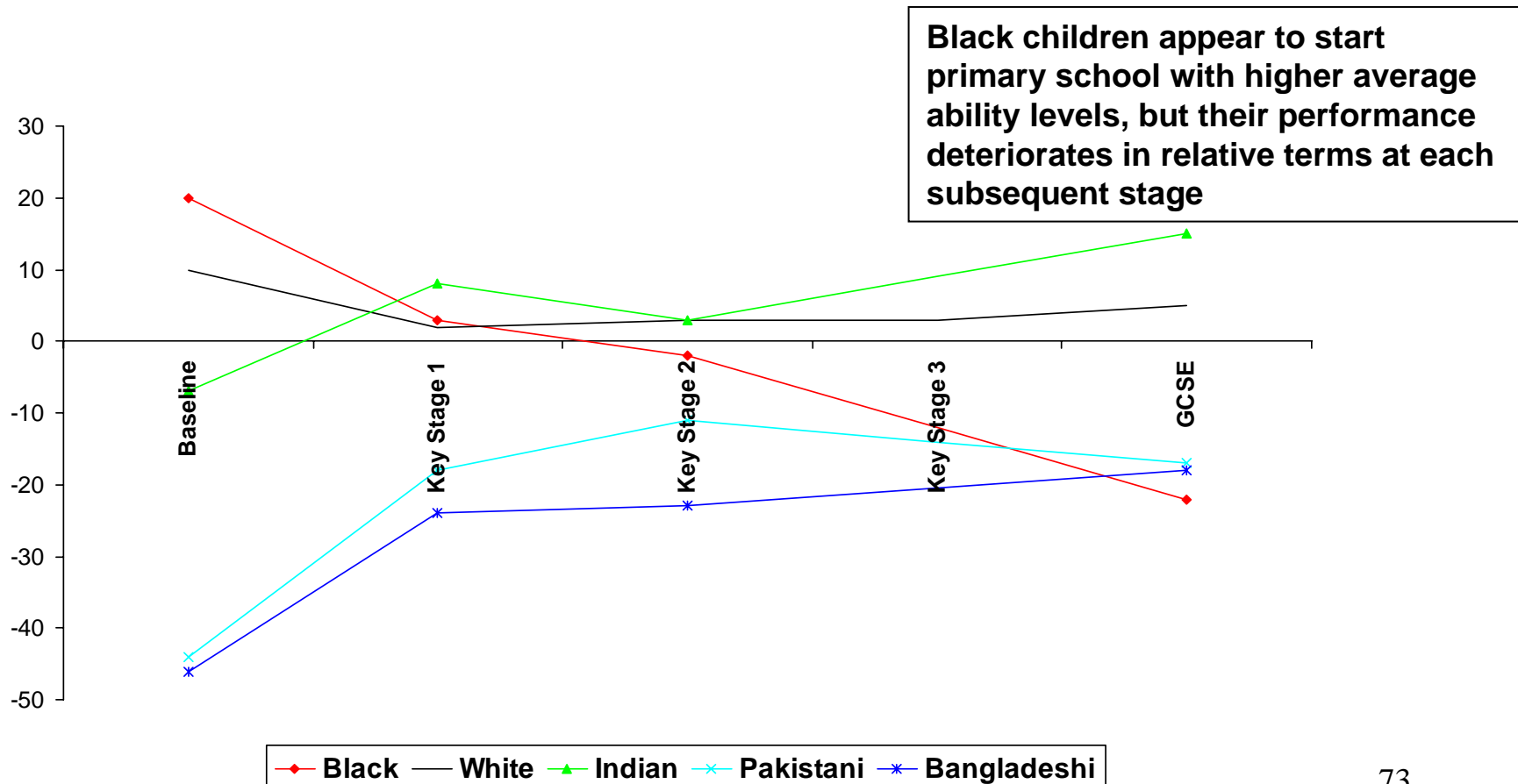
Black children - despite starting above average - soon fall behind.

INEQUALITIES FROM BASELINE TO GCSE BY ETHNIC ORIGIN IN RELATION TO LEA AVERAGE



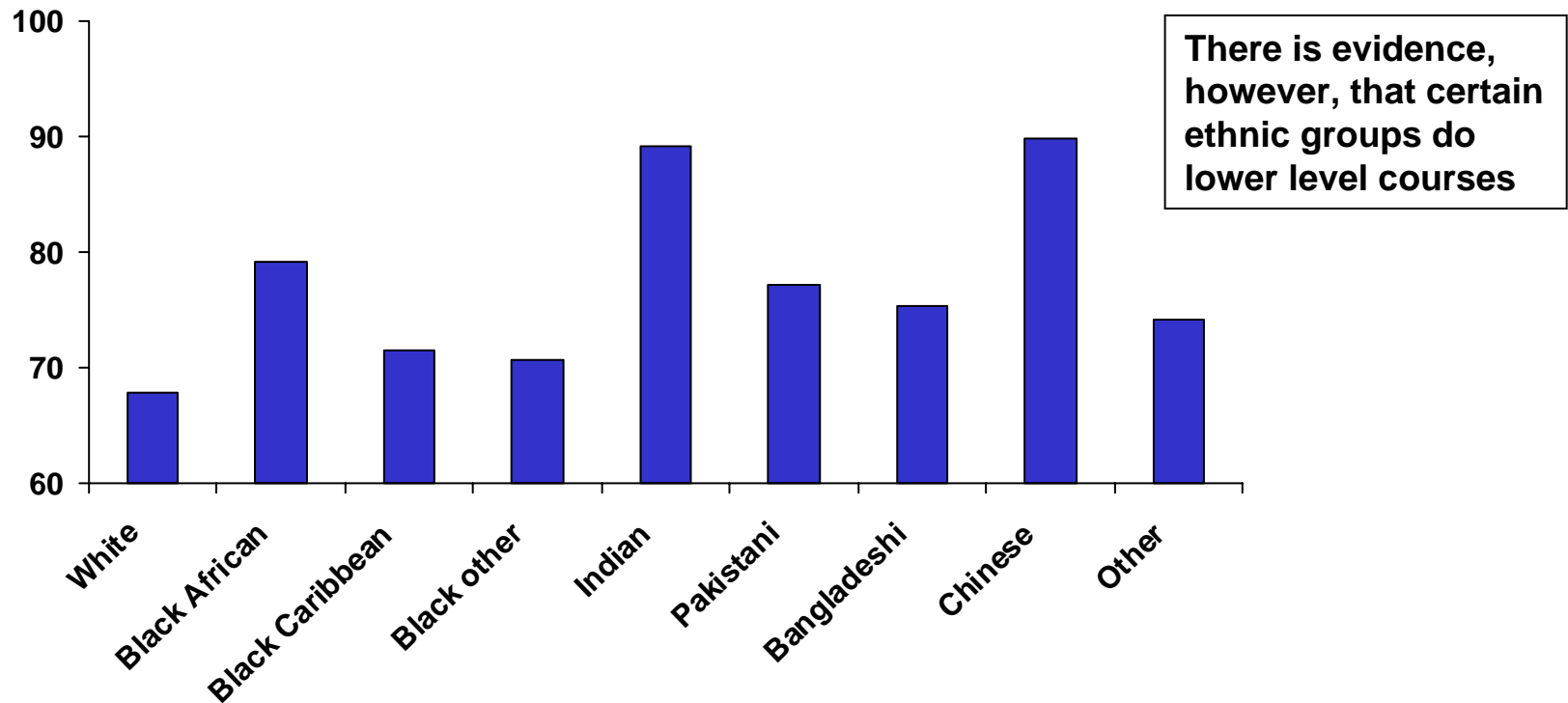
The relative performance of ethnic minorities varies with age.

INEQUALITIES FROM BASELINE TO GCSE BY ETHNIC ORIGIN IN RELATION TO LEA AVERAGE



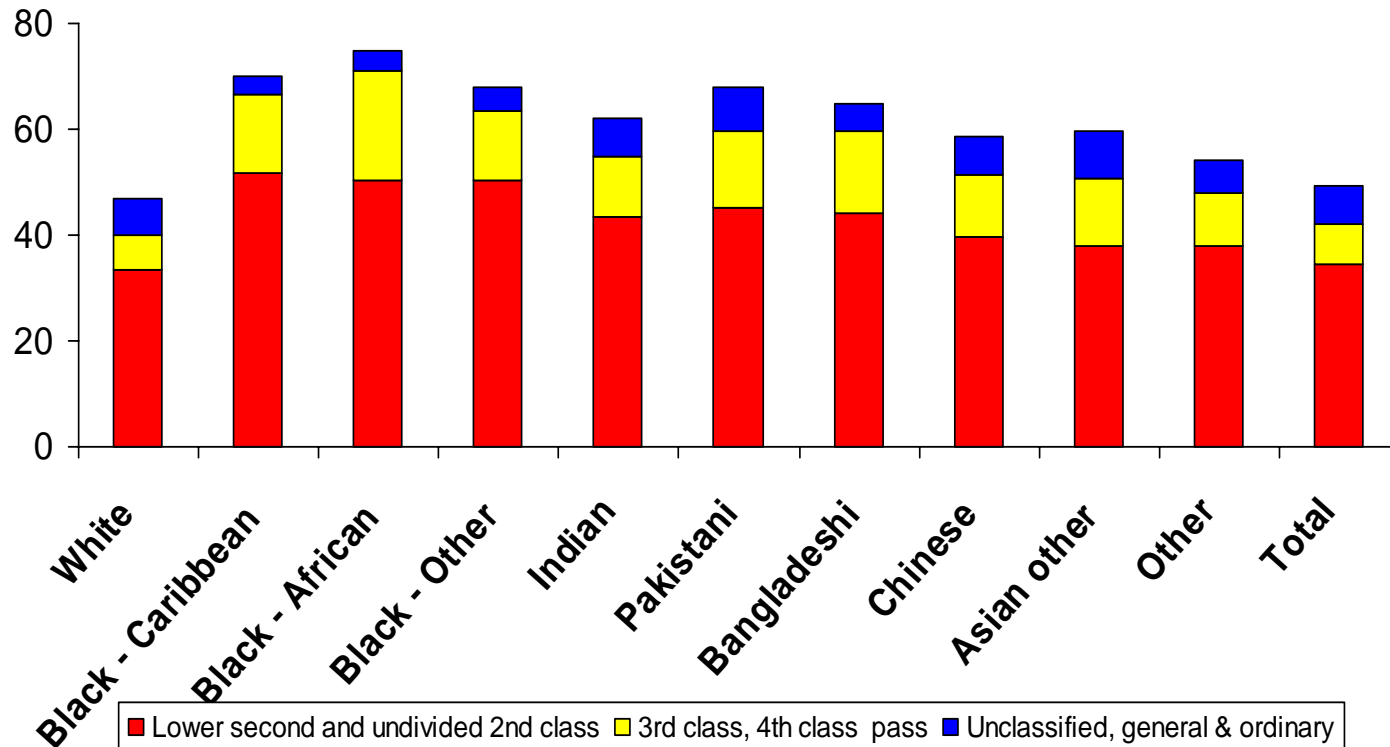
All ethnic minorities have higher post-16 participation rates than whites...

% IN FULL TIME EDUCATION



...but ethnic minorities tend to achieve lower HE qualifications than whites.

% OF STUDENTES ACHIEVING 2.2 OR LOWER IN GB HIGHER EDUCATION INSTITUTIONS 1998/99



Early Failures

- There is growing evidence that prior attainment dominates social background as a causal factor in subsequent educational performance.
- For instance, a socially disadvantaged child who achieves the expected educational standard at age 11 and continues to do so until age 16 is almost as likely thereafter to succeed at A level and go into HE as children from higher socio-economic groups.
- The corollary is clearly that those who "fail" at an early stage struggle to recover. Those who fail to achieve the required standard at 11 are highly likely to keep failing - especially if they come from socially disadvantaged backgrounds.

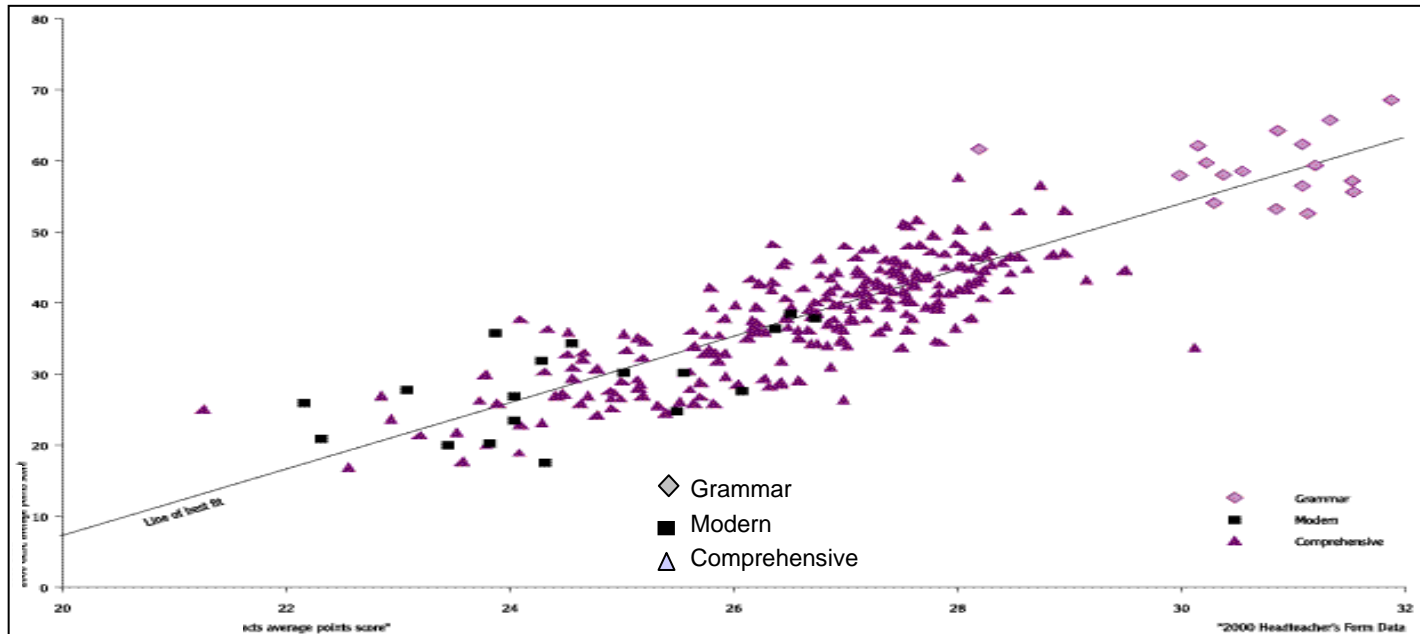
There is a clear correlation between prior attainment and current achievement.

INFLUENCE OF PRIOR ATTAINMENT ON GCSE SCORES

Average points score

U.K. 2000 correlation

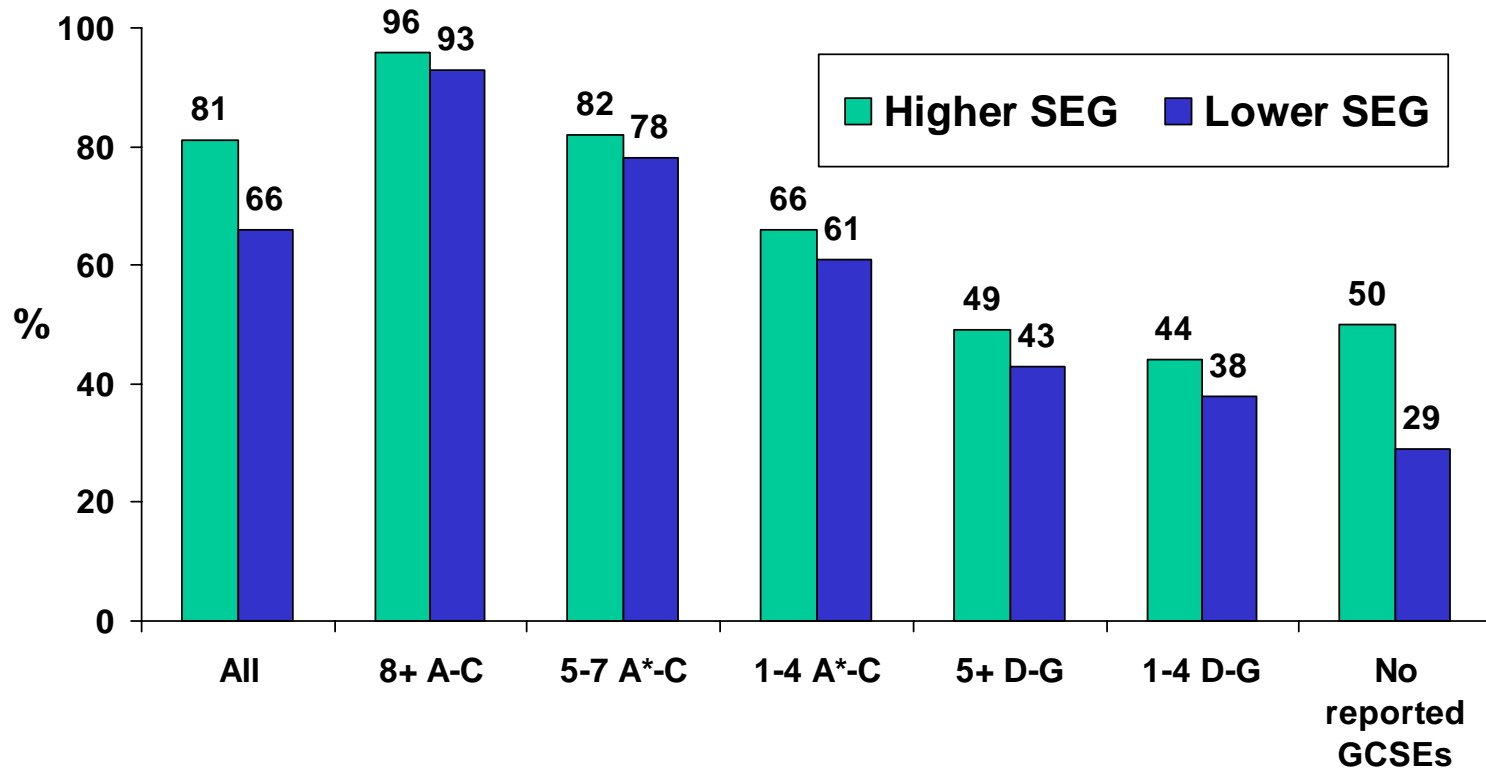
2000
Average
GCSE
points
scores



1999 key stage 2 all core subjects average
points scores*

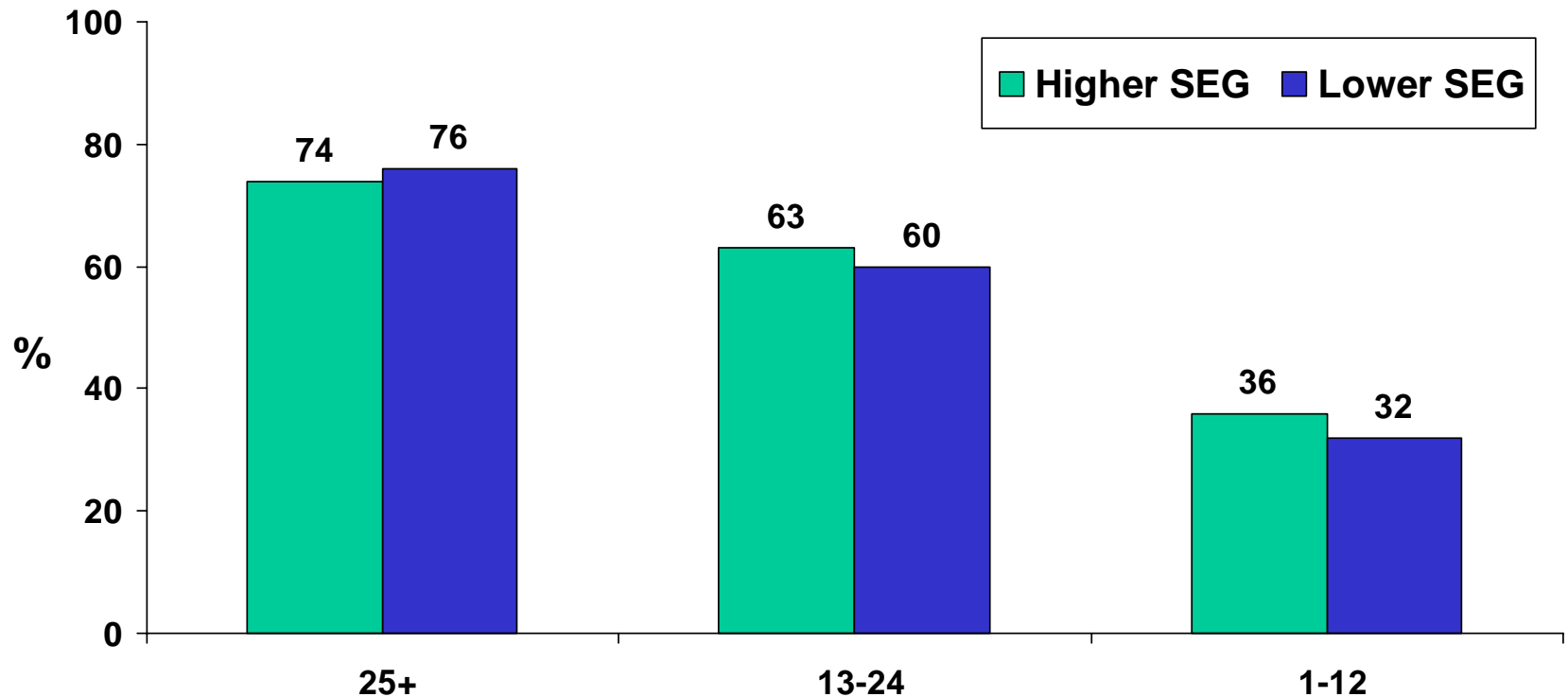
Academic achievement overcomes the impact of social background when looking at participation in education.

PROPORTION IN FT EDUCATION AT 16 BY YEAR 11 ATTAINMENT AND PARENTS' SEG



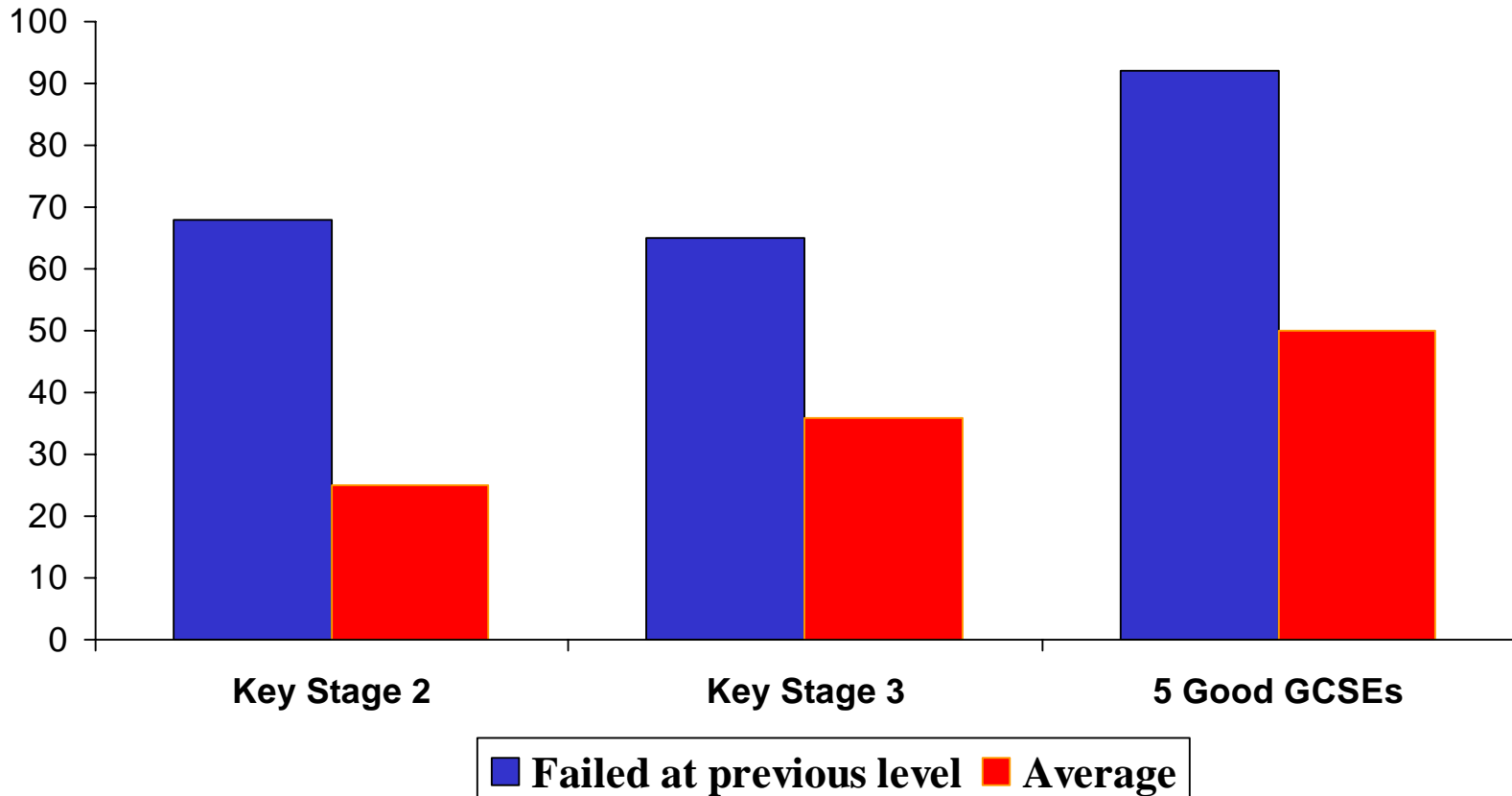
Similarly, the influence of prior attainment is higher than that of social background on HE participation.

PARTICIPATION IN HE AT 18 BY A LEVEL POINT SCORE AND PARENTS' SEG



Once a child falls behind, it is incredibly hard to catch up.

% CHANCE OF FAILURE

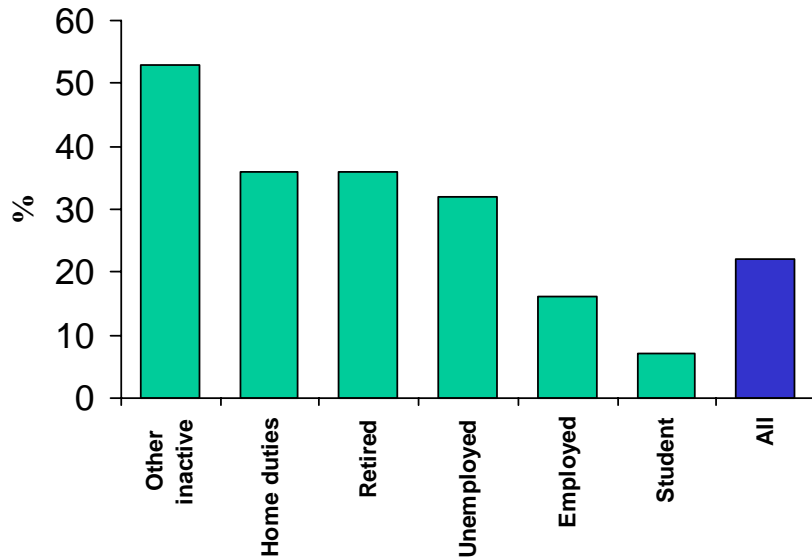


Unskilled Adults

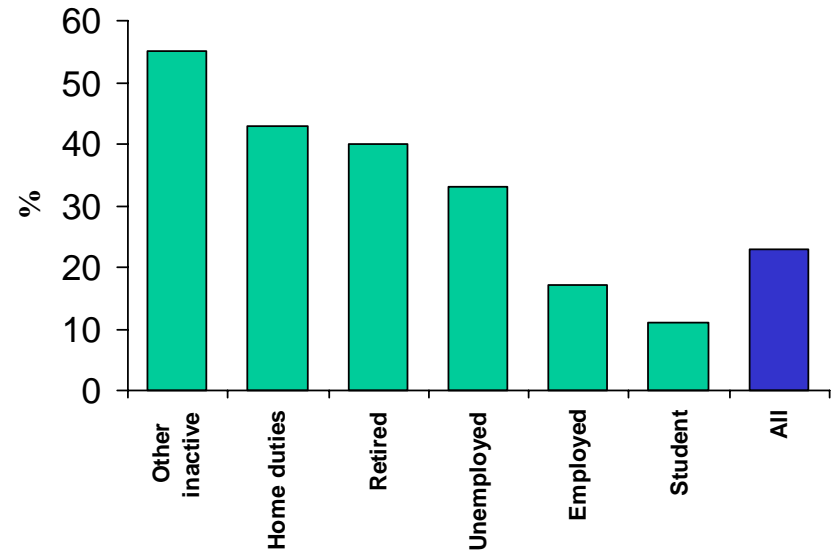
- Seven million adults can't read or count as well as an 11 year old, e.g. they cannot read a medicine bottle or calculate the correct change after a simple purchase in a shop.
- Those with no qualifications remain negative about the value of education and training. However, even those with low qualifications recognise the value they offer.
- A significant proportion of adults do not recognise that they have problems with literacy or numeracy. Self awareness is needed if they are to make demands of the education system.
- Employers complain about the low level of ability and lack of basic and soft skills (e.g. communication, team working) amongst prospective employees at all levels, including graduates.
- This low skill legacy may explain part of the productivity gap with our major competitors.

Seven million adults - one in five- have literacy and numeracy skills below those expected for an 11 year old.

Prose Literacy Level by Economic Status



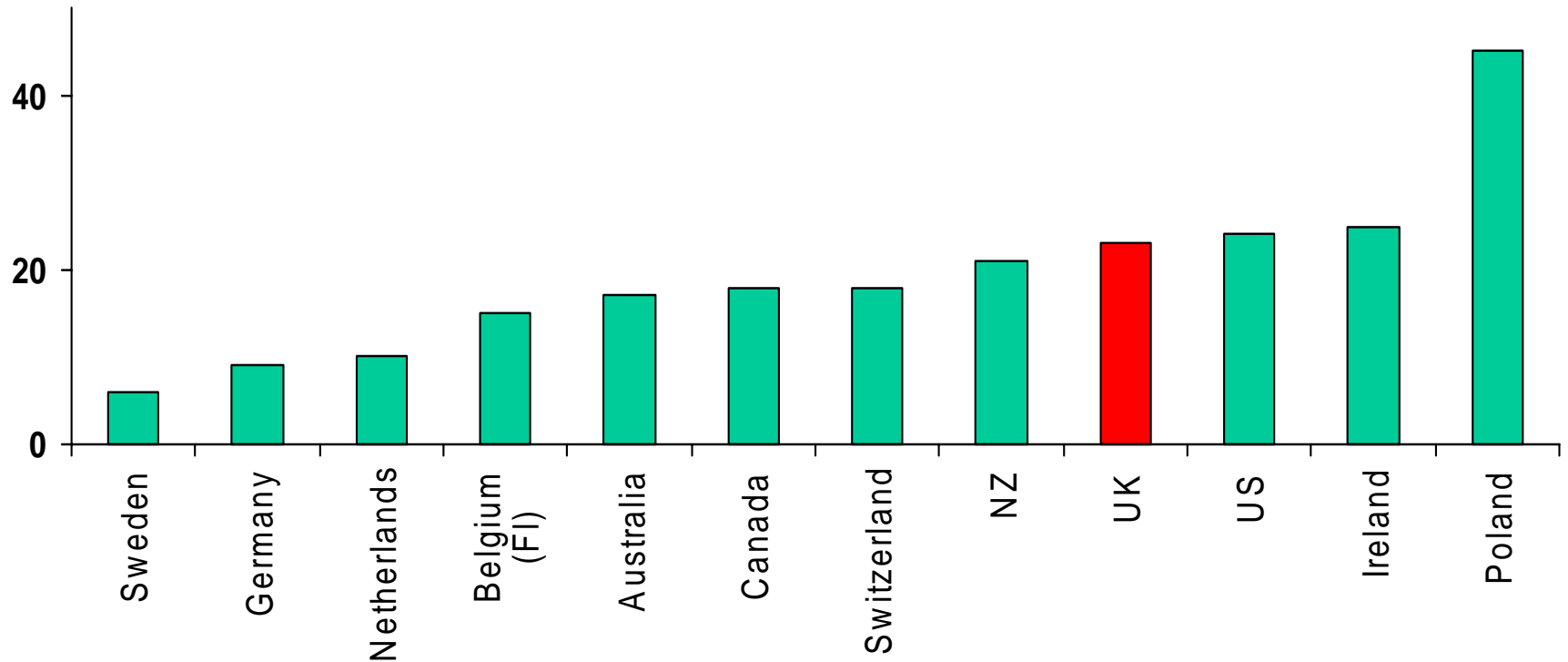
Quantitative Literacy Level by Economic Status



It has been estimated that a fifth of the working age population cannot read the instructions on a medicine bottle or calculate the correct change after a simple purchase in a shop

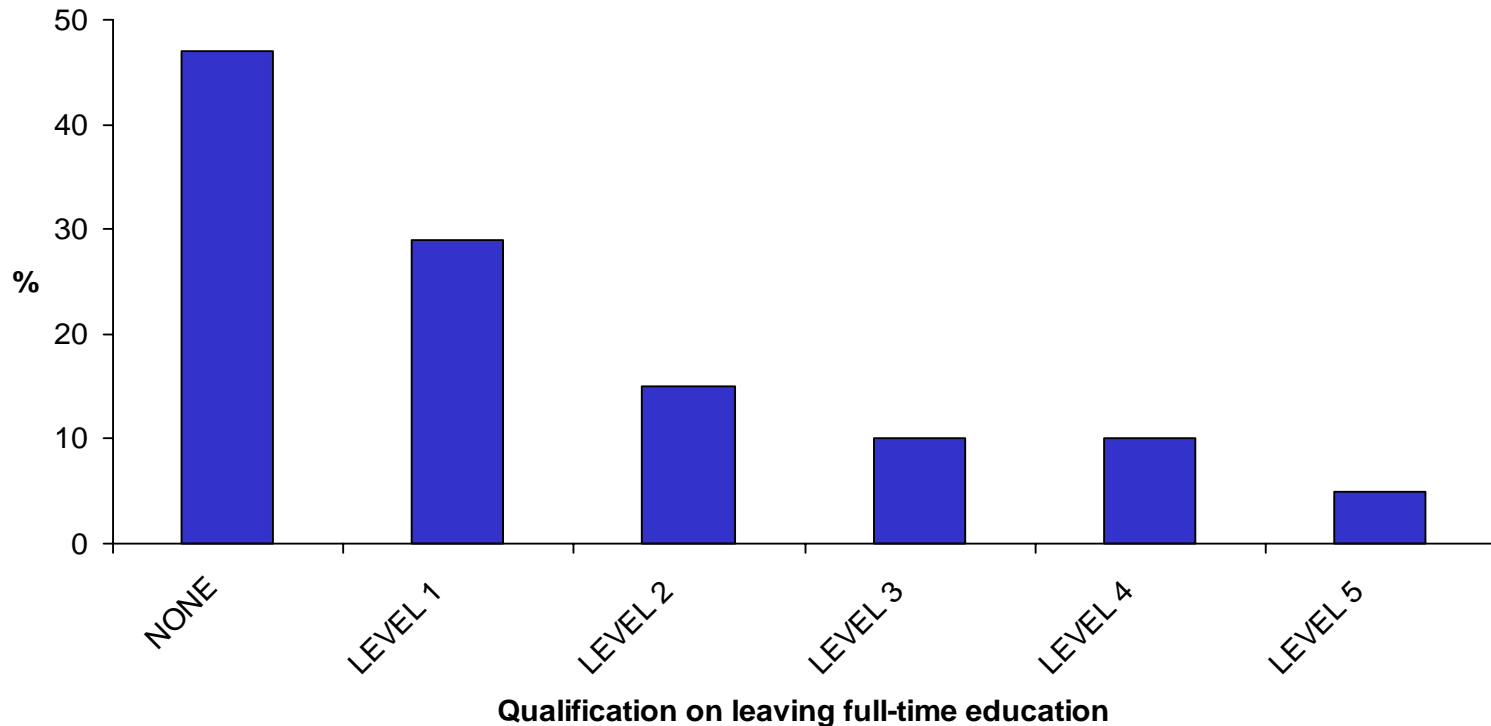
Our adult literacy standards are low as a legacy of past under-performance.

PERCENTAGE OF THE POPULATION, 16 TO 65, AT LITERACY LEVEL 1 (1994-95)



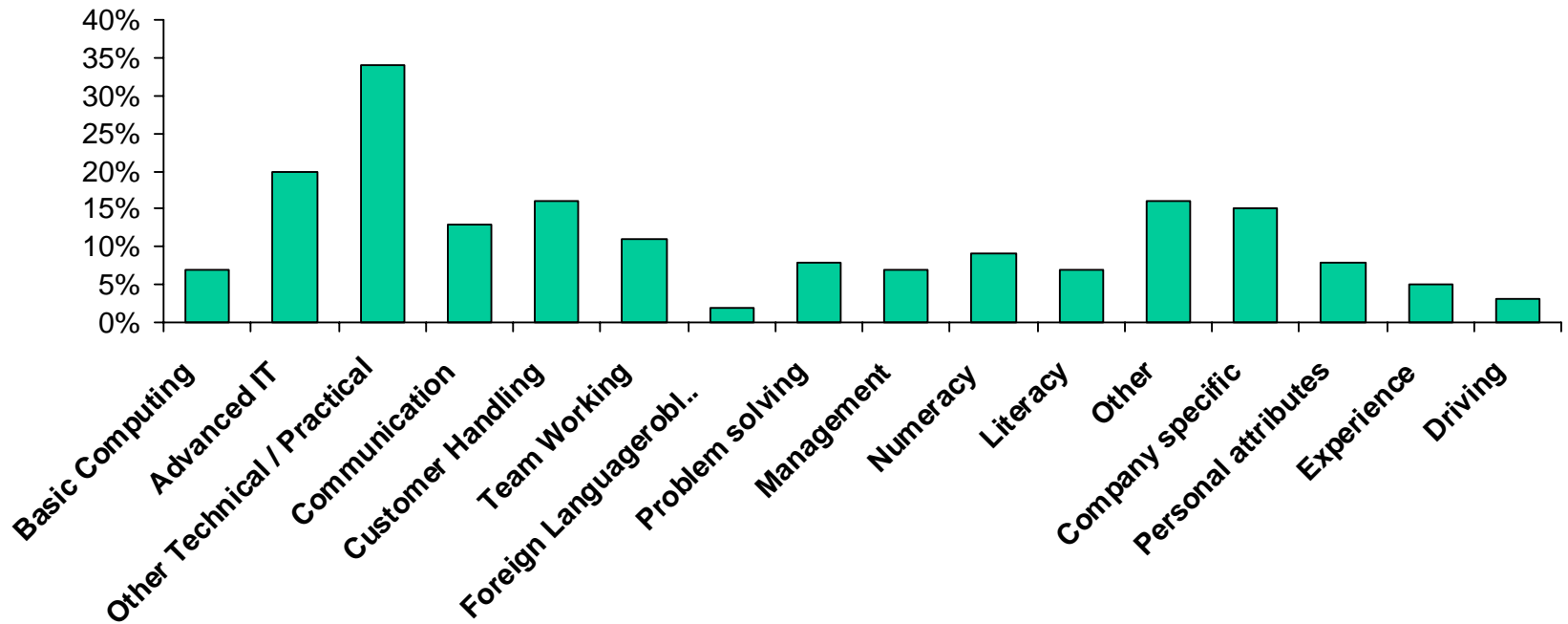
Those most in need of “up-skilling” are least likely to participate in lifelong learning.

% OF ADULTS NOT ENGAGED IN LEARNING BY PRIOR QUALIFICATION LEVEL



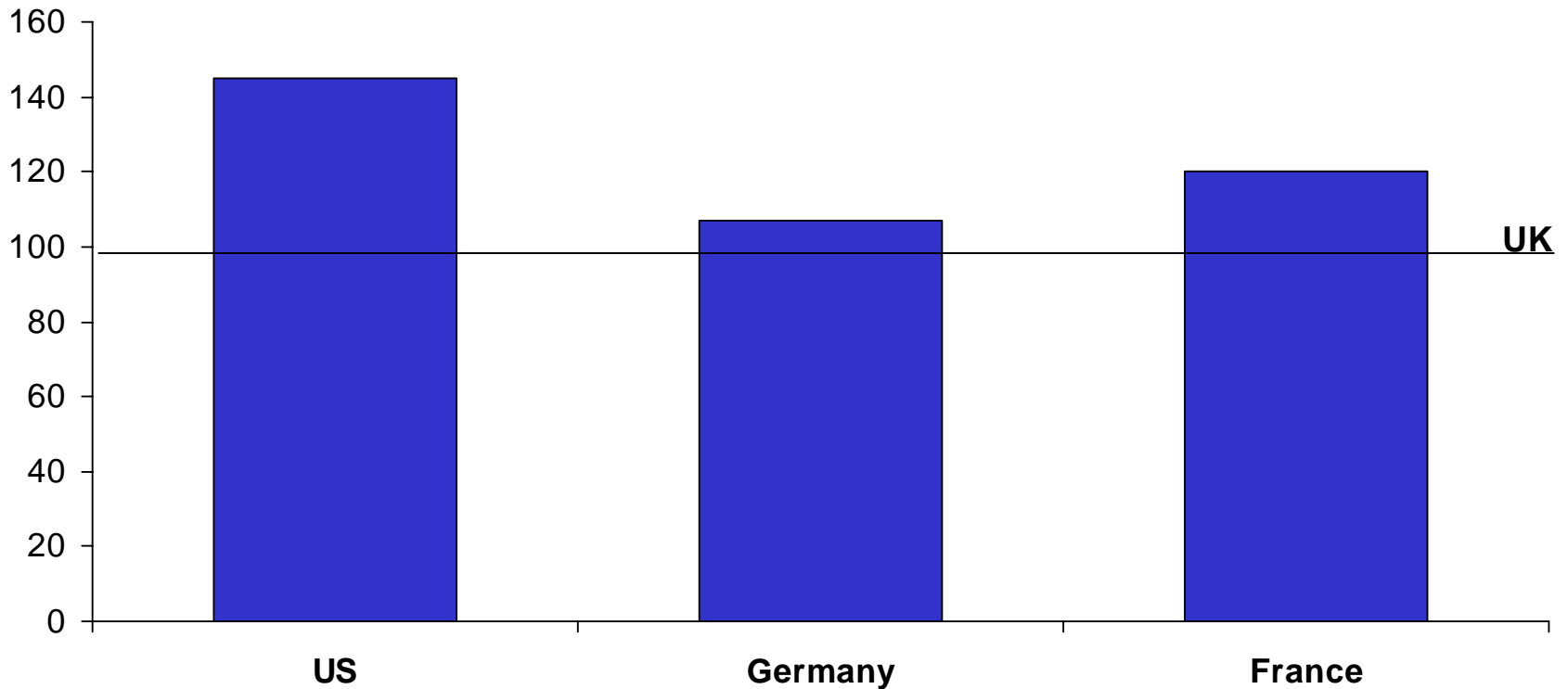
Many employers are looking for a range of skills, including basic and soft skills.

SKILLS SOUGHT IN CONNECTION WITH SKILL SHORTAGE VACANCIES: % OF ALL SKILL SHORTAGE VACANCIES



Our low standing in adult skills may explain a large part of the international productivity gap.

OUTPUT PER WORKER 1995 AND 1999 (UK=100)

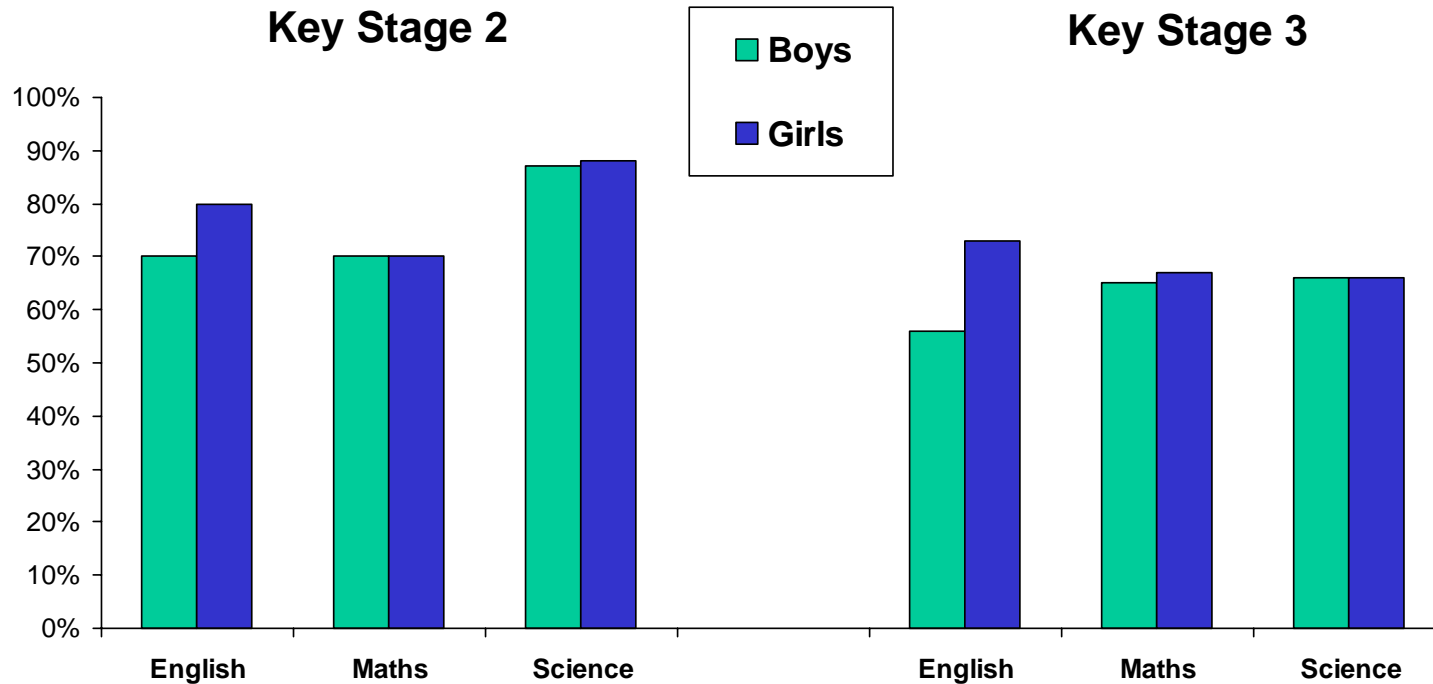


Boys (in comparison with girls)

- Girls outperform boys at Key Stage 2 and 3 in English, and get 15% higher average points scores at GCSE, and over 5% more at A level.
- Why do boys do less well?
 - Possibly biology – girls have bigger brains – or at least a larger corpus callosum, the bit that links left and right hemispheres.
 - Type of task – girls do well with sustained, open-ended tasks requiring reflection, boys prefer focused tasks with clear goals. This means girls tend to do better with coursework.
 - Perceptions of the male/female roles may play a part.
- Pupils permanently excluded from school are far more likely to be boys than girls. 84.5% of the permanently excluded pupils in 1999/2000 were boys - and black Caribbean boys are four times more likely to be excluded than White boys.
- Girls are as likely as boys to play truant.

Girls outperform boys at Key Stage 2 and 3 in English...

PUPILS ACHIEVING EXPECTED LEVEL* OR BETTER IN KEY STAGE 2 AND 3 TESTS BY GENDER, 2001

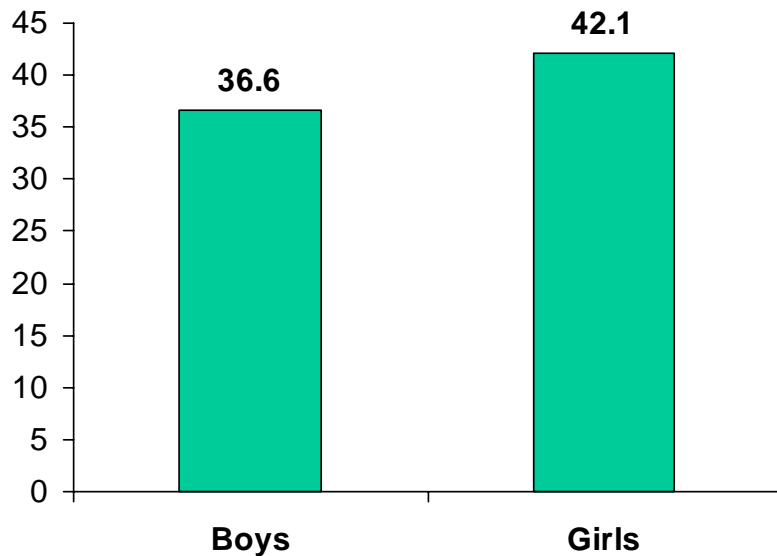


Source: DfES, Statistical First Release 'National Curriculum assessments of 7,11 and 14 year olds by local education authority, 2001

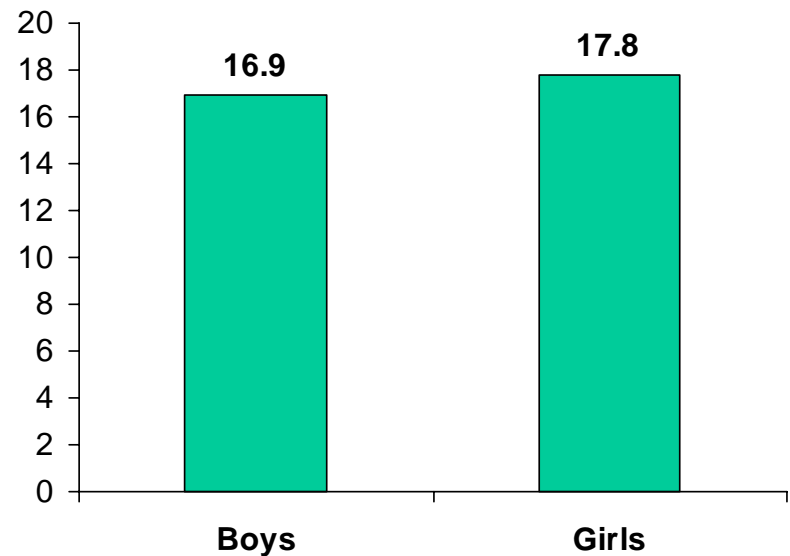
* Expected levels are 4 at key stage 2 and 5 at key stage 3

... and get 15% higher average points scores at GCSE, and over 5% more at A-level.

AVERAGE GCSE / GNVQ POINTS SCORE OF 15 YEAR OLD PUPILS BY GENDER

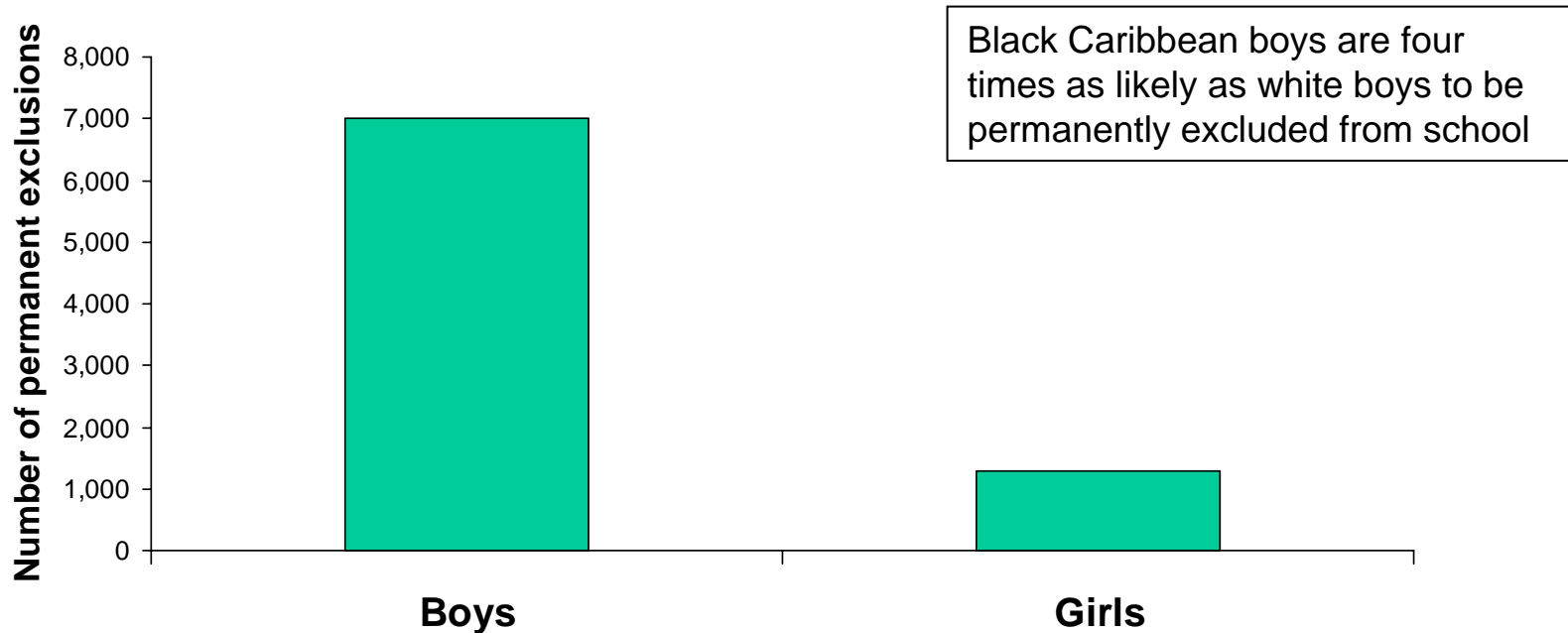


AVERAGE GCE A / AS / VCE / AGNVQ POINTS SCORE OF 17-18 YEAR OLD PUPILS BY GENDER



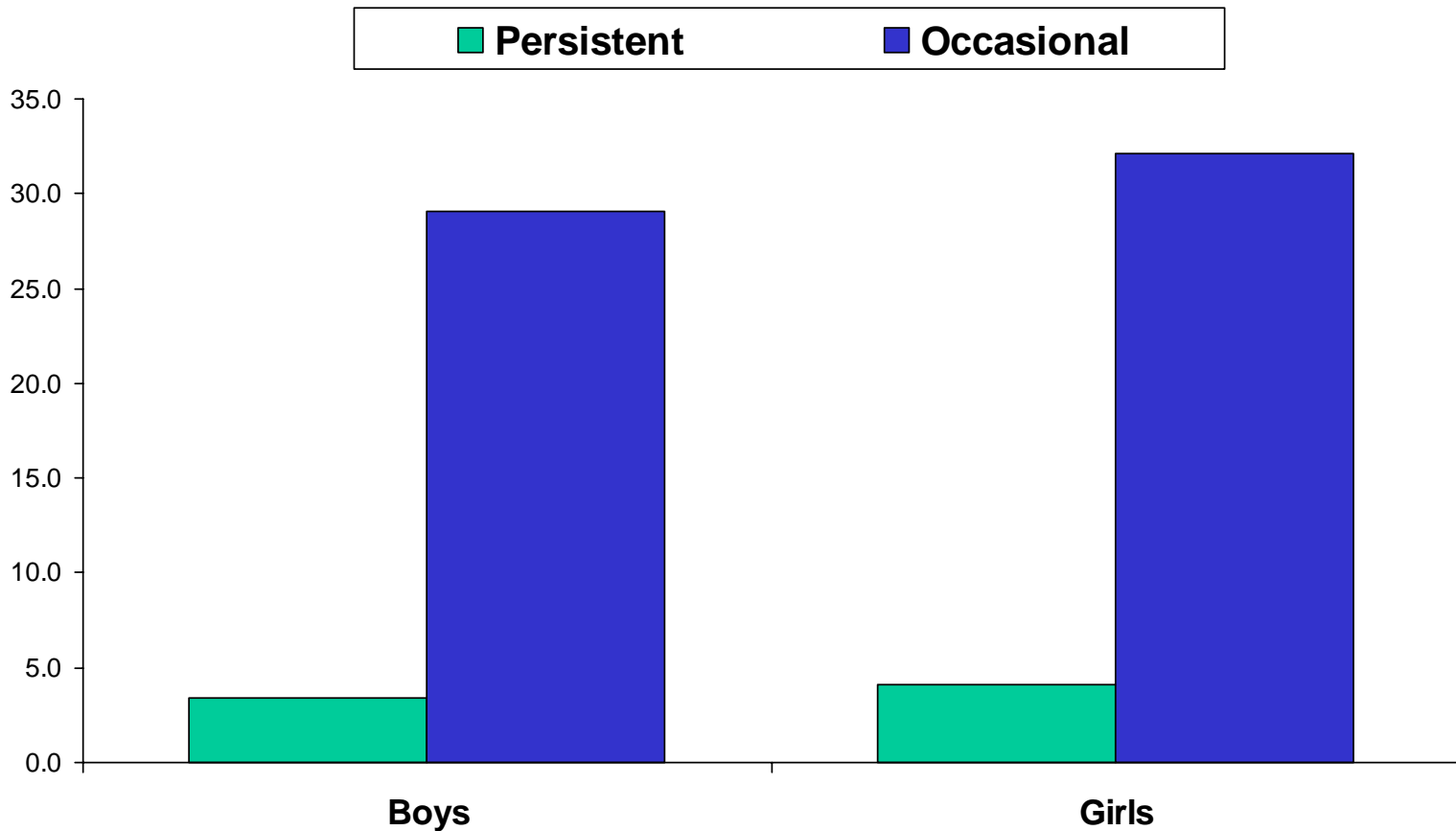
Pupils permanently excluded from school are far more likely to be boys than girls.

Permanent exclusions 1999/2000



Whilst girls are as likely as boys to “play truant”.

PERCENTAGE OF 16 YEAR OLDS WHO RECALL PLAYING TRUANT IN YEAR 11

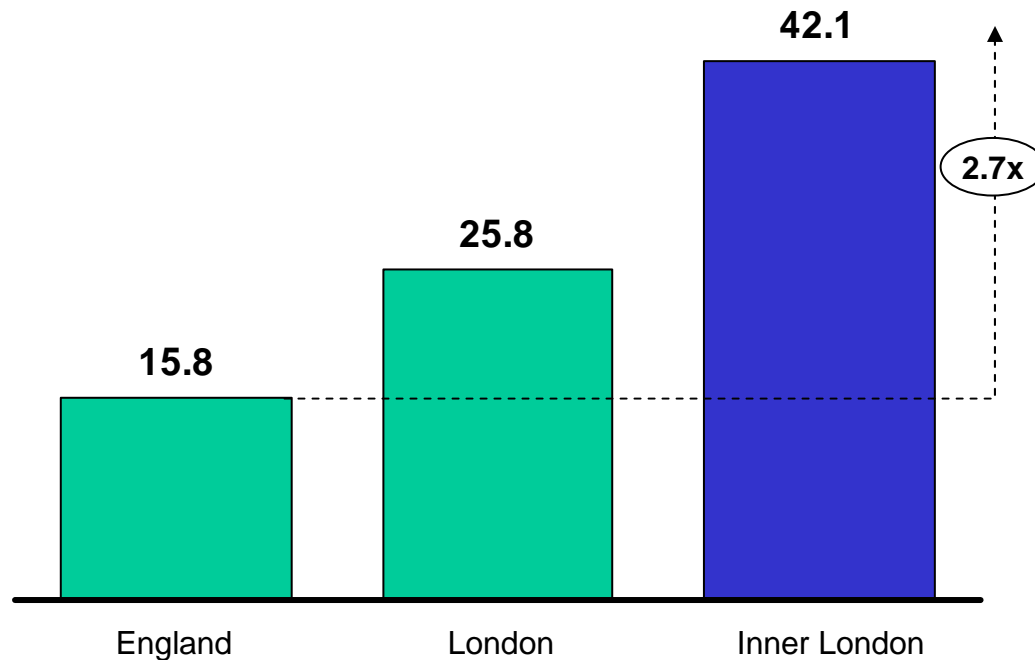


Londoners

- Inner London concentrates all the elements of disadvantage which appear to drive educational under performance.
- 2½ times more London pupils are eligible for free school meals as in England as a whole.
- London has 2½ times the national average ethnic minority population, 10 times higher than some regions.
- More London schools perform significantly worse than the national average.
- Londoners exhibit greater mobility, with twice as many pupils joining and leaving classes/schools than elsewhere in the country.
- London has over seven times the national average number of teacher vacancies in the most deprived boroughs (over half of all teacher vacancies are in London and the South East).
- Perhaps as a result of this, twice as many London children attend independent schools as the national average (15% versus 7%).

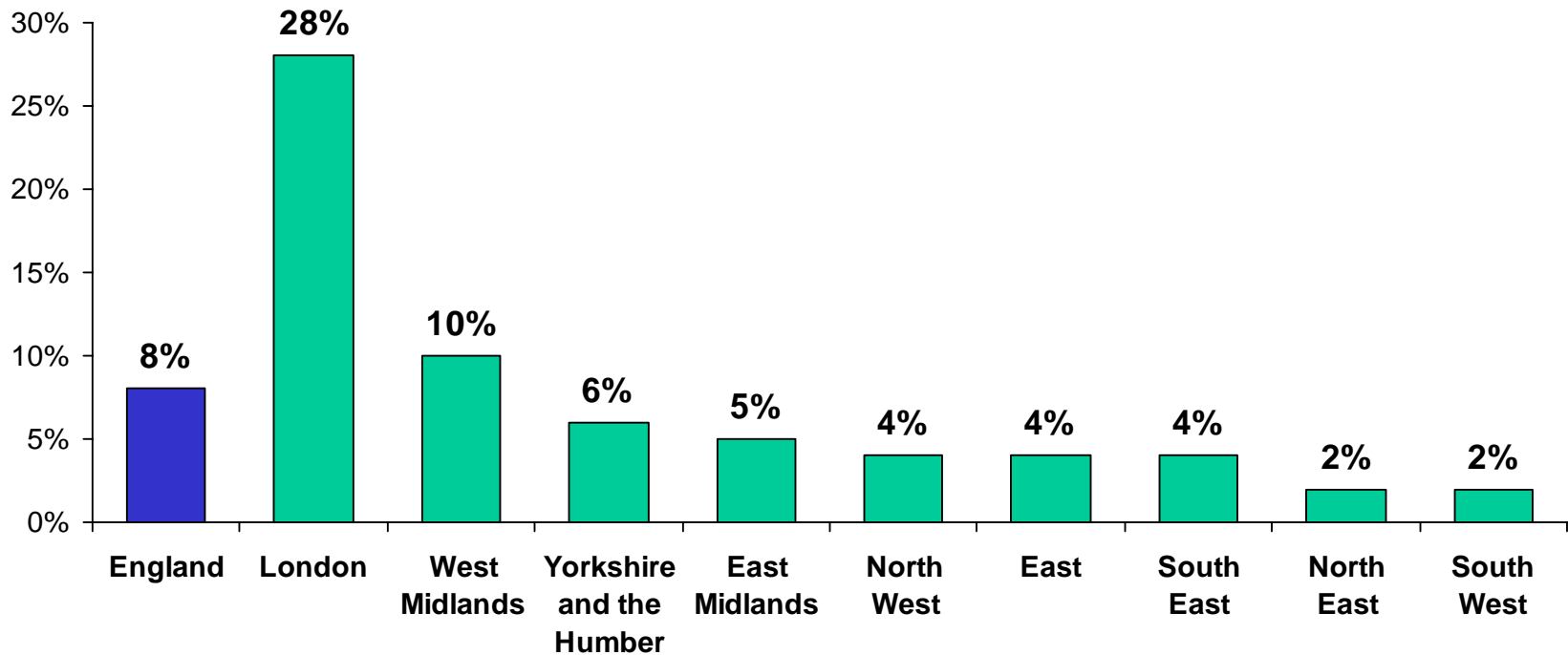
In Inner London 2½ times more pupils are eligible for free school meals than in England as a whole.

% OF SCHOOL PUPILS ELIGIBLE FOR FREE SCHOOL MEALS (2001)



London has 2½ times the national average ethnic minority population - 10 times higher than some regions.

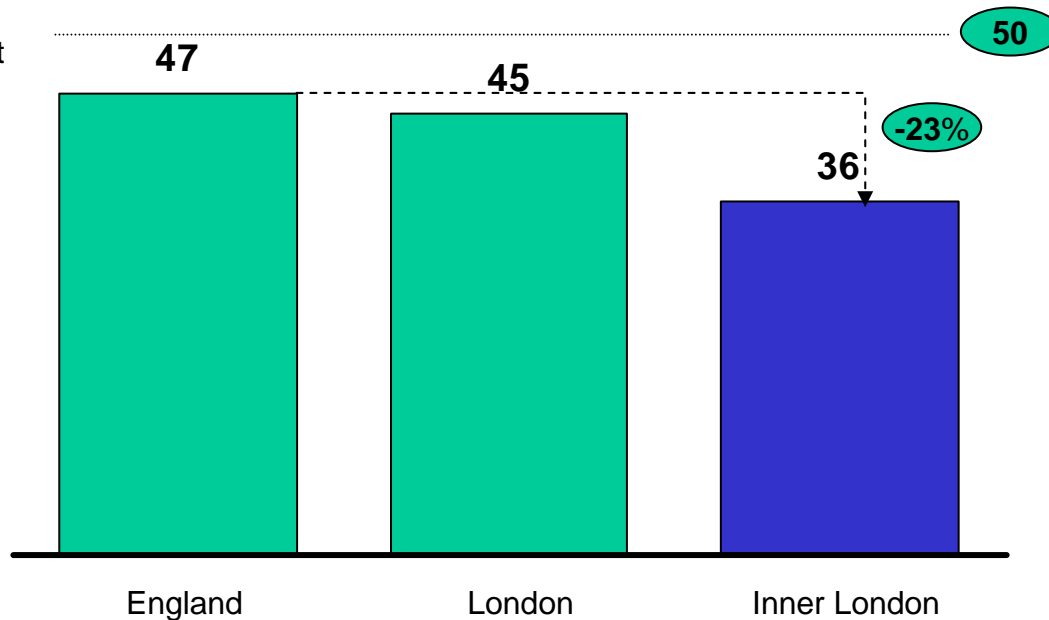
ETHNIC MINORITY POPULATION AS A PERCENTAGE OF TOTAL POPULATION



The average performance of London schools is worse than the national average.

% 15 YEAR OLD* MAINTAINED SCHOOL** PUPILS ACHIEVING 5+ A*-C GCSE (2000)

2002 National learning target



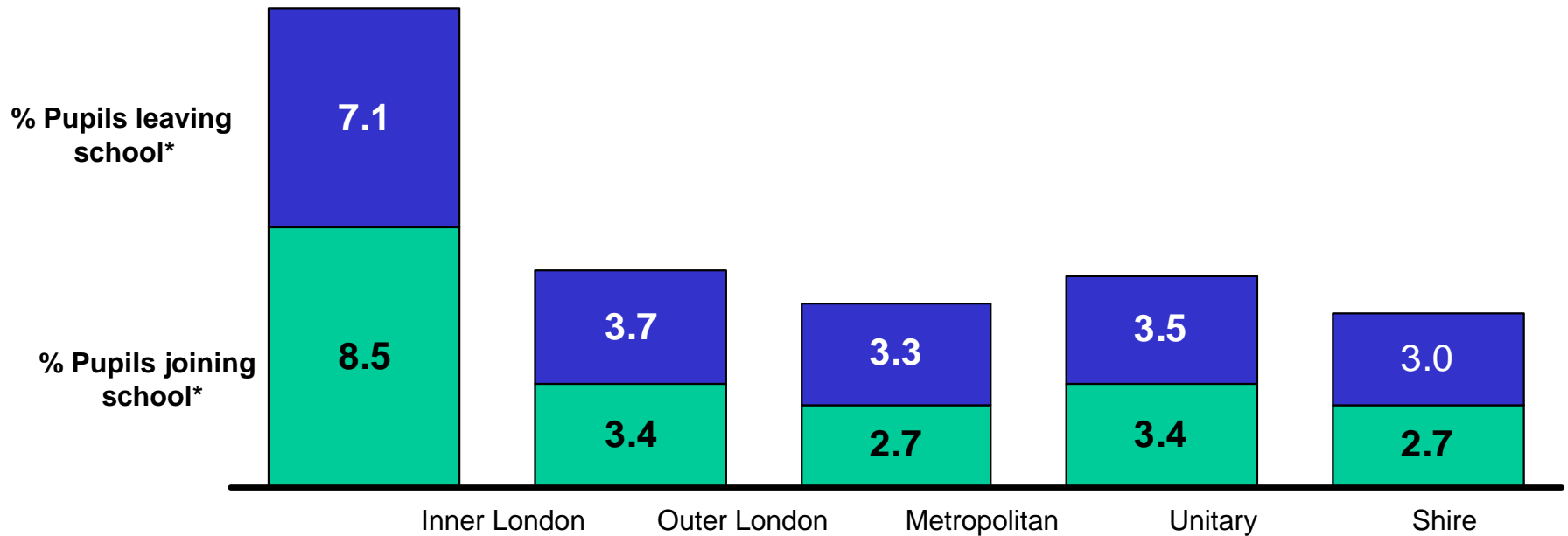
25% of all children in England are taught in London

* Who are entered for 5+ GCSEs

**Including City technology colleges and maintained special schools

There are high levels of inter school mobility in London.

MOBILITY IN ENGLISH SECONDARY SCHOOLS

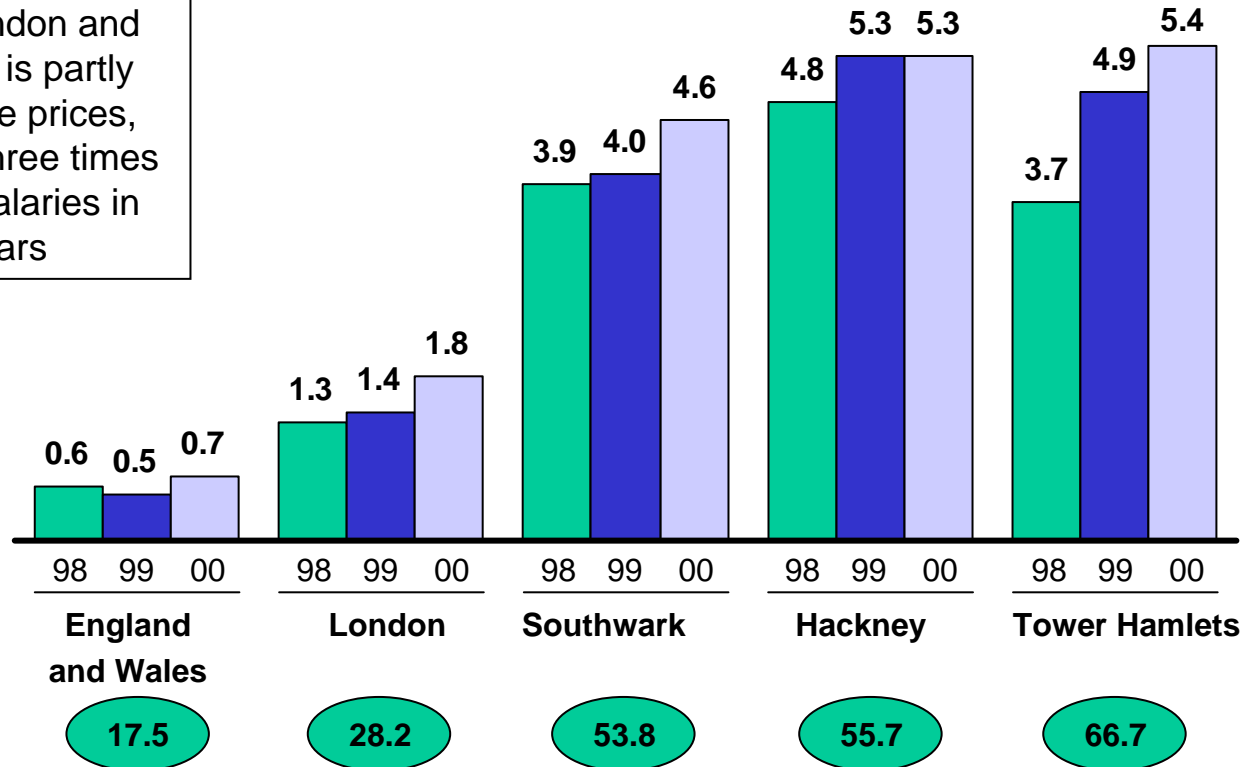


* Other than at the normal time

The most deprived London boroughs have over seven times the national average of teacher vacancies.

% TEACHER VACANCIES IN MAINTAINED SECONDARY SCHOOLS (JANUARY OF EACH YEAR)

Over half of all teacher vacancies are in London and the south east. This is partly due to London house prices, which have risen at three times the rate of teacher salaries in the last five years

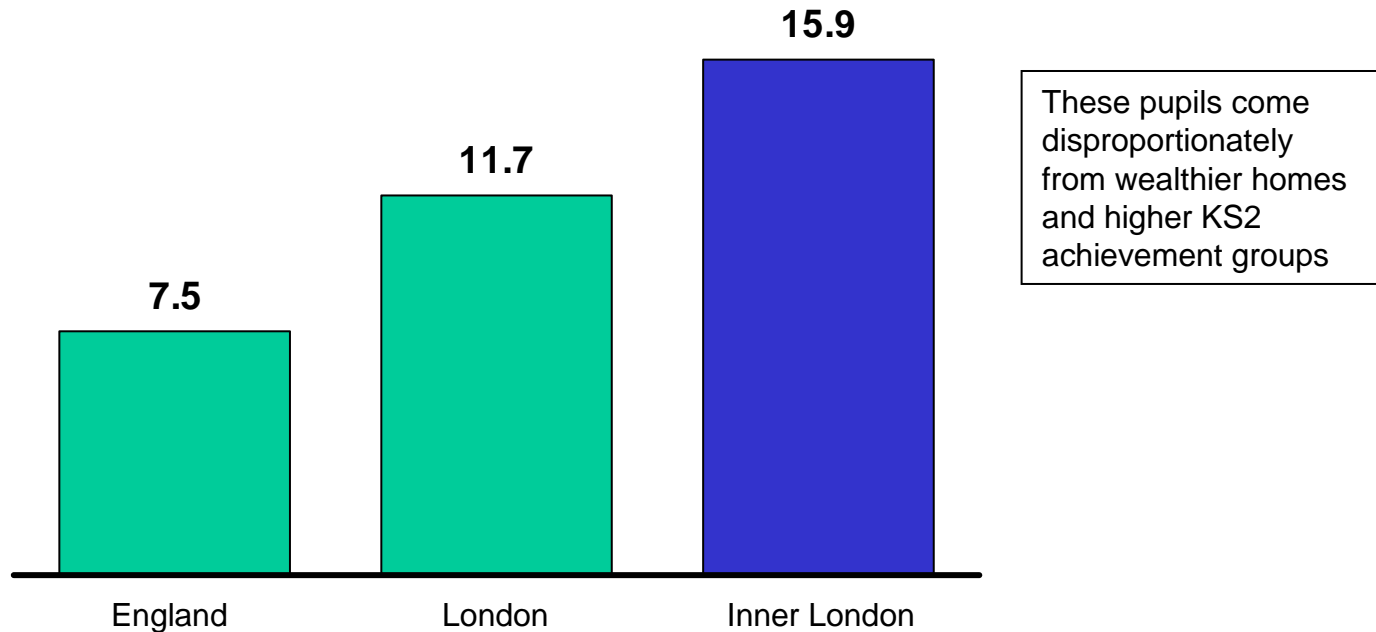


FSM*, %

* 1998 figures

Perhaps as a result of this, twice the national average of pupils in Inner London attend independent schools.

INDEPENDENT SCHOOL CHILDREN AS A PERCENTAGE OF MAINTAINED SCHOOL* CHILDREN, 2000



* Primary and secondary schools

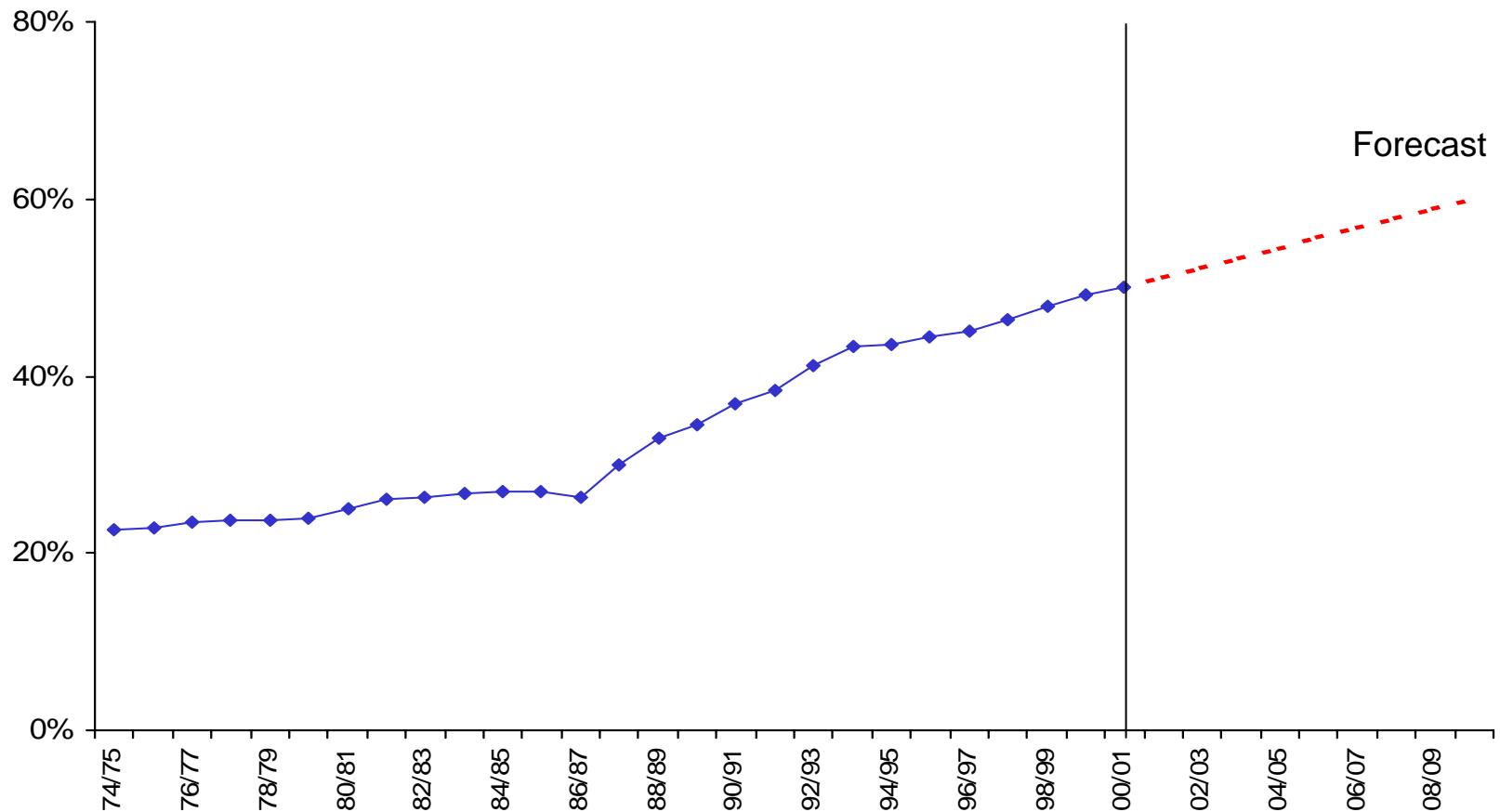
**Projections to 2010 indicate
the scale of the challenge**

In 2010 we may have...

- **30,000 children leaving school with no qualification at all.**
- **250,000 achieving less than 5 good GCSEs.**
- **200,000 children leaving education after 16.**
- **3.5 million adults with no qualifications.**
- **5.5 million adults unable to read an/or write to the level expected of an 11 year old.**
- **Employers will require 2 million more highly skilled workers.**

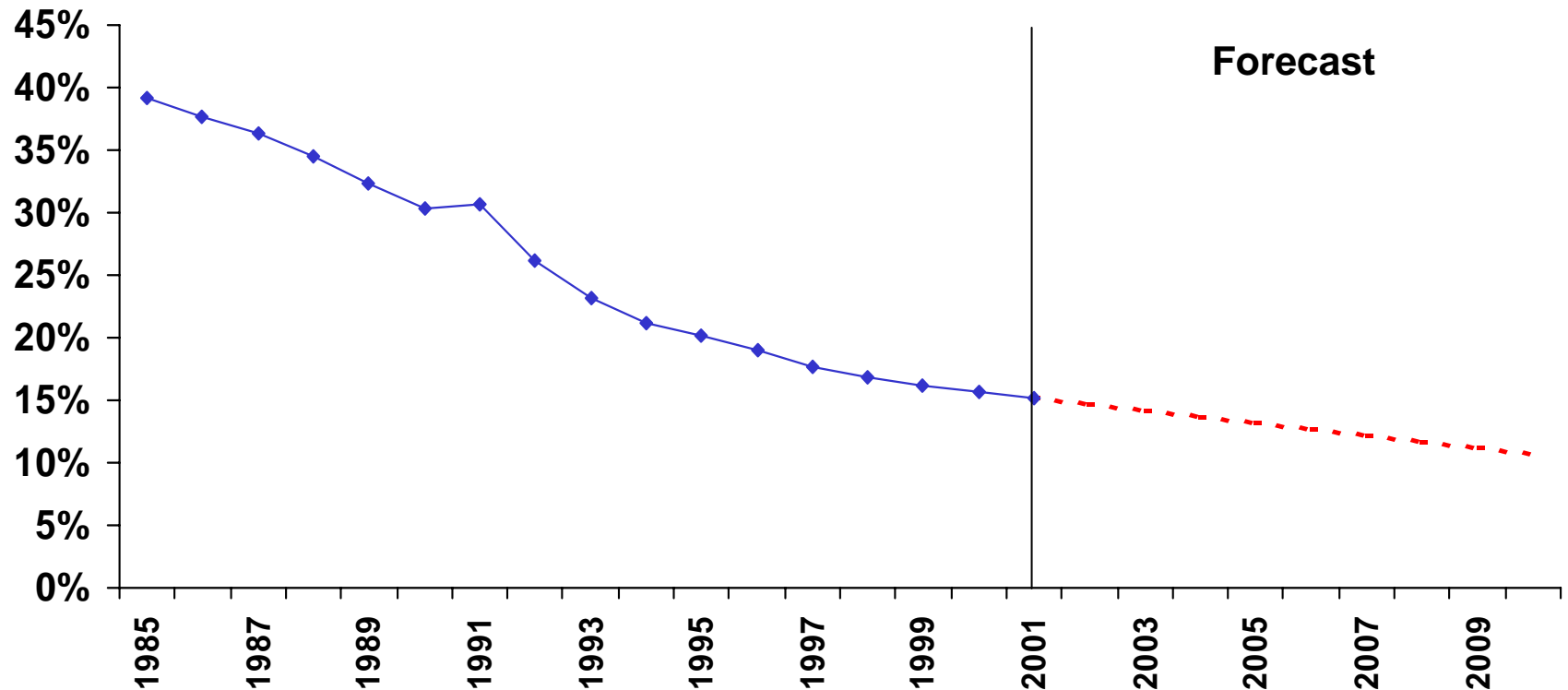
Continued progress in GCSE attainment will on current trends still leave 40% failing to reach the standard.

PROPORTION ACHIEVING 5+ GCSE (A*-C) AT AGE 15, ENGLAND



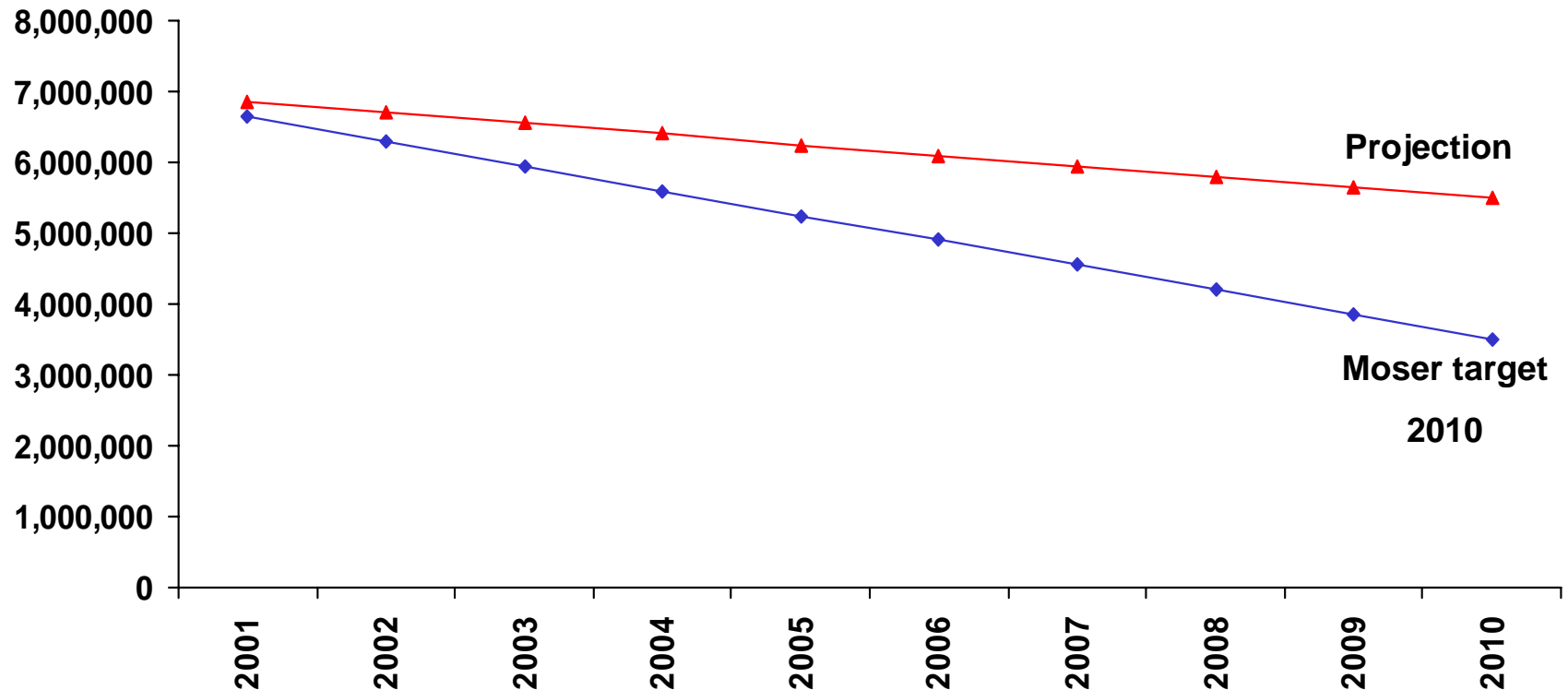
**...around 3.5million adults will have no qualifications,
11% of the total working population.**

% OF THE ADULT WORKING POPULATION WITH NO QUALIFICATIONS



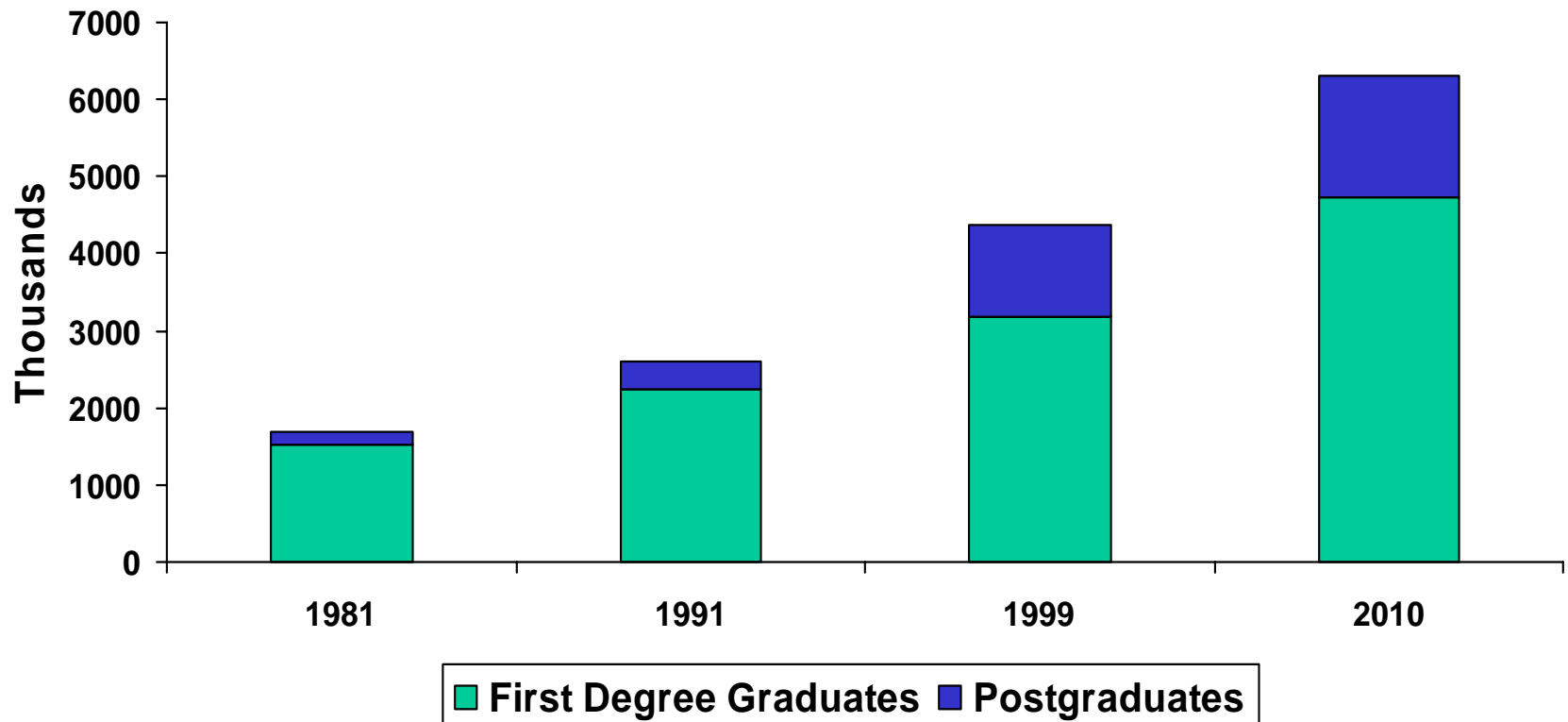
Even if the new policies reach the Moser target in 2010, that would still leave 3.5m without basic skills.

FORECAST REDUCTION IN THE NUMBER OF PEOPLE LACKING BASIC SKILLS



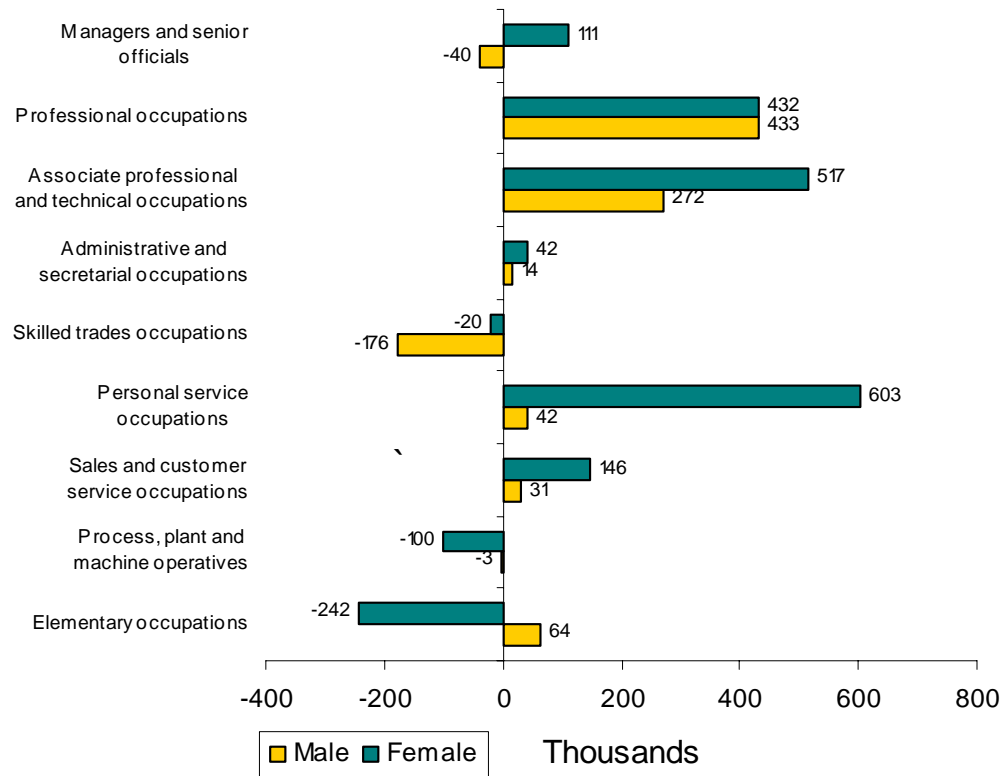
Employers' demand for highly skilled workers is set to increase by 2 million over the next decade.

EMPLOYMENT BY HIGHER LEVEL QUALIFICATION, GREAT BRITAIN - FORECAST



The majority will be in professional, associate professional and personal service occupations.

PROJECTED EMPLOYMENT CHANGE BY OCCUPATION



**To accelerate progress, we will
need to address some
underlying root causes**

To accelerate progress, we will need to address some underlying root causes.

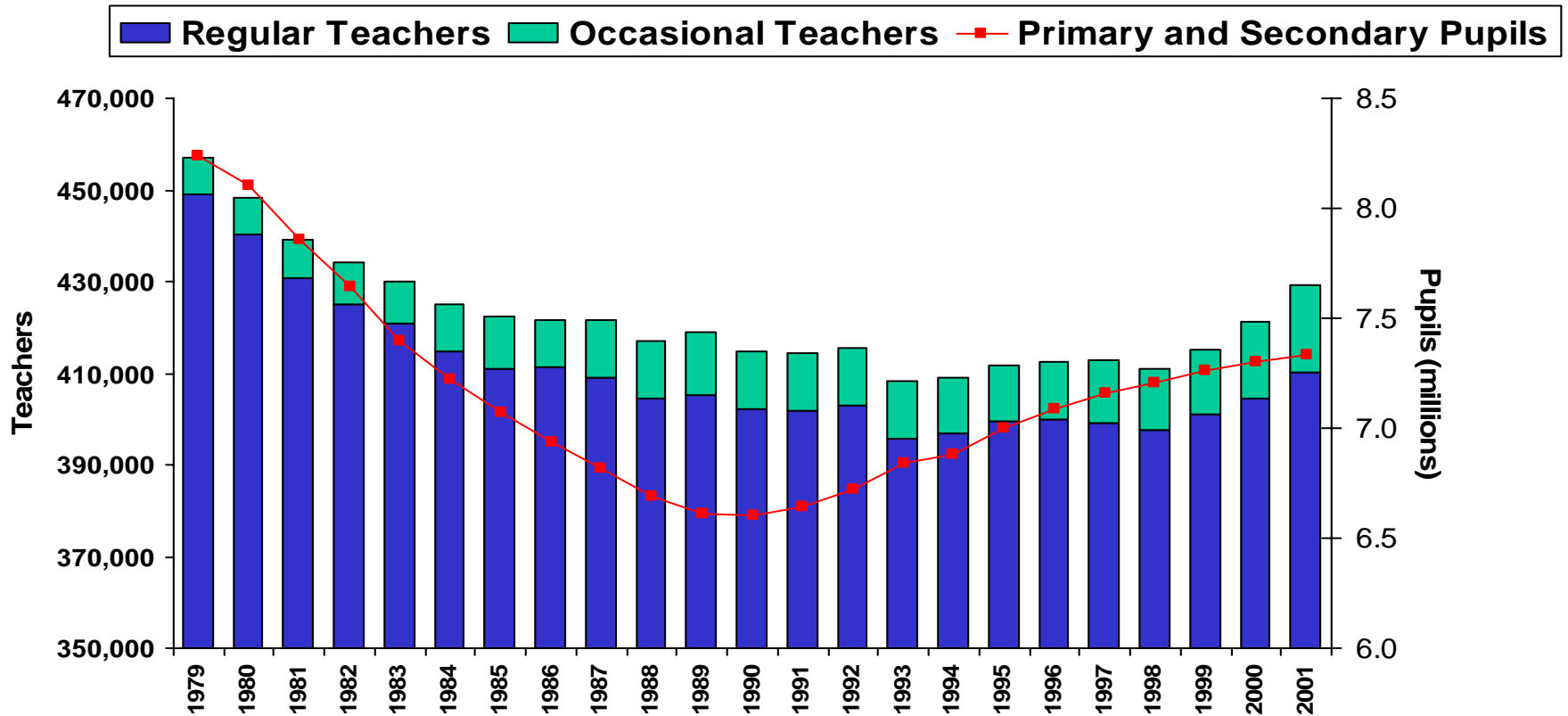
- The quantity, quality, motivation and methods of **teachers**.
- The variable standards of institutional **leadership**.
- The limitation of FE and **vocational provision**.
- The limited take-up and use of **technology**.
- The antiquated nature of educational **premises**.
- The impact of under-investment on current educational **spending**.

Teachers

- Teacher numbers have started to increase after a long period of decline, but pupil:teacher ratios have barely improved in 30 years.
- With a coming retirement bulge, the recruitment challenge may intensify, especially in key subjects like English, Maths and languages.
- As important is the challenge of improving teacher quality which has a pronounced impact on performance, and which remains highly variable.
- The concern expressed by many is that not enough of the best people are going into teaching, because of a pervasive loss of status, purpose, commitment and well being.
- Teacher's pay is perceived as part of the problem - particularly in Inner London -but of greater concern are the underlying characteristics of teachers' jobs.
- Accelerated progress towards world class will depend upon attracting and retaining more of the best teachers.

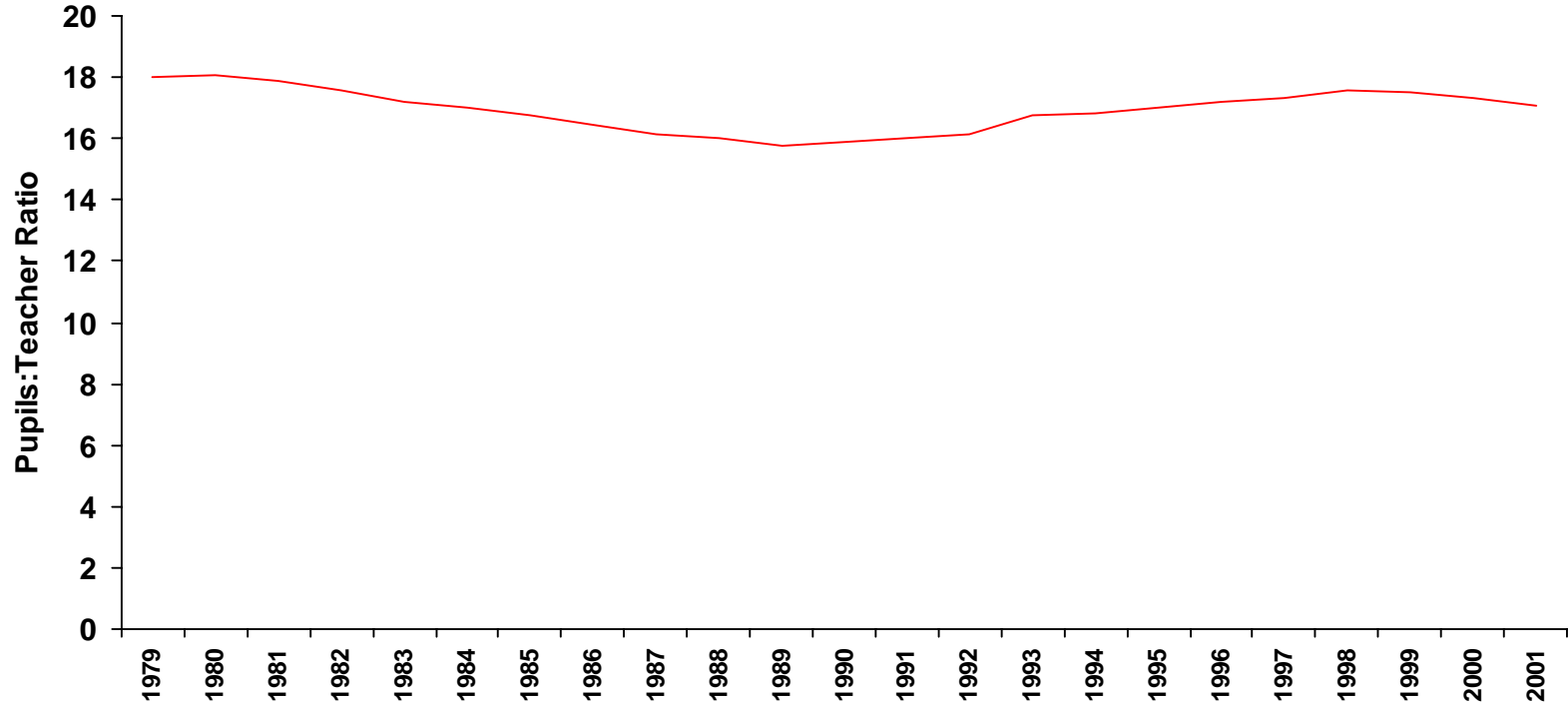
Teacher numbers have started to increase after a long period of decline.

FTE TEACHERS IN SERVICE IN THE MAINTAINED SECTOR, ENGLAND



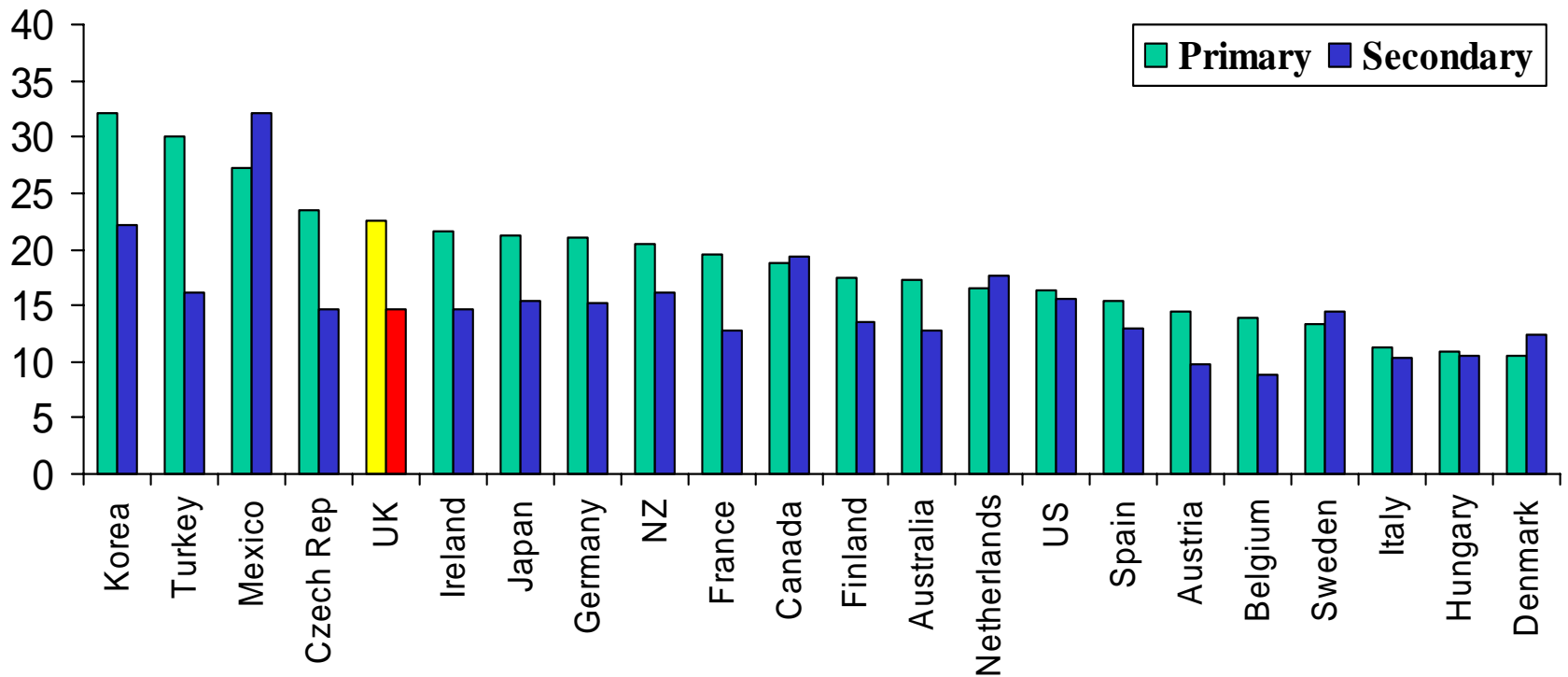
Pupil:teacher ratios have barely improved over the last 20 years.

PUPIL : TEACHER RATIO , ENGLAND



By international standards we still have a relatively high pupil : teacher ratio.

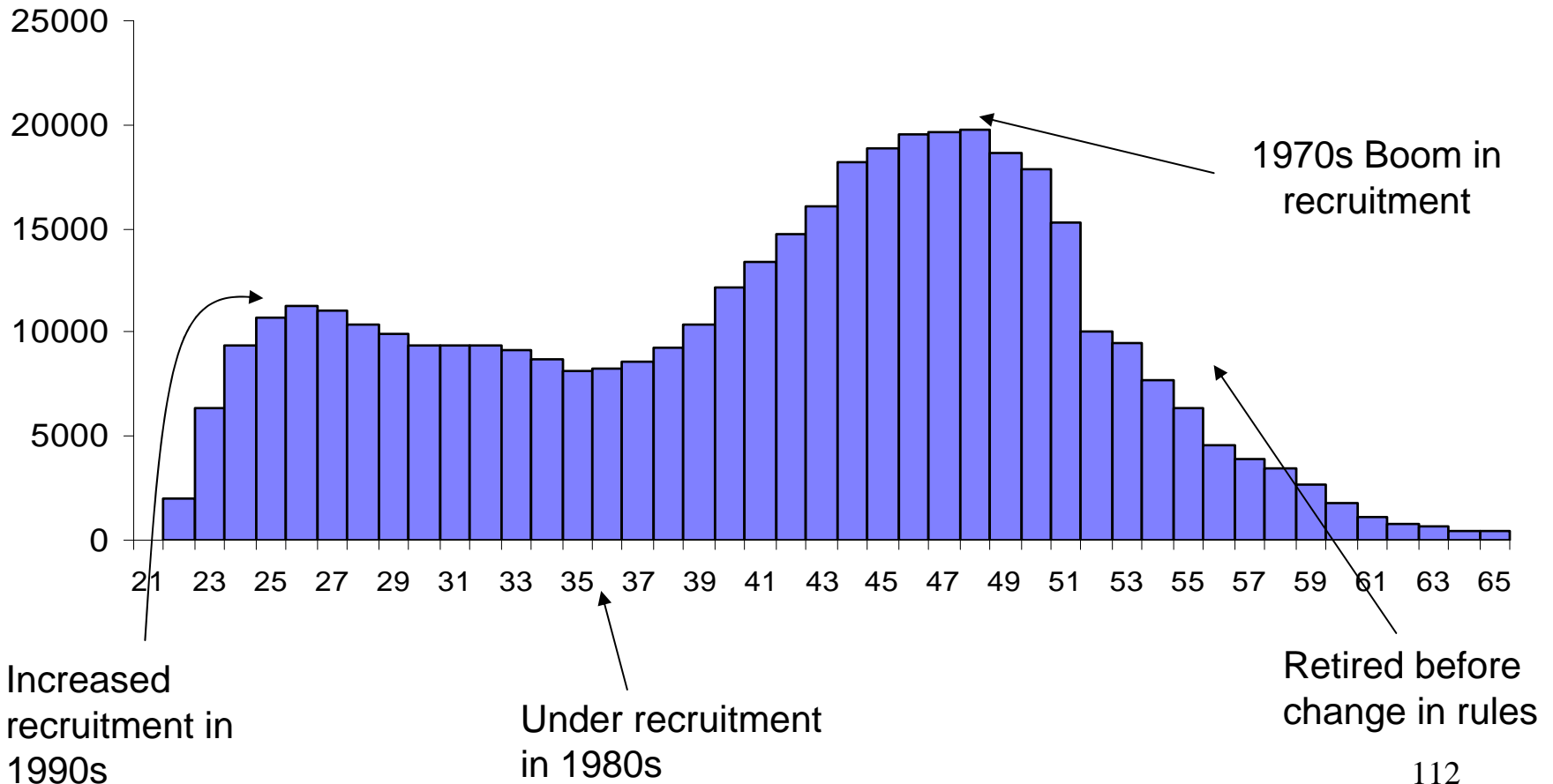
PUPIL : TEACHER RATIOS 1999



Source: OECD "Education at a Glance 2001" P243

There will be increased demands on recruitment given the age profile of the teacher stock.

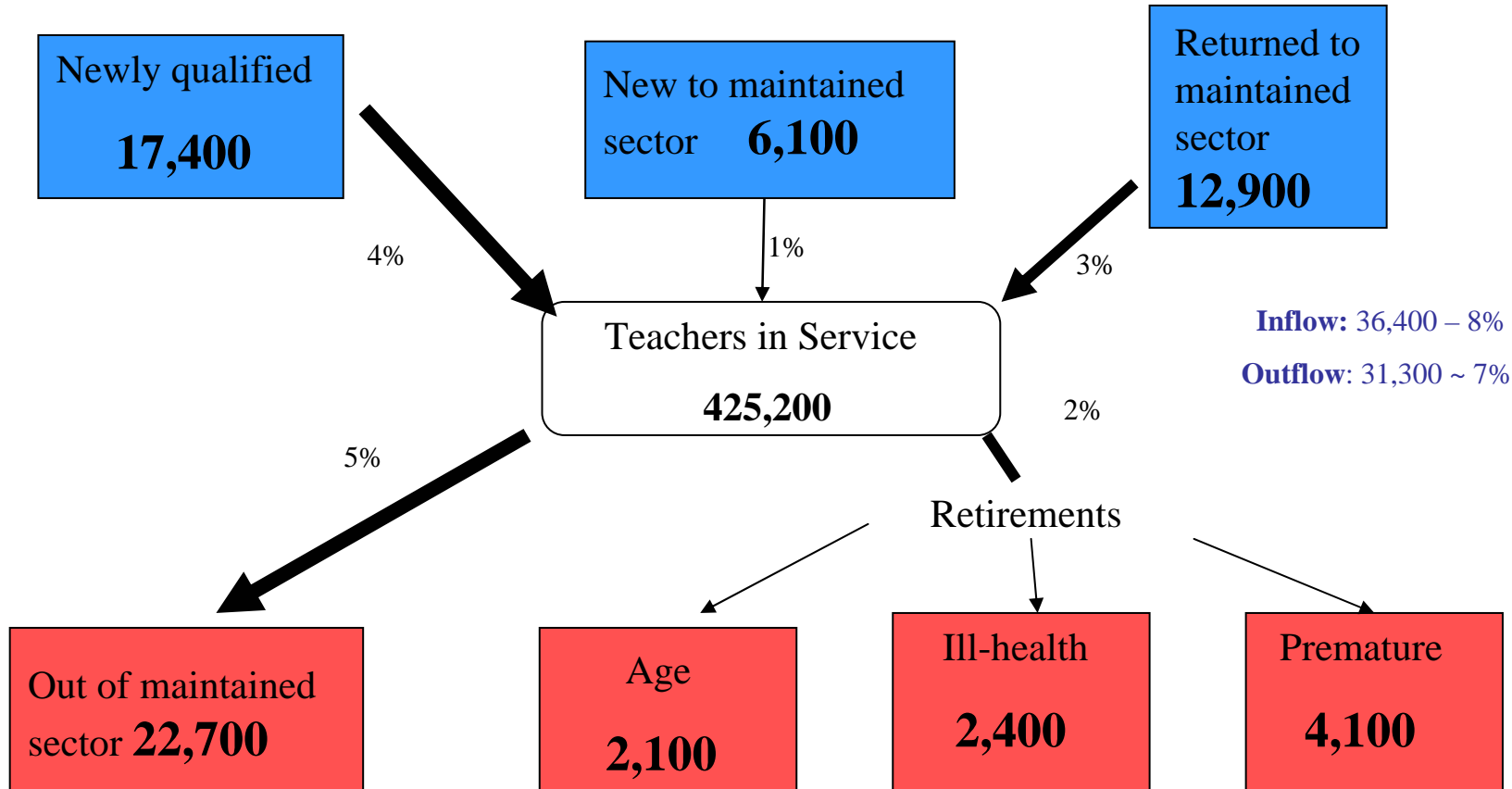
AGE PROFILE OF TEACHER STOCK



However, turnover is primarily driven by moves out of the sector.

TURNOVER OF TEACHER STOCK

1999



We might need more than 30 per cent of English and Maths graduates to become teachers.

TEACHER RECRUITMENT TARGETS BY SUBJECT, 1999

Subject	Per Cent Variation from Target
English	-6.4
Maths	-23.2
Science	-2.7
IT Technology	-40.5
Modern Languages	-32.9
Geography	-16.4
History	+2.3
Art	-15.8
Music	-9.8
PE	+15.2
RE	-10.9
All	-17.9

SOURCE: Smithers et al (2001).

TEACHER RECRUITMENT TARGETS AS A PROPORTION OF GRADUATE OUTPUT

Subject	PGCE target ¹	Graduate Output	%
English	1,297	6,275	30.7
Maths	1,577	4,250 ²	37.1
Science	2,355	24,119 ³	9.8
Languages	2,106	4,932 ⁴	42.7
History	872	5,862 ⁵	14.9
Geography	1,062	4,536	23.4
Music	555	2,521	22.0
RE	639	1,339	47.7

Source: Graduate output figures Student in Higher Education Institutions 1998/99, Cheltenham: HESA 2000

1. Personal communications from TTA and Higher Education Funding Council for Wales.

2. Mathematical Sciences Subject Group.

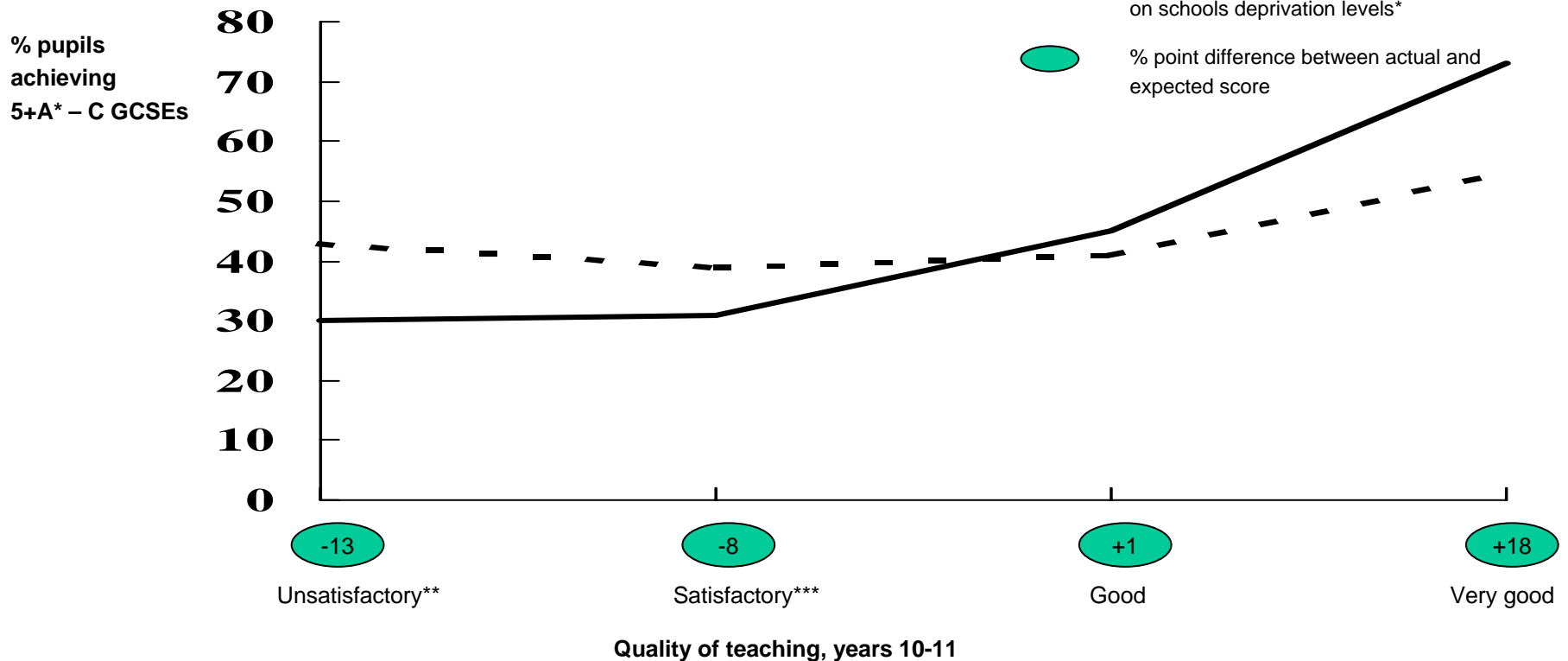
3. Includes Biological Sciences Subject Group without Psychology, Physical Sciences Subject Group without Geography, and Combined or General Science subjects. For chemistry N = 3624, and physics N = 2320.

4. French, German, Spanish and Balanced Combinations within languages.

5. History, Economic and Social History.

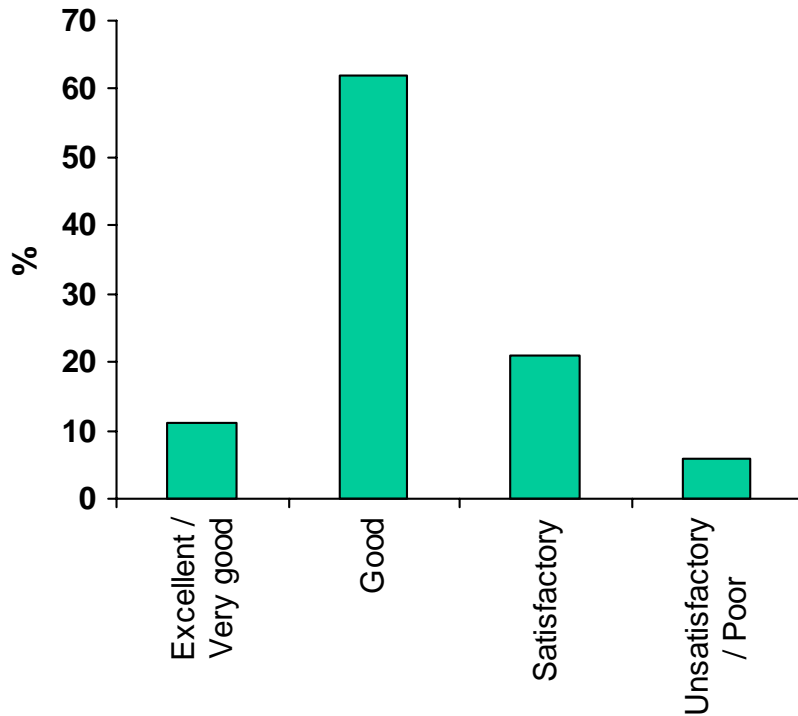
Teacher quality has a critical impact on attainment.

IMPACT OF QUALITY OF TEACHING ON ATTAINMENT (LONDON SECONDARY SCHOOLS)

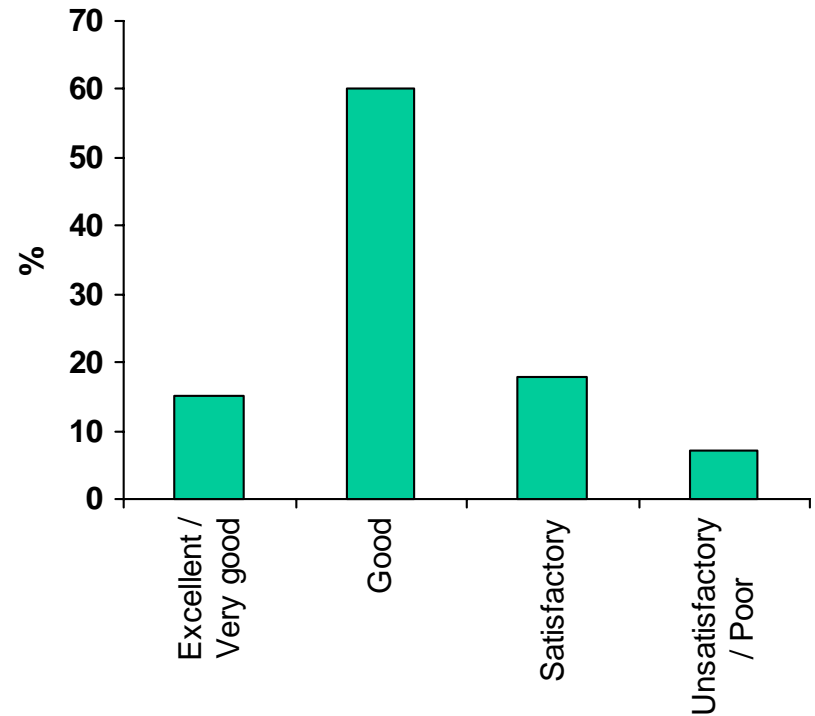


And while the quality of teaching is improving there are still wide variations.

QUALITY OF TEACHING IN PRIMARY SCHOOLS, 2000

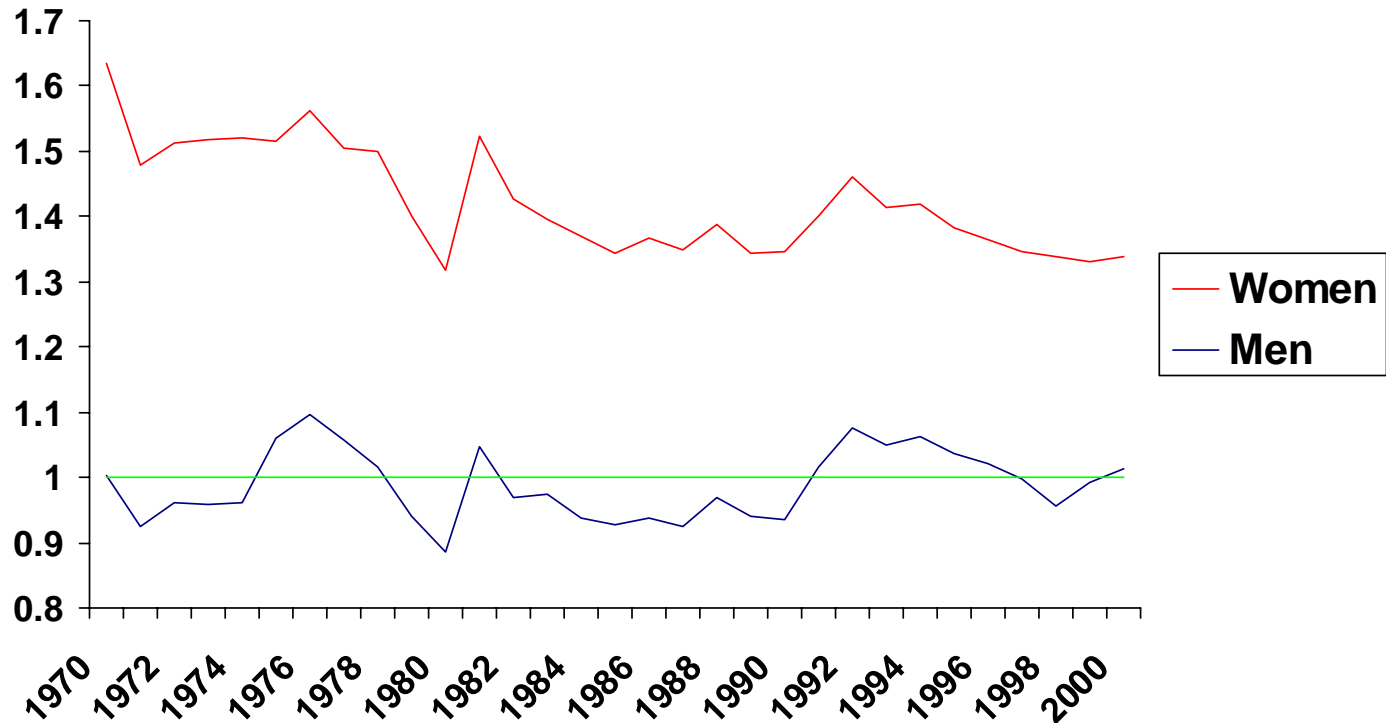


QUALITY OF TEACHING IN SECONDARY SCHOOLS, 2000



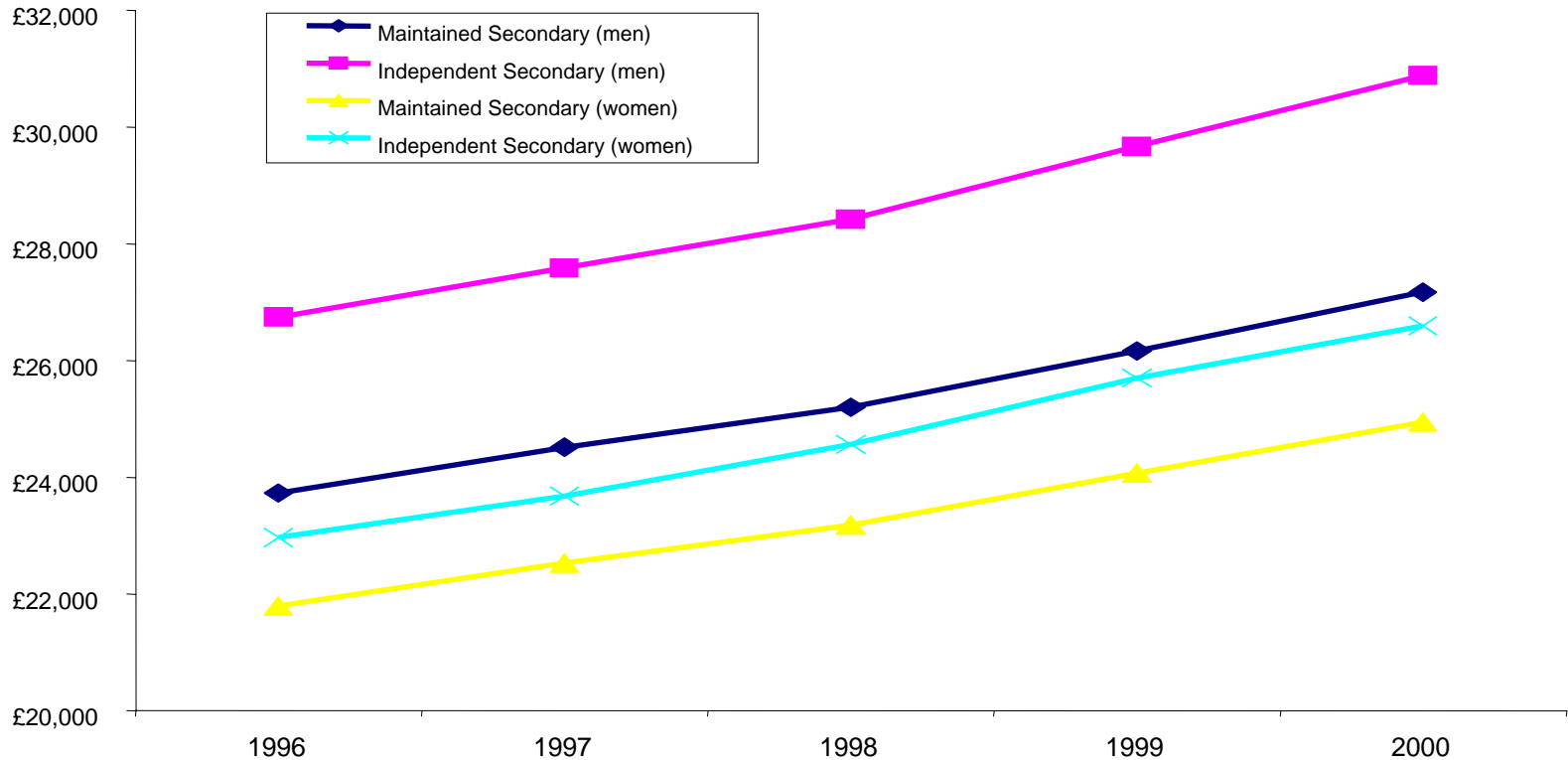
Teachers' pay has kept pace with the average of non-manual occupations.

RATIO OF THE MEAN AVERAGE EARNINGS OF FULL-TIME TEACHERS TO FULL-TIME NON-MANUAL EMPLOYEES



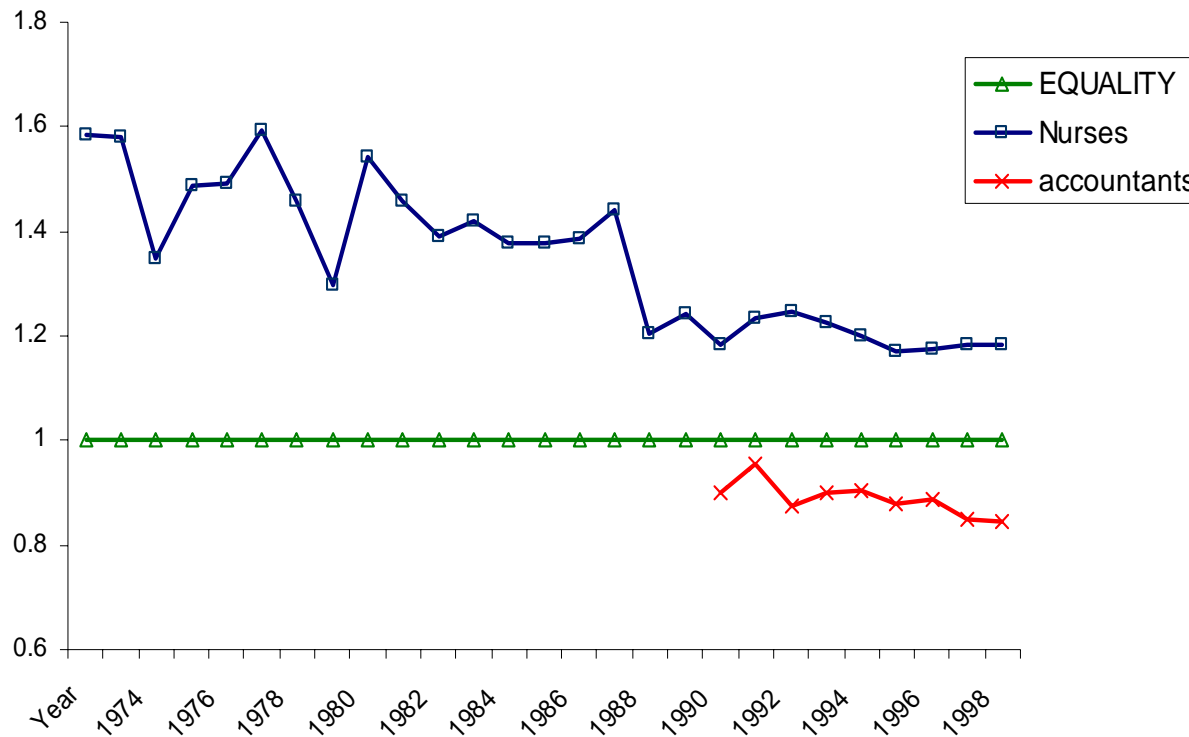
Teachers in maintained schools are paid far less than their colleagues in independent schools.

MALE AND FEMALE PAY IN MAINTAINED AND INDEPENDENT SECTORS



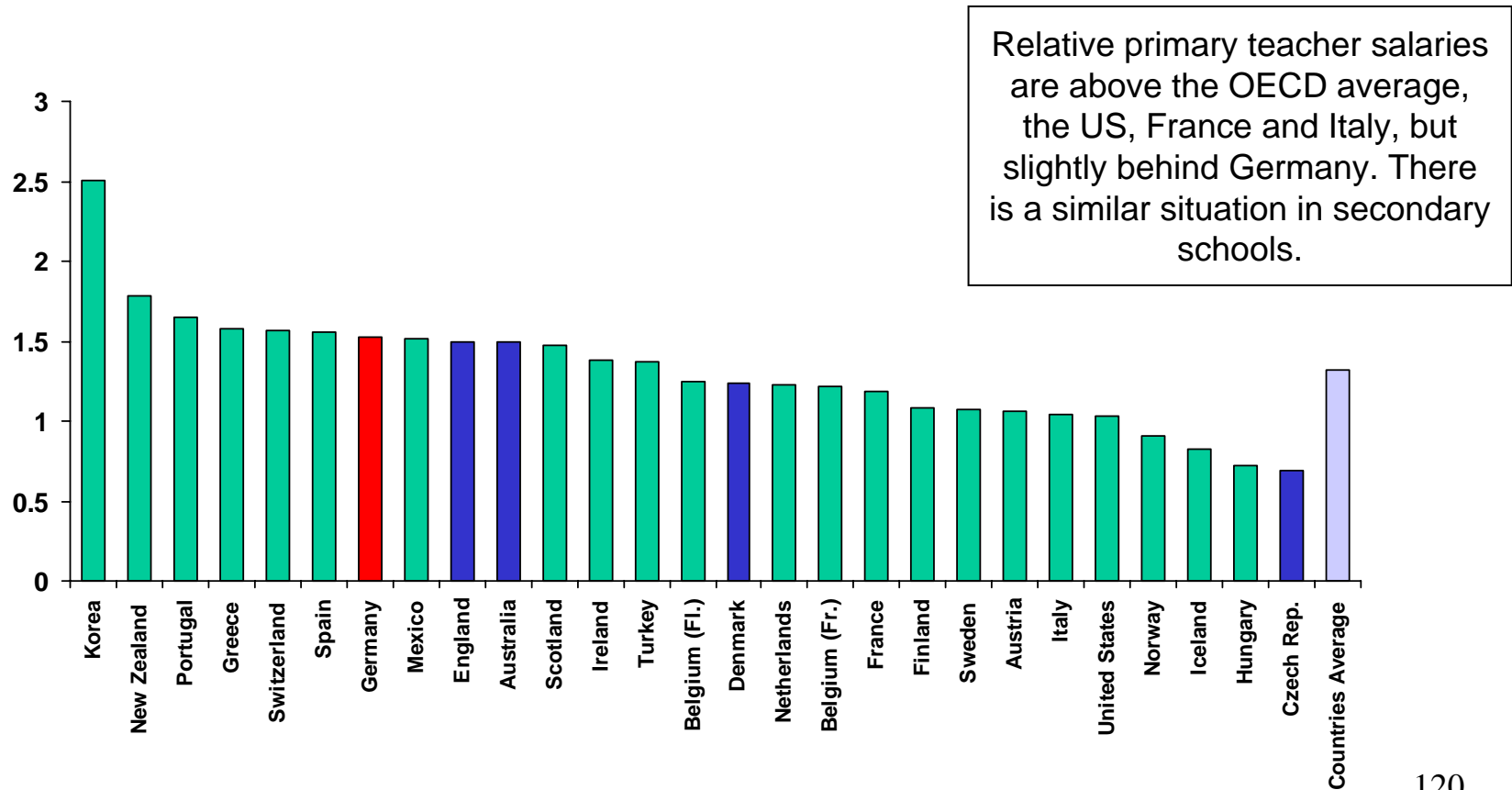
For female teachers, pay is below that of other graduate occupations.

FEMALE PRIMARY TEACHERS' WAGES RELATIVE TO OTHER PROFESSIONS



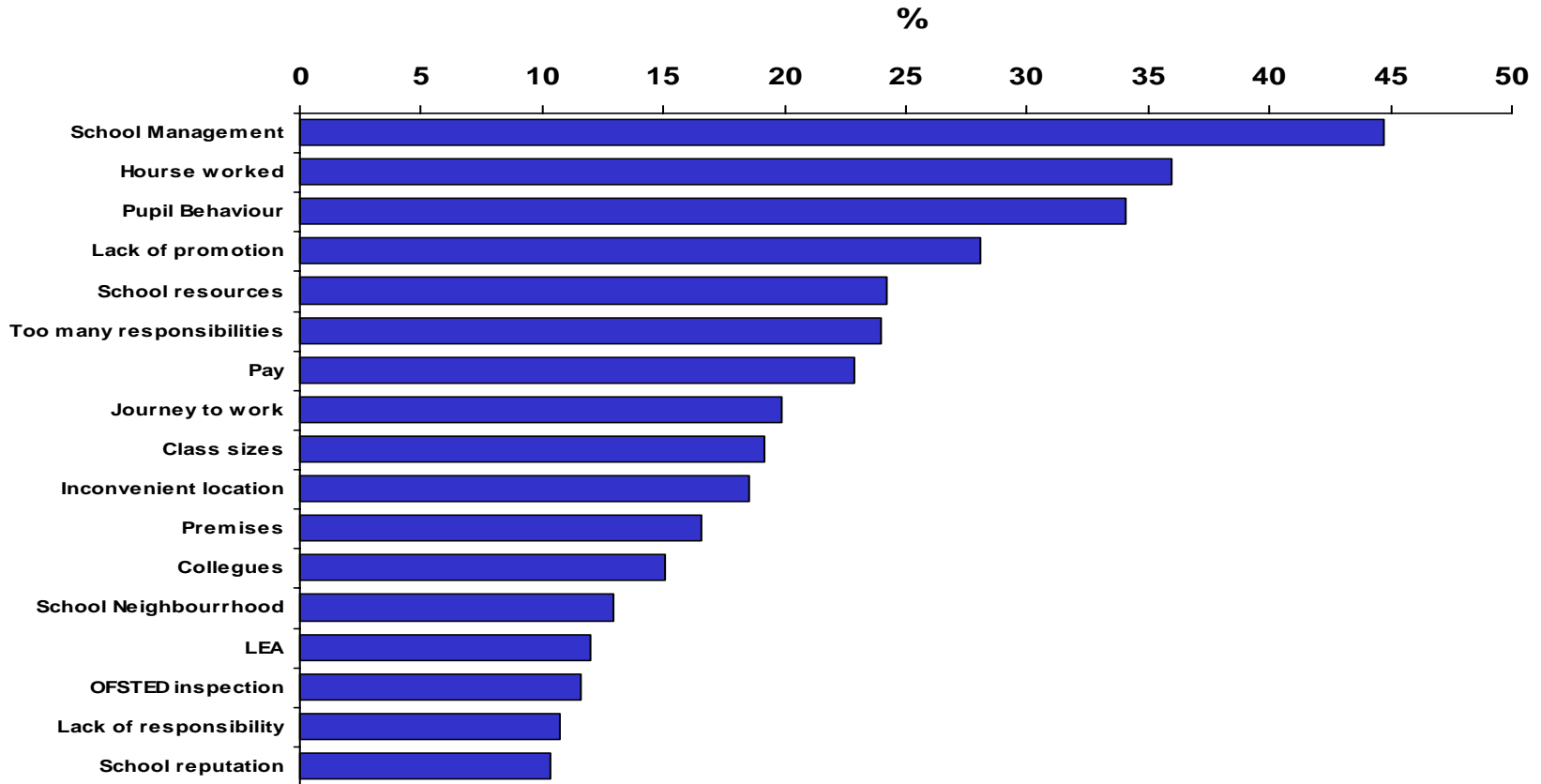
However, pay compares favourably internationally.

RATIO OF SALARY OF PRIMARY TEACHER TO GDP PER CAPITA AFTER 15 YEARS



But recruiting and retaining the best teachers is handicapped by perceived features of the job.

PROFESSIONAL REASONS FOR LEAVING POSTS FOR THOSE ON PERMANENT CONTRACTS



Institutional leadership

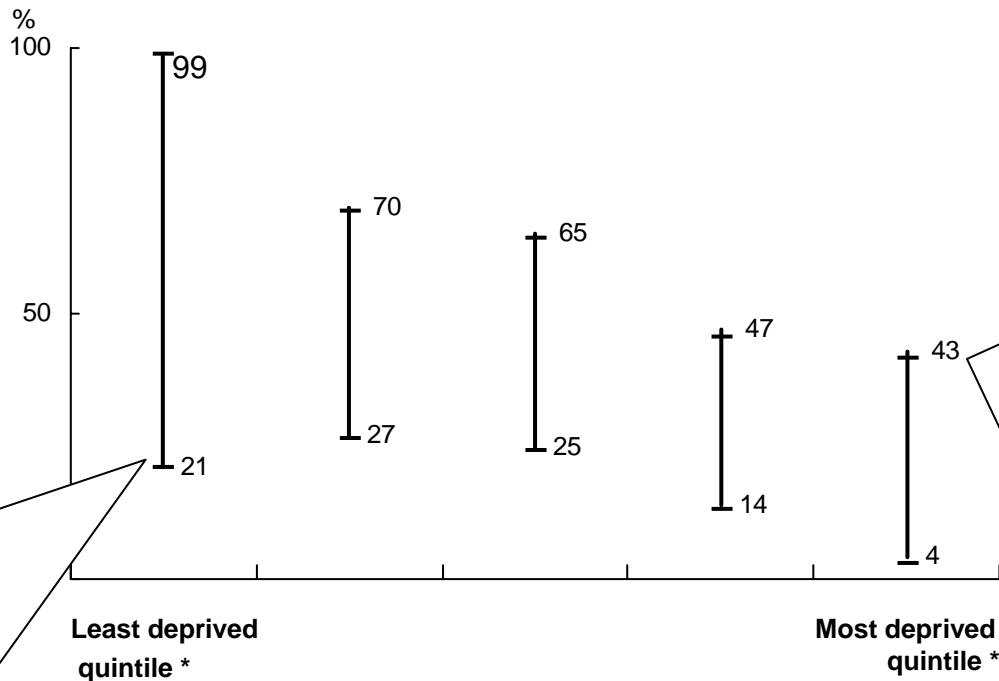
- It is widely accepted that the quality of leadership is a significant factor in the performance of educational institutions. However the quality of leadership is variable.
- Much recent policy has focused on recruiting and training an elite cadre of institutional leaders, and we should reap the benefits of that investment in the years to come. Our current cadre of headteachers measures up well against the best in the world.
- In the past, head teachers and other institutional leaders have routinely complained that they had neither the freedom nor the tools to do their jobs properly. Our structures and processes, complex and burdensome as they were, gave the impression (and the reality ?) that we did not trust them.
- The current initiative aimed at devolving authority to heads and other institutional leaders is aimed at addressing that.

Good leadership is a key factor in achieving attainment despite disadvantage.

RANGE OF PERFORMANCE AMONG SIMILAR SCHOOLS

%

15-year old pupils scoring
5+ A*-C GCSE during last OFSTED inspection year



Brampton Manor School, Newham

FSM eligibility	3%
% with* >5 A-C	25%
Exclusions as % of pupil numbers	9%
% of teaching rated satisfactory better	83%

OFSTED comments include:
 "Pupils are set undemanding work"
 "Poor behaviour is not consistently well managed"
 "Evaluation of the impact of teaching is not effective"

Highbury Fields School, Islington

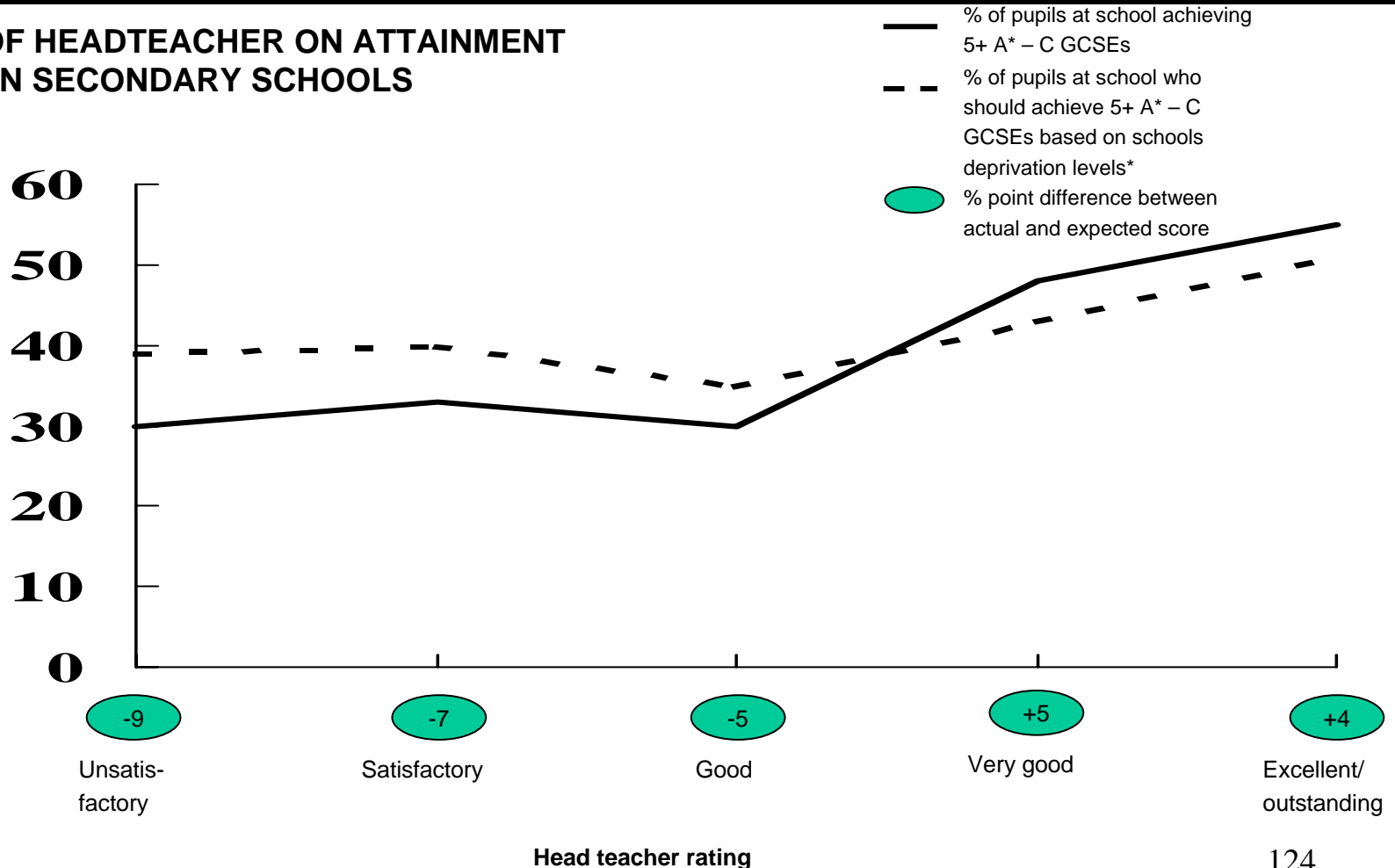
FSM eligibility	49%
% with* > 5 A-C	43%
Exclusions as % of pupil Numbers	3%
% of teaching rated satisfactory or better	95%

OFSTED comments include:
 "The head gives very good leadership to staff and students"
 "Good quality of assessment and planning has a positive effect on pupils' attitude to learning"

The best head teachers are able to increase attainment

IMPACT OF HEADTEACHER ON ATTAINMENT – LONDON SECONDARY SCHOOLS

% pupils achieving 5+A* – C GCSEs

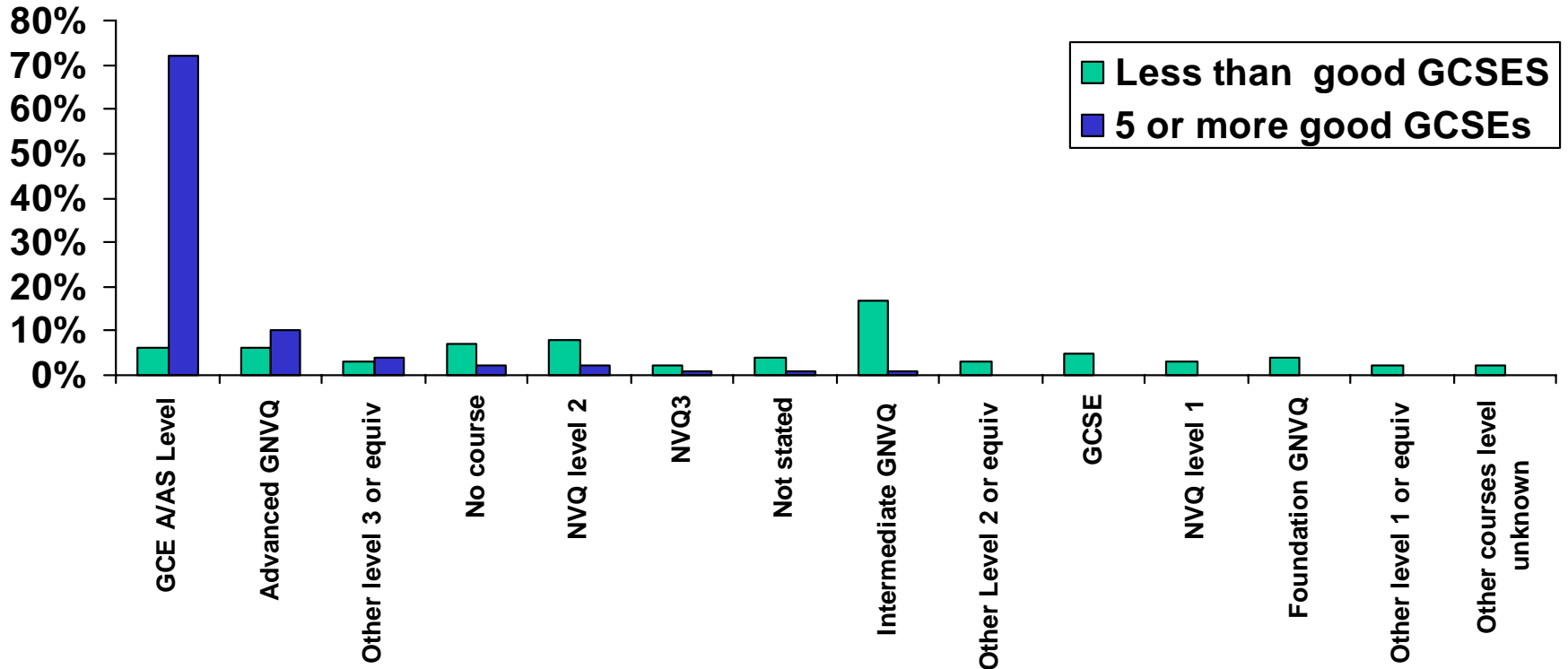


Vocational Provision

- There is no clear vocational option open at age 16 which has the same status and support accorded to the academic route through A-Levels and onto HE.
- The issues of quantity, quality, motivation and motivation as discussed in relation to school teachers applies similarly to FE lecturers - except in for pay, where FE lectures are paid on average around 10 per cent less than school teachers.

There is no clear vocational route at 16 for those not taking A-Levels.

LEARNING ACTIVITY AT 16 OF THOSE WHO GOT LESS THAN 5+ GOOD GCSES
(FULL TIME EDUCATION AND GST)

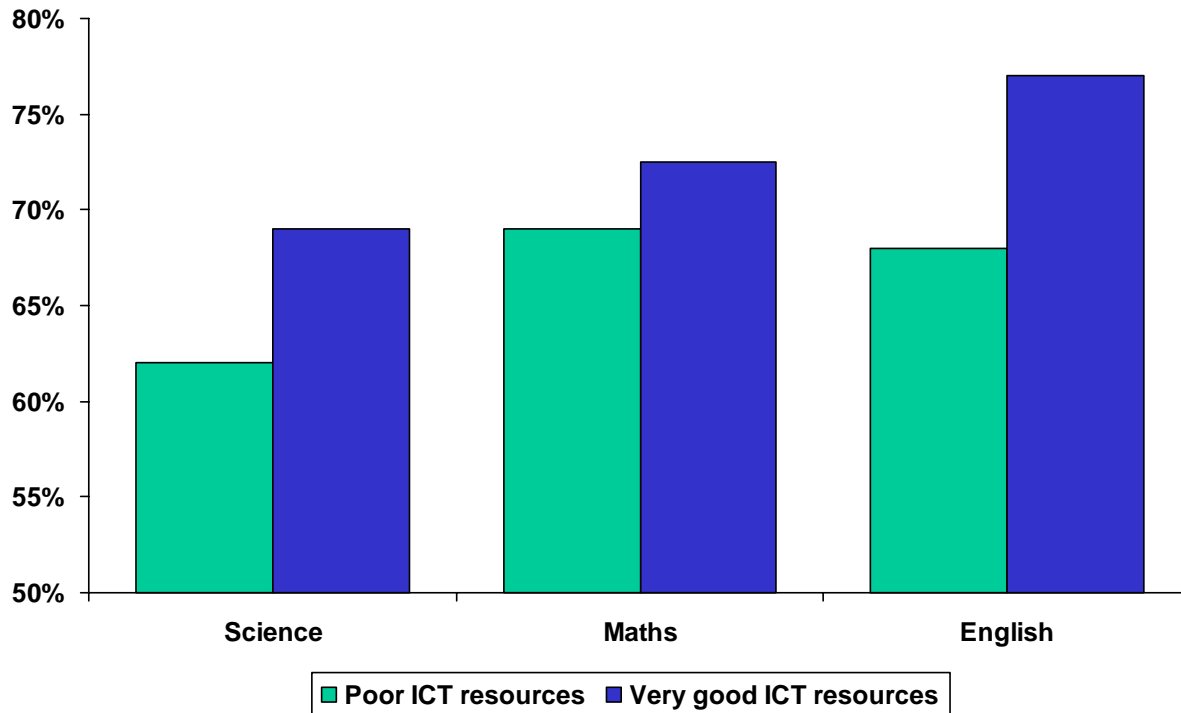


Technology

- There is increasing empirical evidence that ICT enables enhanced performance in schools and colleges.
- Because of this the Government has set and funded aggressive targets for computers per pupil and Internet connections.
- Notwithstanding this progress in recent years, technology has so far had a markedly less profound effect on the UK educational experience than on almost any other aspect of modern life.
- Part of the reason lies in the limited availability of custom designed software and applications, which is now being addressed though the “Curriculum On-Line” initiative.
- The other part of the reason lies in the low aptitude and confidence in the use of ICT by many teachers.
- Until these constraints are removed, there will be a growing mismatch between the growing technological application of students and their educational experiences.

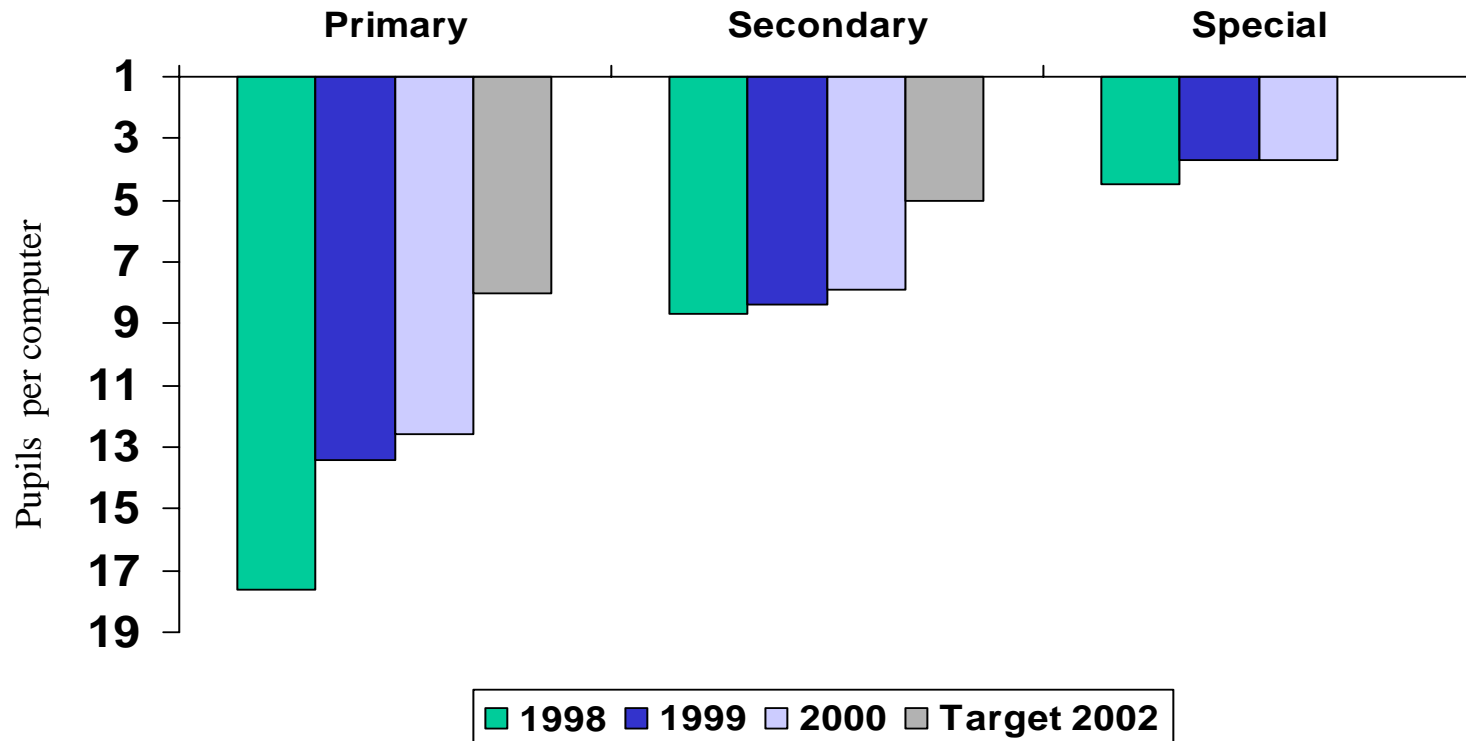
There is increasing empirical evidence that ICT enables higher educational attainment.

IMPACT OF ICT ON KEY STAGE 3 RESULTS (% LEVEL 5 AND ABOVE)



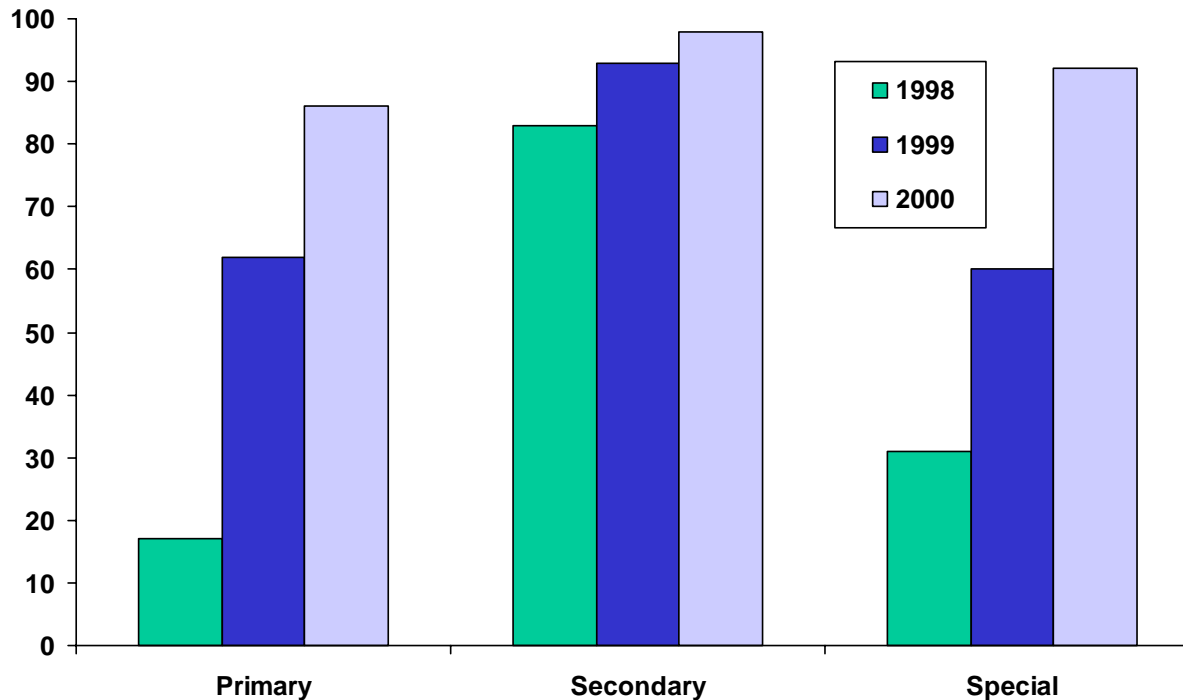
The number of computers per pupil is rising, reaching towards the targets.

ICT USE IN THE CURRICULUM, PRIMARY SCHOOLS, 2000



The number of schools connected to the internet has also grown rapidly, approaching 100%.

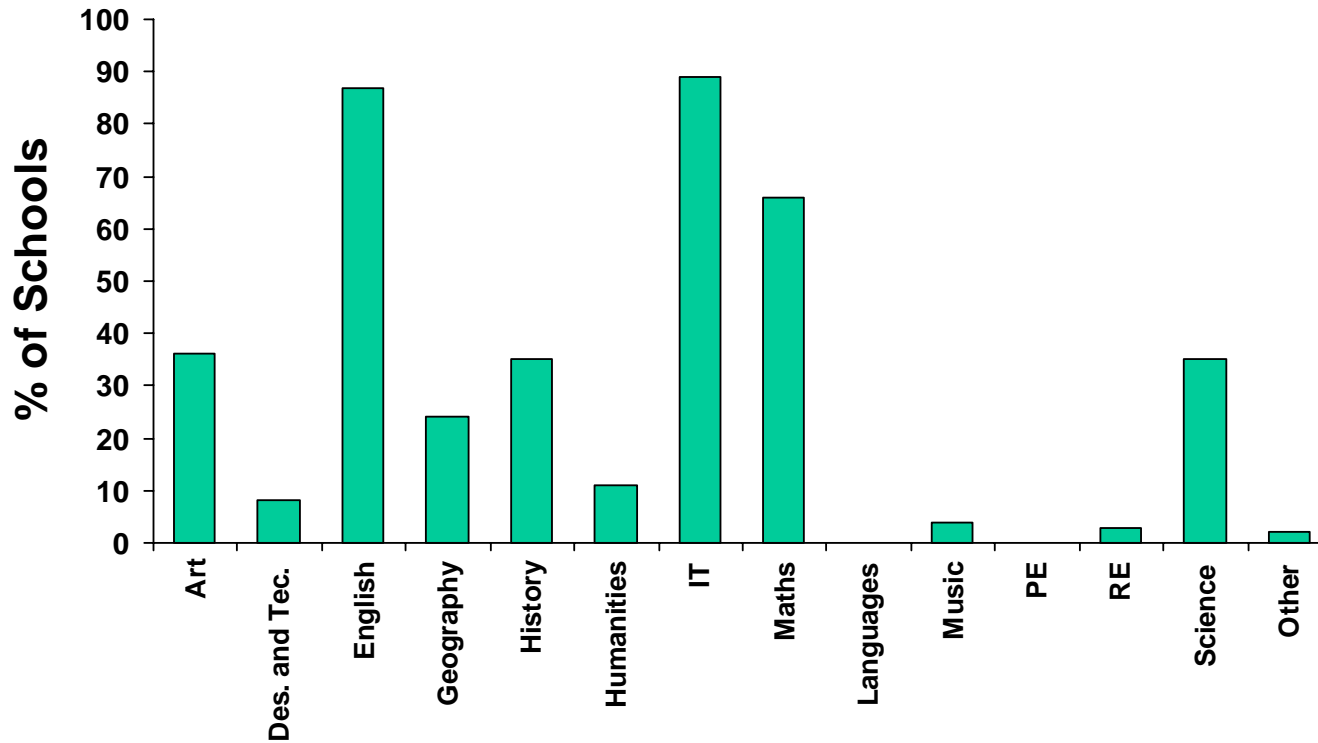
PERCENTAGE OF SCHOOLS CONNECTED TO THE INTERNET IN ENGLAND



This compares well to the US where 99% of schools are connected to the internet and 84% of classrooms have internet access

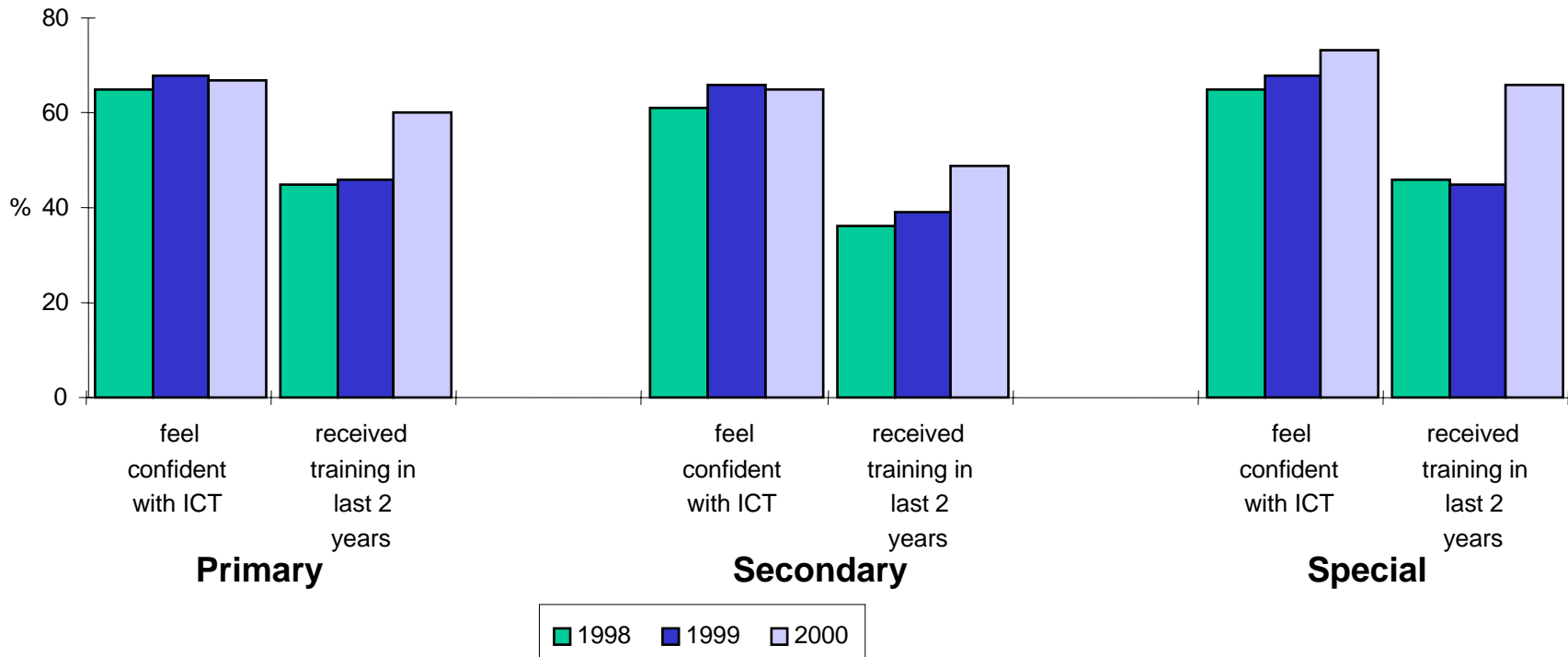
However, the use of ICT to support curriculum teaching is still quite limited.

ICT USE IN THE CURRICULUM, PRIMARY SCHOOLS, 2000



This may be because many teachers are not yet confident in the use of ICT.

Teachers Confidence and Training in the Use of ICT

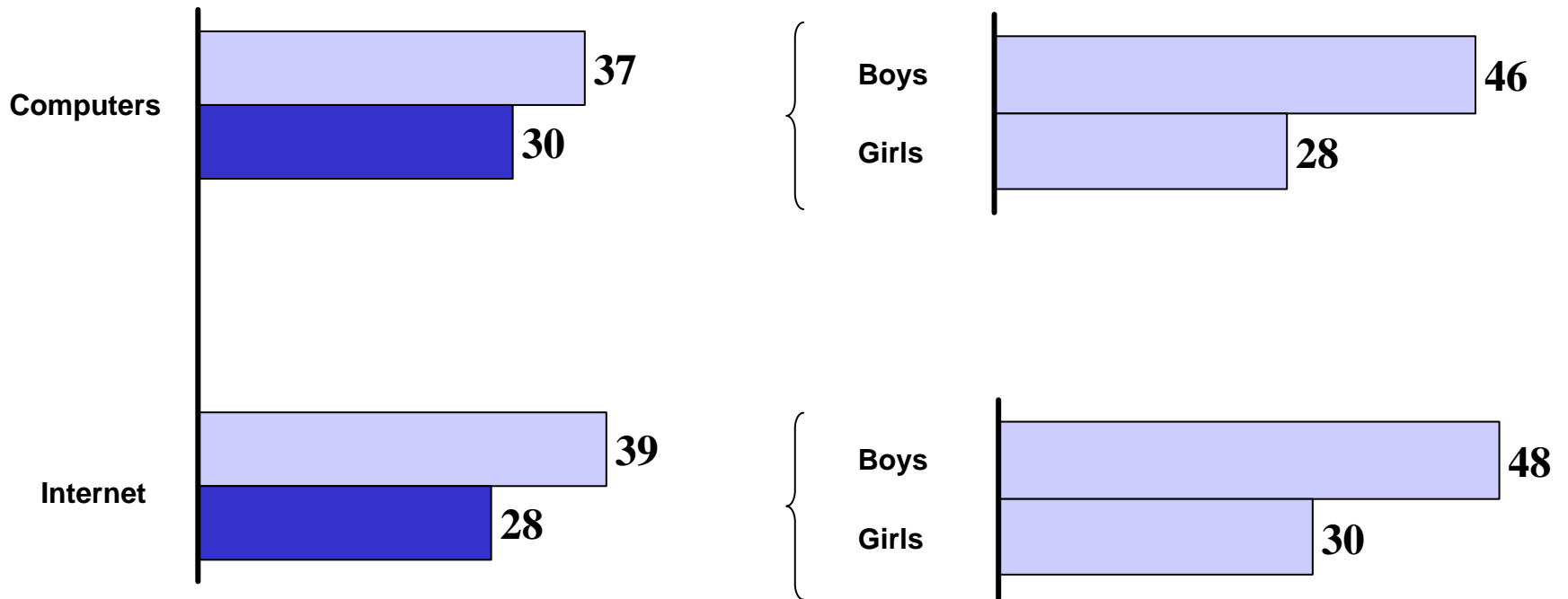


Many pupils feel more confident in the use of ICT than their teachers.

PROPORTION OF CHILDREN WHO FEEL THEY KNOW MORE OR LESS ABOUT COMPUTERS AND THE INTERNET THAN THEIR TEACHERS

%

Children who feel they know more
Children who feel they know less



Premises

- The evidence is clear that modern, custom-designed premises lead to better standards and higher motivation amongst teachers and students.
- In other walks of life, evidence like this has led to the complete transformation of property estates (retail supermarkets, corporate offices - even government premises).
- In contrast, much of the educational property estate has remained relatively untouched. Of the 24,000 schools in England which daily accommodate 15-20% of the population, only 14% operate from buildings constructed since 1976.
- A high proportion of our educational premises have outlived their design life, and many are in a state of dilapidation - almost to the point of being dysfunctional.
- As recently as 1996-7, we were spending only £683 million p.a. on school buildings - an average of £90 per pupil - most of it on expanding premises in response to pupil numbers, rather than to improve or repair existing schools. Since 1997 there has been considerable investment to improve school buildings and in 2003-4, we will invest £3.5 billion - a five-fold increase - with 25% coming from the private sector through the PFI.

Only 14% of schools were built since 1976; most are now beyond their 'design' life.

STATUS OF THE SCHOOL STOCK

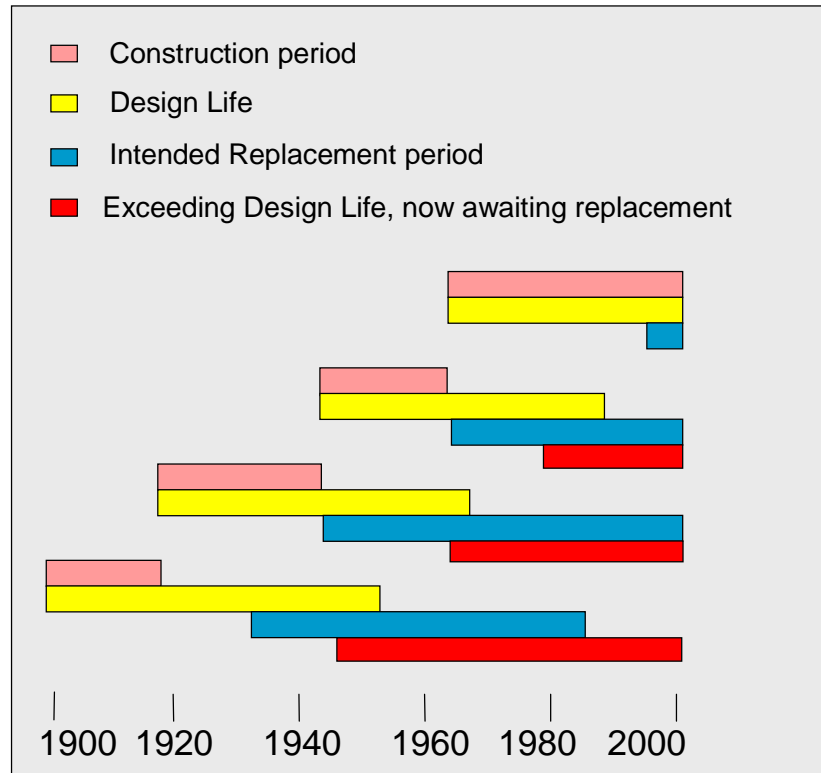
Table 1:
Age of
Buildings

Post 1966
37% of stock

1944-66
33% of stock

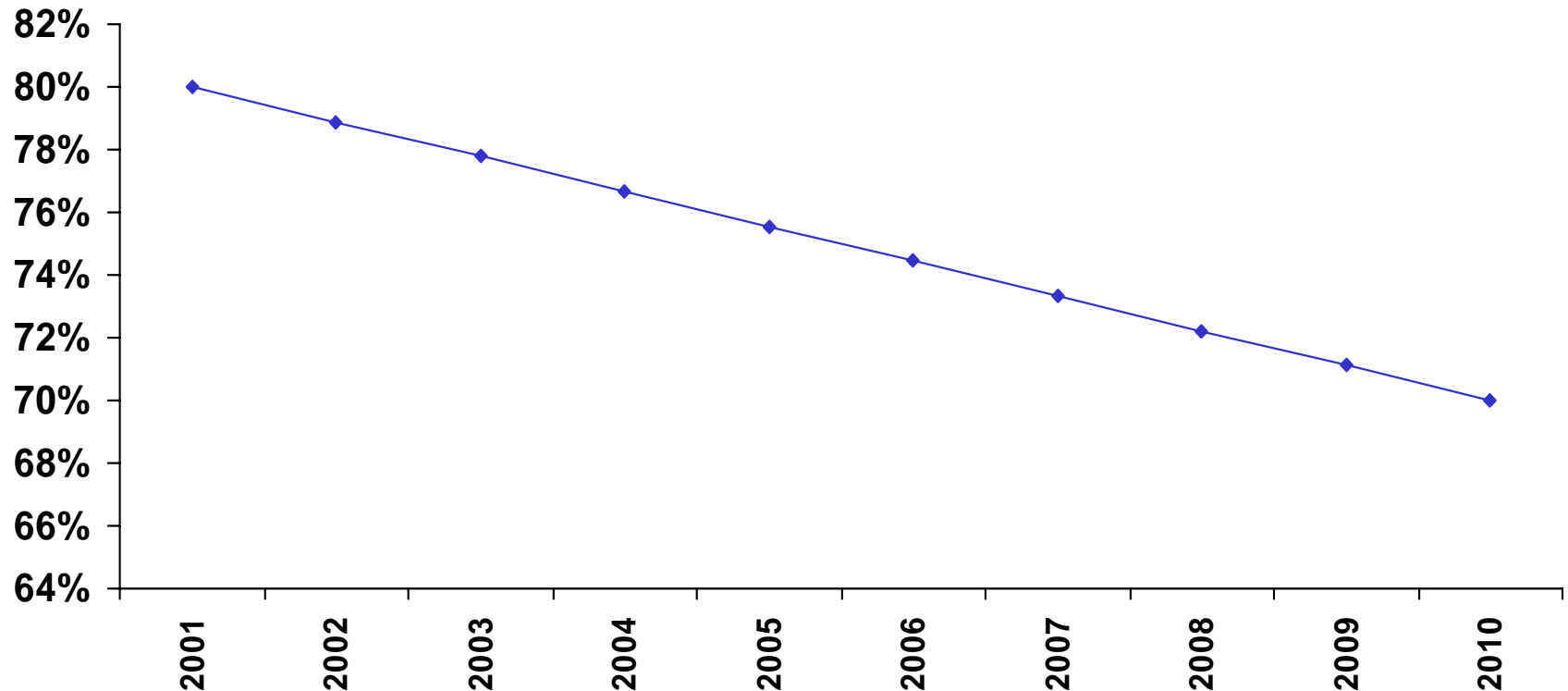
Inter-War
14% of stock

Pre-1919
14% of stock



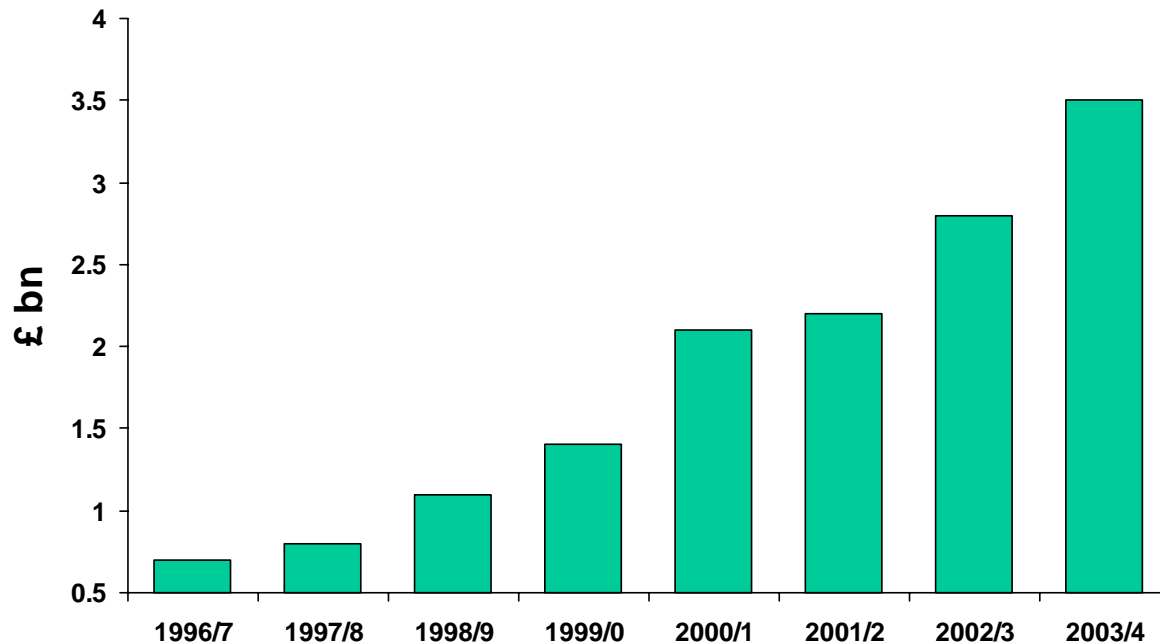
80% of schools exceed their design life now. Current plans will reduce this, but it will still be 70% in 2010.

ESTIMATED PERCENTAGE OF SCHOOLS EXCEEDING THEIR DESIGN LIFE



Since 1997 there has been considerable investment to improve school buildings.

RECENT / FUTURE CENTRAL GOVERNMENT BUDGETS FOR CAPITAL INVESTMENT IN SCHOOL BUILDINGS IN ENGLAND



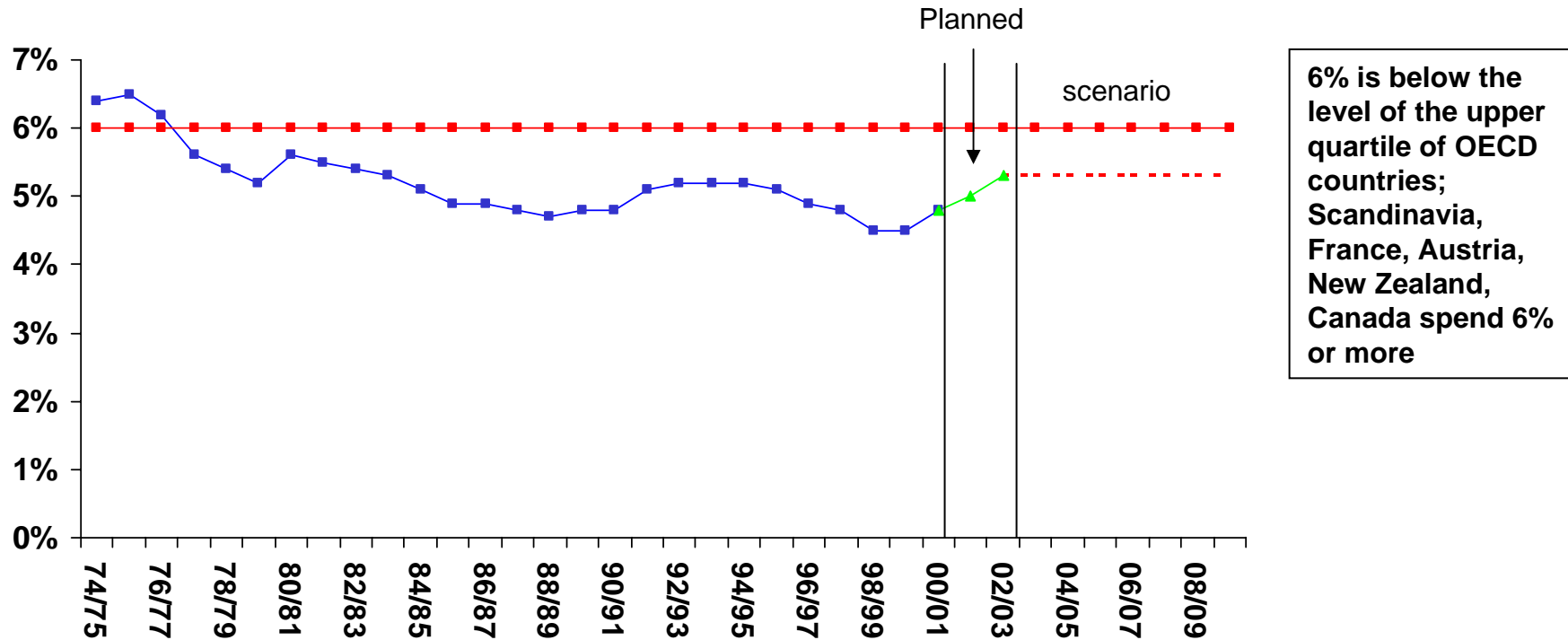
By 2003-4 25% of funding will come from the private sector through PFI

Funding

- Since 1998, education spending has risen as a proportion of GDP and by 2003-4 will be 5.3% of GDP.
- It seems to be clear however that we need to invest even more if we are to achieve a world class education system by 2010-2015, by investing further in, for example: the number and quality of teachers and lecturers; infrastructure, particularly of schools; and continued investment in technology.
- As a proportion of GDP, we are still spending below the OECD and EU averages. And the upper quartile of OECD countries all commit more than 6% of GDP on education through public expenditure. We did this in the 1970s and if that level had been maintained in the last twenty years over £100 billion extra would have been invested. Given the levels of return from investment in education the expenditure would have more than paid for itself.
- Private spending on education has continued to increase rapidly in real terms, and we estimate it now exceeds £7 billion (including independent school fees, private spending on further and higher education, parental spending on books and software etc.).
- Estimates suggest employers spend perhaps £23 billion on training (the majority of this in wage costs of people undergoing training).

Public expenditure on education is catching up the OECD average (5.3%) but lags leading countries.

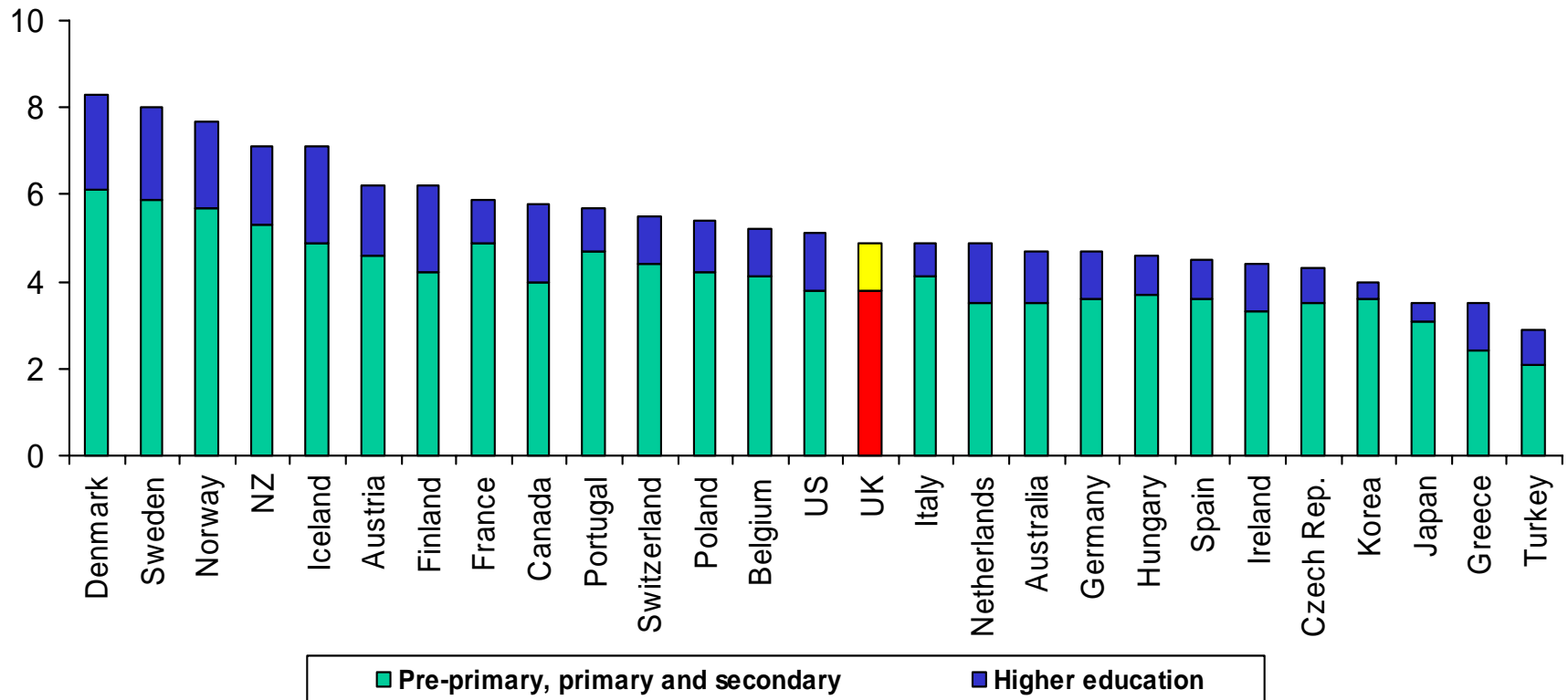
PUBLIC SPENDING ON EDUCATION AS A % OF GDP



SOURCE: 'United Kingdom Education 1997-2001' H. Glennerster, LSE and DfES

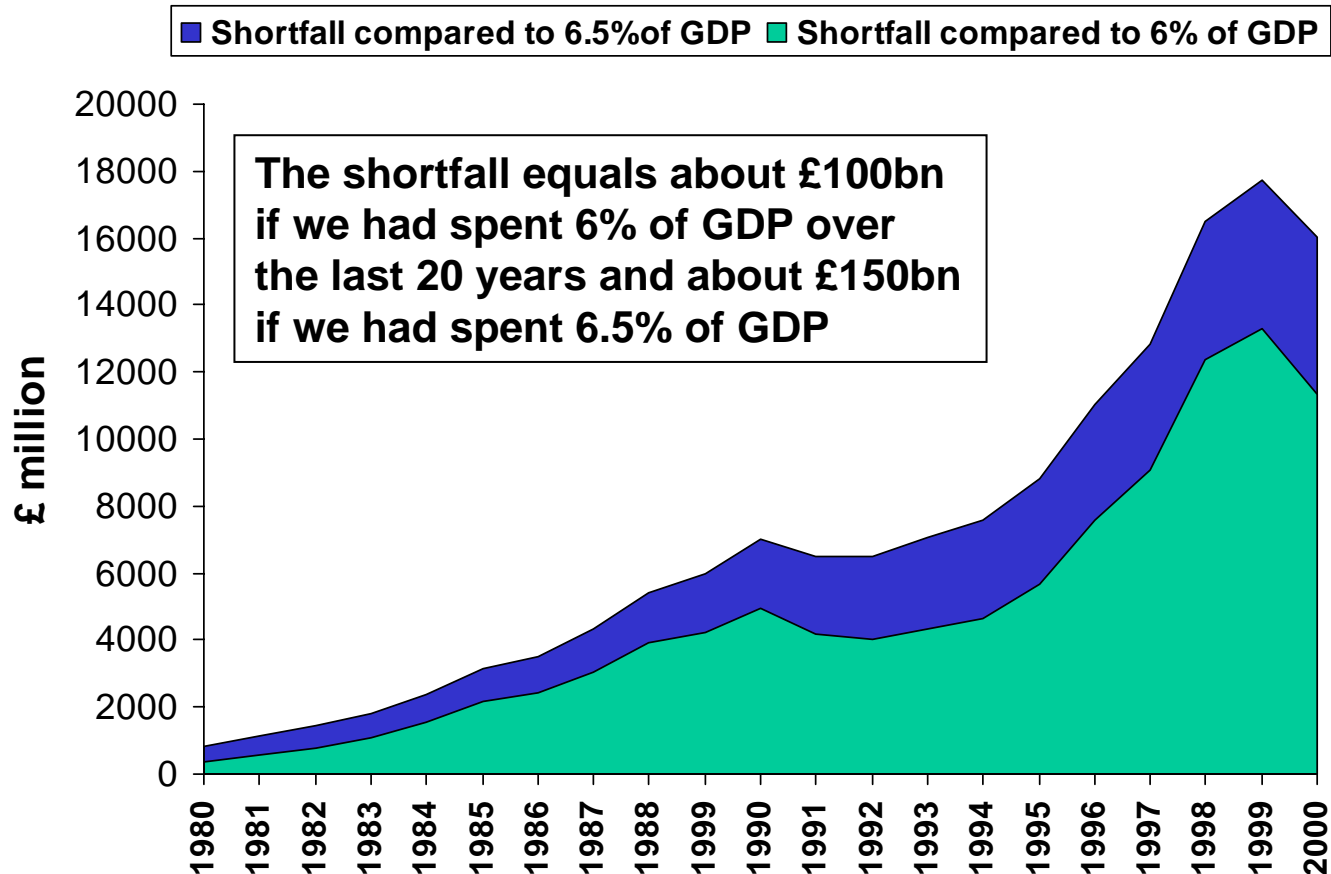
The UK is below the OECD average in public expenditure on education, but still in the middle of the pack.

INTERNATIONAL SPENDING ON EDUCATION AS A % OF GDP



We still have an enormous amount of ground to make up after years of under-investment.

DIFFERENCE BETWEEN UK EXPENDITURE ON EDUCATION COMPARED WITH SPENDING 6% OR 6.5 % OF GDP



6% is below the level of the upper quartile of OECD countries; Scandinavia, France, Austria, New Zealand, Canada spend 6% or more

The high rates of return show that increased investment in education is economically desirable.

ESTIMATED SOCIAL RATES OF RETURN

	Men	Women
First Degrees	6%-8%	9%-11%
2+ A-levels	15%-21%	14%-21%
OND/BTEC Nationals	5%-7%	5%-9%

Summary of conclusions

Summary of conclusions

- This Phase 1 report has drawn two apparently conflicting conclusions - that our educational performance has improved greatly; but that elements of our education system still face significant challenges.
- The evidence of improved performance is palpable and impressive. Attainment levels are improving at all levels, we are now matching and beating international benchmarks, and we have more people involved in education than any other leading country. It is now plausible and realistic to believe that the UK could have a world-class education system by 2010, if not before.
- This is a powerful endorsement of the strategy of standards, accountability and discipline - and it also gives us hope that as a nation we are adopting a "culture of learning" at all levels of society, which will enable us to achieve even higher performance levels in the future.
- This excitement, however, is tempered by the knowledge that our education system is still failing many of those who need it most - that the encouraging progress of many within our education system is offset by the persistent failure of others to achieve even the most basic standards of attainment, with often devastating implications for their adult lives.
- And of greatest concern is our failure to make a decisive break in the connection between social deprivation and educational under-achievement, which underpins the persistent social divide in much of the UK, and especially in areas like Inner London.

Summary of conclusions

- So, projections of educational performance to 2010 convey a mixed message. By 2010, our average performance could well be at or near the top of the educational league tables, and a clear majority of our people could be well educated by generally accepted standards. And still we could have a large number of people who had failed to achieve their full potential, at enormous cost to themselves and to the nation.
- If we are to make accelerated progress in addressing these concerns, we will need to focus even more effort - and conceivably funding - on some of the persistent root causes of under-performance in our education system. We will need to get more of the best people into teaching and keep them there; to develop and support outstanding educational leaders; to ensure that vocational education is at least as good as academic education; to make full and effective use of technology; and to ensure that we have modern, custom-designed premises that are fit for their critically important role in our society.