TOO MANY CHILDREN LEFT BEHIND
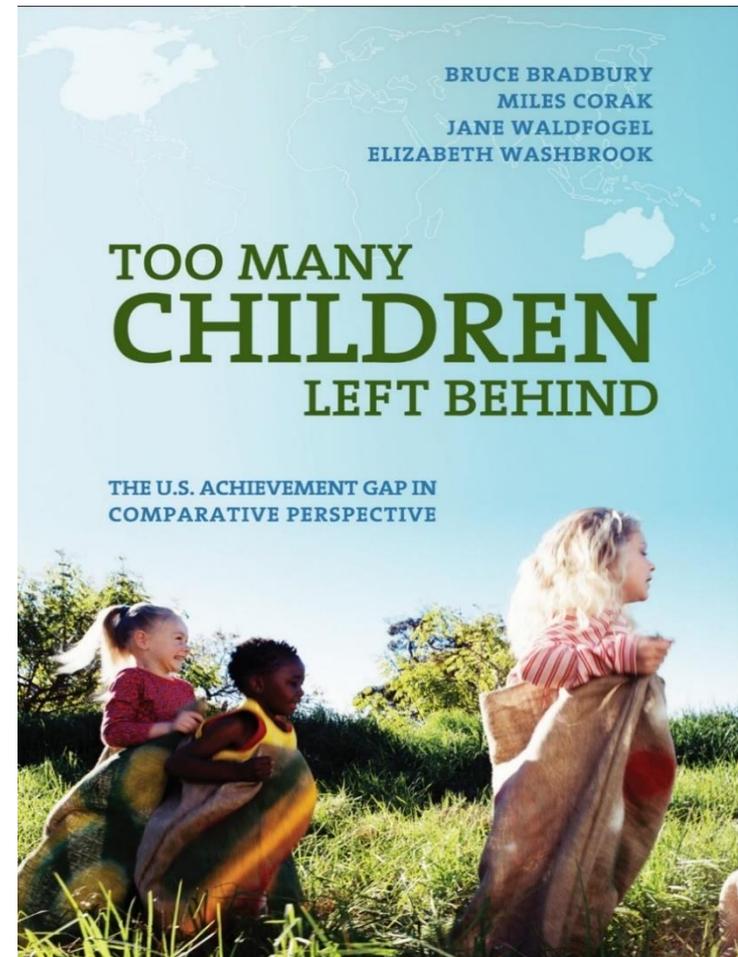
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WHAT CAN WE LEARN FROM DIFFERENT COUNTRIES ABOUT SES GAPS IN ACHIEVEMENT?

In this new book from Russell Sage, Bruce Bradbury, Miles Corak, Liz Washbrook, and I examine this question using cohort data from Australia, Canada, UK, US

THREE QUESTIONS

1. How large is the achievement gap between children from low- and high-socioeconomic status (SES) families?

2. When does this gap emerge? How much inequality is already present at school entry, and what happens to the gap as children move through school?

3. What can be learned from different countries to make success more common regardless of family background? More broadly put, does it have to be this way?

MOTIVATION

Child poverty and inequality are concerns in all the Anglo-American countries.

Sean Reardon has called attention to large and growing achievement gaps between low and high income children in the US.

Sara McLanahan and Robert Putnam document large and growing gaps in other factors related to opportunity between low and high educated families in the US.

Are these gaps similar or different across the Anglo-American countries?

WHAT WE KNOW — AND DON'T KNOW — FROM PREVIOUS RESEARCH

Bruce Bradbury, Miles, Corak, Liz Washbrook, and I found that SES gaps in school readiness are larger in the US than in peer countries – Australia, Canada, & UK.

International test score data also show more inequality among adolescents and adults in US than other countries.

But this work can not tell us to what extent the gaps are already present at school entry, how they develop during the school years, or how this process varies across countries.

THIS PROJECT

Bruce Bradbury, Miles Corak, Liz Washbrook, and I follow cohorts of children from our four countries: Australia, Canada, UK, and US.

We examine SES gaps in achievement at school entry (around age 5), primary school (age 7 or 9), early adolescence (age 11), and, in the US only, later adolescence (age 14).

We measure SES primarily with parental education (but also conduct supplemental analyses by family income).

Box 1.1 The Child Cohort Studies

	U.S.	U.K.	Australia	Canada
Survey name	Early Childhood Longitudinal Study, Kindergarten Cohort (ECLS-K)	Millennium Cohort Study (MCS)	Longitudinal Study of Australian Children Kindergarten Cohort (LSAC-K)	National Longitudinal Study of Children and Youth (NLSCY)
Cohort birth dates	1992-1993	2000-2002	1999-2000	1991-1994
Common ages when children assessed	5, 9, 11	5, 7, 11	5, 9, 11	5, 7, 9, 11
Sample size (balanced panel)	8,370	11,762	3,940	4,346

MEASURING SES

We use parental education as our measure of SES – because it is a good proxy for permanent income, can be comparably measured across countries, and is an important input to child development.

Based on the highest educated parent, we code families as

- low SES (high school education or less)

- medium SES (some education beyond high school)

- high SES (college degree or more)

Results are generally similar if we instead use family income.

SES & RESOURCES FOR CHILDREN: THREE STRIKING FINDINGS

1. Canada stands out in having more family resources available to children, in particular, higher parental education (Fig 3.1).

Figure 3.1 Children whose parents have a high school education or less are the largest group in the US, UK, and Australia, but not in Canada where parents with at least some post-secondary education make up the largest group.
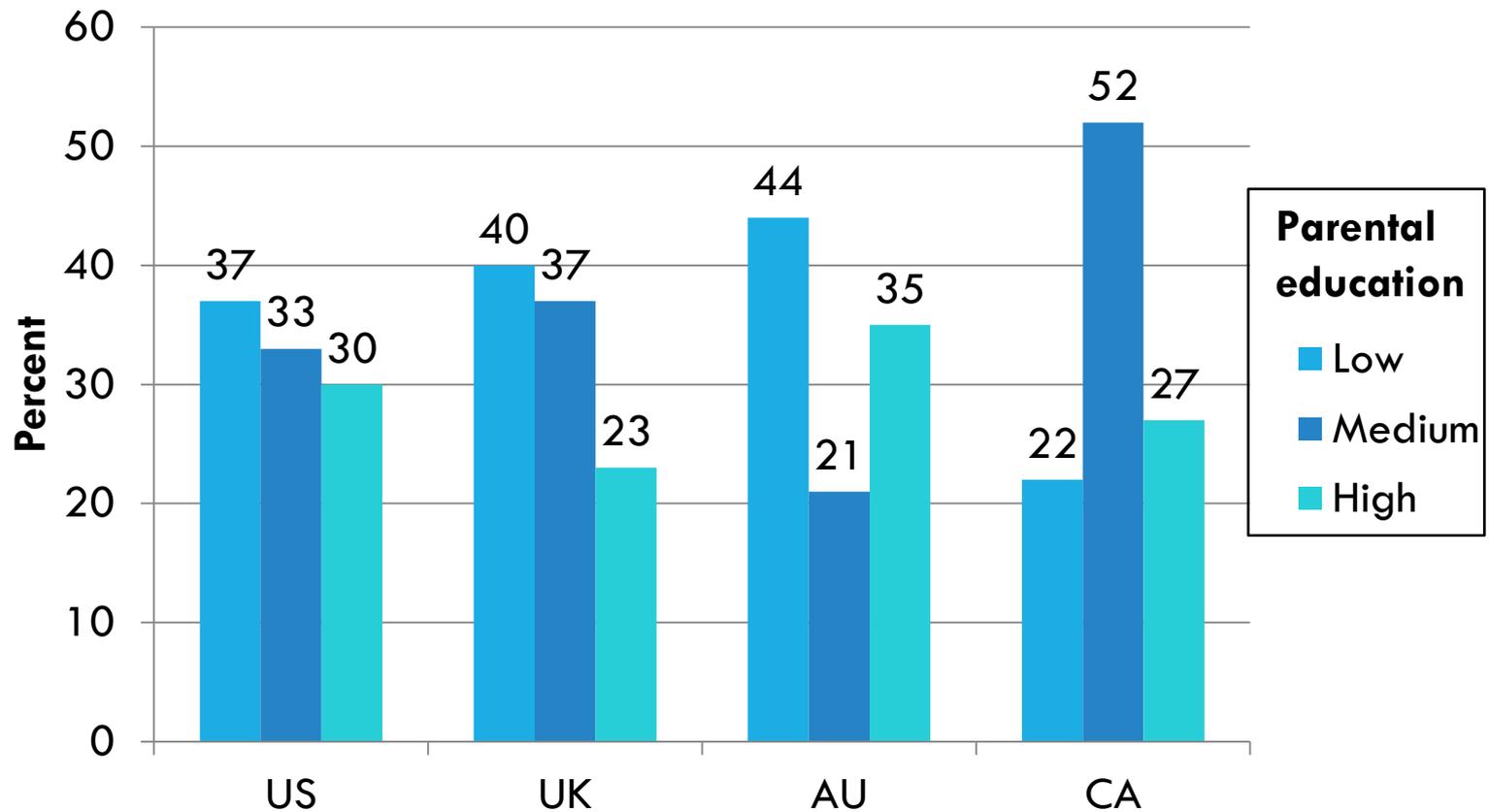
SES & RESOURCES FOR CHILDREN: THREE STRIKING FINDINGS

2. Although family resources are skewed by SES in all four countries, this inequality is starkest in the US.

Figure 3.2 Over one in five children in US families with low educated parents were born to a teen mother, but only three in one hundred in high-educated households
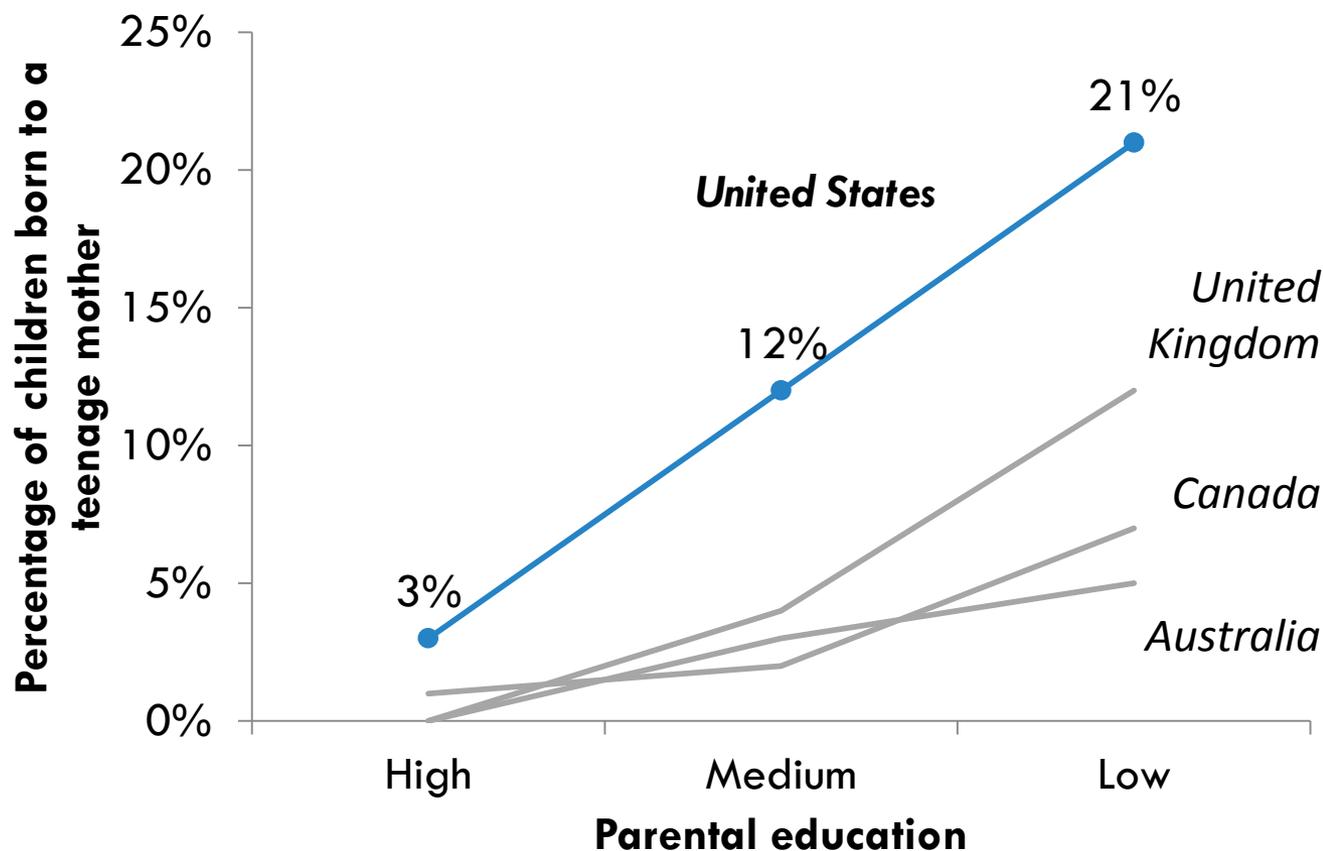
Figure 3.3 Children in the US are least likely to be living with both biological parents
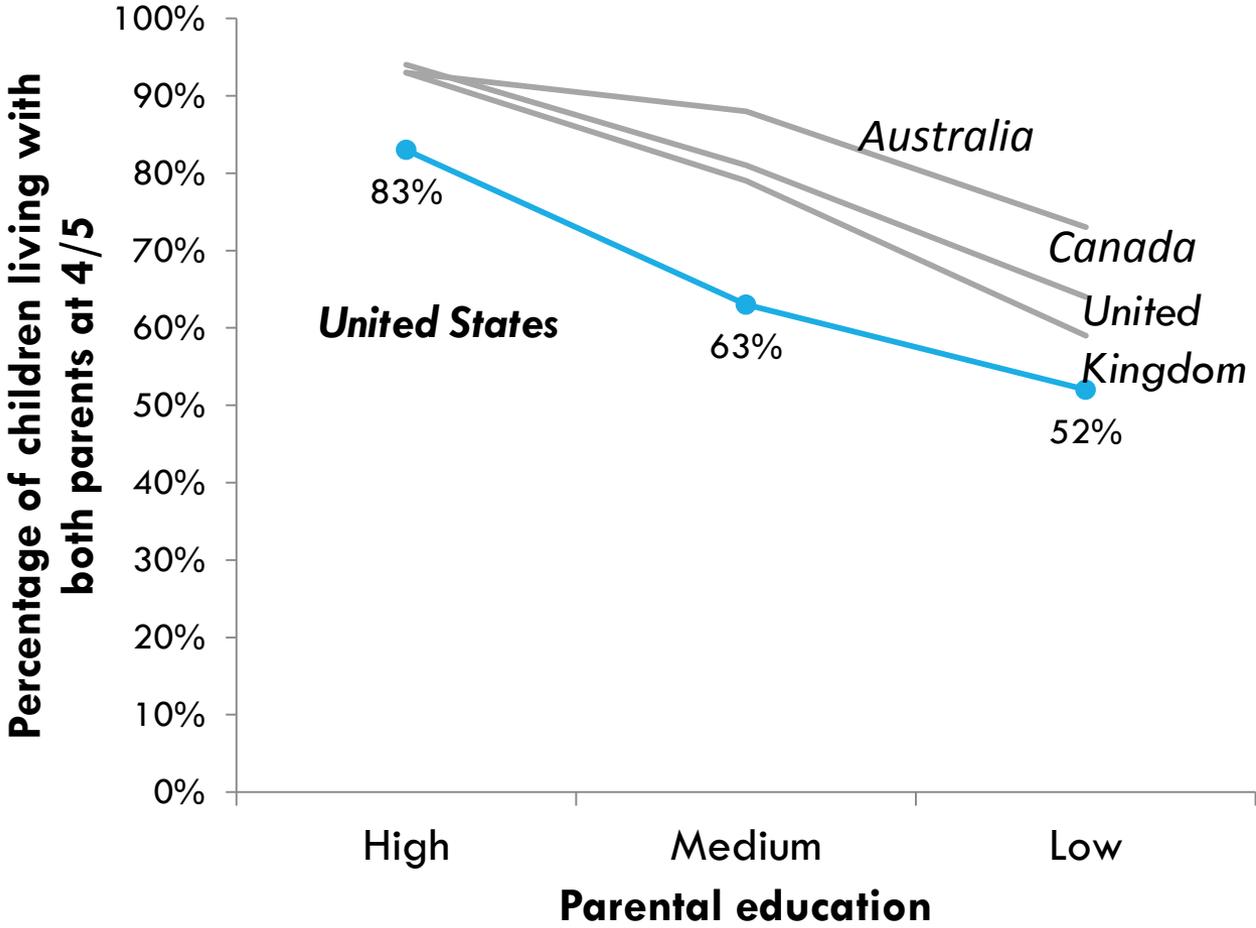
Figure 3.4 Although all four countries have many immigrant parents, in the US children of the least educated parents are most likely to have an immigrant parent – but selective immigration policies means the reverse applies in Australia and Canada.
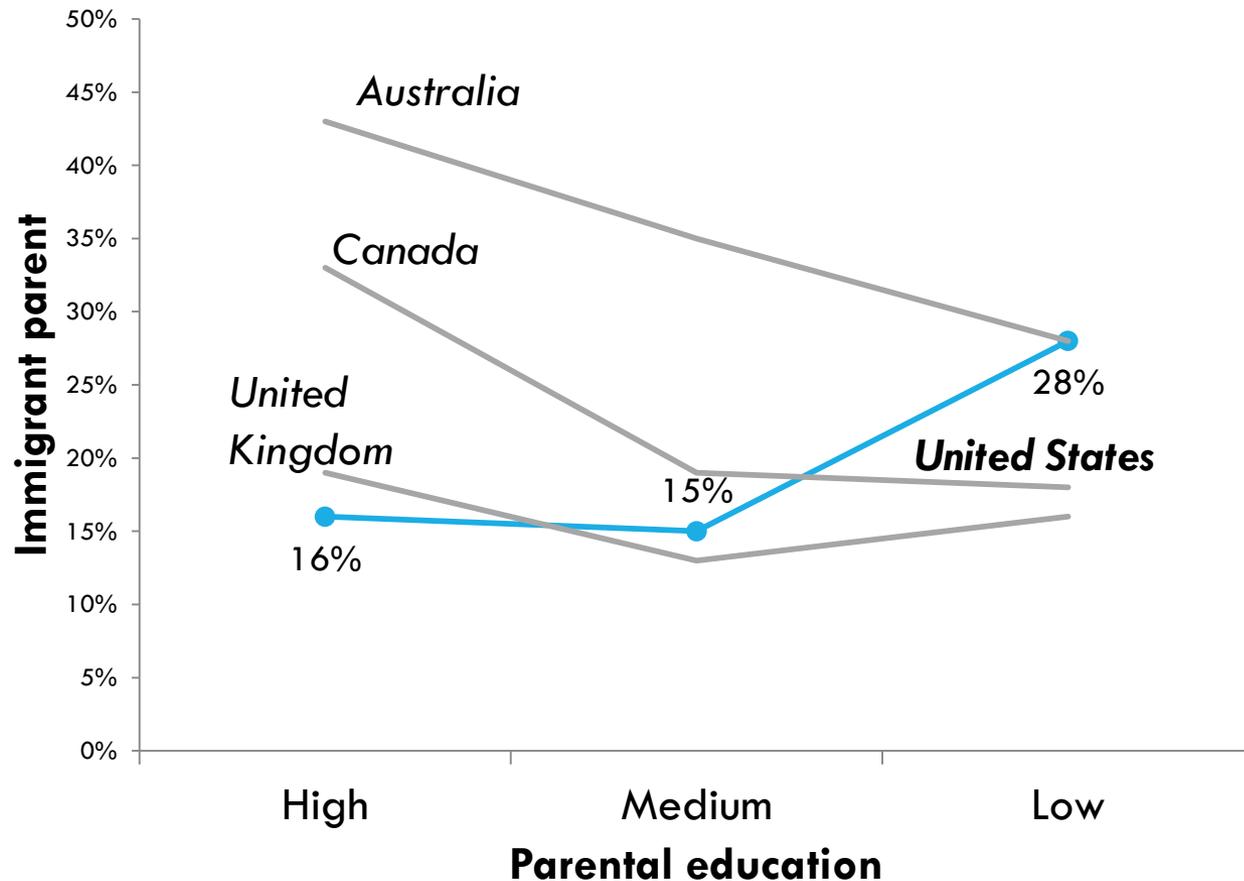
Figure 3.5 In the US children are more than four times as likely to be living with a mother in poor or fair health in households with low education compared to those with high education. Though the UK story is similar, this gradient is not as strong in Australia and Canada.
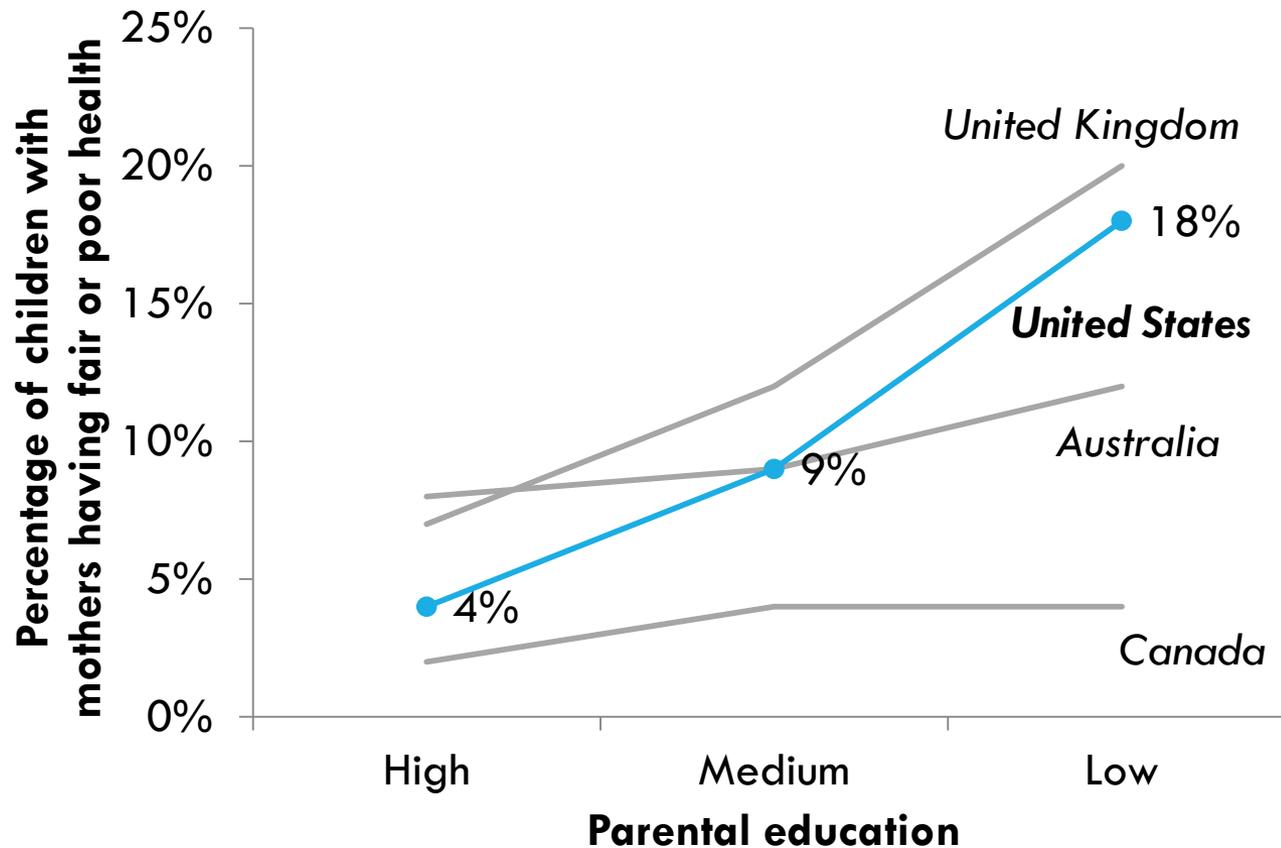
Figure 3.6 Incomes of high-educated families in the US are 1.8 times as large as in medium-educated families and three times as large as in low-educated families. Income differentials are markedly smaller in the UK, Canada, and particularly Australia.
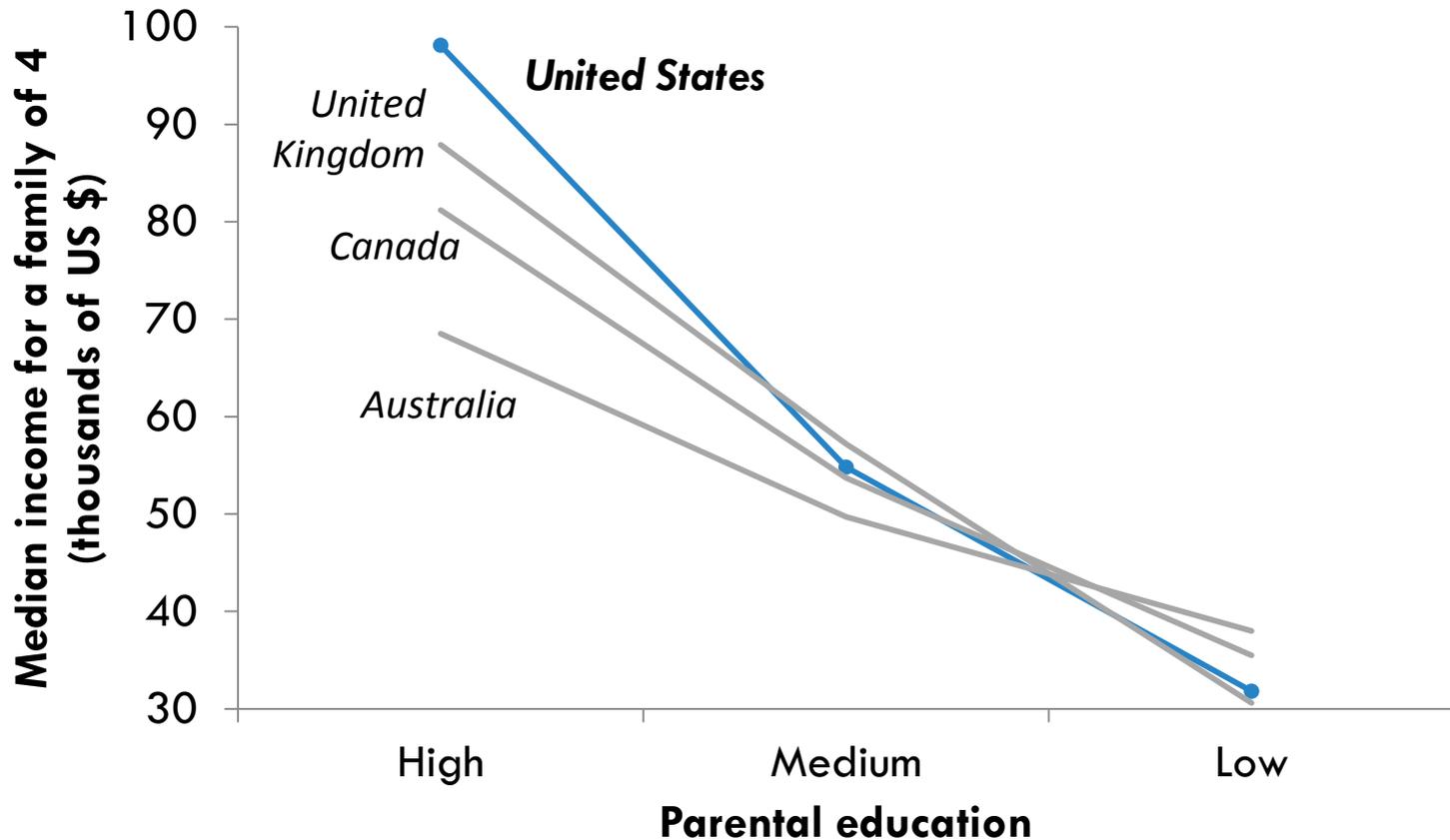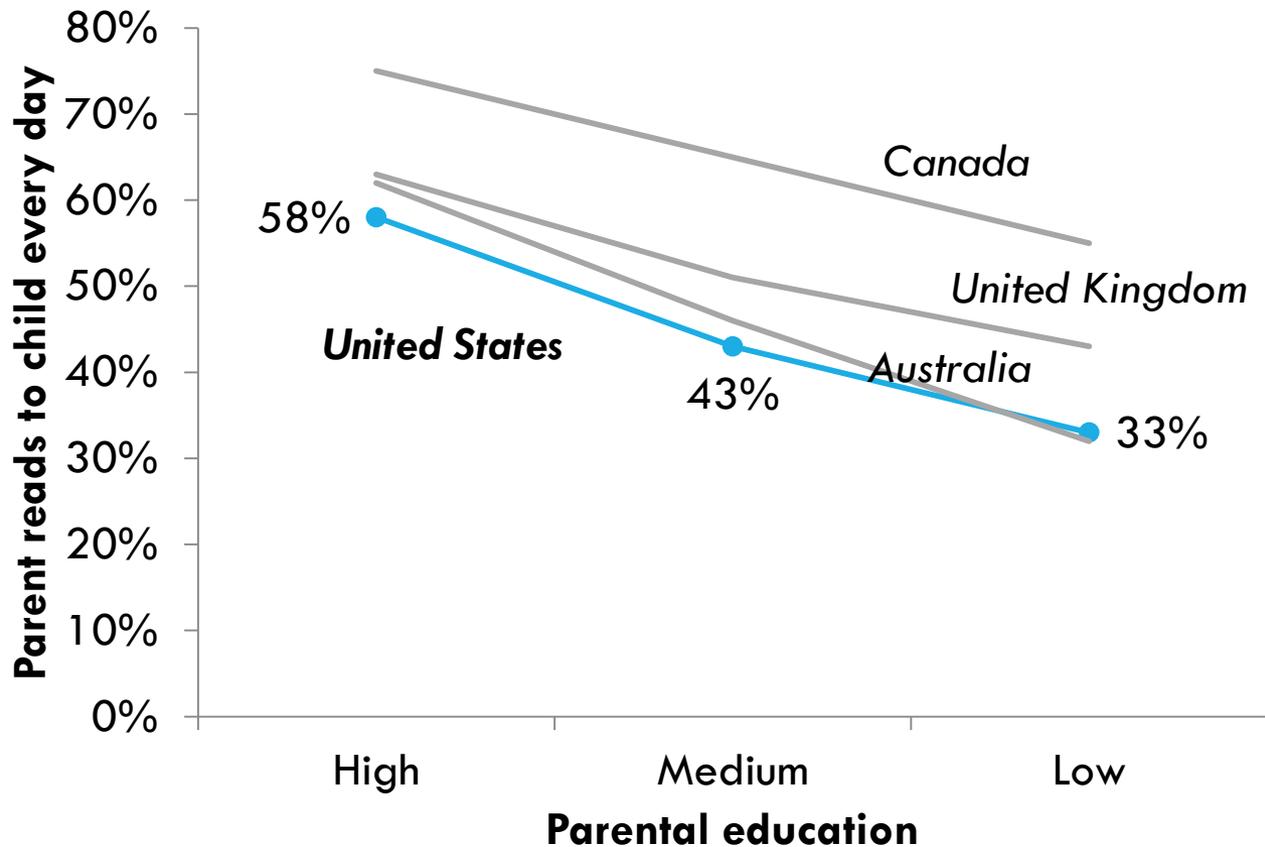
Figure 3.7 Highly educated parents are much more likely to read to their children every day. However, Canadian parents with low education read to their children as often as highly educated parents from the other three countries.

SES & RESOURCES FOR CHILDREN: THREE STRIKING FINDINGS

3. But, the US safety net and supports for working families do the least to combat inequality, leaving children from low SES families doubly disadvantaged (Fig 3.8)

Figure 3.8 In the absence of government taxes and transfers, child poverty rate would not be higher in US. But government benefits do more to reduce poverty in the other countries than they do in the US.
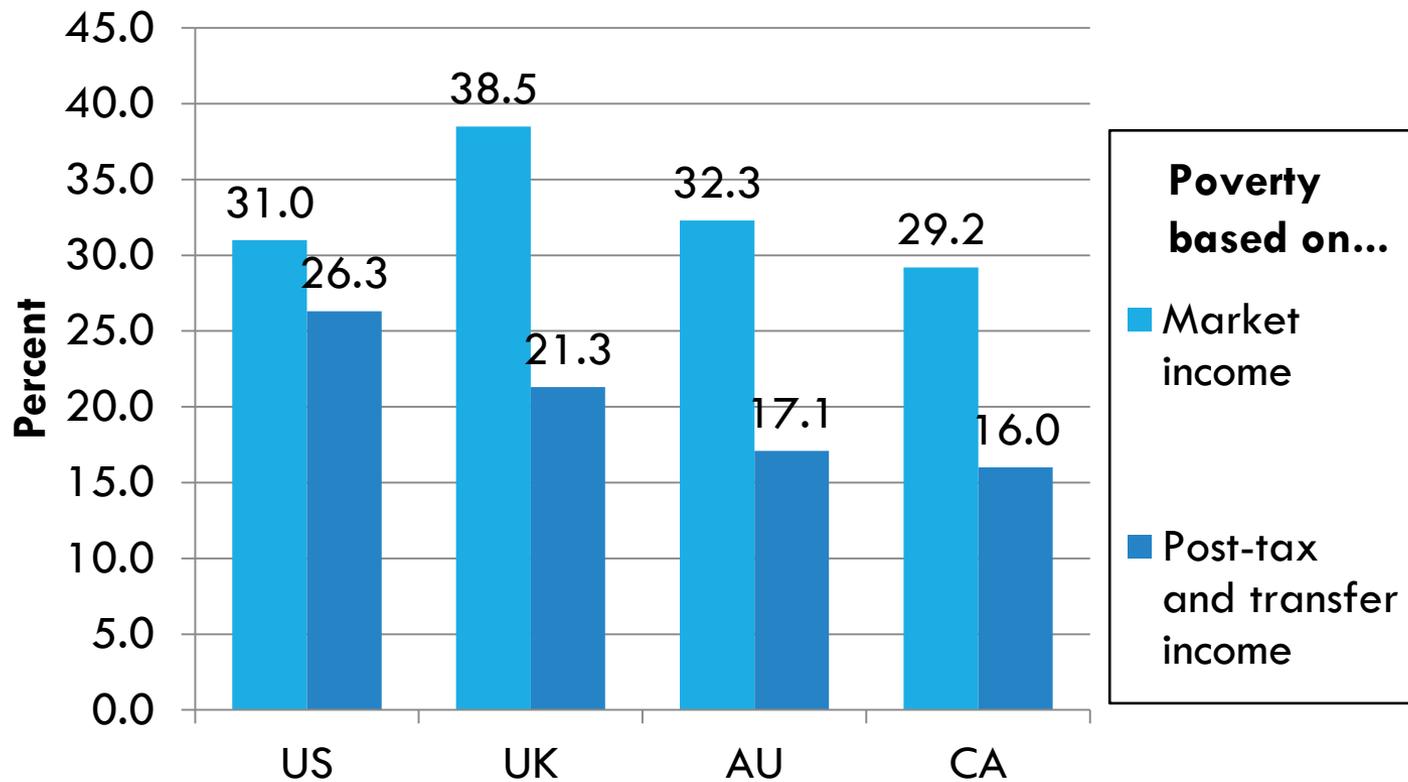
SES & ACHIEVEMENT AT SCHOOL ENTRY: THE US IS MOST UNEQUAL

Inequalities in children's cognitive skills at school entry are significantly larger in the US than the other three countries (Fig 4.1)

Figure 4.1 Inequality in language/reading skills at age 4/5 is greatest in the US, followed by the UK
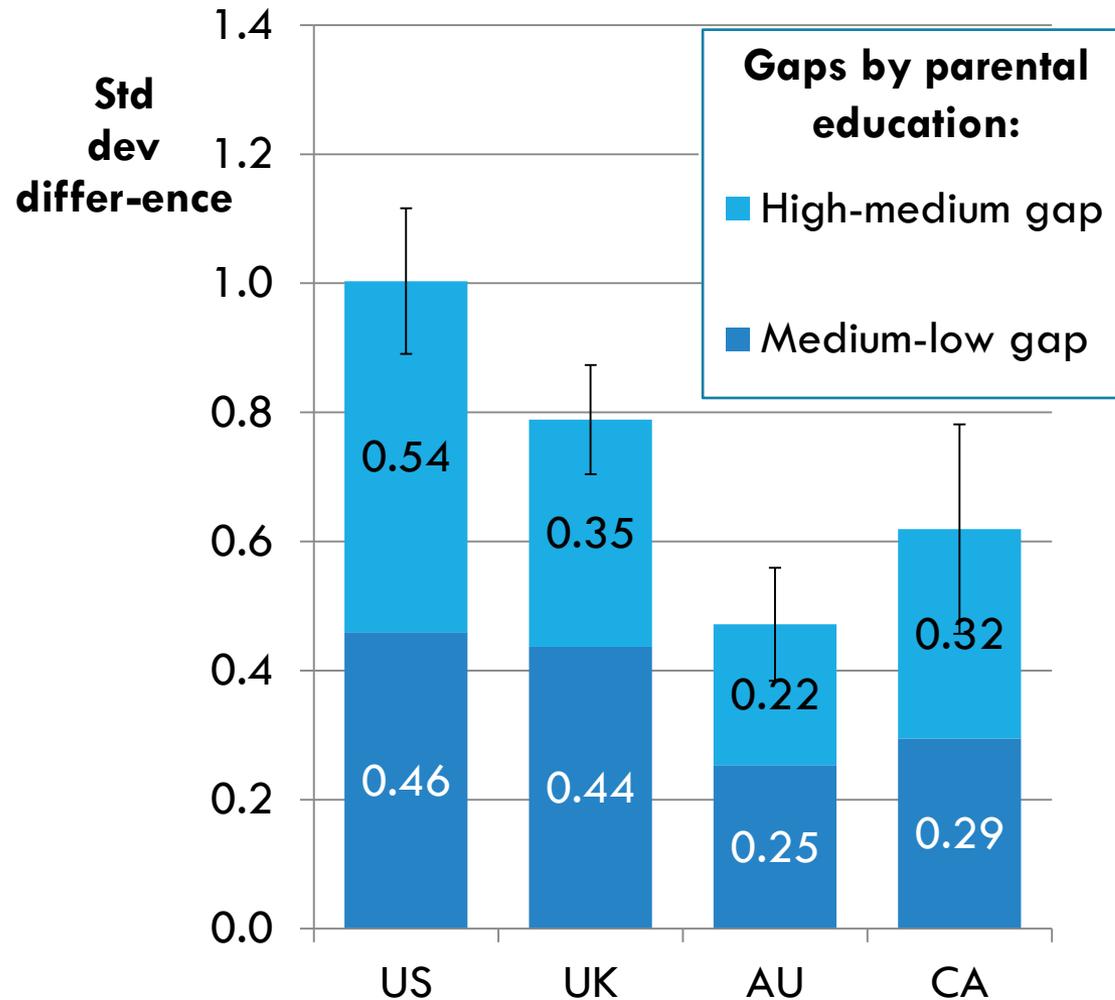
Figure 4.2 Gaps in social and emotional development at age 5 are largest in the UK, but in each country are smaller than gaps in cognitive development.
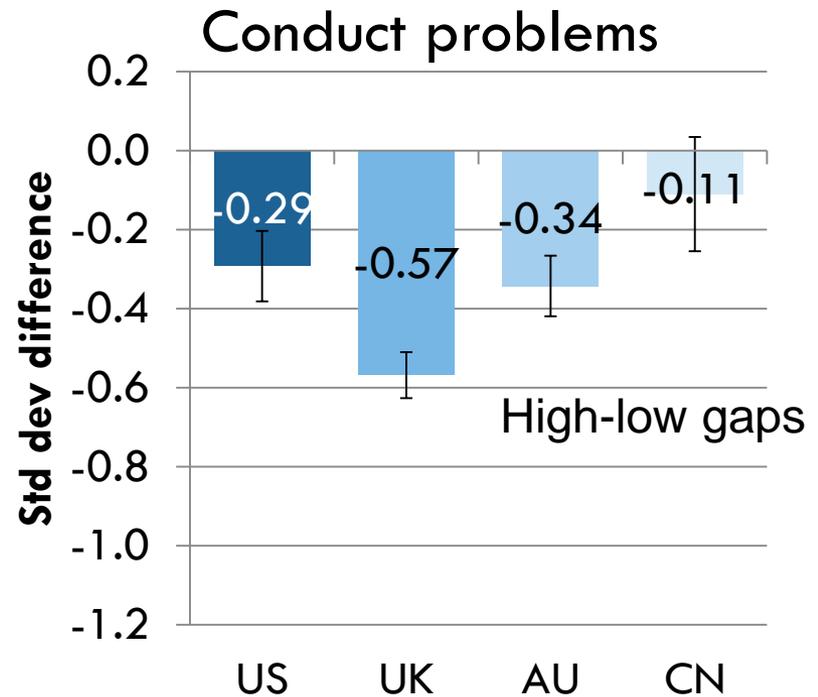
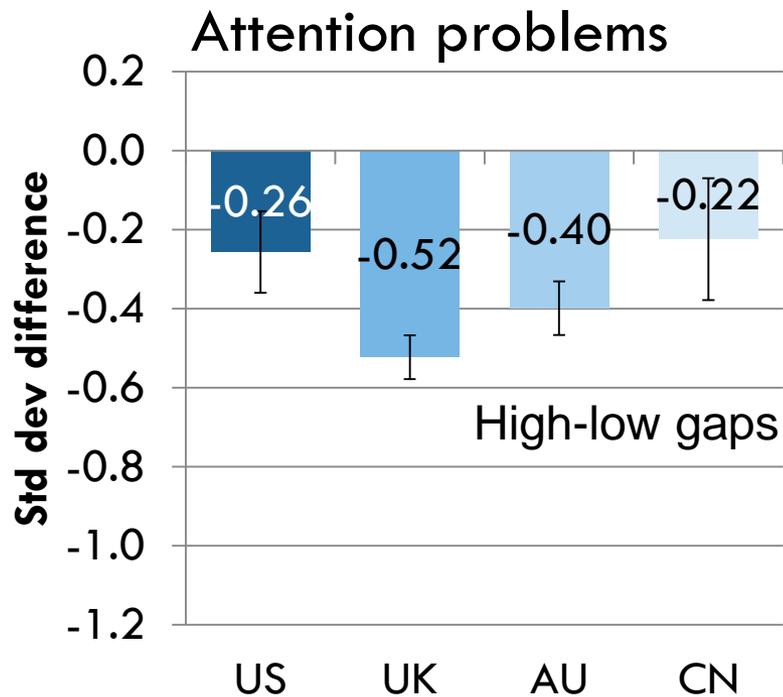# **Figure 4.3** Gaps in health at age 5 are largest in the US and UK

Poor/fair health

% point difference

US	UK	AU	CN
-4.2%	-3.9%	-0.3%	-1.4%

High-low gaps

Obesity

% point difference

US	UK	AU
-4.3%	-3.8%	-2.3%

High-low gaps
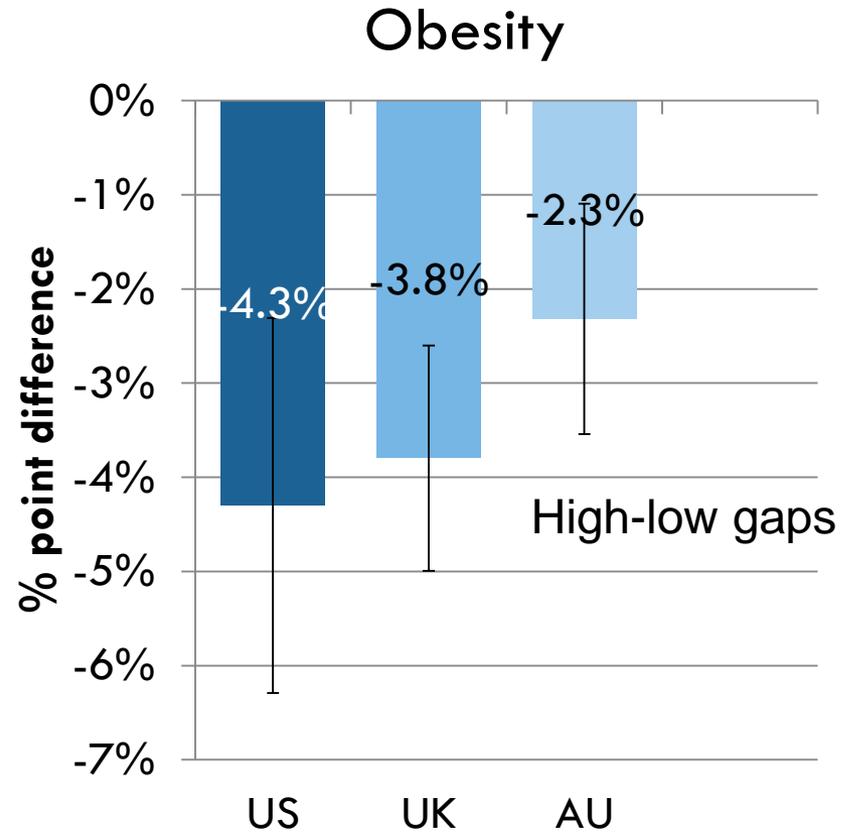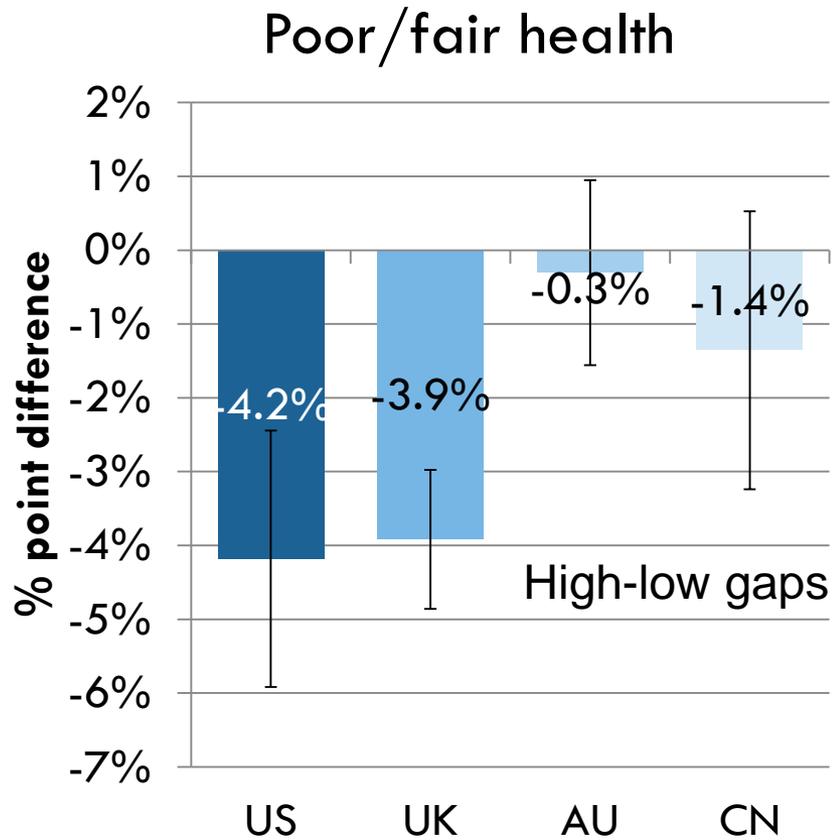
SES & ACHIEVEMENT AT SCHOOL ENTRY: THE ROLE OF PRESCHOOL

Enrollment in preschool, which could offset some of these inequalities, remains highly skewed by SES in the US and thus plays a less equalizing role than it otherwise might (Fig 4.4).

Figure 4.4 US families face a "middle class squeeze", with medium-SES mothers working the longest hours but having a lower share of children in pre-school than high-SES mothers
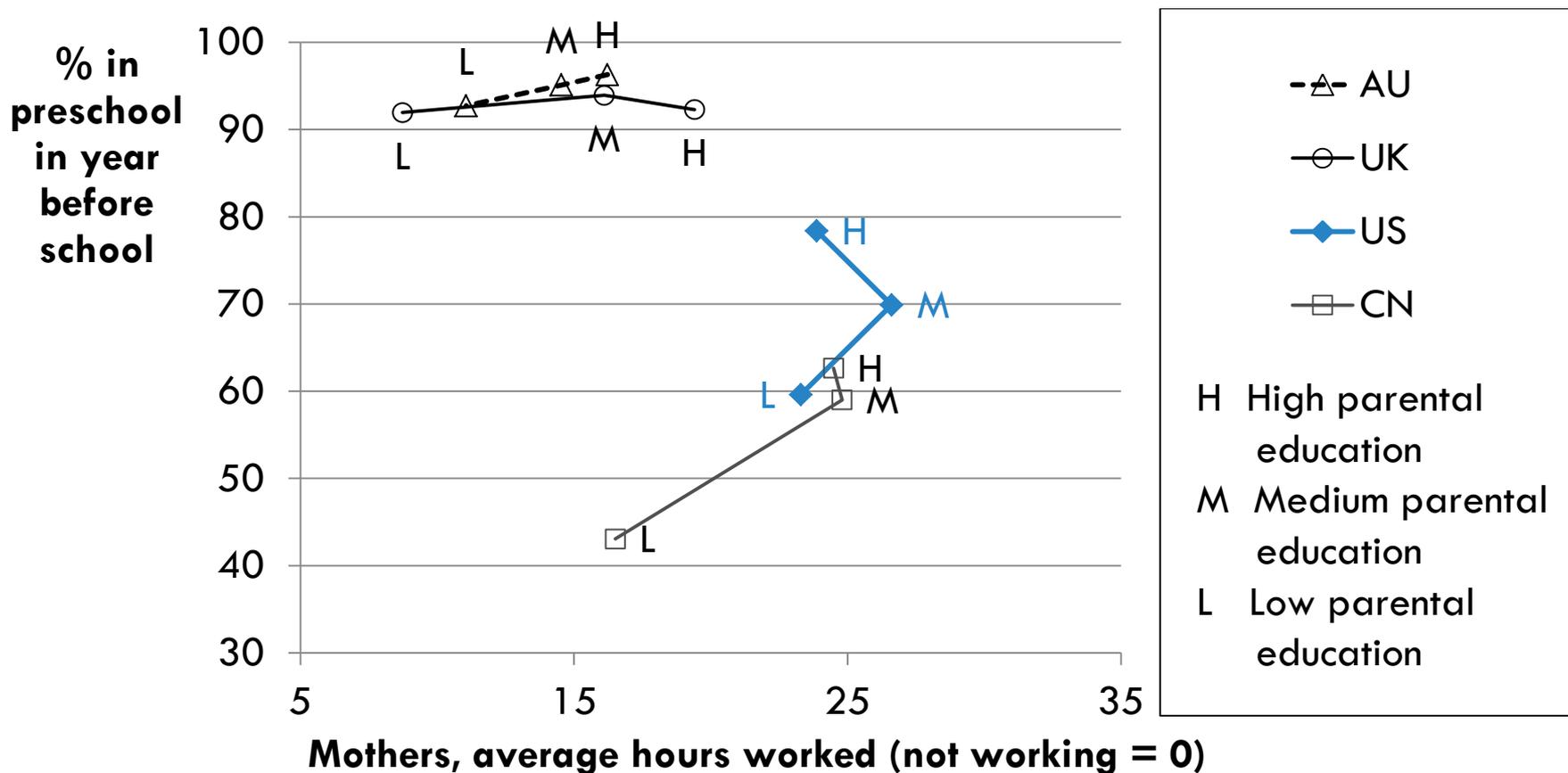
SES & ACHIEVEMENT DURING SCHOOL YEARS: THE US CONTINUES TO BE MOST UNEQUAL

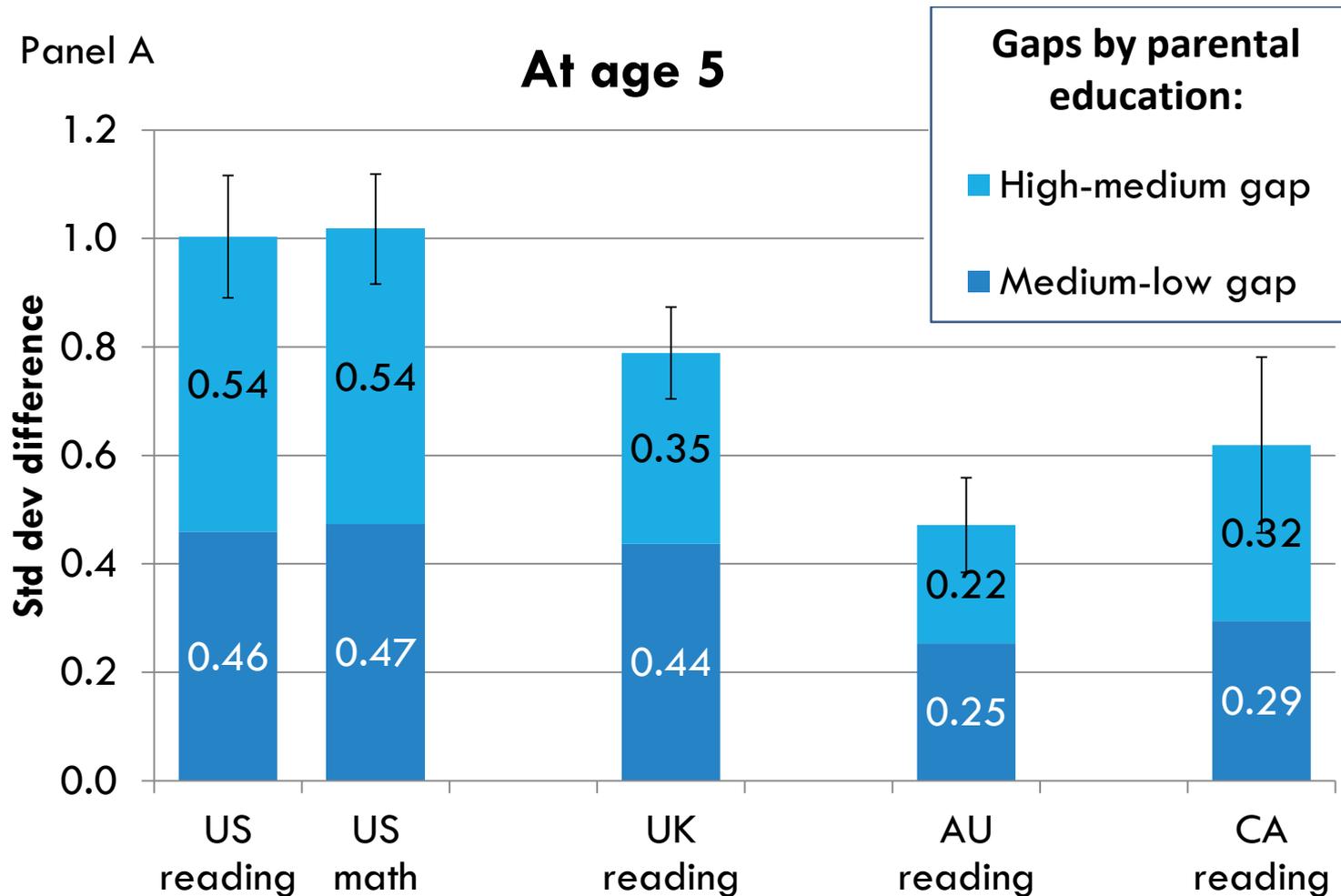Children in the US not only start primary school more unequal, they also finish primary school more unequal. (See Fig 5.1)

Figure 5.1 Achievement gaps by parental education are largest in the US

Panel A

At age 5

Std dev difference

US reading	US math	UK reading	AU reading	CA reading

High-medium gap values: 0.54, 0.54, 0.35, 0.22, 0.32
Medium-low gap values: 0.46, 0.47, 0.44, 0.25, 0.29

Gaps by parental education:
■ High-medium gap
■ Medium-low gap

Panel B

At age 7/9

Std dev difference

US reading	US math	UK reading	UK math	AU reading	CN reading	CN math

US reading: 0.56 / 0.42
US math: 0.53 / 0.38
UK reading: 0.43 / 0.34
UK math: 0.34 / 0.31
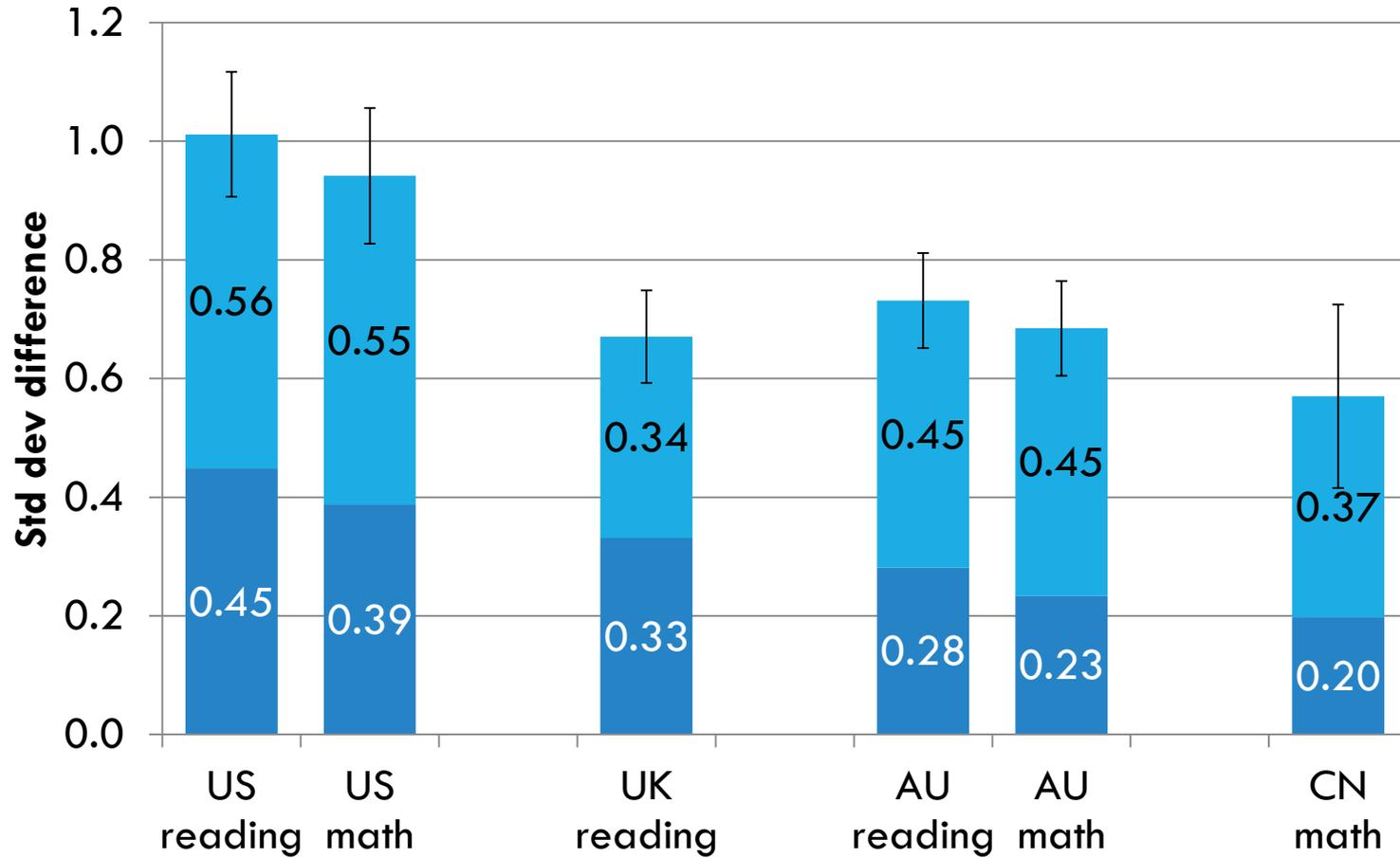AU reading: 0.31 / 0.30
CN reading: 0.28 / 0.42
CN math: 0.26 / 0.10

Panel C

And at age 11

SES & ACHIEVEMENT DURING SCHOOL YEARS: OUT-OF-SCHOOL & SCHOOL FACTORS

Both out-of-school and in-school factors play a role in the greater inequality in the US (Fig 5.2, Fig 5.4)

Figure 5.2 Primary school children in the US watch the most television; this is most marked among those of lower SES

United States

Australia

Canada

United Kingdom

35%

30%

16%

Child watches 3+ hours of TV a day

40%
35%
30%
25%
20%
15%
10%
5%
0%

High   Medium   Low
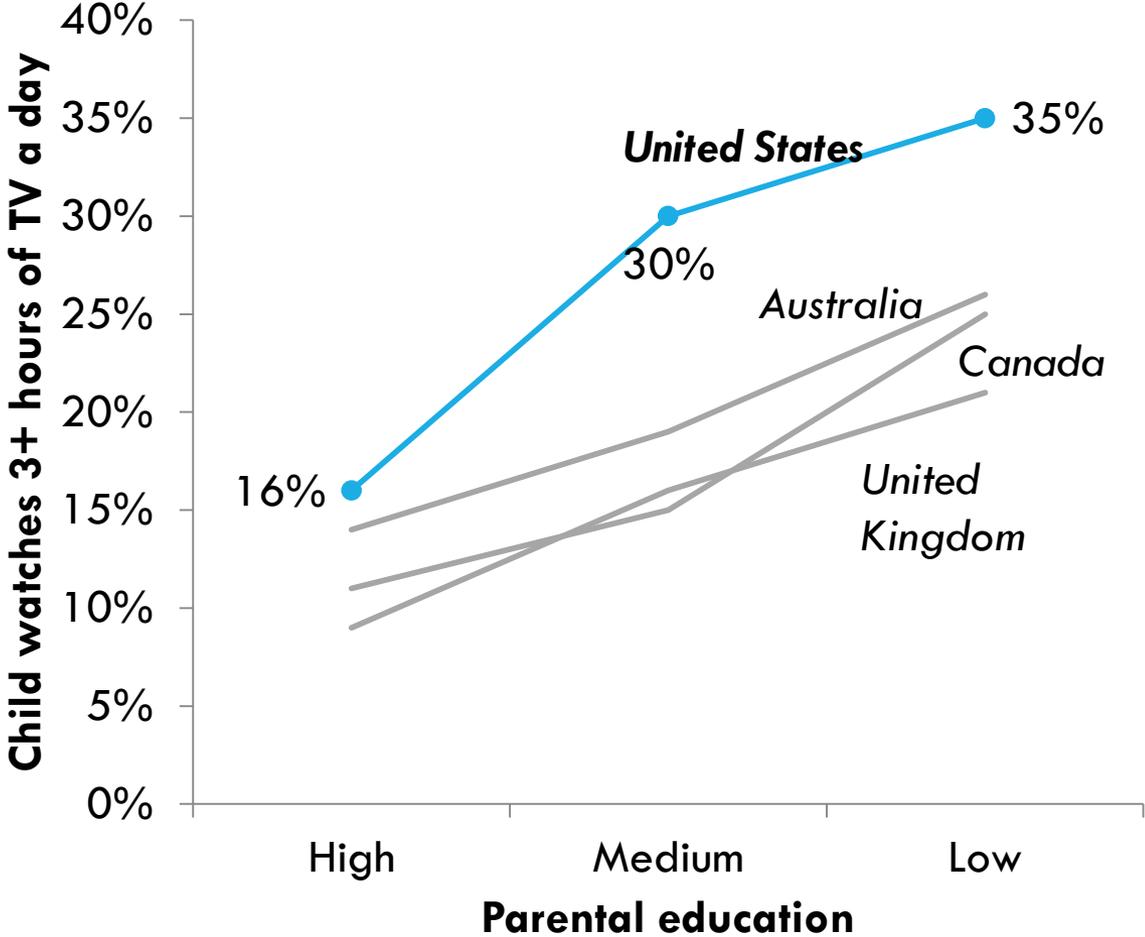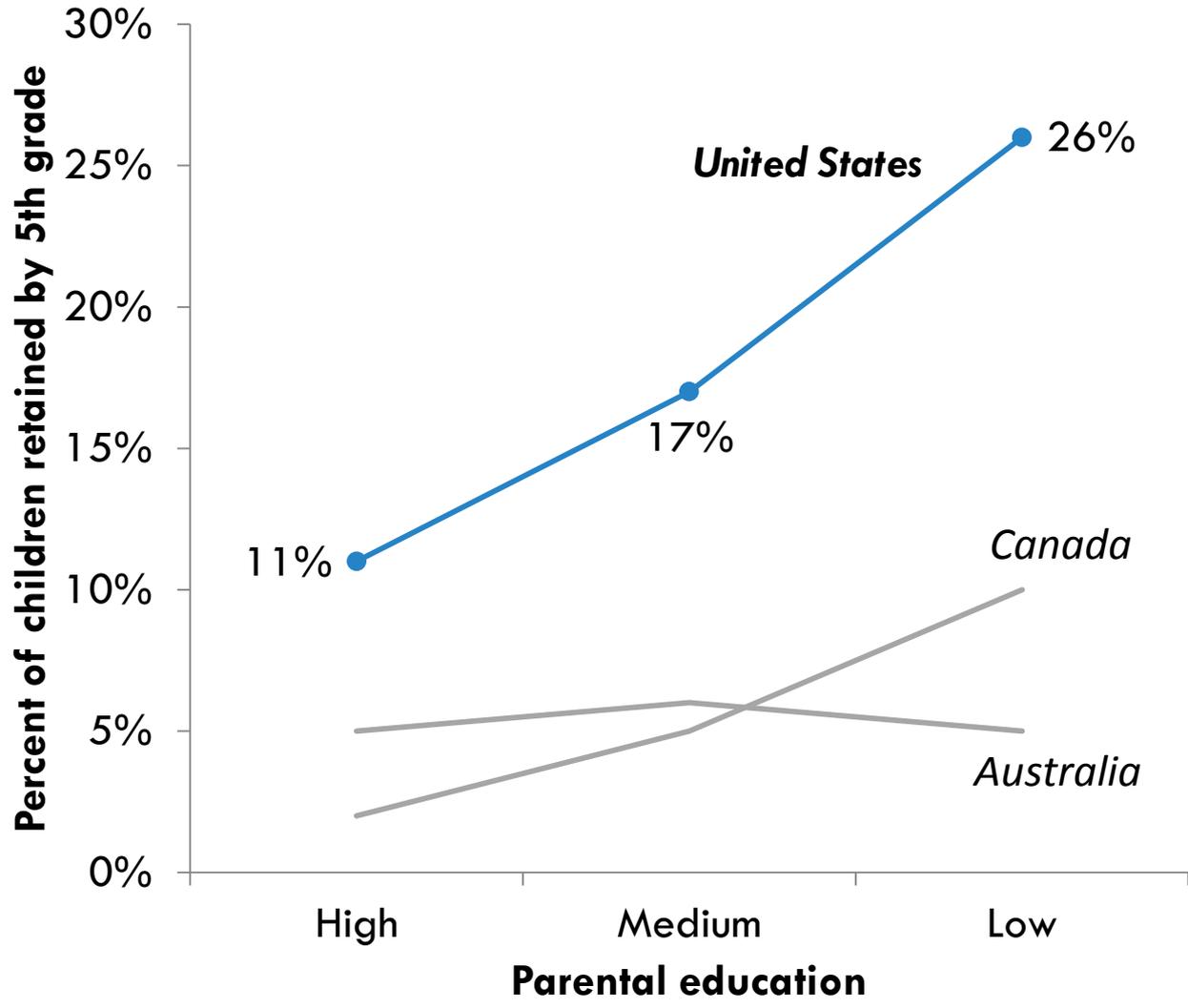
Parental education

Figure 5.4 Rates of grade repetition are much higher in the US than elsewhere, and noticeably higher among low-SES children

WE FIND THAT THE SES GAP WIDENS DURING THE SCHOOL YEARS

The US data uniquely measures outcomes in a comparable metric for a large sample of children on six occasions between kindergarten and 8th grade

Following children to age 14, we find that the SES gap widens (Figures 6.4, 6.5)

Figure 6.4 Over time, achievement gaps emerge between low and high SES children who start school with the same level of reading ability. High SES children always develop an advantage.
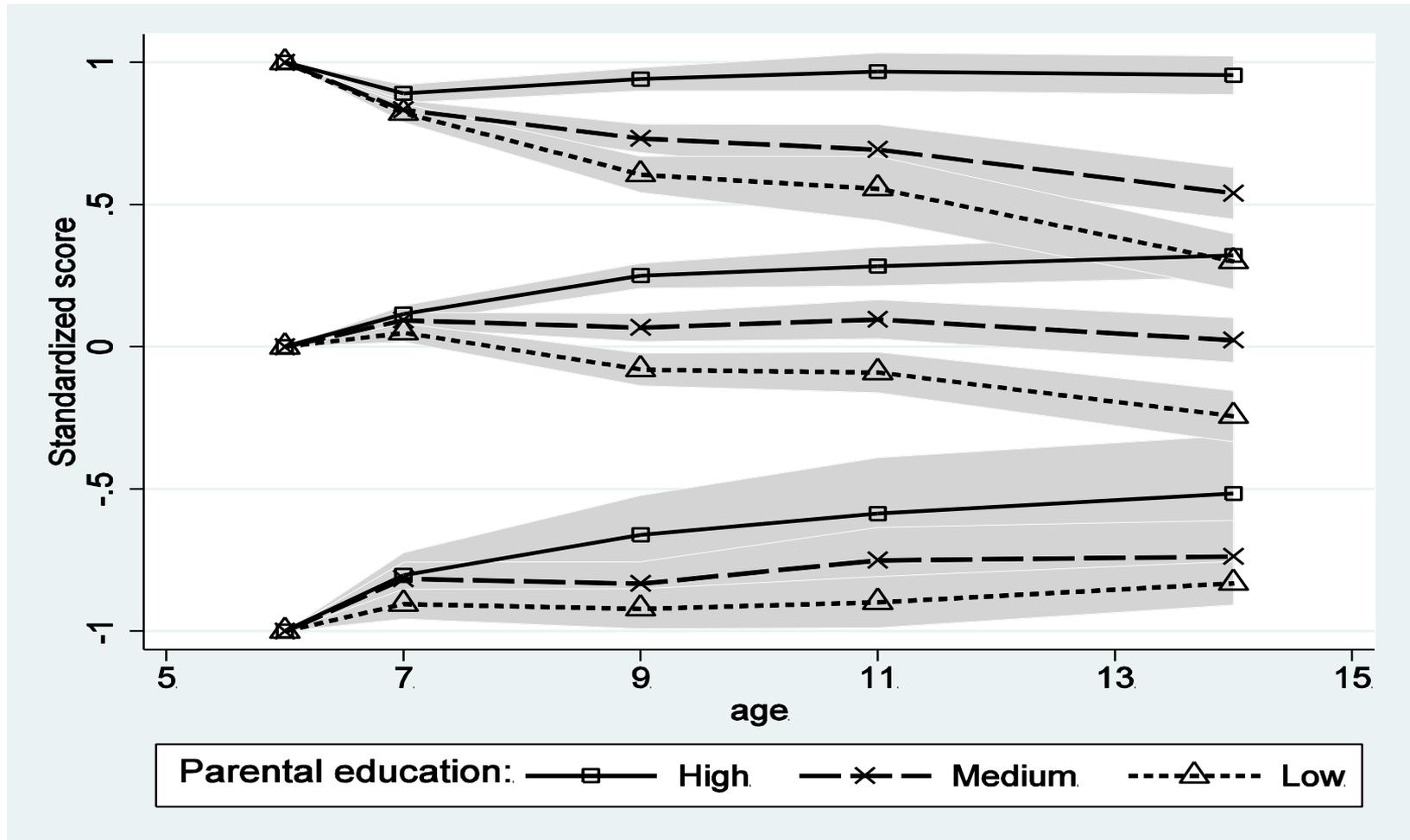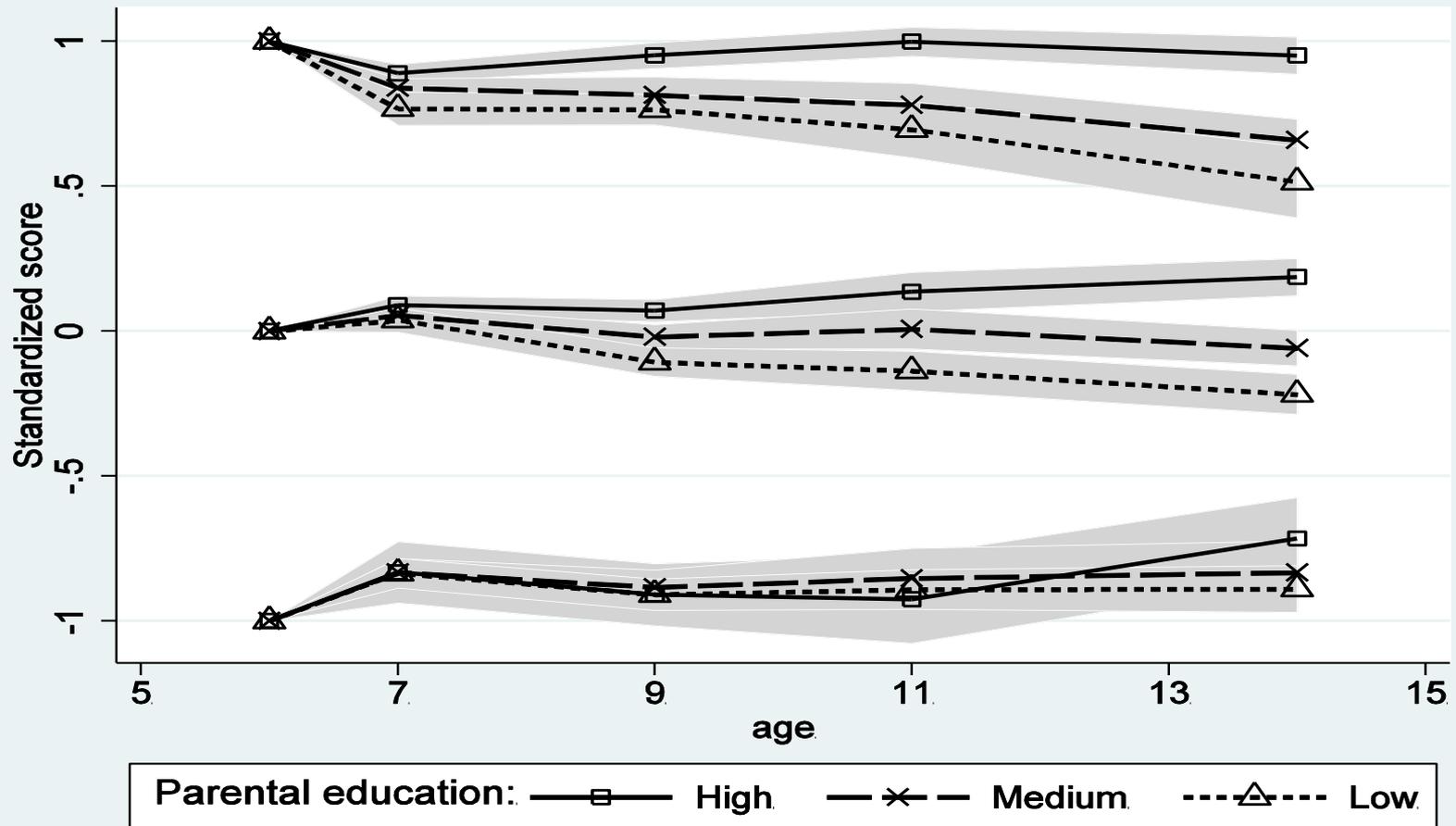
Figure 6.5 Diverging trajectories are also found in math. Low SES children who start school with average or advanced math skills do not progress at the same pace as their high SES counterparts.

BUT THE MAJORITY OF THE SES GAP IS ALREADY PRESENT AT SCHOOL ENTRY

We see this in all three of our countries where this type of analysis is possible (Table 6.2)

Table 6.2 SES-group differences in initial achievement are very important in all the countries, but they cannot account fully for the gaps we observe in reading at age 11

	US	UK	AU
Initial ability age	6 (Spring K)	5	7
Instrument age	5 (Fall K)	3	5
Initial top-bottom education gap	0.90	0.76	0.56
Age 11 top-bottom education gap	1.03	0.69	0.68
Of which:			
Attributed to initial differences	0.72 (70%)	0.40 (57%)	0.45 (66%)
Attributed to subsequent divergence	0.31 (30%)	0.29 (43%)	0.23 (34%)
N	9650	10,717	3333

HOW TO REDUCE GAPS?
THREE KEY POLICY DIRECTIONS

1) **Provide more support for early learning,** through evidence-based parenting programs for families with infants/toddlers, and universal high-quality preschool for 3 and 4 year olds.

2) **Raise family incomes for the poor and near-poor** (e.g., increasing minimum wage and maintaining/expanding tax credits).

3) **Improve the quality of teaching and learning** in schools, by recruiting, supporting, and compensating more effective teachers, implementing more rigorous curricula, and setting higher expectations and providing more support for low-achieving students.

1. EARLY CHILDHOOD POLICIES

Provide more support for early learning:

- evidence-based parenting programs for families with infants and toddlers (Haskins and Margolis, 2014)

- universal high quality preschool for 3 and 4 year olds (Ruhm and Waldfogel, 2009; Yoshikawa et al., 2015)

2. INCOME SUPPORT POLICIES

**Raise family incomes for the poor and near-poor:**

- address low incomes (e.g. increase minimum wage)

- maintain/expand supports for low-income families (e.g. tax credits)

- maintain/strengthen food and nutrition programs (e.g. SNAP, school meals, WIC in US)

- provide supports for working families (e.g. paid family and medical leave in US)

3. EDUCATION POLICIES

Improve the quality of teaching and learning in schools:

- recruiting, supporting, and adequately compensating more effective teachers (Fig 7.1)

- implementing more rigorous curricula (e.g. Common Core in US)

- setting higher expectations and providing more support for low-achieving students (through evidence-based interventions)

Figure 7.1 Teacher salaries are above those of comparably educated workers in Canada, nearly on par in UK and Australia, but seriously behind in US
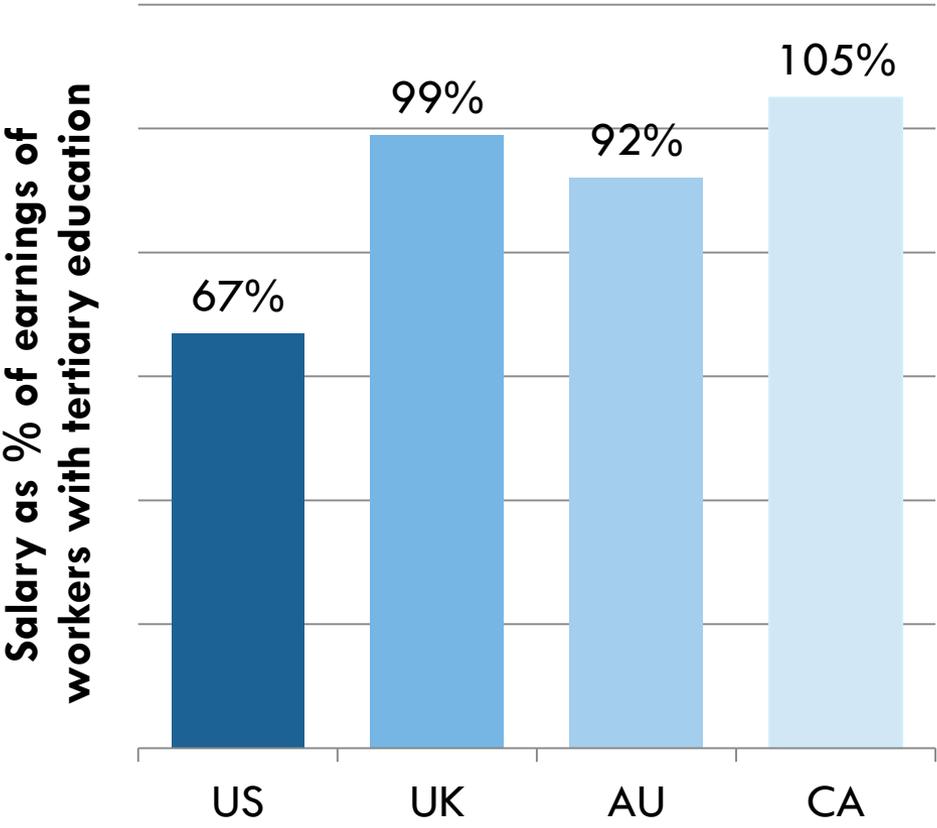
Source: OECD Education at a Glance 2012, Table D3.1.

IN CONCLUSION

Children from low SES families face considerable challenges, more so in the US than in Australia, Canada, or UK.

Their parents not only lack education, they also tend to be younger, live in less stable families, and have lower incomes.

These inequalities are augmented by an inadequate safety net in the US (lacking paid parental leave, universal preschool, reliable income supports, and until recently universal health care).

Once in school, children from low-SES families face schools that are segregated by income and have unequal resources including important inputs like teacher quality.

SOMETHING IS GOING ON AT THE TOP AND MIDDLE AS WELL

High-SES parents are not only highly educated, they also are more likely to be married and to have high incomes – and they invest a large share of those resources in their children.

In contrast, families in the middle experience a "middle class squeeze".

TOO MANY CHILDREN ARE BEING LEFT BEHIND

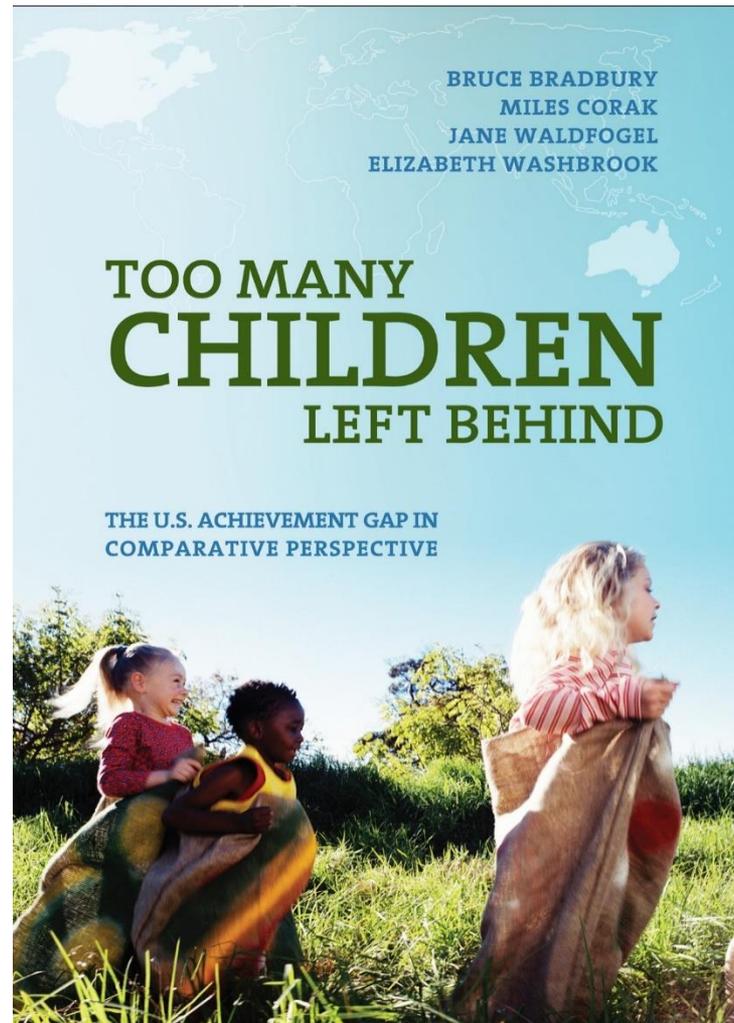The gaps and challenges in the US are particularly sobering.

But this comparative analysis suggest that many children are being left behind in Australia, Canada, and the UK as well.

Clearly, as rich nations, we can and should do better.

Three key steps would be to:

1) provide more support for early learning

2) raise family incomes for the poor and near-poor

3) improve the quality of teaching and learning in schools.

For more details see: