



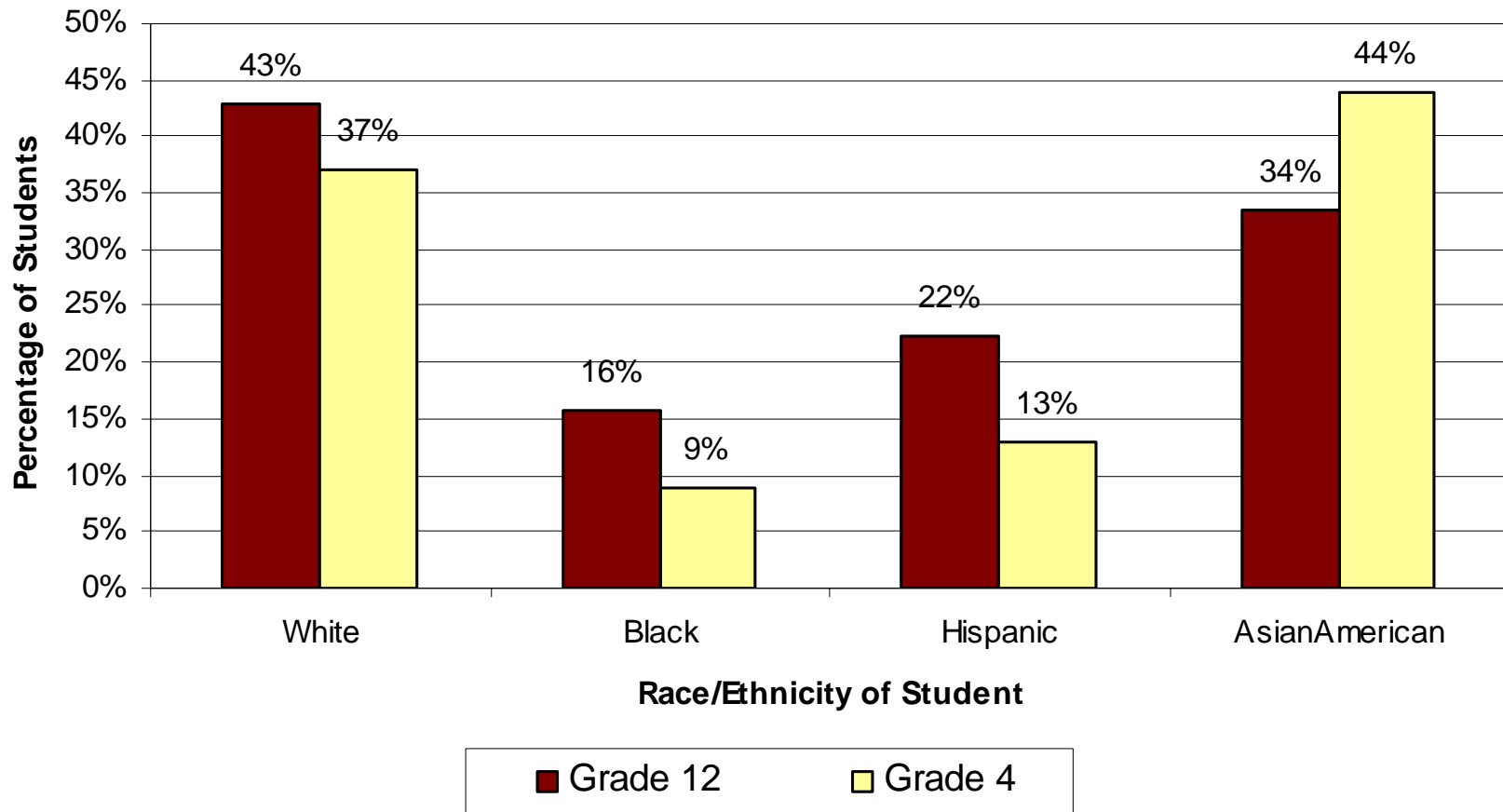
*National Center for Children & Families
Teachers College, Columbia University
<http://nccf.tc.columbia.edu>*

School Readiness: Closing Racial / Ethnic Gaps

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This presentation is based on a chapter summarizing the findings from the issue of the Future of Children, 2005, Volume 15, entitled 'School Readiness-Closing Racial and Ethnic Gaps'.

NAEP Reading Assessment for grade 4 (1994) & grade 12 (2002) — Percentage of students at or above proficient by race/ethnicity



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What defines “school readiness”?



A child’s **academic skills** (e.g., vocabulary size, complexity of spoken language, basic counting, “general knowledge”);

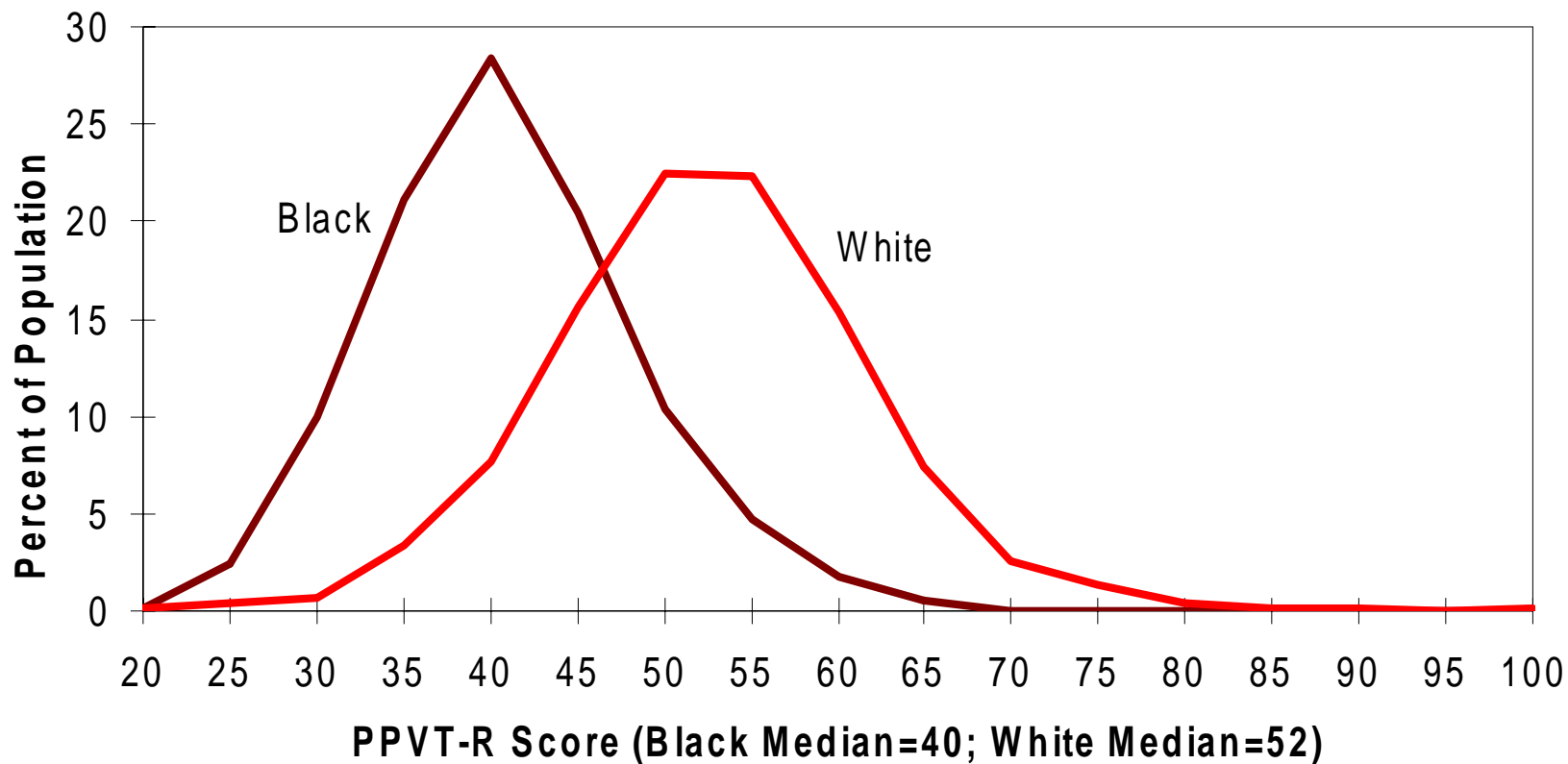
A child’s **social and emotional skills** (e.g., following directions, working in a group, impulse control) – which are as important as academic skills but not well studied.

Children who are not “ready” for school are more likely to...



Perform less well in elementary
& secondary school;
Become teen parents;
Engage in criminal activities;
Suffer from depression.

Vocabulary scores for black and white three and four-year olds



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Standard Deviation Units

If the standard deviation = 10 and white students score 12 points more than black students on average (a white-black gap of 12), then...

$12 \text{ points} / 10 = 1.2$ standard deviation units (120% of the standard deviation)

If the white-minority gap in test scores is 1 standard deviation then...

84% of white children will perform better than the average minority child

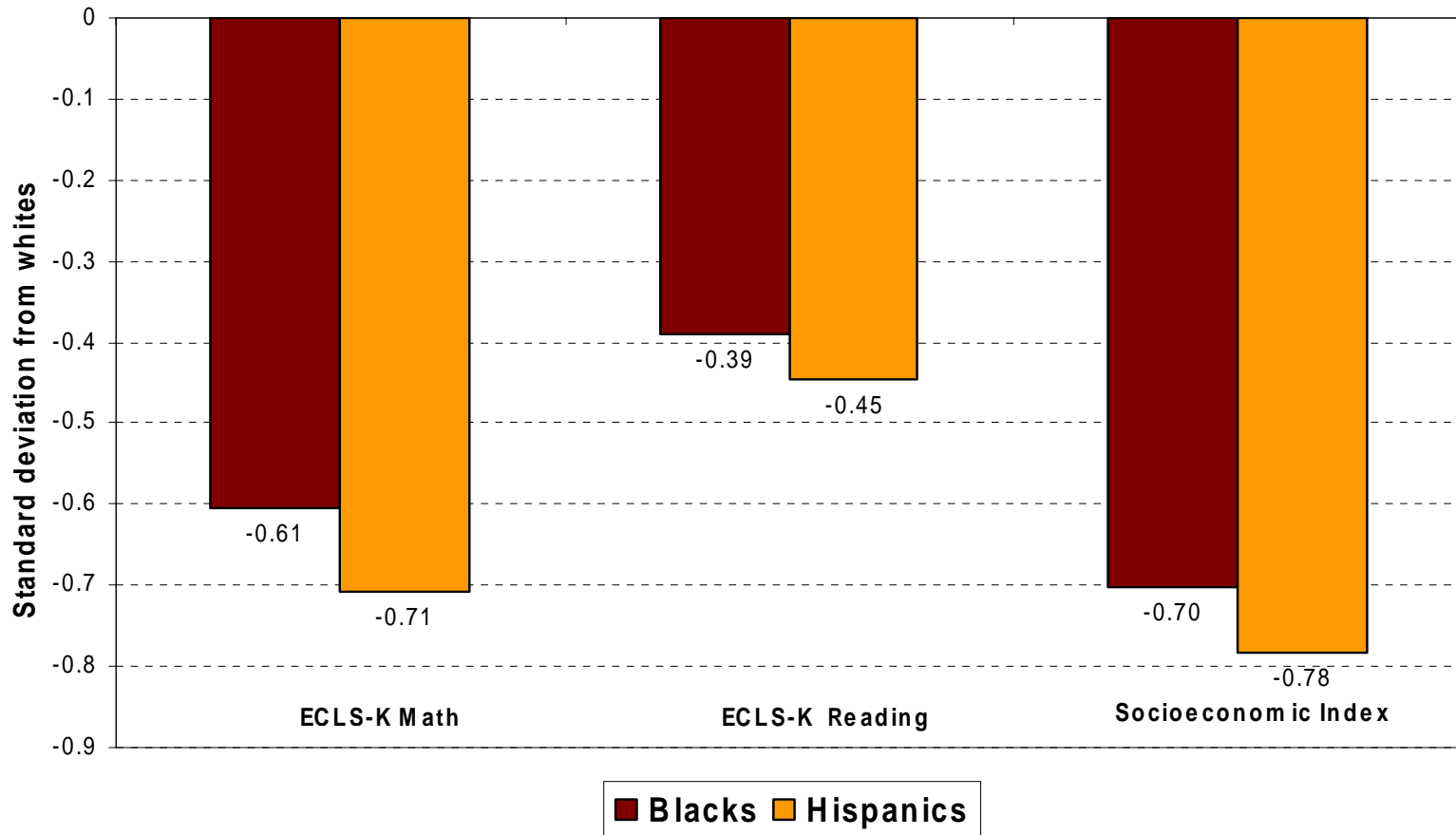
16% percent of minority children will perform better than the average white child

Whites students are 13 times more likely than minority students to score in the top 5% and enroll in “gifted” class

The average textbook is written so that the average white student understands 75% of it

The average minority student will understand 53% of the same textbook, virtually guaranteeing that such a reader will not engage with the text

Racial / ethnic gaps in selected test scores and in family socio-economic status for kindergartners



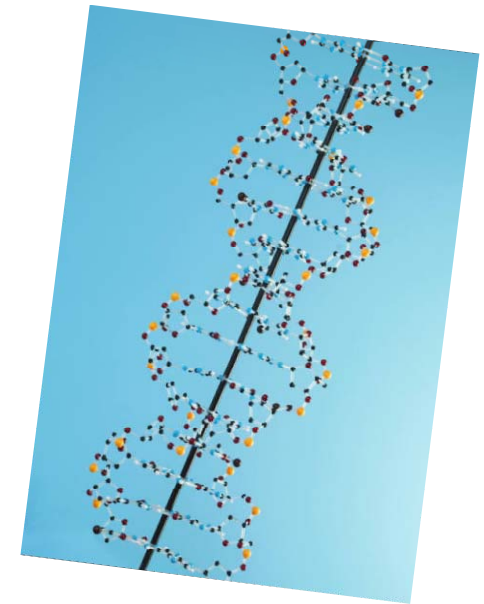
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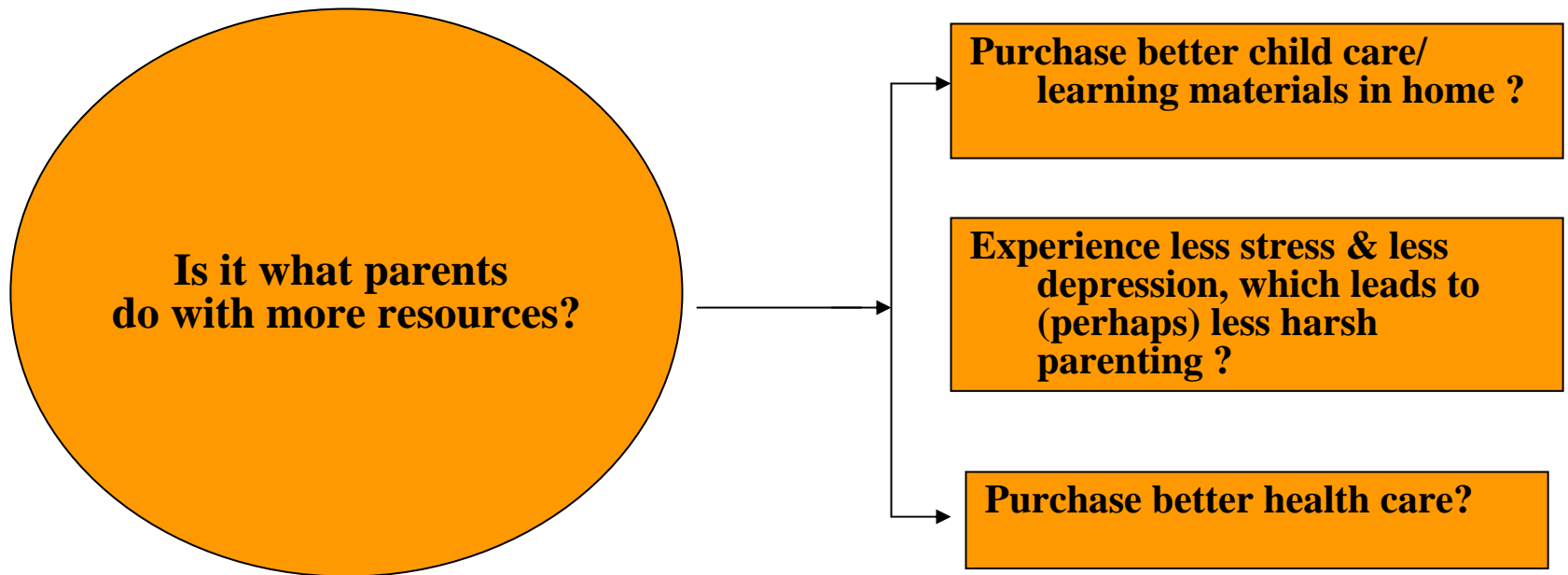
Does genetics explain the relationship between family socio-economic status and school readiness?

Genetics may explain 30-40% of achievement differences in children *within* racial / ethnic groups;

The best evidence suggests environment explains most (if not all) of differences *across* racial / ethnic groups.



Why might SES matter?



Contributions of health conditions, parenting and preschool to racial gaps

In what circumstances are there racial gaps?

How much of the racial gap is 'explained' by
each circumstance?

What policies might reduce the racial gaps in
circumstances?

Racial disparities in prevalent child health-care

Low birth weight

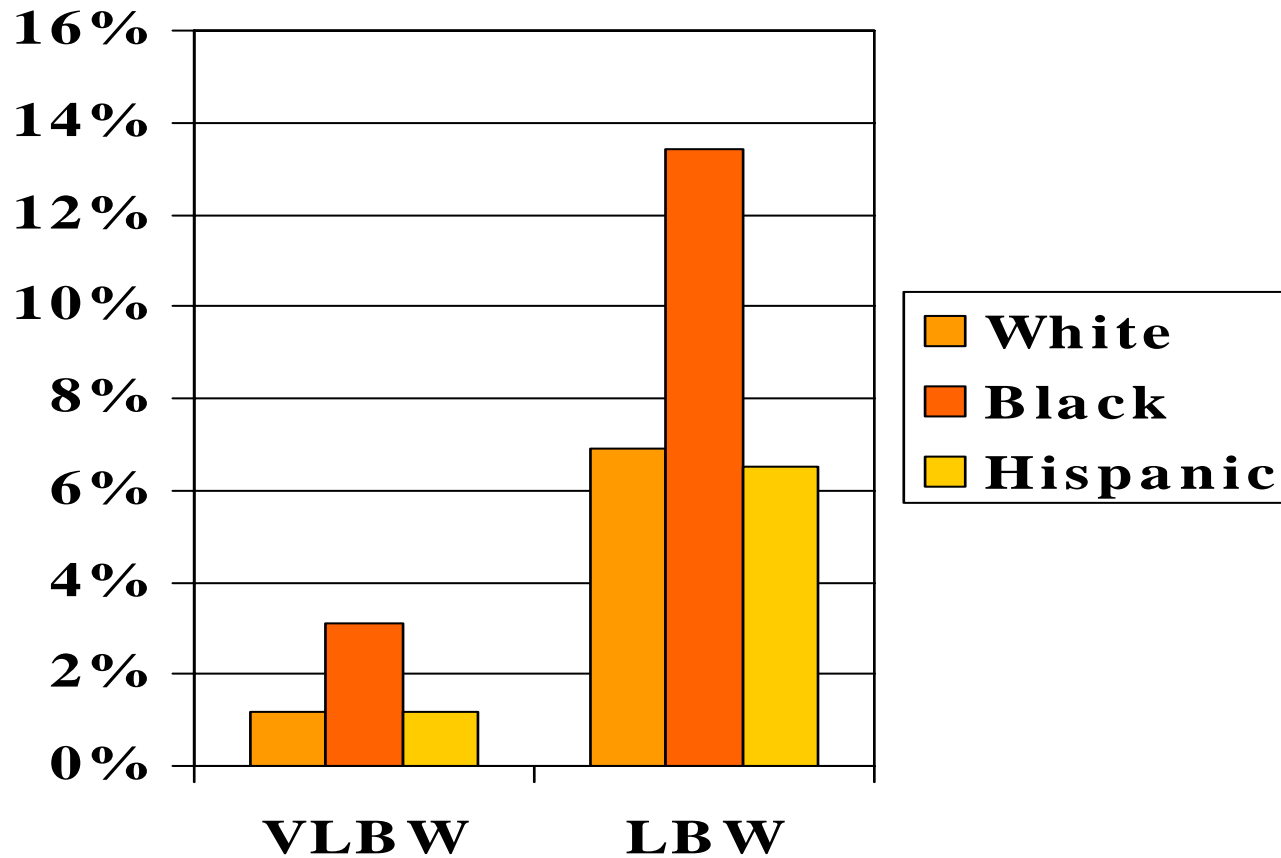
Asthma

Lead

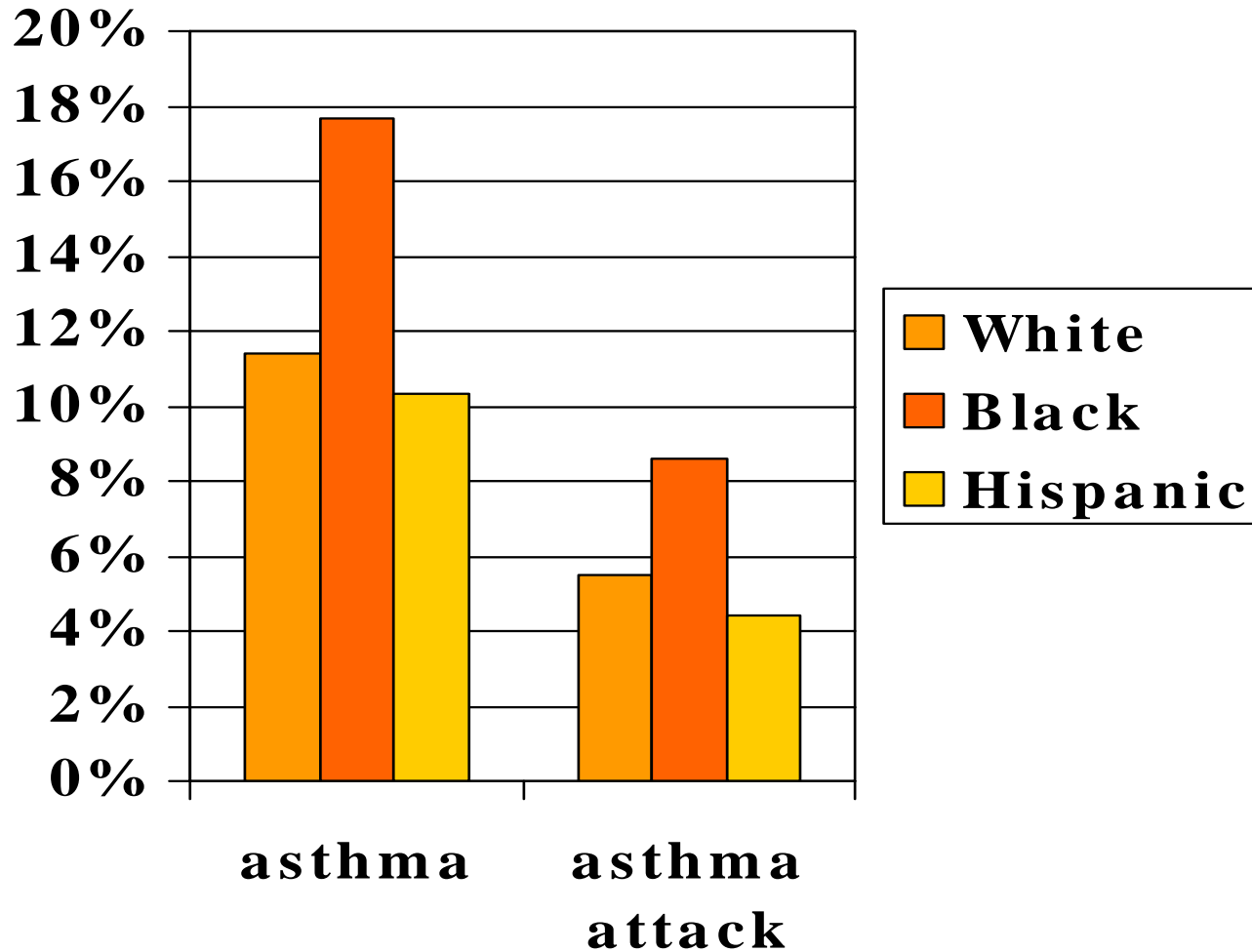
Iron deficiency and anemia

Attention deficit hyperactivity disorder
(ADHD)

Low birth weight (children born in 2002)

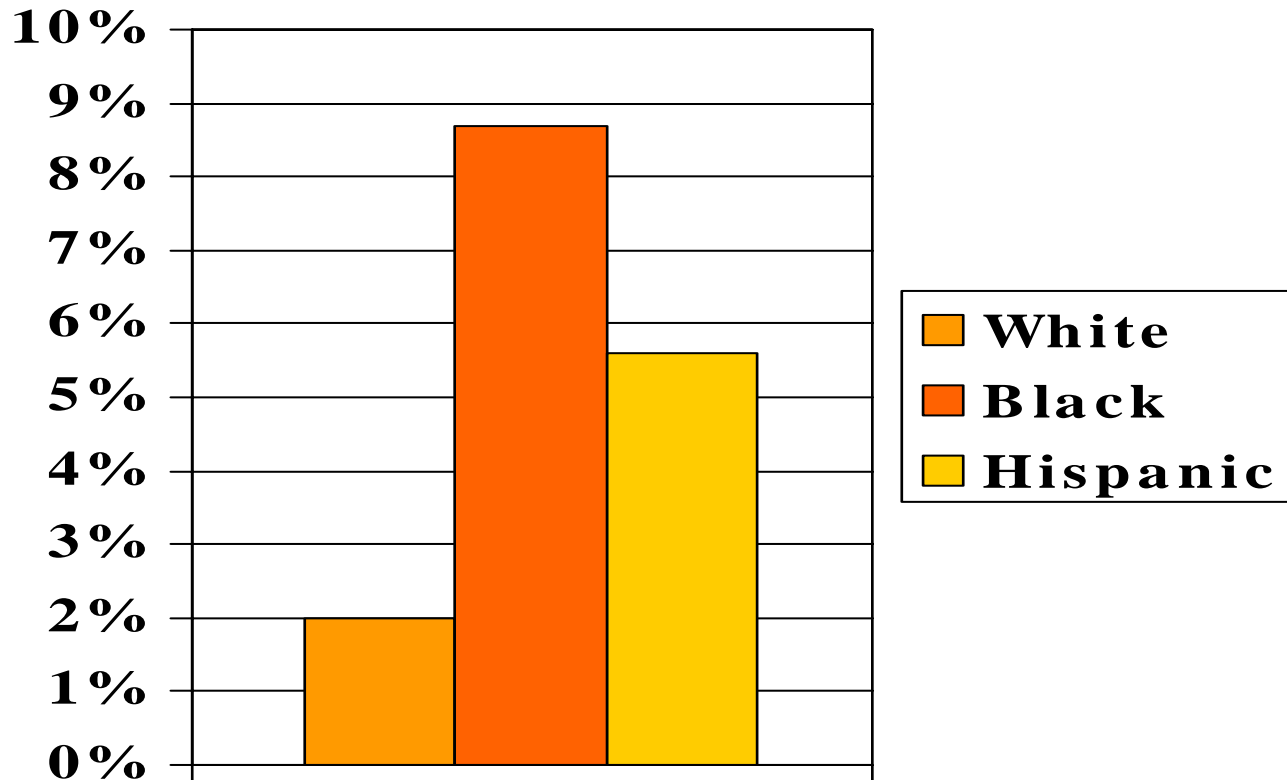


Asthma (ages 0-17)



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Elevated Blood Lead Levels (ages 0-5)



Rejections in test score gaps if health conditions were similar across racial groups

Health Condition	Gaps in prevalence?	Effects on school readiness?	Contribution to black-white gap
Low birth weight	Yes	Yes	~ 2% to 4%
Asthma	Yes	Yes	~ 2% to 3% on behavior scales
ADHD	Yes	Yes	~ 1% to 2%
Iron deficiency	Yes	Not clear	None
Lead	Yes	Yes	~ 2% to 3%

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Racial gaps in parenting behavior

Nurturance: Ways of expressing love, affection and care

Discipline: Responses to child behaviors that parents consider appropriate or inappropriate

Teaching: Didactic strategies for providing information or skills to the child

Language: Conversations & talking with the child language & literacy environment of the home

Monitoring: Keeping track or watchfulness

Management: Rhythm of the household; scheduling & completing scheduled events

Materials: Cognitively & linguistically stimulating materials provided in the home

Parenting matters: The case of adopted preschoolers in France

- Children placed in adoptive homes between the ages of 4-6. All were removed from both parents due to abuse/neglect
- All given cognitive tests prior to placement
- Test gain of **14 POINTS** (or .93% of a standard deviation)
- Gains in **HIGH** SES families were **19 POINTS** (or 125% standard deviation)
- Gains in **LOW** SES families were **8 POINTS** (or 53% of a standard deviation)

Parenting matters: The case of reading and language in poor families

- One thousand poor families from Early Head Start
- More reading at one year of age relates to more vocabulary at two years of age
- More vocabulary at two years relates to more reading at two and three years
- There is a **SNOWBALL EFFECT**

Are parenting measures equivalent across ethnic and racial groups?

Are parenting behaviors universal or specific to time and place?

Are parenting behaviors measured in most studies only appropriate for middle class U.S. families?

Are parenting behaviors measured in most studies indicative of school readiness?

Racial and ethnic differences in parenting

White mothers are more likely to exhibit higher rates of the following parenting behaviors than do black mothers

- Language
- Teaching
- Provision of stimulating materials

The sizes of these effects are large:

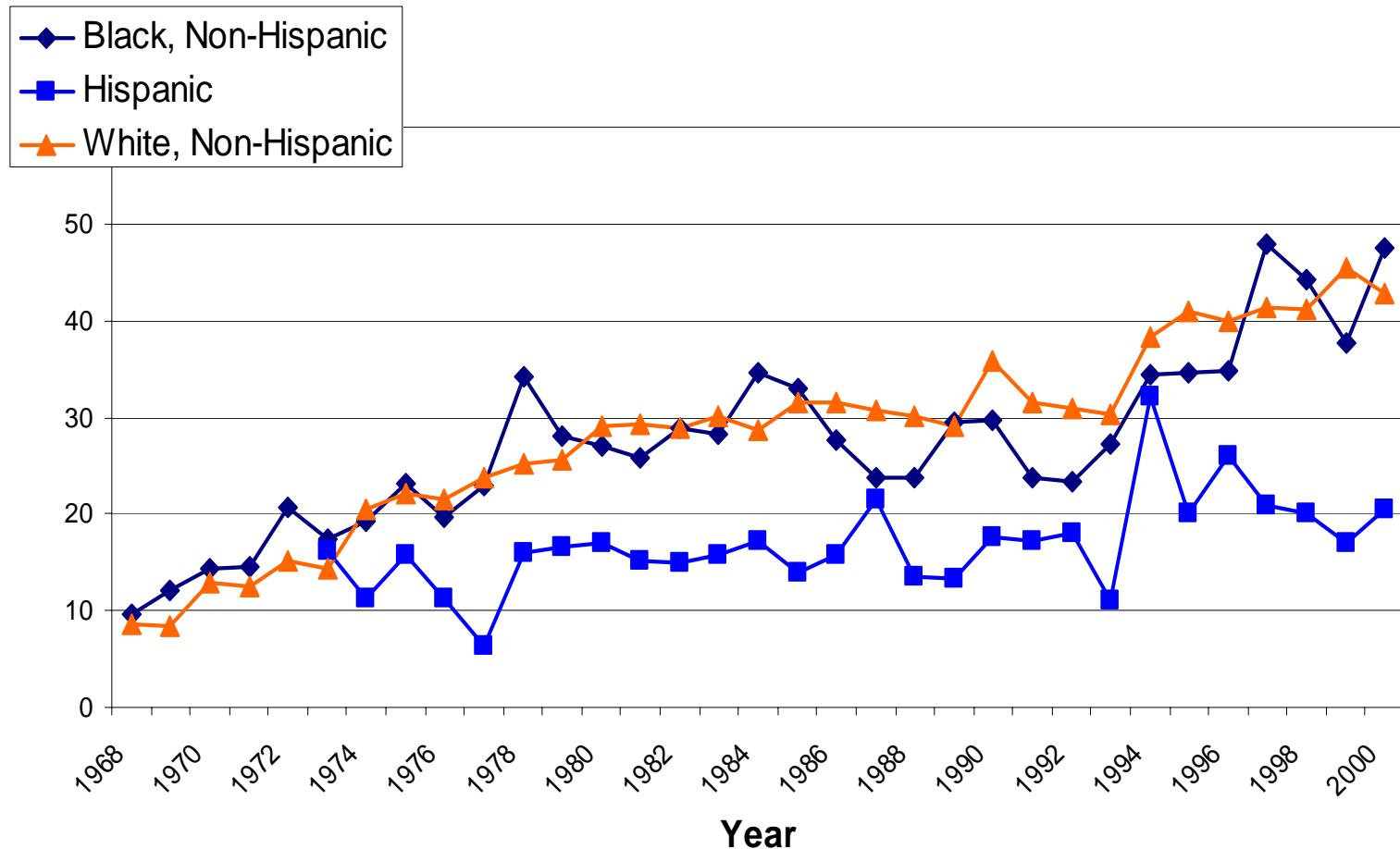
- **20%** to **40%** of a standard deviation
- For each of the three parenting dimensions

These parenting differences are smaller when SES is controlled, but they do not disappear

Racial Gaps in Preschool Attendance

1. Are Black/ Hispanic children aged three and four less likely to attend preschool than white children?
2. Do Black/ Hispanic children attend higher or lower quality programs?
3. Do Black/ Hispanic children benefit more or less from preschool programs?

Preschool enrollment for four year-olds, from 1968 to 2002



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Reductions in test score gaps if preschool enrollment were increased

	Blacks	Hispanics
1. Increase Hispanic & Black enrollment to 80%	4% to 20%	12% to 52%
2. Preschool for all children <100% of poverty	2% to 12%	4% to 16%
3. Preschool for all children <200% of poverty	2% to 12%	8% to 34%

Head Start Enrollment

About 10% of all of all 3 and 4 year-olds are in Head Start

- 20% are black children
- 15% are Hispanic children
- 4% are white children

If Head Start did not exist, gaps in preschool enrollment would increase (compared to white children)

- 9 percentage points for black children
- 31 percentage points for Hispanic children

Gaps in school readiness would increase if Head Start did not exist

Quality of preschool and school readiness

1. Attending high quality preschool programs is associated with school readiness
2. Effects have been demonstrated for children whose parents are low income or have low levels of education
3. Effects are sometimes larger for Black/Hispanic than White children

Indicators of high quality preschool

- Teacher training
- Teacher education
- Teacher to child ratios
- Class size
- Language and conversation
- Organization of classroom

Reductions in test score gaps if quality were improved in Head Start and in other preschool programs

	Blacks	Hispanics
1. Improve quality of HS	4% to 10%	4% to 8%
2. Improve quality of HS & other, children <100% pov.	6% to 10%	0 to 2%
3. Increase quality of HS & other, children <200% pov.	4% to 14%	2% to 6%

Intervention strategies for reducing school readiness gaps

Socio-economic

- Income Supplementation
- Parental Education
- Marriage Promotion

Health

- Prevention of low birth weight
- Health Care

Parenting Home

- Visiting Programs
- Center-based Programs with Parenting Component
- Parental Language and Literacy Programs
- Parent Behavior Training Programs

Preschool Programs

- Expanding Access
- Expanding Quality
- Pre-Kindergarten Programs
- Head Start
- Subsidies

Programs unlikely to reduce gaps

- Public health insurance coverage
- Education and support programs for pregnant mothers to reduce LBW
- Home visiting parenting programs

Programs likely to reduce gaps slightly

- Education programs for low education mothers
- Income supplementation for welfare-to-work program participant
- Income tax credits

Programs likely to reduce gaps modestly

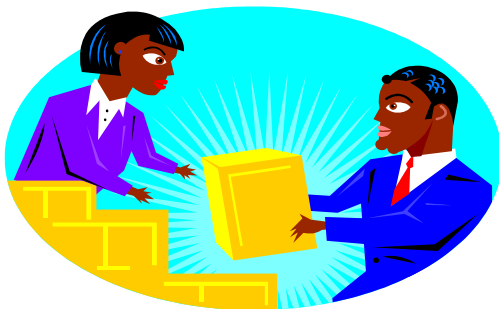
- High quality early education programs
- Parenting component focusing on literacy and reading for low-literate mothers
- Parenting component for mothers of children with moderate behavior problems
- Enrollment in health programs
- WIC nutrition programs

Promising strategies help close racial & ethnic school readiness gaps...

Increasing enrollment of children to Medicaid and state child health insurance programs.

Developing educational interventions based on advances in neuroscience.

Increasing access to high-quality center-based early childhood education programs for all low-income 3 and 4 year olds.



What would these educational programs look like?

- Be of high quality (e.g., small classes with high teacher-pupil ratios, teachers with BA degrees and training in early childhood education).
- Train teachers to identify children with moderate to severe behavioral problems and to work with them to improve their emotional and social skills.
- Include a parent-training component that reinforces what teachers are doing in school.
- Provide staff to identify health problems in children and help parents get ongoing health care for their children.
- Be well integrated with the kindergarten programs the children will attend.