

Welcoming Remarks

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for the Pritzker Consortium on Early Childhood Investment

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Economics of Childhood: When to Invest?

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The Argument in a Nutshell

- I.** Life cycle skill formation is dynamic in nature. Skill begets skill; motivation begets motivation. If the child is not motivated and stimulated to learn and engage, the more likely the adult will fail in social and economic life.
- II.** Many major economic and social problems can be traced to low levels of skill and ability in the population.
- III.** Abilities are multiple in nature.
- IV.** Much public policy discussion focuses on promoting and measuring cognitive ability and especially IQ.

- V.** Cognitive abilities are important for socioeconomic success.
- VI.** But socioemotional skills are also important for success in life.
- VII.** Motivation, perseverance and tenacity feed into performance in society at large and even affect scores on achievement tests.
- VIII.** Early family environments are major predictors of both cognitive and socioemotional abilities.

- IX.** The previous point is a major source of concern because family environments in the U.S. and many other countries around the world have deteriorated over the past 40 years.
- X.** Experiments support the large body of evidence that adverse family environments promote adult failure.
- XI.** If society intervenes early enough, it can affect both cognitive and socioemotional abilities.
- XII.** Early interventions promote schooling, reduce crime, promote workforce productivity and reduce teenage pregnancy.

XIII. These interventions have high benefit-cost ratios and rates of return.

XIV. Early interventions have much higher returns than other later interventions such as reduced pupil-teacher ratios, public job training, convict rehabilitation programs, tuition subsidies or expenditure on police.

- Recent research establishes that many social problems have their roots in early childhood.
- Examples include:
 1. Crime
 2. Dropping out of high school and the slowdown in the growth of educational attainment
 3. Teenage pregnancy
 4. Drug use
- We have to come to understand the mechanisms through which families influence these outcomes.

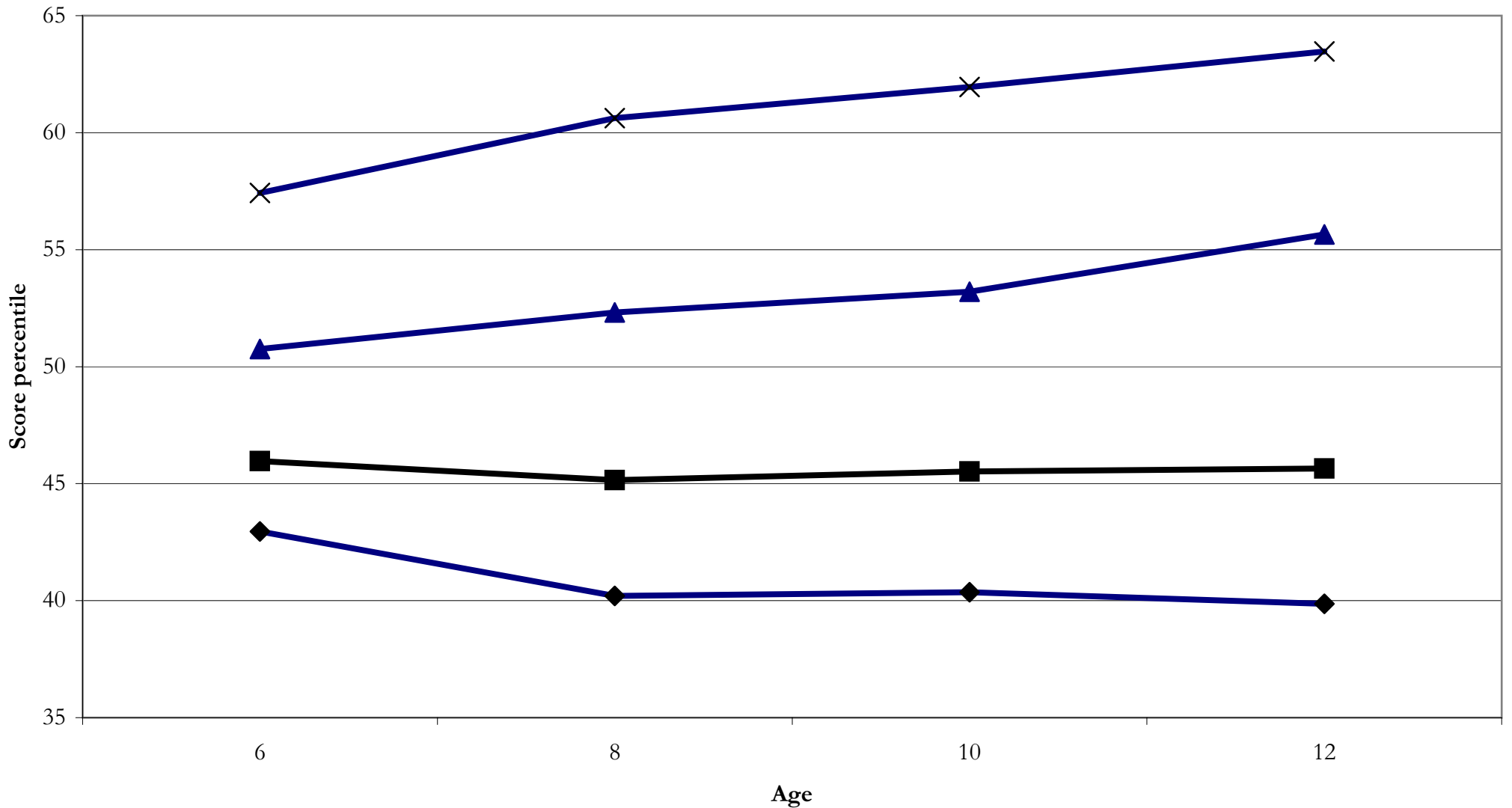
- Social problems are strongly related to shortfalls in both cognitive skills and noncognitive skills (motivation, perseverance, self discipline, self control, ability)
- Successful families foster these traits.
- Enriched early environments can partially compensate for adverse early environments.

Gaps in Ability Open up Early

- Going across income groups, gaps in cognitive ability widen slightly in the early years of schooling.
- They stay constant after age 8.
- Research shows that schooling plays only a small role in accounting for these gaps or in widening or narrowing them.
- The gaps start early and persist.
- Once one controls for early family environments, the gaps substantially narrow.

Figure 1a Children of NLSY

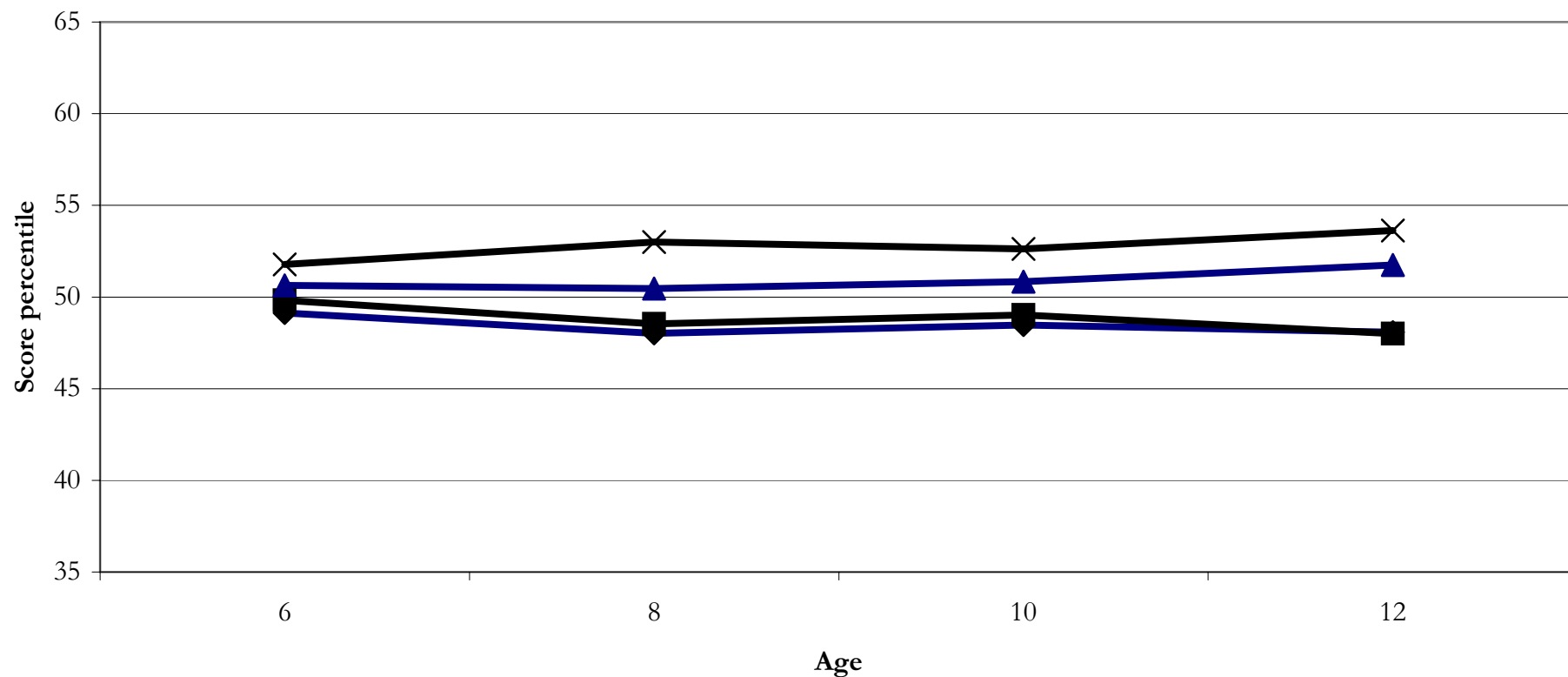
Average percentile rank on PIAT-Math score, by income quartile*



*Income quartiles are computed from average family income between the ages of 6 and 10.

◆ Lowest income quartile ■ Second income quartile ▲ Third income quartile ✕ Highest income quartile

Figure 1b
Children of NLSY
Adjusted average PIAT-Math score percentiles by income quartile*



* Adjusted by maternal education, maternal AFQT (corrected for the effect of schooling) and broken home at each age

◆ Lowest income quartile ■ Second income quartile ▲ Third income quartile ✕ Highest income quartile

- Similar phenomena characterize noncognitive skills.
- Gaps by family income appear early and persist.
- Schooling quality plays only a small role in accounting for gaps or their stability.
- Controlling for early family environments largely eliminates these gaps.

Figure 1c
Children of NLSY
Average percentile rank on anti-social score, by income quartile*

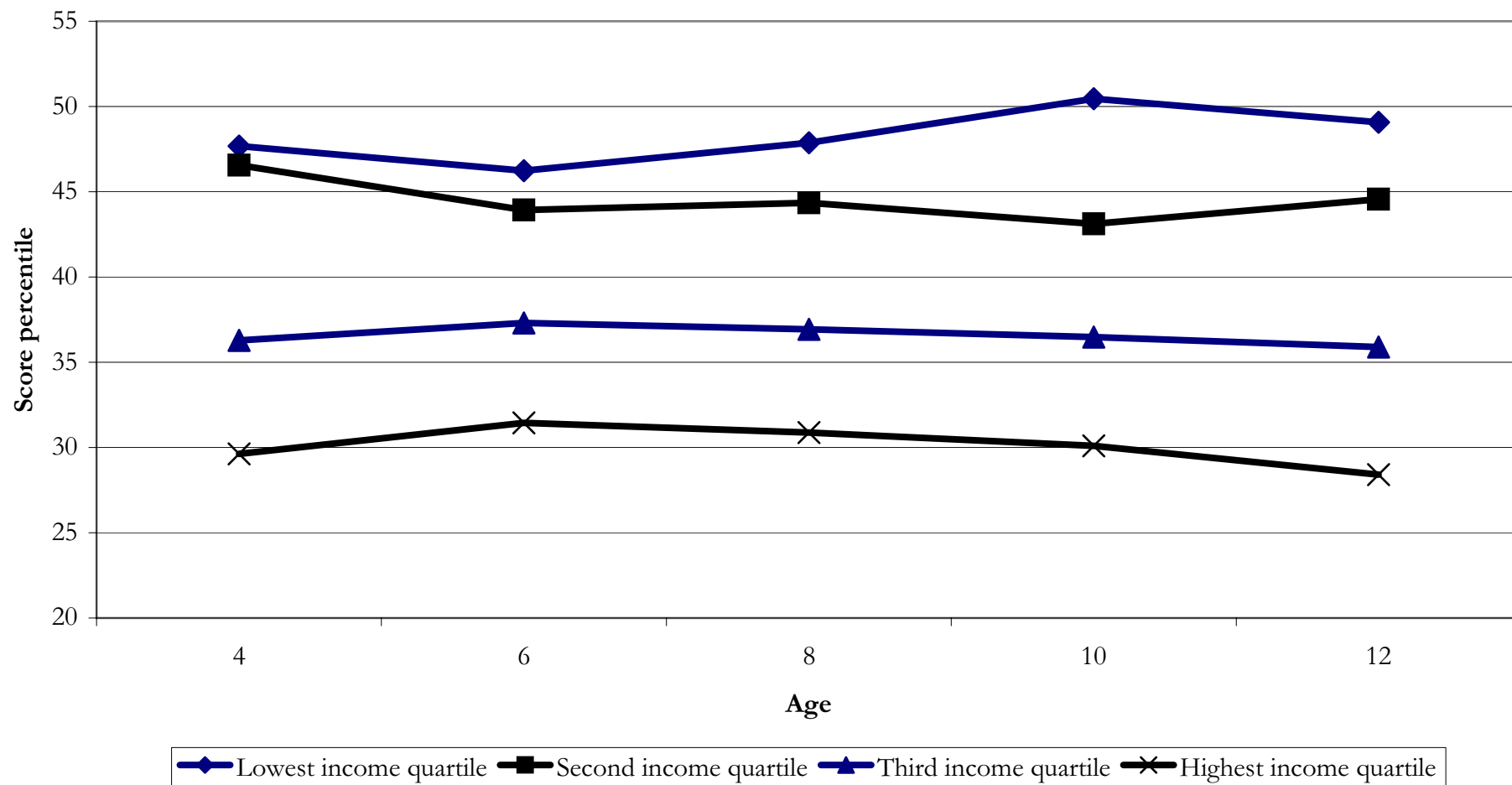
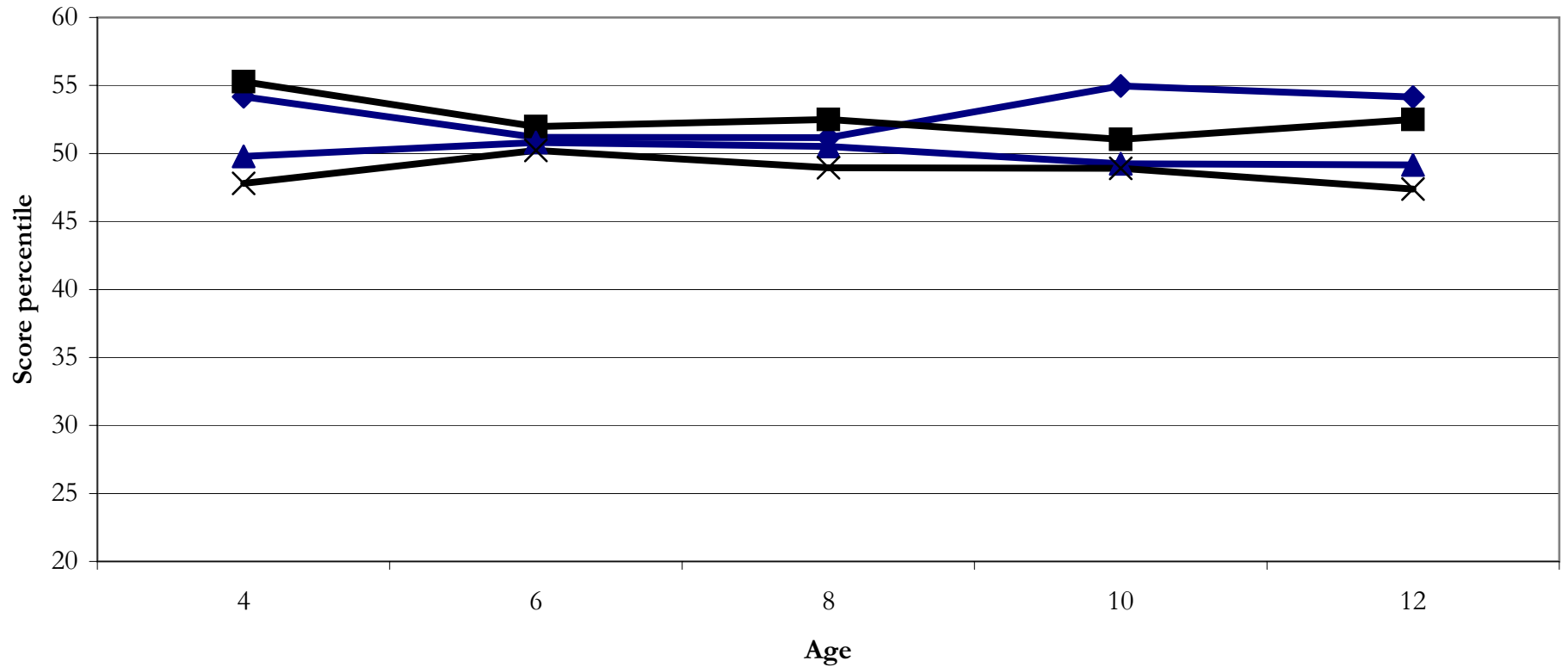


Figure 1d Children of NLSY

Adjusted average anti-social score percentile by income quartile*



* Adjusted by maternal education, maternal AFQT (corrected for the effect of schooling) and broken home at each age

◆ Lowest income quartile ■ Second income quartile ▲ Third income quartile ✕ Highest income quartile

Early Family Environments

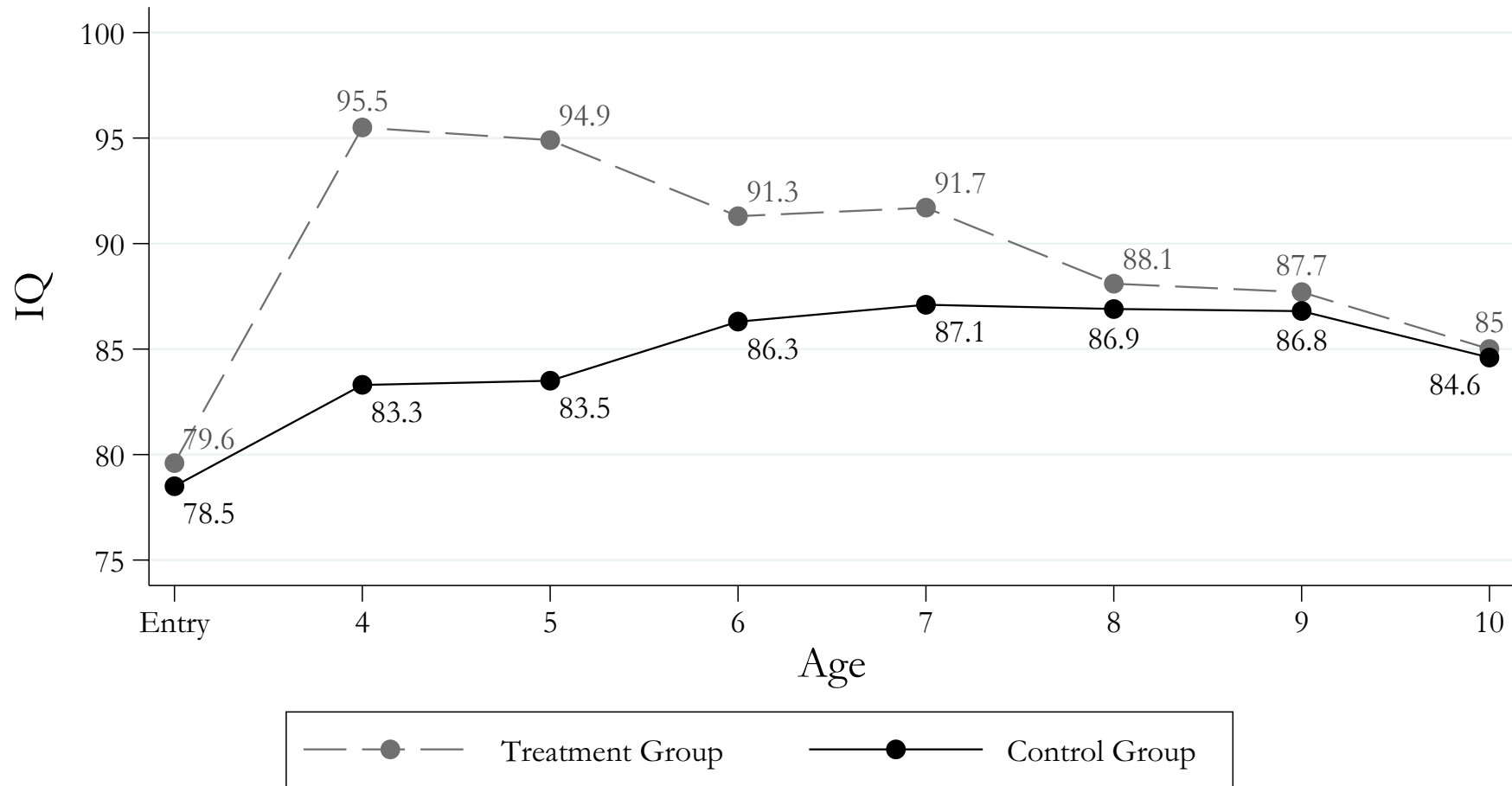
- Early family environments are major predictors of abilities (both cognitive and noncognitive).
- This is a source of concern because they have deteriorated over the past 30 years.
- Relatively more U.S. children are born into disadvantaged environments compared to 40 years ago.

- Experiments indicate that improvements in family environments can affect both cognitive and noncognitive skills.
- A great deal of public policy discussion around the world focuses on cognitive test score measurements.
- Head Start was deemed a failure because it did not raise IQ.

- But such a judgement is premature.
- Consider the Perry Preschool Program.
- This was an experimental intervention in the lives of disadvantaged minority children with subnormal IQs.
- The Perry intervention group had no higher IQ scores than the treatment group (see Figure 2a).
- Yet, in a follow up to age 40, the Perry treatment children had higher achievement test scores than did the control children.
- On many dimensions, the Perry treatment children are far more successful than the controls (see Figures 2b–2d).

Figure 2a

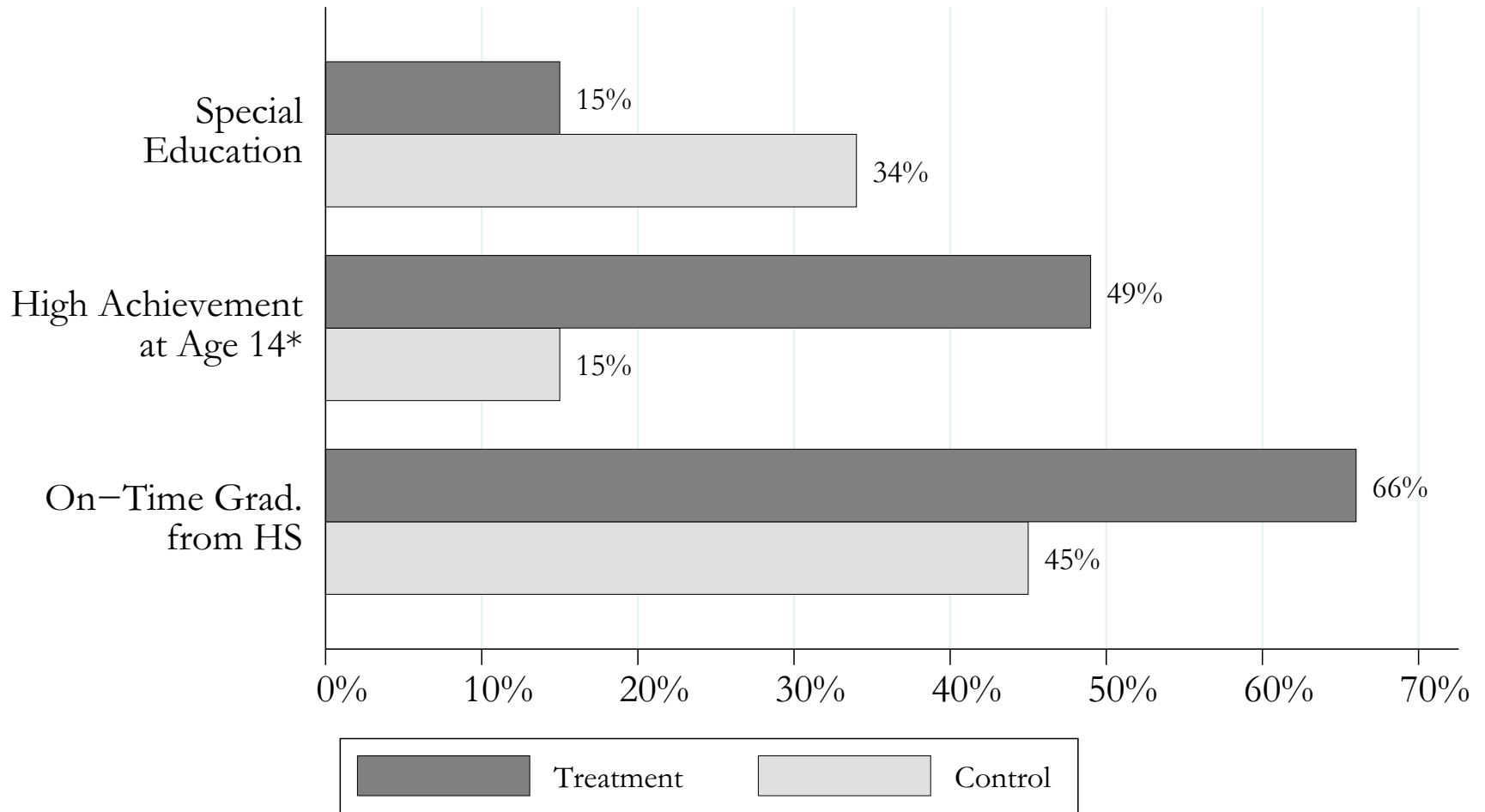
Perry Preschool Program: IQ, by Age and Treatment Group



Source: Perry Preschool Program. IQ measured on the Stanford-Binet Intelligence Scale (Terman & Merrill, 1960). Test was administered at program entry and each of the ages indicated.

Figure 2b

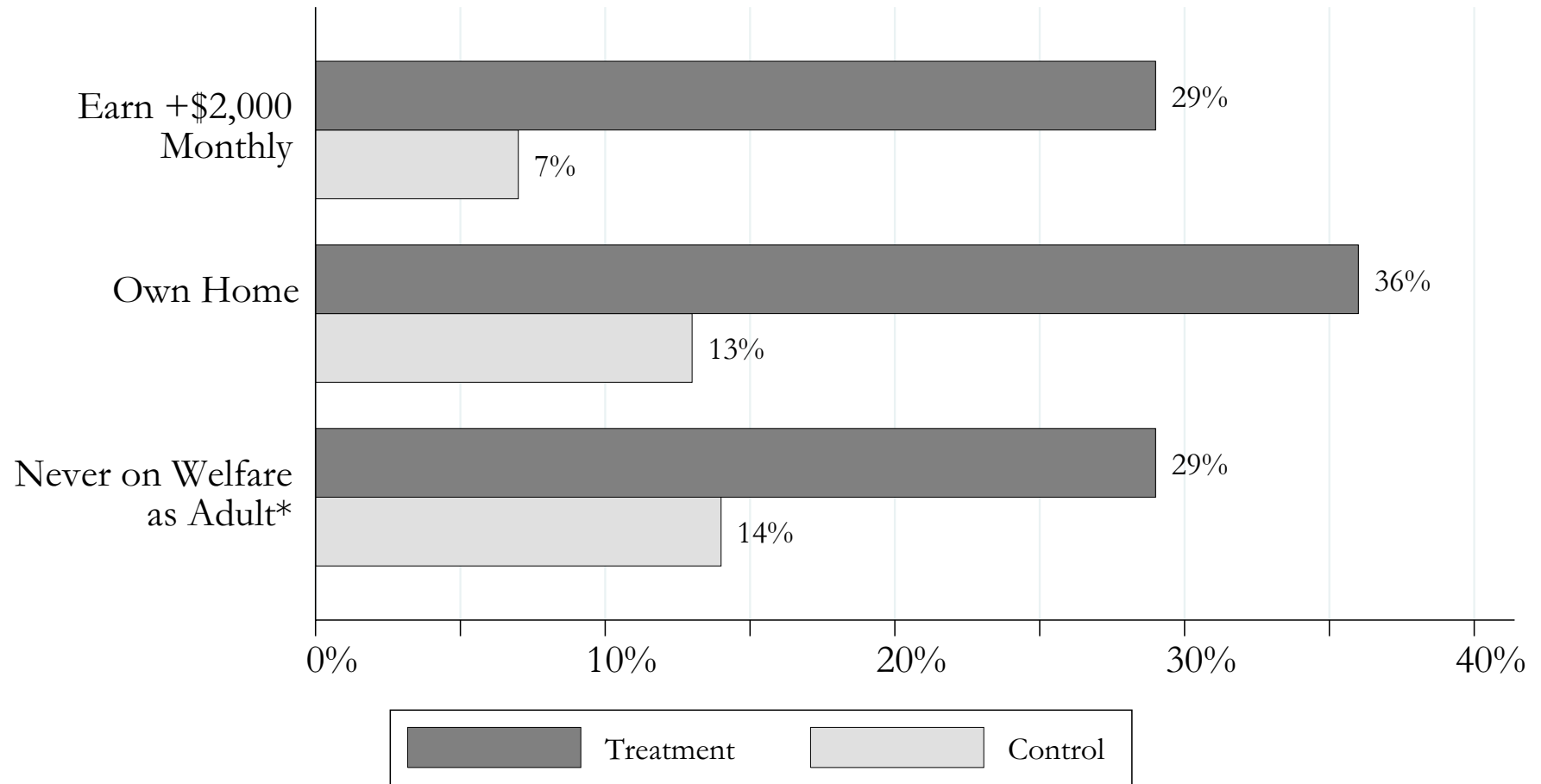
Perry Preschool Program: Educational Effects, by Treatment Group



Source: Barnett (2004). *High achievement defined as performance at or above the 10th percentile.

Figure 2c

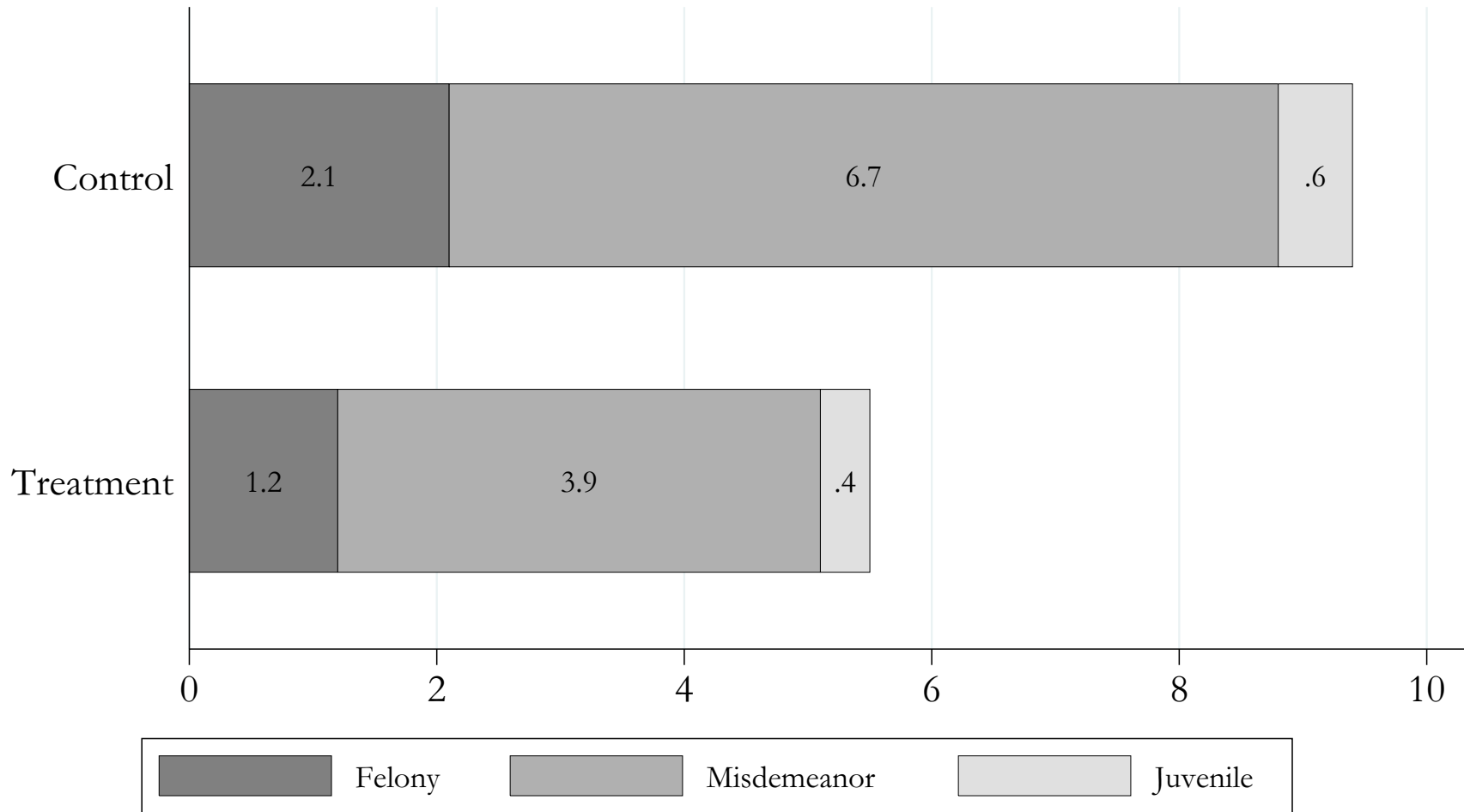
Perry Preschool Program: Economic Effects at Age 27, by Treatment Group



Source: Barnett (2004). *Updated through Age 40 using recent Perry Preschool Program data, derived from self-report and all available state records.

Figure 2d

Perry Preschool Program: Arrests per Person before Age 40, by Treatment Group



Source: Perry Preschool Program. Juvenile arrests are defined as arrests prior to age 19.

- Early interventions can partially compensate for early disadvantage.
- Perry intervened relatively late (at ages 4–6) in the life of the developing child.
- Earlier interventions like the Abecedarian program, which started at 4 months, permanently raise the IQ and the noncognitive skills of the treatment group over the control group. Abecedarian was also more intensive (5,000 hours over a longer time period than the 1,000 hours for Perry).

- The economic benefits of the Perry Program are substantial.
- Rates of return are 15–18%.
- The benefit-cost ratio is eight to one.
- Similar returns are obtained for other early intervention programs.

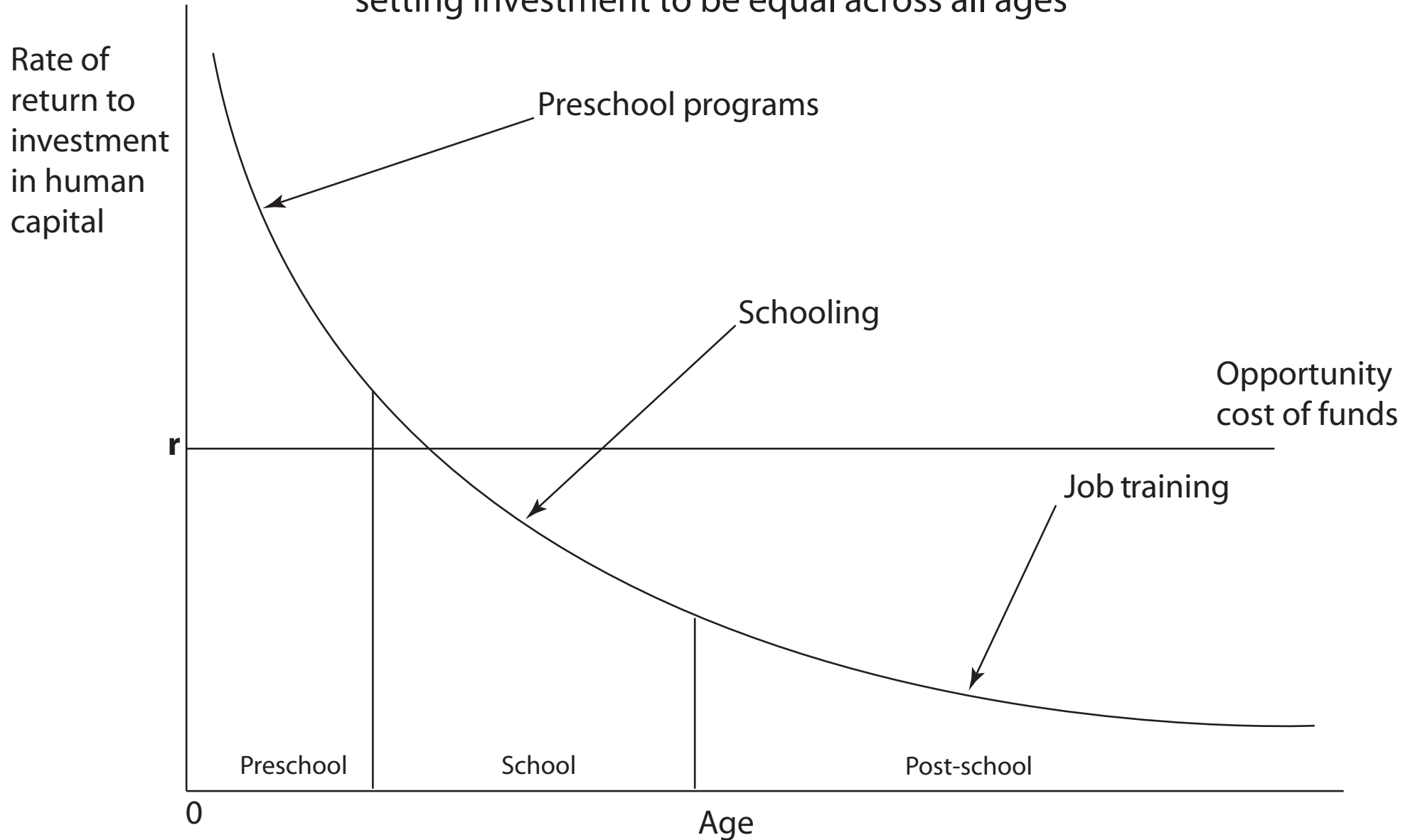
Later Remediation is Costly

- At current levels of spending it is ineffective. For example:
 1. Class size reductions (reducing class size by five pupils per classroom)
 2. Adult literacy programs
 3. GED programs
 4. Public job training programs
 5. Tuition reduction policy
- To make these programs more effective, resources spent on them would have to increase substantially.

- A substantial trade-off between fairness and efficiency exists for the adolescent and young adult programs.
- A better alternative is to increase the investment in the early years and avoid the need for remediation.

Figure 3

Rates of return to human capital investment initially setting investment to be equal across all ages



Rates of return to human capital investment initially setting investment to be equal across all ages

- The economic returns to early investments are high.
- The returns to later interventions are lower.
- The reason is the technology of skill formation.
- Skill begets skill and early skill makes later skill acquisition easier.
- Remedial programs in the adolescent and young adult years are much more costly in producing the same level of skill attainment in adulthood.
- Most are economically inefficient.

- Children from advantaged environments by and large receive substantial early investment.
- Children from disadvantaged environments more often do not.
- There is a strong case for public support for funding interventions in early childhood for **disadvantaged** children although the interventions do not have to be conducted in public centers.
- Vouchers for use by parents at private providers might allay the concerns of many parents who want to determine the values held by their children and yet who want to enrich their children's early cognitive and noncognitive stimulation.

- We need to think boldly in terms of ways of mobilizing financial support from the private sector.

For Further Background

See Our Website

<http://jenni.uchicago.edu/investing>

About the Consortium

RECOGNIZING THE CRITICALLY IMPORTANT role the first five years of life play in determining human potential, the Pritzker Consortium on Early Childhood Development brings together the world's leading experts to identify when and how child intervention programs can be most influential.

To develop its groundbreaking research, the Consortium assembles and rigorously compares data from numerous studies conducted by experts across the globe. It then leverages the data to provide policymakers, non-profits, and the business community with more comprehensive and accurate research on the value of public investment in early childhood programs. Through this work, the business community is likely to gain new insight into the economic benefit and fiscal responsibility of supporting programs designed to help children five years old and under.

For more information, please visit www.pritzkerconsortium.org

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About The Children's Initiative

THE CHILDREN'S INITIATIVE, a project of the J.B. and M.K. Pritzker Family Foundation, seeks to enhance the early learning capabilities of infants and toddlers, with a special focus on at-risk children.

Inspired by the early childhood development work of the late philanthropist Irving Harris and motivated by the belief that all children are born with great potential, The Children's Initiative supports policies, programs, research, and advocacy to allow at-risk children to achieve better economic, educational, and social outcomes.

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