

Human Development is Economic Development

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Making the Case for Investing in High Quality Early Childhood
Education in Mississippi: A Conversation with Dr. James Heckman



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The challenges:
economic inequality,
social mobility, a divided
society, and polarized
leadership.



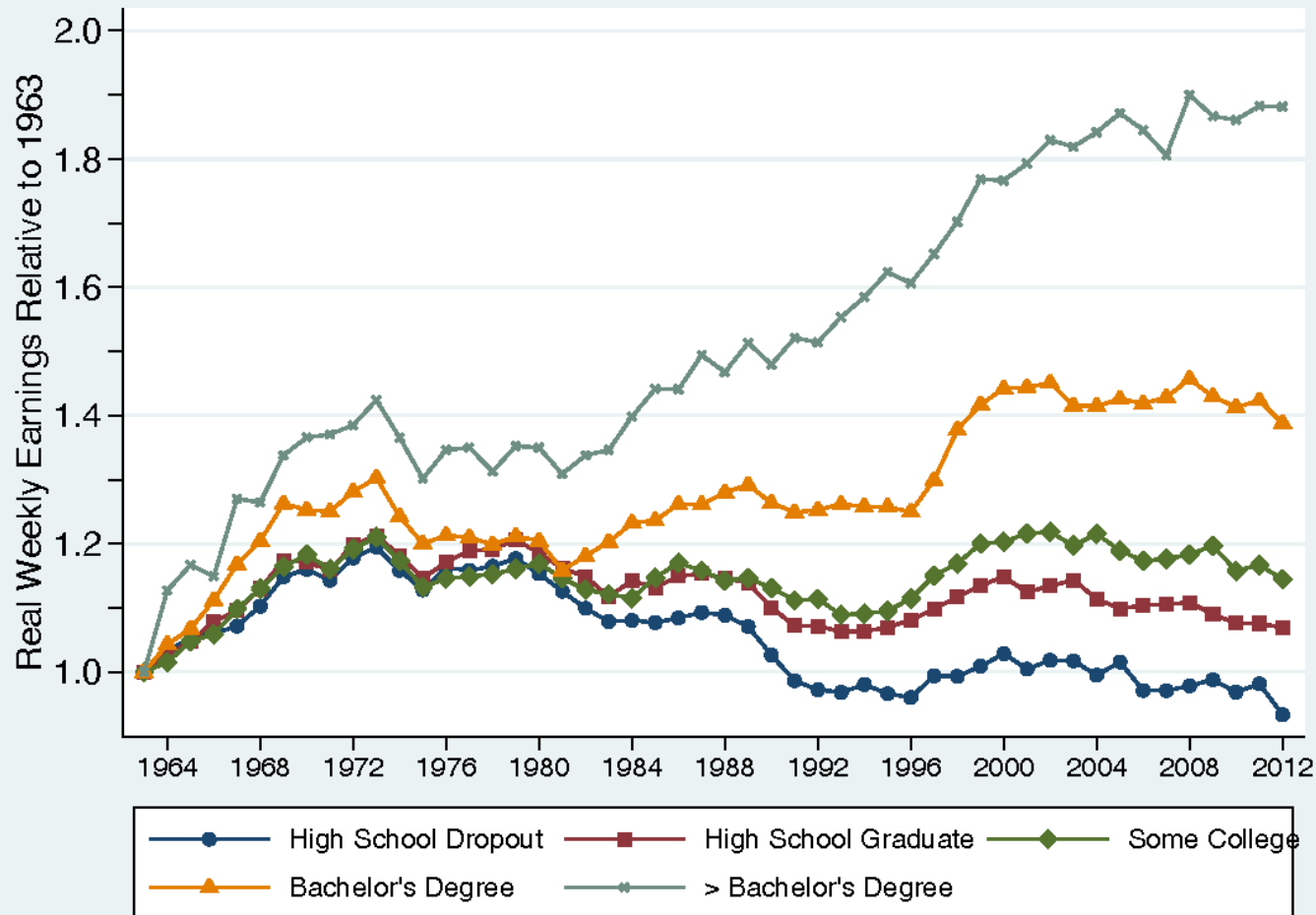
Key Facts - Mississippi and the U.S.

	Mississippi	United States
		
Demographic Profile, 2002-2003		
Poverty Rate 2017 (%)	20.8%	12.7%
Poverty Rate 2000 (%)	18.2%	11.3%
Poverty Rate 1990 (%)	25.2%	13.1%
Children in Single-Parent Families 2016 (%)	45%	35%
Children in Single-Parent Families 2000 (%)	42%	31%
Children in Single-Parent Families 1990 (%)	35%	25%



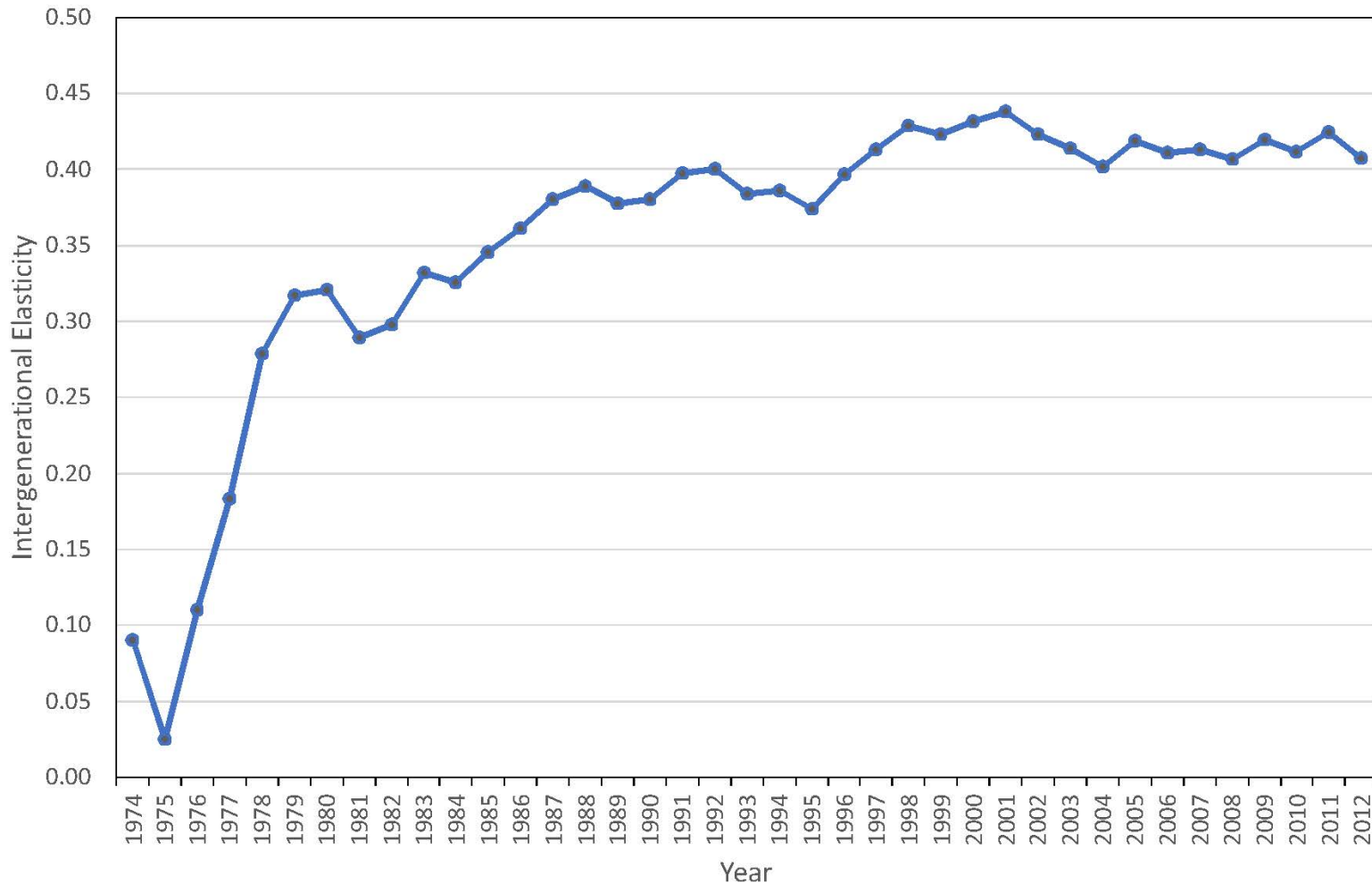
Effective way to alleviate
poverty and inequality:
skills, not handouts.

Changes in Real Wage Levels of Full-time U.S. Workers by Education, 1963-2012, Males



Source: Autor 2014, Skills, Education, and the Rise of Earnings Inequality Among the “Other 99 Percent.”

Trends in the Intergenerational Correlation of Welfare Participation



Source: Hartley et al. 2016

Note: Welfare participation includes AFDC/TANF, SSI, Food Stamps and Other Welfare.



Help troubled American families to develop the skills of their children through voluntary programs.



We can reduce
inequality and promote
inclusion and social
mobility by solving
the skills problem.



A comprehensive
approach to skill
development makes
dollars and sense.

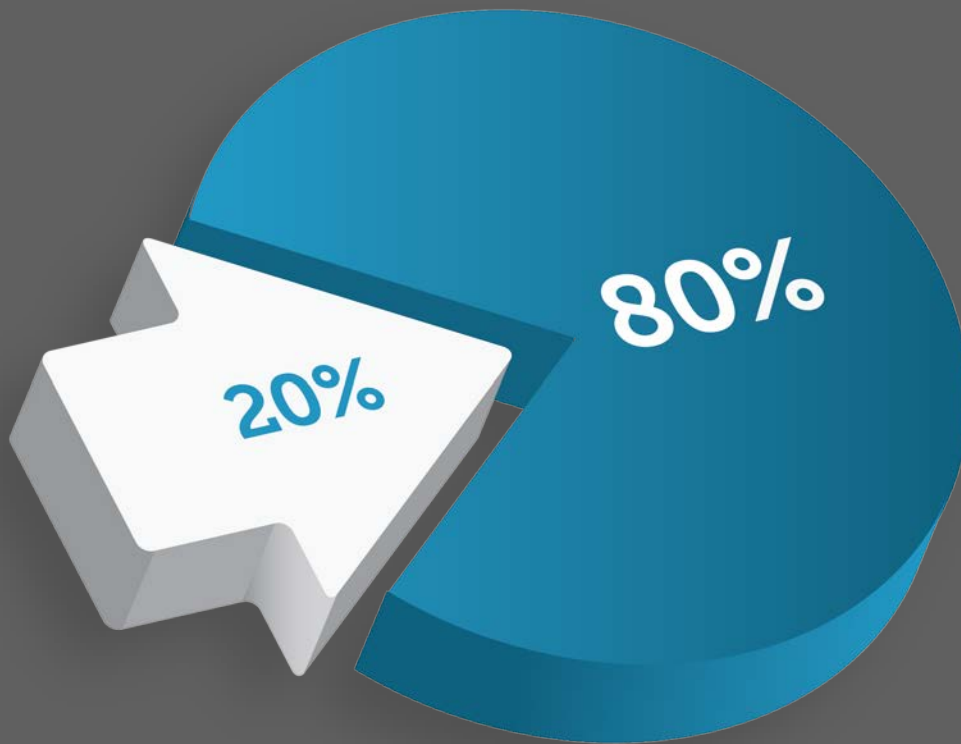


Fragmented solutions
are often not the most
effective ones—the
problems and their
causes are interrelated.



Should only the squeaky
wheel get the grease?

The Pareto Principle

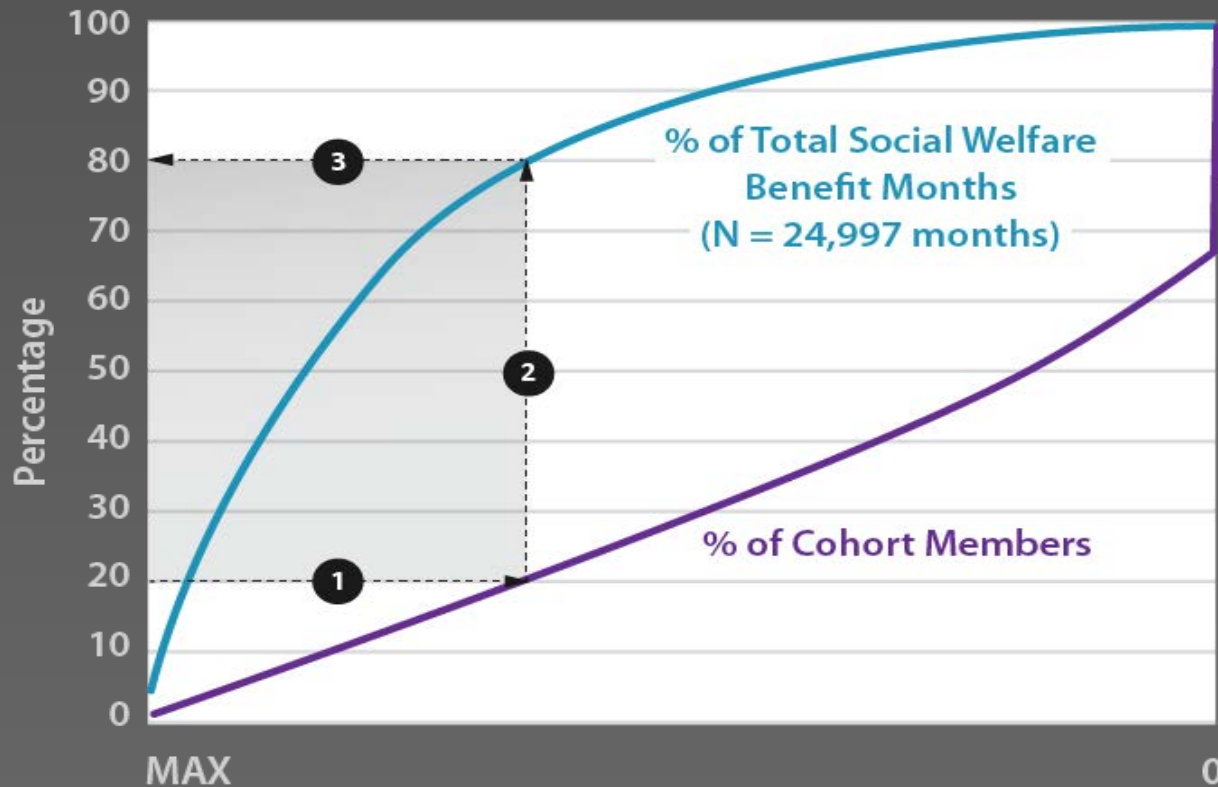


20% of the Actors
Account for **80%**
of the Results.

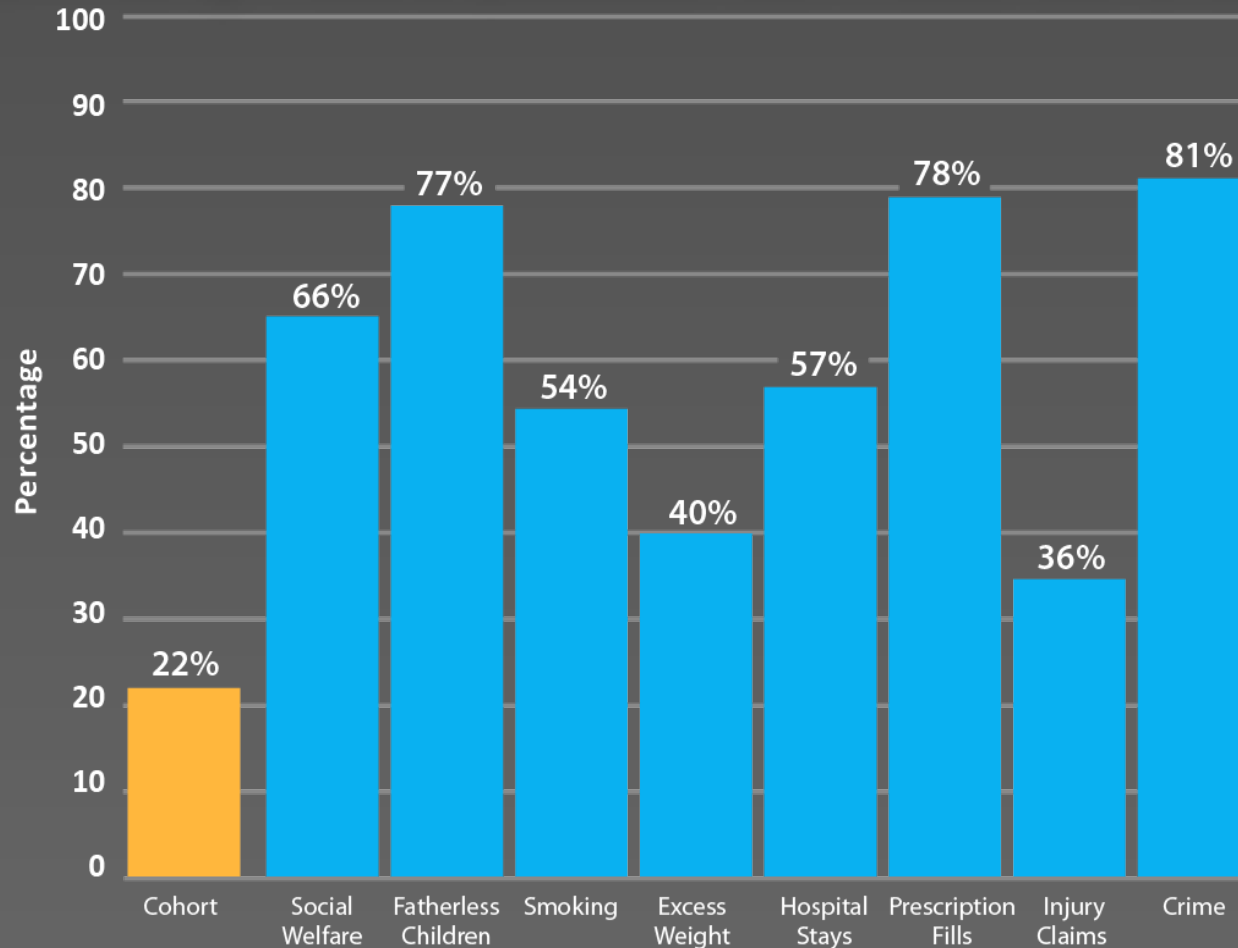
Vilfredo Pareto, 1848-1923

Social Welfare Benefit Months

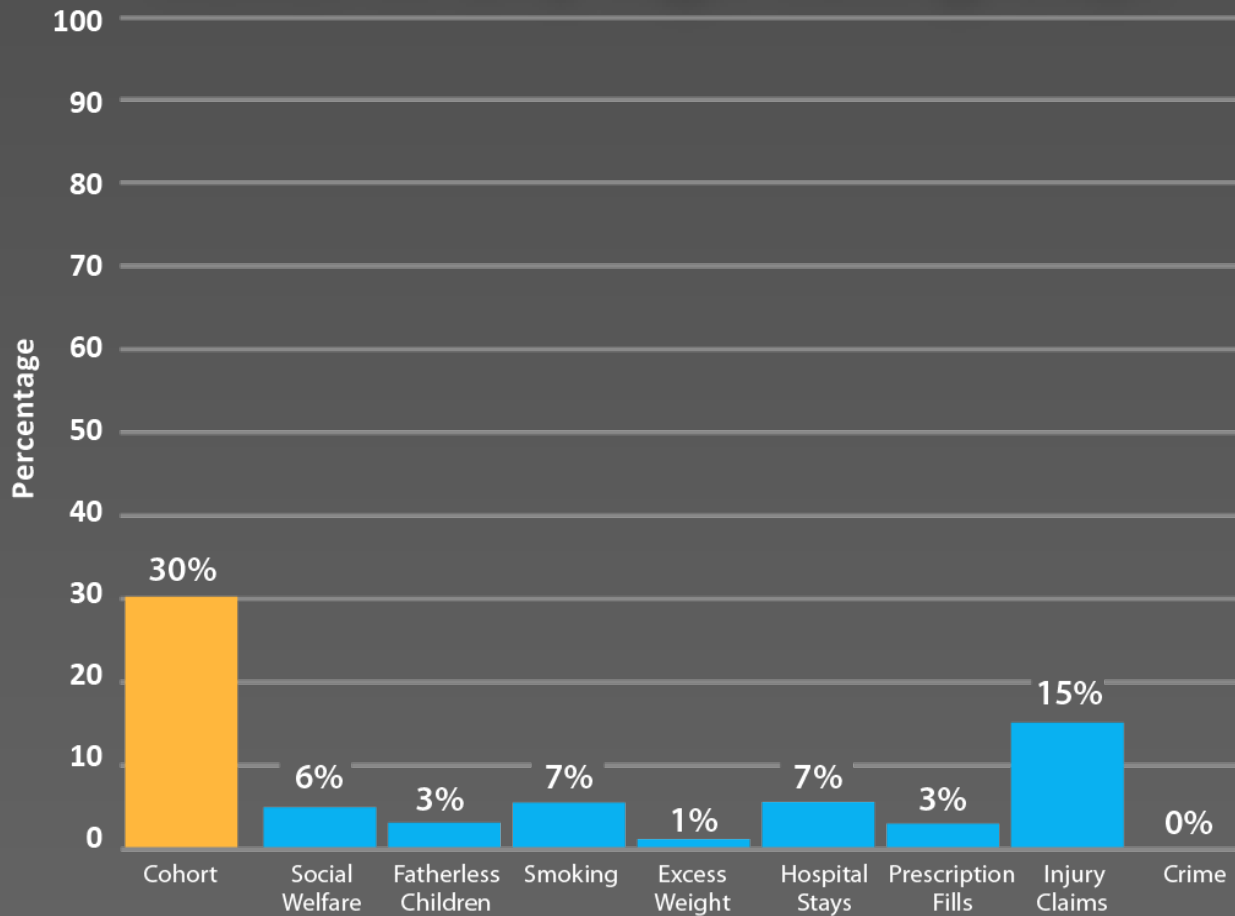
20% of Cohort Members = 80% of Total Social Welfare Benefit Months



The High-need/High-cost Group in 3 or more sectors: How many health/social services do they use?



Small Footprint of cohort members never in any high-cost group:





Childhood Risk Factors to Describe High-cost Actor Groups: Composites across ages 3, 5, 7, 9, 11

- IQ
- Self-control
- SES (socio-economic status)
- Maltreatment

Summary of findings

- 20% of people contribute 80% of social/health problems.
- A high-need/high-cost population segment uses ~half of resources in multiple sectors.
- Most high-need/high-cost people in this segment share risk factors in the first decade of life;
- Brain integrity in the first years of life is important.

Seen in this way, targeting early-life risks seem important enough to warrant investment in early-years preventions.



Invest more in prevention
and less in remediation.

Invest in flourishing lives,
not in correcting problems
after they appear.




Success depends on
having the right skills
and abilities.



Supporting families in engaging and nurturing their children is key to success in education and learning at all stages of a child's life.



The importance of the
early years: skills beget
skills.



Develop cognition and
character from conception,
through birth and into
school and career training.



Character and cognition
are skills, *not* traits fixed
at birth.



They can be fostered.



Developing multiple skills and abilities is the best way to solve the problems of economic and social inequality.



A skilled workforce is a flexible, adaptable, and productive workforce.



The family is the
cornerstone of effective
skill development.

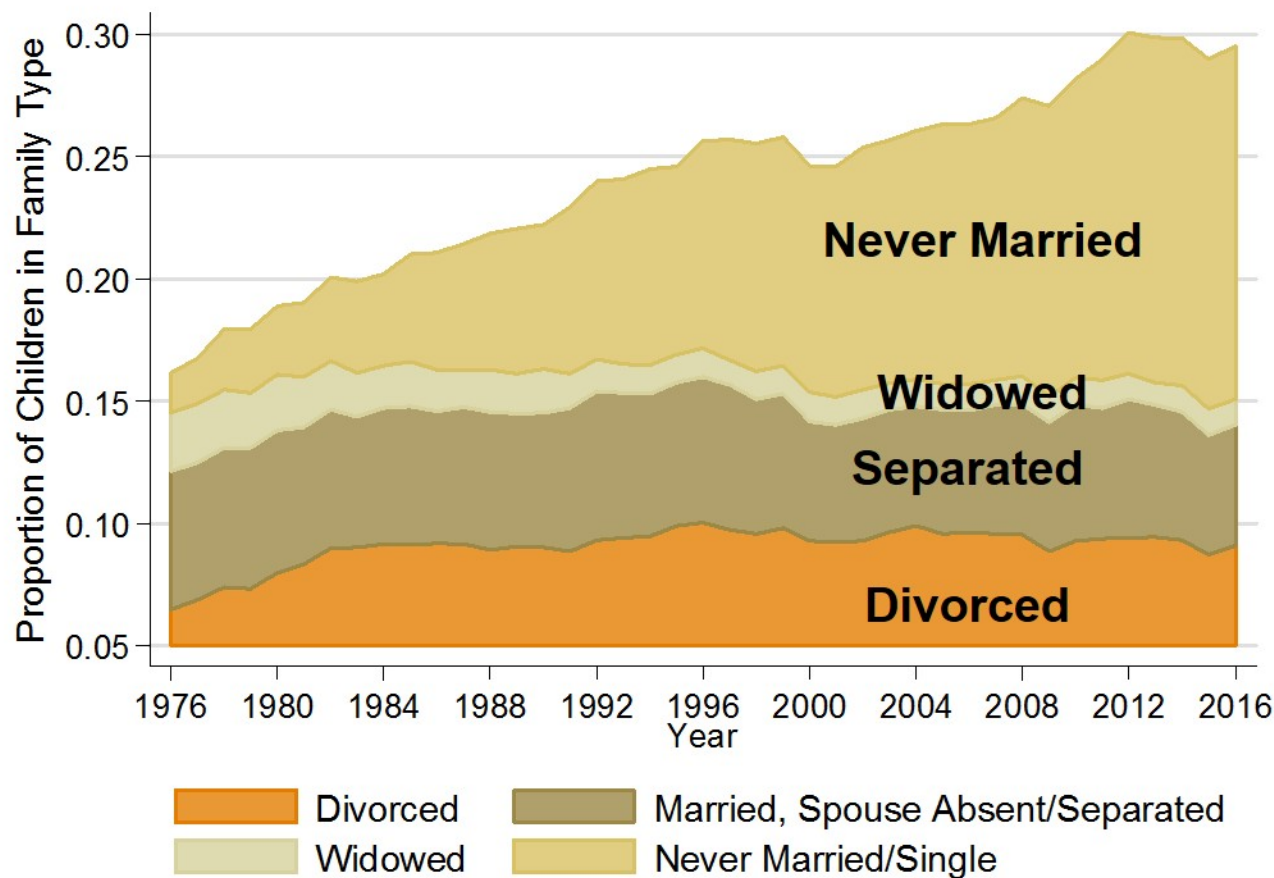


Yet American family life
is under stress.



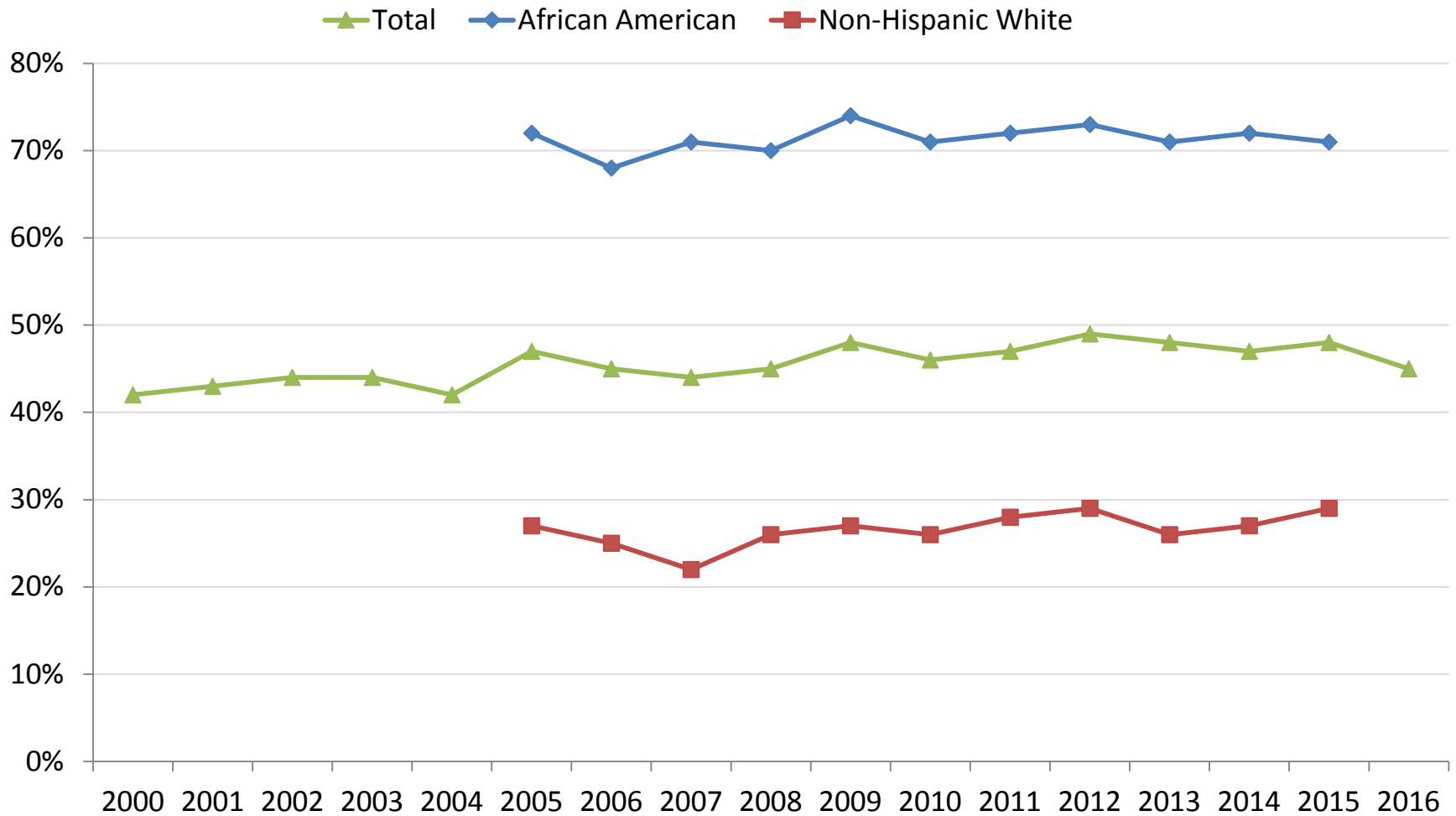
The challenges facing families impair their ability to foster the skills of their children.

Children Under 18 Living in Single Parent Households by Marital Status of Parent



Source: IPUMS CPS 1976-2016

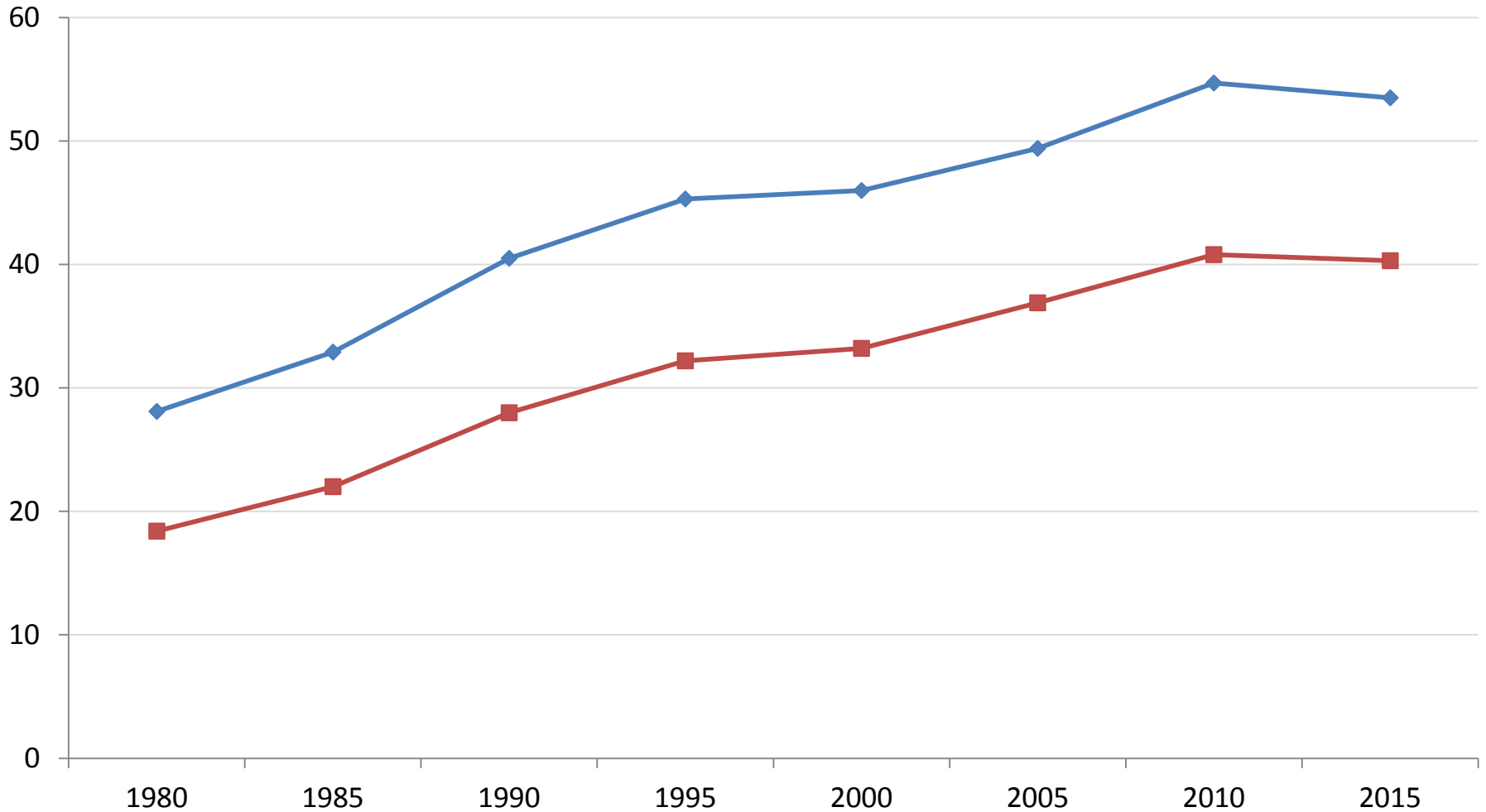
Children in Single-Parent Families, Mississippi



Source: Kids Count Data Center

Percent of Births to Unmarried Women

Mississippi United States



Source: CDC

Hart & Risley, 1995

Children enter school with “meaningful differences” in vocabulary knowledge.

1. Emergence of the Problem

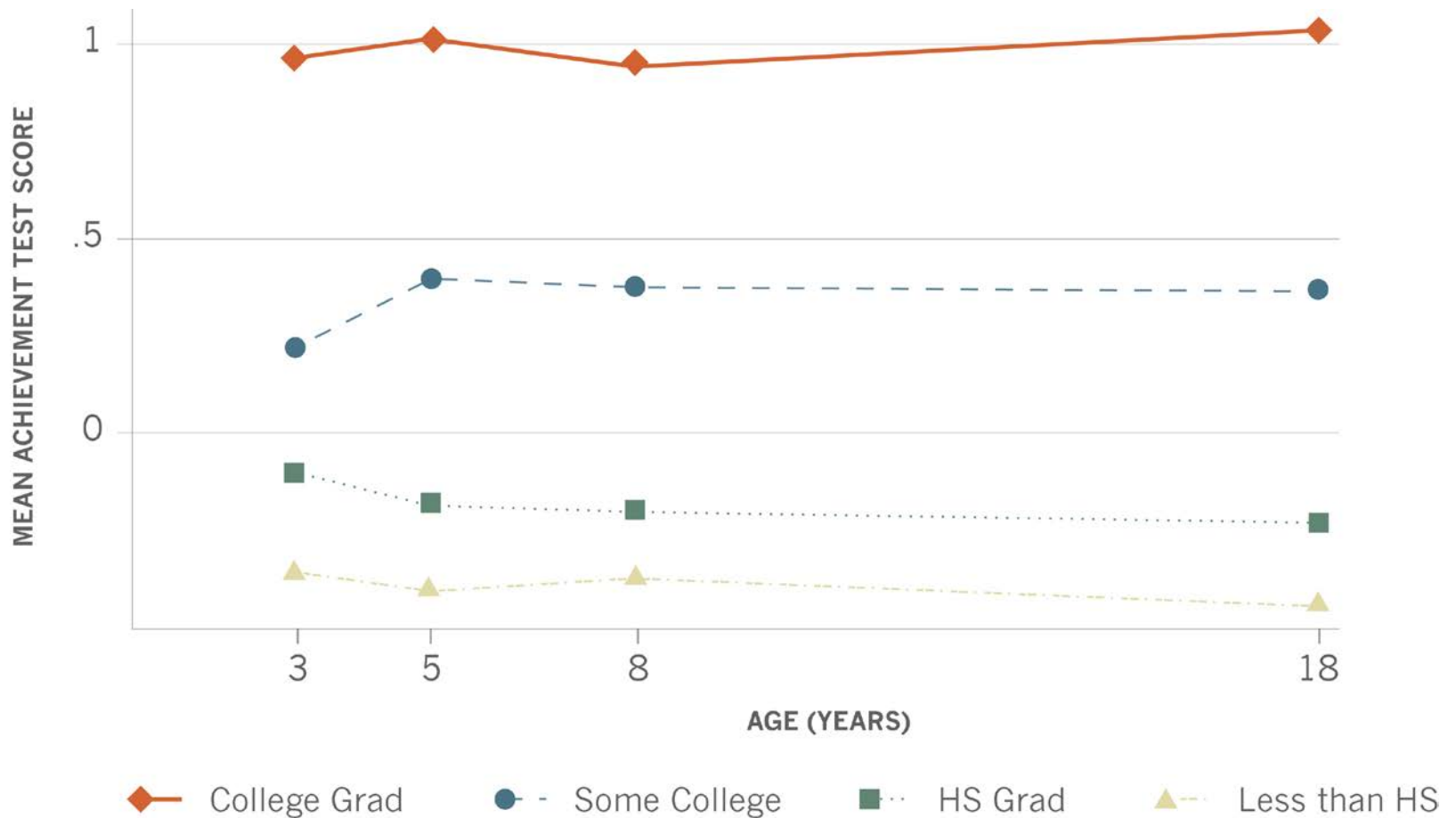
In a typical hour, the average child hears:

Family Status	Actual Differences in Quantity of Words Heard	Actual Differences in Quality of Words Heard
Welfare	616 Words	5 affirmatives, 11 prohibitions
Working Class	1,251 Words	12 affirmatives, 7 prohibitions
Professional	2,153 Words	32 affirmatives, 5 prohibitions

2. Cumulative Vocabulary at Age 3

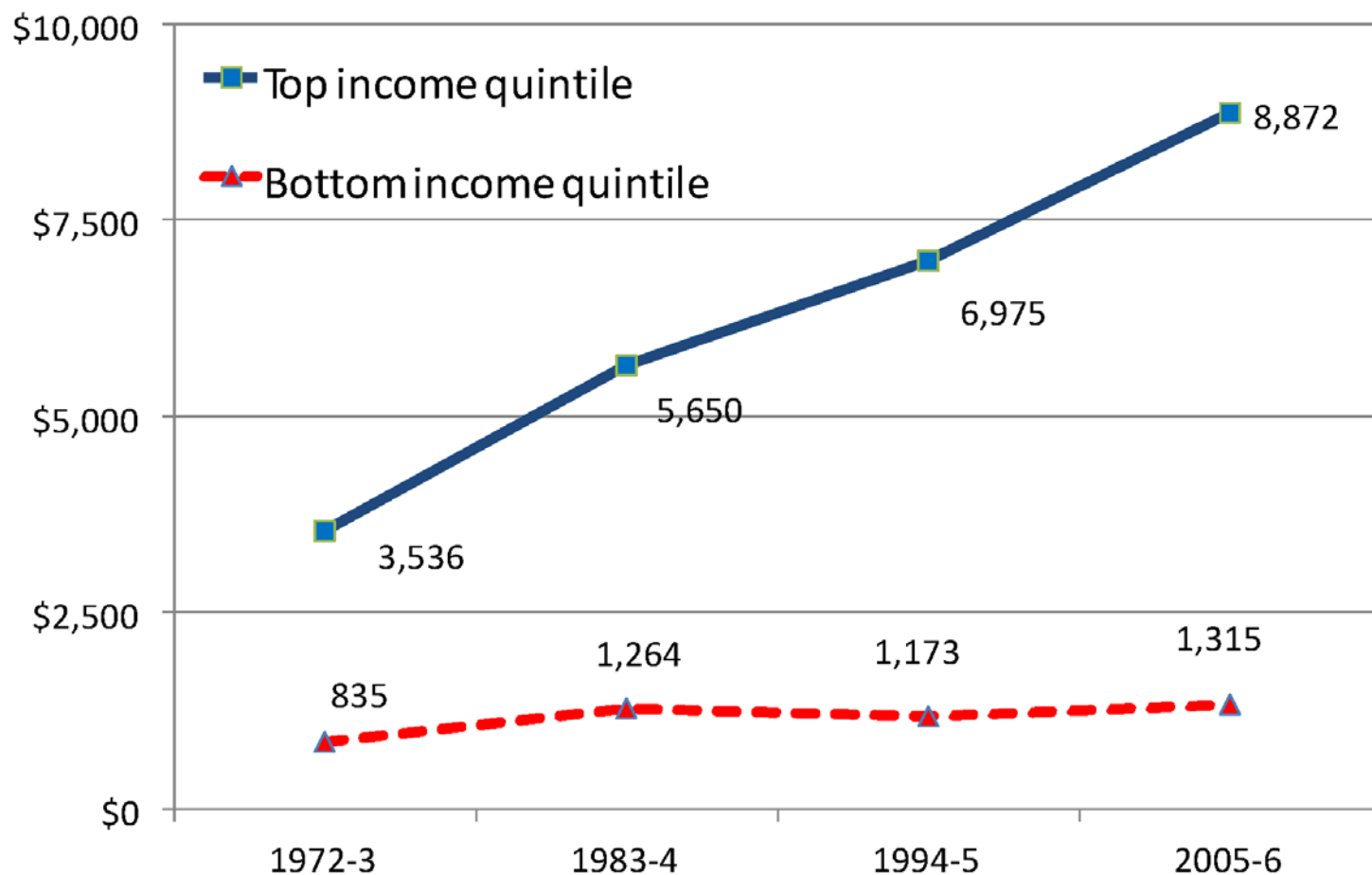
Cumulative Vocabulary at Age 3	
Children from welfare families:	500 words
Children from working class families:	700 words
Children from professional families:	1,100 words

Mean Achievement Test Scores by Age by Maternal Education



Each score standardized within observed sample. Using all observations and assuming data missing at random. Source: Brook-Gunn et al. (2006).

Per Capita Enrichment Expenditures on Children (\$2008) Top Versus Bottom Quintile of Households



Source: Duncan and Murnane (2011)



Family environments
that adversely affect
parenting are the true
measure of child poverty.



Early childhood
programs can
substantially reduce
achievement gaps and
produce better child
outcomes.

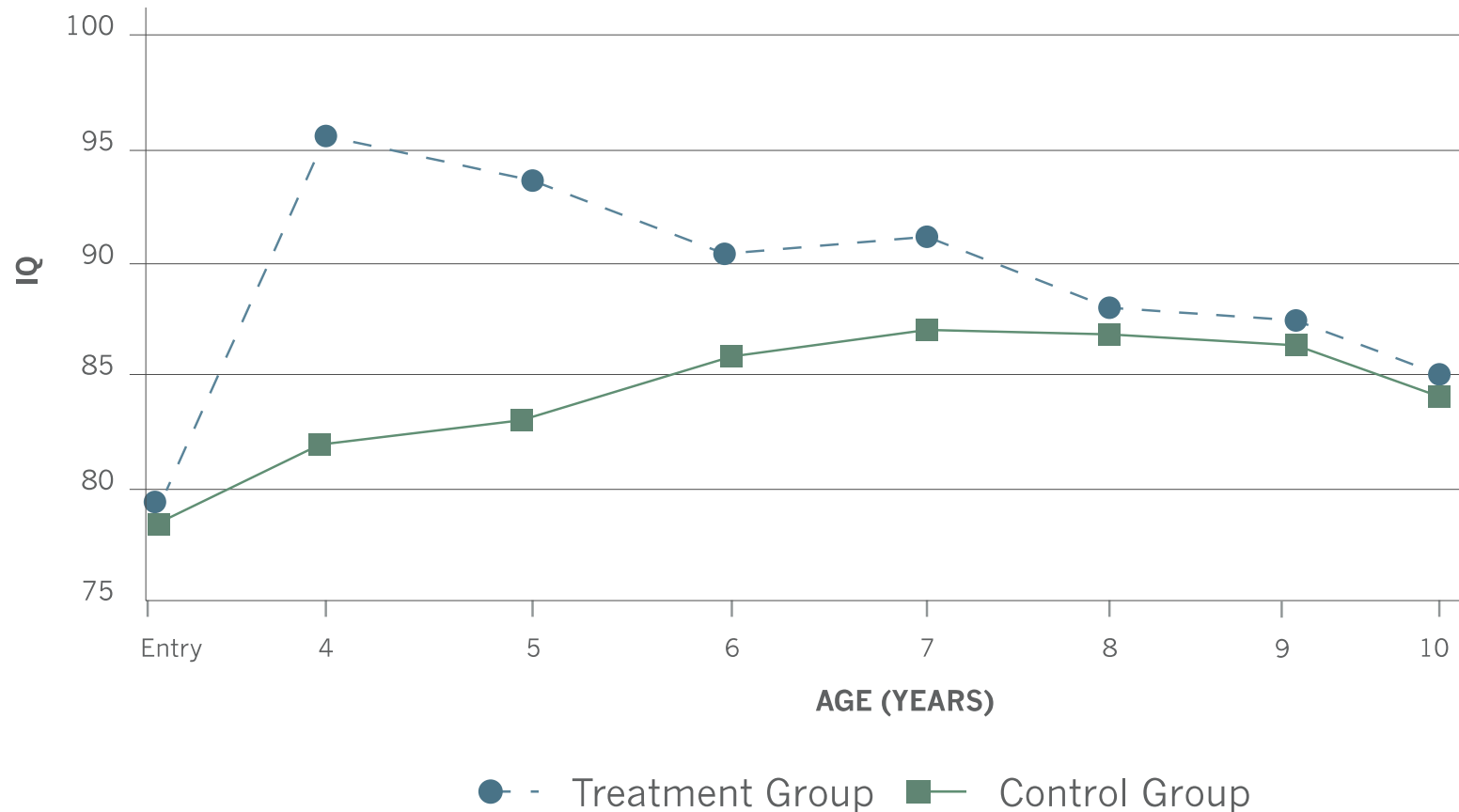


They work with parents
and encourage parents.



Need proper measures
of program output.

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.



Yet: 7-10% per annum
rate of return



Worked primarily
through boosting social
and emotional skills.



Has impacts across
generations.



Abecedarian shows
healthy benefits from a
comprehensive
approach.

Abecedarian Project, Health Effects at Age 35 (Males)

	Treatment Mean	Control Mean	Treatment p-value
Systolic Blood Pressure	125.79	143.33	0.018
Diastolic Blood Pressure	78.53	92.00	0.024
Pre-Hypertension	0.68	0.78	0.235
Hypertension	0.10	0.44	0.011
HDL Cholesterol	53.21	42.00	0.067
Cholesterol/HDL-C	3.89	4.69	0.057
Abdominal Obesity	0.65	0.87	0.136
Metabolic Syndrome	0.00	0.25	0.009

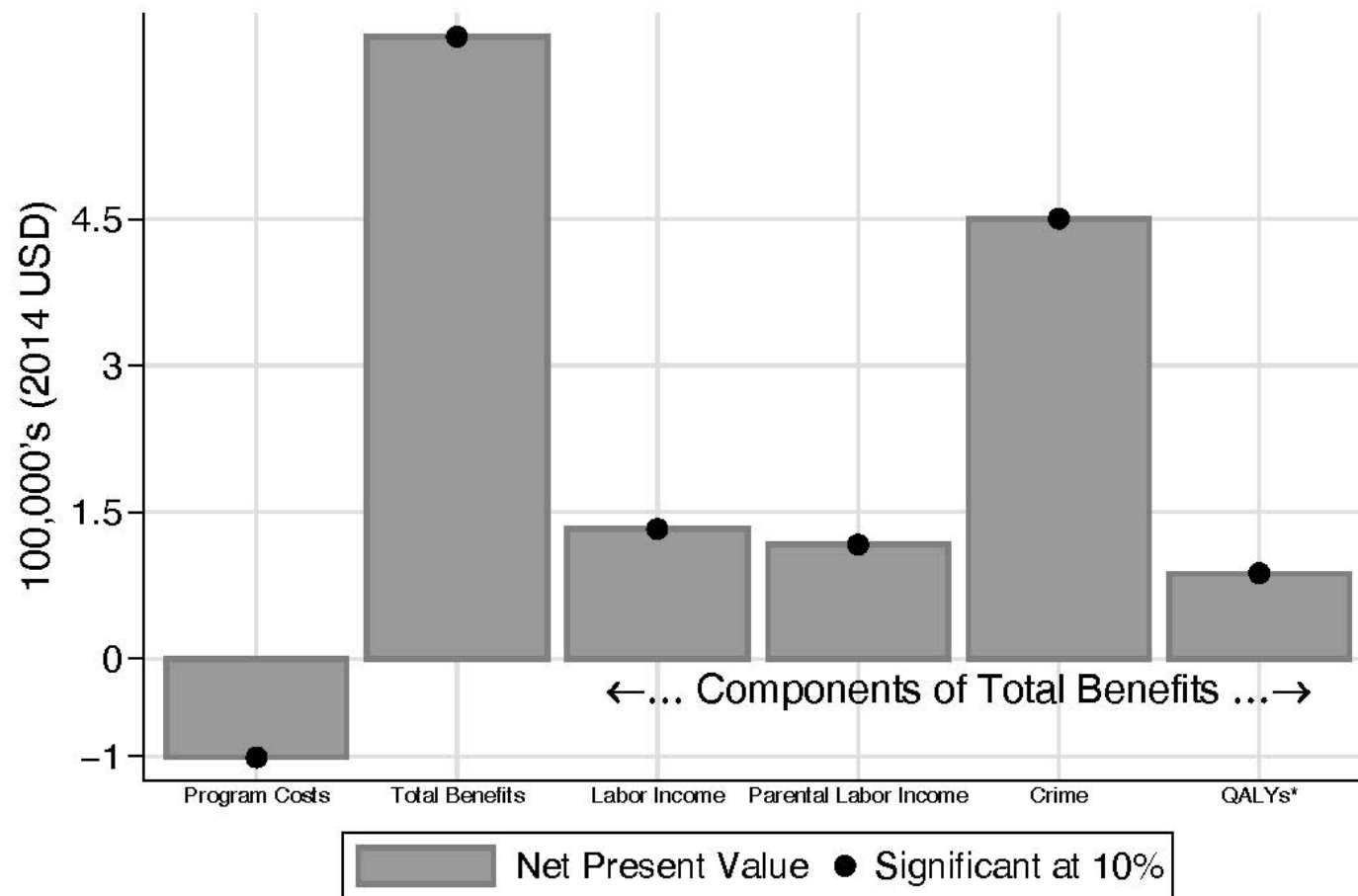
Source: Campbell, Conti, Heckman, Moon, Pinto, Pungello and Pan (2014).



Rate of return:

- Overall: 13.7% per annum
- Males: 14% per annum
- Females: 10% per annum

Life-cycle Net Present Value of Main Components of the CBA



Per-annum Rate of Return: Males and Females 13.7% (s.e. 3%).
Benefit-cost Ratio: Males and Females 7.3 (s.e. 1.8).



The enhanced income of mothers from providing childcare by itself pays for program costs.

The Importance of the Early Years: Skills Beget Skills

Social-emotional Skills



Cognitive Skills, Health

(sit still; pay attention; engage in learning; open to experience)

Health



Cognitive Skills, Social-Emotional Skills

(fewer lost school days; ability to concentrate)

Cognitive Skills



**Produce better health practices;
produce more motivation; greater
perception of rewards, social-emotional
skills**

(child better understands and controls its environment)

Outcomes: increased productivity, higher income, better health, more family investment, enhanced social mobility, reduced social costs.



Later remediation is costly and as currently configured is usually ineffective.



Effective adolescent
remediation targets
social and emotional
skills.



Mentoring:

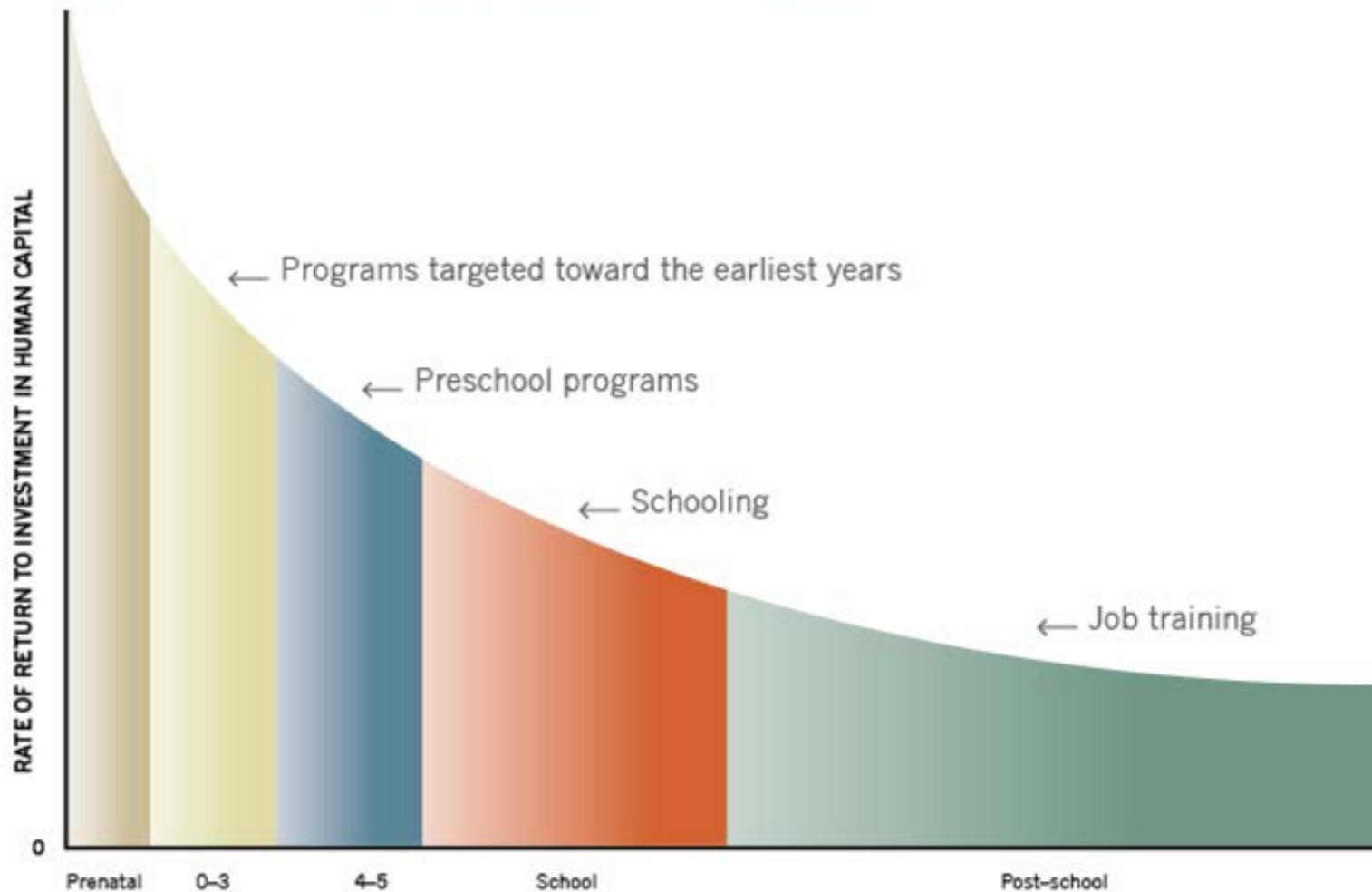
An age-adapted form of
parenting.



Predistribution, not just
redistribution or remediation.



Returns to a Unit Dollar Invested



Source: Heckman (2008)



Ingredients of Effective Programs



- Returns on high quality programs for *disadvantaged* children
- Advantaged children have other resources often much better than those from public programs



Successful early childhood programs help parents grow their parenting skills, foster the skills and aspirations of their children, and make for engaged and inclusive communities, a more skilled workforce, and a healthier society.

Proactive Steps to Take

- Resist slogans.
- Question program evaluations and ungrounded claims.
- Ask for solid evidence on lifetime effectiveness.
- Use resources available at Heckmanequation.org.
- Stay engaged with new research: cehd.uchicago.edu.