

The Heckman Equation



Perry Preschool & Character: Character skills are more important than IQ in driving better life outcomes.

By James Heckman, Rodrigo Pinto and Peter Savelyev

James J. Heckman is the Henry Schultz Distinguished Service Professor of Economics at The University of Chicago, a Nobel laureate in economics and an expert in the economics of human development.

Using more than 35 years of data on the Perry Preschool program, Professor James Heckman has shown that quality early childhood education programs for disadvantaged children can dramatically improve outcomes in education, employment and health. A new study by Heckman and co-authors Rodrigo Pinto of The University of Chicago and Peter Savelyev of Vanderbilt University shows how — by developing character skills that increase motivation and reduce negative externalizing behaviors. The findings indicate that those who evaluate early childhood education programs solely on their ability to raise IQ miss the real driver of success: character skills that have far greater impact on achievement and life outcomes.

We know early childhood education works. Now we know how it works best.

This new Perry Preschool study is important because it analyzes which learned skills account for which outcomes. Heckman and his team applied an econometric model to 46 cognitive and character measures sorted into three categories: cognition (IQ); academic motivation (engagement, initiative, persistence); and negative externalizing behavior (lying and cheating, aggression, classroom disruption). The long-term effects on adult outcomes were analyzed using numerous measures, including the California Achievement Test, special education enrollment, earnings, employment, health behaviors, marriage duration and crime rates. The 35-year-and-counting duration of the Perry study makes it a living laboratory for determining adult outcomes and their causes.

Solving the Perry puzzle.

The economics of education assumes the primacy of cognitive skills in producing successful life outcomes. From this perspective, the success of the Perry program is puzzling. Although it initially boosted the IQ of participants, the effect soon faded. Similar results have been found in evaluations of Head Start and other programs. Although Perry did not produce long-run gains in IQ, it did create lasting improvements in character skills by substantially reducing aggressive, antisocial and rule-breaking behaviors, which consequently improved a number of labor market outcomes and health behaviors as well as reduced criminal activity.

It's time to rethink the measurement of program success.

It's common sense that a well-rounded individual is most likely to succeed in life. Yet, we are too quick to evaluate the effectiveness of education programs by measuring gains in cognition and dismissing character development. That makes no sense at all. While Perry's impact on all three categories of cognitive and character skills had statistically significant effects on life outcomes, the most permanent, life-changing and economically significant effects came from the program's enhancement of character skills. For example, the impact on character skills led to increases in monthly income and the probability of employment and decreases in lifetime arrests, felony arrests, violent crimes and tobacco use.

Character skills boost school achievement.

Many assume that boosting long-term IQ is essential for boosting achievement test scores throughout schooling. Perry shows that is not the case. Unlike IQ, character skills can be more easily shaped in early childhood education to boost achievement test scores. While Perry did not increase long-term IQ, it did increase achievement test scores, with the gains being attributed to character skills. Achievement tests measure acquired knowledge, which is enhanced for children with better cognitive and character skills. Enhanced character skills promote learning that boosts achievement test scores. In fact, 30-40 percent of the variance in achievement test scores across students is due to character skills, not IQ.

Policymakers and educators should act on the evidence.

These important new findings on the development of character skills should be given greater emphasis in state, local and federal public policies designed to improve education, promote skills and alleviate poverty. Make no mistake—poverty is not caused by a lack of character among the poor, but rather by society’s failure to provide the proper resources and environments for developing character skills that promote success in life. Perry and other studies show that character skills can be best shaped through quality early childhood education from birth to age five and should be reinforced later in adolescence and young adulthood. Policymakers, educators and social and economic advocates would be wise to take the following actions:

- Invest in quality early education programs for children from birth to age five.
- Make sure early childhood education programs focus on cognitive *and* character development.
- Account for character skills and their effects on school achievement and adult outcomes when evaluating the worth of early childhood education programs.
- Develop effective measures of character skills and use them with the same rigor currently applied to testing cognitive skills.
- Place greater emphasis on character skill development throughout K-12 education, with strong reinforcement during the adolescent years.

James Heckman, Rodrigo Pinto and Peter Savelyev. (2013). “Understanding the Mechanisms Through Which an Influential Early Childhood Program Boosted Adult Outcomes.” *American Economic Review* 2013, 103(6): 2052–2086.