

## **Building Children's Brains**

**Nicholas Kristof** JUNE 2, 2016

First, a quiz: What's the most common "vegetable" eaten by American toddlers?

Answer: The French fry.

The same [study](#) that unearthed that nutritional tragedy also found that on any given day, almost half of American toddlers drink soda or similar drinks, possibly putting the children on a trajectory toward obesity or diabetes.

But for many kids, the problems start even earlier. In West Virginia, one study [found](#), almost one-fifth of children are born with alcohol or drugs in their system. Many thus face an uphill struggle from the day they are born.

Bear all this in mind as Hillary Clinton, Bernie Sanders and Donald Trump battle over taxes, minimum wages and whether to make tuition free at public universities. Those are legitimate debates, but the biggest obstacles and greatest inequality often have roots early in life:

**If we want to get more kids in universities, we should invest in preschools.**

**Actually, preschool may be a bit late. Brain research in the last dozen years underscores that the time of life that may shape adult outcomes the most is pregnancy through age 2 or 3.**

"The road to college attainment, higher wages and social mobility in the United States starts at birth," notes James Heckman, a Nobel-winning economist at the University of Chicago. "The greatest barrier to college education is not high tuitions or the risk of student debt; it's in the skills children have when they first enter kindergarten."

Heckman is not a touchy-feely bleeding heart. He's a math wiz renowned for his work on econometrics. But he is focusing his work on early education for disadvantaged children because he sees that as perhaps the highest-return public investment in the world today.

He measures the economic savings from investments in early childhood — because less money is spent later on juvenile courts, prisons, health care and welfare — and calculates that early-education programs for needy kids pay for themselves several times over.

One of the paradoxes of American politics is that this is an issue backed by overwhelming evidence, enjoying bipartisan support, yet Washington is stalled on it. [Gallup finds](#) that Americans by more than two to one favor universal pre-K, and Clinton and Sanders are both strong advocates. Trump has made [approving comments](#) as well (although online searches of both "Trump" and "preschool" mostly turn up comparisons of him to a preschooler).

To be clear, what's needed is not just education but also help for families beginning in pregnancy, to reduce the risk that children will be born with addictions and to increase the prospect that they will be raised with lots of play and conversation. (By age 4, a child of professionals has heard 30 million more words than a child on welfare.)

The best metric of child poverty may have to do not with income but with how often a child is spoken and read to.

So it's in early childhood that the roots of inequality lie. A book from the Russell Sage Foundation, "[Too Many Children Left Behind](#)," notes that 60 to 70 percent of the achievement gap between rich and poor kids is already evident by kindergarten. The book recommends investing in early childhood, for that's when programs often have the most impact.

It is true that cognitive gains from preschool seem to fade by the third grade, but there are differences in life outcomes that persist. Many years later, these former pre-K students are less likely to be arrested, to drop out of high school, to be on welfare and to be jobless.

A wave of recent research in neuroscience explains why early childhood is so critical: That's when the brain is developing most quickly. Children growing up in poverty face high levels of the stress hormone cortisol, which changes the architecture of the brain, compromising areas like the amygdala and hippocampus.

A [new collection of essays](#) from Harvard Education Press, "The Leading Edge of Early Childhood Education," says that this "toxic stress" from poverty impairs brain circuits responsible for impulse control, working memory, emotional regulation, error processing and healthy metabolic functioning. Early-childhood programs protect those young brains.

So in this presidential campaign, let's move beyond the debates about free tuition and minimum wages to push something that might matter even more: early-childhood programs for needy kids.

"It is in the first 1,000 days of life that the stage is set for fulfilling individual potential," writes Roger Thurow in his powerful and important new book on leveraging early childhood, "[The First 1,000 Days](#)." "If we want to shape the future, to truly improve the world, we have 1,000 days to do it, mother by mother, child by child."

America's education wars resemble World War I, with each side entrenched and exhausted but no one making much progress. So let's transcend the stalemate and focus on investing in America's neediest kids.

We rescued banks because they were too big to fail. Now let's help children who are too small to fail.