Child Development Is Economic Development
A Conversation with Economist Art Rolnick

Abstract: The public dollars spent to stimulate economic development would be more wisely invested in child development programs, according to two different streams of research. Brain research shows the impact of experiences and environments on the developing brain architecture, with weaker architecture leading to increased vulnerability to later problems ranging from anxiety and depression to cardiovascular disease, diabetes, and stroke. Longitudinal studies show that high-quality early childhood programs reduce the number of low-income children who later need special education, public assistance, or incarceration, and increase the number who have well-paying jobs and high school degrees. These studies show a long-term rate of return of up to 16 percent for every dollar spent, making programs such as these a smart economic development strategy.

Council Member Arthur J. Rolnick, Ph.D., is senior vice president and director of research at the Federal Reserve Bank of Minneapolis. He also serves as an associate economist with the Federal Open Market Committee, and as an adjunct professor of economics in the MBA program of Lingnan College, Guangzhou, China, and at the University of Minnesota’s Carlson School of Management. As a top official of the Federal Reserve Bank, he regularly attends meetings of the Federal Open Market Committee—the Federal Reserve’s principal body responsible for establishing national money and credit policies. He is past president of the Minnesota Economic Association and he serves on several nonprofit boards, including the Minnesota Council on Economic Education, the Center for Economic Progress, the Citizen’s League, and Ready 4 K, an advocacy organization for early childhood development. He is also on the Minneapolis Star and Tribune’s Board of Economists, and is a member of Minnesota’s Council of Economic Advisors.

The best investment in economic development that government and the private sector can make is in the healthy development of children, says Art Rolnick, Ph.D, senior vice president and director of research at the Federal Reserve Bank of Minneapolis. Judging by where the money now goes, such thinking is unconventional. For decades, state and local governments...
have annually spent billions of public dollars to stimulate economic development. Their primary tool: subsidies, in the form of tax breaks, free land and other incentives to companies that locate or expand their businesses in hometown markets.

Has the traditional strategy paid off?

“No,” says Rolnick, a contributing member of the National Scientific Council on the Developing Child. “I’m speaking for myself here, and not necessarily for the full Council. But our research shows that, nationally, the traditional approach creates no new jobs or businesses. The bidding war among communities to attract companies is, at best, a zero-sum game that distorts market outcomes and diverts public funds from more productive investments in economic development. Here in Minnesota, one suburb invested a huge amount of money luring a big-box store from another suburb.” Rolnick questions the wisdom of that investment.

A New Approach for Long-Term Economic Growth

Whatever one thinks about traditional economic development strategies, focusing on child development could become a new and positive approach for long-term economic growth, says Rolnick. He and research associate Rob Grunewald, an economic and public policy analyst for the Federal Reserve Bank, propose that society adopt the perspective of child-development-as-economic-development, based on two independent streams of research.

One comes from the institutions that study brain development and the impact of experiences and environments on the developing architecture of the brain. This research shows that a large percentage of the brain is built by the time a child reaches age five, and that a child’s home and community environment play a critical role in the formation of a strong or weak brain structure. If, for example, a child is raised in an environment of toxic stress, or suffers a psychological trauma, the architecture of his or her brain can be severely compromised; the body can release harmful chemicals in the brain, potentially impairing physical growth and making it more difficult for neurons to form connections with each other.

The weakening of the brain’s architecture, in turn, weakens a child’s ability to respond positively to future stresses, including normal life obstacles, and can increase a child’s vulnerability to later problems, ranging from anxiety and depression to cardiovascular disease, diabetes and stroke. The child’s ability to learn and interact positively with other children is therefore diminished. (For more information on stress and brain development, see “Stress and the Architecture of the Brain”.)

The second stream of research Rolnick cites in support of child development as economic development comes from a set of longitudinal studies of children from low-income families, including the Perry Preschool in Ypsilanti, Mich.; Abecedarian Project in North Carolina; Chicago Child-Parent Centers; and New York’s Elmira Prenatal/Early Infancy Project. These studies illustrate the benefits to children who participate in high-quality early childhood development programs. Such children were less likely to be
placed in a special-education program, more likely to graduate from high school, and, as adults, more likely to have well-paying jobs, and less likely to be on public assistance or commit crimes. Other studies showed similar results:

- **Economic investments keep kids on track.** An evaluation of the 1995-96 class of the Michigan School Readiness Program for children showed that a sample of participants through grade four were less likely than non-participants to be held back a grade, and also had higher percentages of satisfactory ratings on standardized achievement tests in reading and mathematics.¹

- **Language scores improve.** Assessments of kindergarten children in New Jersey’s highest-poverty school districts showed the children displayed marked improvement in the 2003-04 school year, compared to previous years. Since 1999, these districts were mandated by the state’s Supreme Court to provide preschool for three- and four-year-old children. Language scores were significantly higher in the 2003-04 school year, compared with scores four years earlier, and the percentage of children scoring “very strong” in early reading skills increased from 42 percent to 47 percent a year later.²

- **Low-income kids get a better start.** A recent study of children attending Oklahoma’s Pre-K program (available to all four-year-old children statewide) showed particularly strong gains for low-income children, including a 31 percent increase in cognitive skills, and an 18 percent increase in language skills. Hispanic children demonstrated a 54 percent increase in test scores.³

- **Center-based childcare shows benefits.** The results of two studies of childcare, released in 2004, clearly indicate that enrollment in center-based childcare is associated with positive cognitive outcomes for young children, particularly when providers have high skill and education levels coupled with low child-teacher ratios.⁴,⁵

As to the economics, such programs help society avoid the enormous costs associated with fixing—or not fixing—later social and economic problems. This approach offers “an extraordinary rate of return when compared with other public investments,” says Rolnick. A cost-benefit analysis, based on the Perry Preschool study, shows “the real internal rates of return on these programs range from about 7 percent to more than 16 percent annually, inflation-adjusted,” he says.

Moreover, this is an investment that keeps on giving. A recent 40-year summary report of the Perry Preschool Study—published after Rolnick and Grunewald did their initial analysis—shows that the total benefit to investment cost-ratio registered at the 27-year mark of the study is even higher than Rolnick’s and Grunewald’s original estimates, when measured over three decades.

“So, the two independent lines of research—brain studies and longitudinal eco-

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nomic analyses—lead us to conclude that the early years (of childhood) are critical to society’s economic development,” says Rolnick. “We recognize that public funding of childhood development programs will be difficult to sell politically, because the real returns from such programs are much less visible and less immediate than conventional economic development investments.” But it shouldn’t be. The numbers alone speak to the wisdom of the strategy. And then there’s the fact that this “capacity building” is about maximizing the future of all our nation’s children.

Questions remain regarding how to shape the best childhood-development programs. “But in our view,” he adds, “the economic case for why we should invest in early childhood development is closed.”

For additional information on Rolnick and Grunewald’s analysis of children and economic development, go to www.minneapolisfed.org/research/studies/earlychild/.

The interviewer: Richard Louv is the author of six books, including Last Child in the Woods: Saving Our Children From Nature-Deficit Disorder (Algonquin) and Childhood’s Future (Anchor). A longtime columnist at The San Diego Union-Tribune, he served on the editorial advisory board for Parents magazine and was one of the founders of Connect for Kids, the largest child advocacy site on the World Wide Web. He is a Visiting Scholar at The Heller School for Social Policy and Management at Brandeis University.