

Jobs are not created by such programs—they are only relocated. From a national perspective, the public return is, at most, zero. Even the apparent economic gains at state and local levels are suspect because, more often than not, subsidized companies have other reasons for location decisions and the public subsidy is just gravy. What passes for economic development and sound public investment is often neither. There are better investments: for example, human capital investments, especially when started early.

Early Childhood and **Economics**

Speaking to business leaders in Omaha, Nebraska, in February 2007, Federal Reserve Chairman Ben Bernanke pointed to a growing body of research demonstrating the high returns that investments in early childhood development have garnered "in terms of subsequent educational attainment and in lower rates of social problems, such as teenage pregnancy and welfare dependency."2

tors-can have a substantial impact on the sorts of students, workers, and citizens the children eventually become. This is the most efficient means to boost the productivity of the workforce 15 to 20 years down the road. As University of Chicago Nobel laureate economist James Heckman says, "Enriching the early years will promote the productivity of schools by giving teachers better-quality students. Improving the schools will in turn improve the quality of the workforce."3

But what about the zero-sum game that many localities play? We don't pretend to have all the answers, but we're certain that investing in early childhood education is more likely to create a vibrant economy than using public funds to lure a sports team by building a new stadium. Several longitudinal evaluations reach essentially the same conclusion: The return on early childhood development programs that focus on at-risk families far exceeds the return on other economic-development projects.

Cost-benefit analyses of the Perry Preschool Program in Ypsilanti, Michigan, the Start is beyond the scope of this article, several studies have concluded that even though pockets of success exist, long-term gains from Head Start have fallen short of the results achieved by the Perry Preschool, Abecedarian, and other programs we studied. It is true that Head Start is not funded at the levels of those model programs, but we think the problem cannot be solved by more funding alone. We argue that funding a top-down, planned system is unlikely to yield consistently high returns. Large-scale efforts can succeed if they are market based and incorporate four key attributes: a focus on at-risk children, parental involvement, measurable outcomes, and a long-term commitment. Getting those attributes into large-

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returns. Although a full critique of Head

scale programs requires the flexibility, innovation, and incentives that are inherent in markets. For some, that is a radical idea, but many middle- and upper-class families have long benefited from the power of markets for early childhood education—by choosing the early learning centers that their children attend and by demanding results from those providers.

Why not give the same purchasing power to those of lesser means? Our idea is to provide scholarships that empower parents of at-risk children to access highquality early education. Programs eligible to attract scholarship children must have characteristics that correlate with school readiness outcomes, such as well-trained teachers, relatively low ratios of children to teachers, and research-backed curricula. Qualified early education providers would then compete for the scholarship children, and parents would make decisions about which providers they preferred for their children. This market-based approach is in contrast to the more conventional approach of increasing funding of existing programs, such as public school-based preschool pro-

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It should be no surprise that the Federal Reserve is interested in this. Although the Fed focuses much of its research on monetary policy and banking issues, it also studies how economies grow and the conditions that affect growth. Workforce quality and public investment in human capital development are critical for economic growth. Research shows that human capital investments that start in early childhood can have especially impressive returns.

Investments prior to kindergarten especially for children considered at-risk because of poverty, abuse, neglect, parent chemical dependency, among other fac-

Abecedarian Project in Chapel Hill, North Carolina, the Chicago Child-Parent Centers, and the Prenatal/Early Infancy Project in Elmira, New York, showed annual rates of return, adjusted for inflation, ranging between 7 percent to just over 20 percent.⁴ The findings lead to another question. Can the success of small-scale early childhood development programs for at-risk children be reproduced on a much larger scale?

Increasing the Scale

There are reasons to be skeptical. Programs such as Head Start and some other attempts to reach a large number of at-risk fami-



grams, child-care subsidies, and Head Start. Nevertheless, those programs can benefit by enrolling the scholarship children.

To establish a successful, long-term commitment, we have proposed a permanent scholarship fund for all families with at-risk children.⁵ A pilot of a scholarship model based on this proposal began in January in St. Paul, thanks to volunteer families in targeted neighborhoods, funding from the Minnesota Early Learning Foundation, and the enthusiasm of preschool providers that are expanding facilities to meet the need. For the next four years, low-income families with 3-year-old children will receive scholarships of up to \$13,000 to pay for two years at a high-quality early education program.

Additionally, mentors will provide parent education for families receiving scholarships, including information about available human-services, financial, and health resources, and guidance on selecting an eligible early education program. Research shows that reaching children with multiple risk factors as early as possible is essential. Even age 3 may be too late. Therefore, the parent mentoring component is starting as early as prenatal in the pilot neighborhood. An independent evaluation of the scholarship pilot will measure the impact on child outcomes, changes in the number of openings at high-quality programs, and parents' involvement in their children's education.

We argue that earnings from an endowment for early childhood development would be an effective source to provide scholarships for children in low-income families throughout Minnesota. An endowed fund would send a signal to the market of early education programs that funds for scholarships will be available into perpetuity.

What would a permanent scholarship fund cost? In Minnesota, we estimate that a one-time outlay of about \$1.5 billionabout the cost of two professional sports stadiums-would create an endowment that could provide scholarships on an annual basis to the roughly 17,000 Minnesota 3- and 4-year-old children living below poverty. With the endowment's funds invested in corporate AAA bonds, earning about 6 percent to 7 percent per year, we estimate that \$90 million in annual earnings would cover the costs of scholarships, parent mentoring, program monitoring, and assessments—and would supplement existing revenue sources as needed for early childhood screening and teacher training reimbursement programs.

Compared with the billions of dollars spent each year across the country on high-risk economic development schemes, an investment in early childhood development is a far better and more secure tool. We are confident that such investmentsdriven by a market-based approach that focuses on at-risk children, encourages parental involvement, produces measurable outcomes, and secures a long-term commitment-will achieve a high public return.

Arthur J. Rolnick is a senior vice president and the director of research at the Federal Reserve Bank of Minneapolis, where Rob Grunewald is an associate economist.

Endnotes

¹This article is based on a Federal Reserve Bank of San Francisco article, "The Economics of Early Childhood Development as Seen by Two Fed Economists," Community Investments 19, number 2 (fall 2007), which was partially based on A. Rolnick and R. Grunewald "Early Intervention on a Large Scale," Education Week 26, no. 17 (January 4, 2007): 32, 34-36.

²Benjamin S. Bernanke, "The Level and Distribution of Economic Well-Being," remarks before the Greater Omaha Chamber of Commerce, Omaha, Nebraska, February 6, 2007, http://federalreserve.gov/Board-Docs/Speeches/2007/20070206/default.htm.

³J. Heckman and D. Masterov, "The Productivity Argument for Investing in Young Children," Early Childhood Research Collaborative, discussion paper 104, August 2006, p. 43. Online at http://www.earlychildhoodrc.org/papers/DP104.pdf.

⁴Jean Burr and Rob Grunewald, "Lessons Learned: A Review of Early Childhood Development Studies" (Minneapolis: Federal Reserve Bank of Minneapolis, April 2006), http://minneapolisfed.org/research/studies/earlychild/lessonslearned.pdf/earlychild.

⁵For a detailed description of the scholarship fund, see A. Rolnick and R. Grunewald, "A Proposal for Achieving High Returns on Early Childhood Development," working paper, Federal Reserve Bank of Minneapolis, March 2006, http://www.minneapolisfed.org/research/ studies/earlychild/highreturn.pdf.