A Proposal for Achieving High Returns on Early Childhood Development

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March 2006

***Prepared for "Building the Economic Case for Investments in Preschool," Washington, D.C., December 3, 2004. Convened by the Committee for Economic Development, with support from The Pew Charitable Trusts and PNC Financial Services Group.**

Introduction

For well over 20 years, economic development has been a major preoccupation for most state and local governments. Around the country, billions of public dollars are spent each year to subsidize private companies so that they will either locate or expand their businesses in hometown markets. Recent studies of this approach to economic development, however, make clear that the so-called economic bidding war among state and local governments is actually counterproductive. At least from a national perspective, no new jobs or businesses are created; jobs and businesses are simply located or relocated to the highest bidder. The bidding war is at best a zero-sum game that distorts market outcomes and diverts public funds from more productive investments in economic development.

One of the most productive investments that is rarely viewed as economic development is early childhood development (ECD). Several longitudinal ECD studies that are based on a relatively small number of at-risk children from low-income families, demonstrate that the potential return is extraordinary. In a previous essay[1] we found that, based on these studies, the potential annual return from focused, high-quality ECD programs might be as high as 16 percent (inflation adjusted), of which the annual public return is 12 percent (inflation adjusted).

These findings, however, pose a challenge: While small-scale ECD programs can work, can they be reproduced at a much larger scale? There are reasons to be skeptical as some recent attempts at scaling-up ECD have been disappointing. Nevertheless, we argue that a large-scale program can succeed if it has the following three features:

[1] Rob Grunewald & Arthur Rolnick, "Early Childhood Development: Economic Development with a High Public Return," *The Region* 17, no. 4 Supplement (December 2003), 9.

1. The program focuses on at-risk[2] children and encourages direct parent involvement.
2. The program represents a long-term commitment to ECD.
3. The program rewards successful outcomes in order to encourage high-quality and innovative practices.

To establish a successful, large-scale ECD program, therefore, we propose a permanent scholarship fund for all families with at-risk children. Similar to endowments in higher education, earnings from an endowment for ECD would be used to provide scholarships for children in low-income families who aren't able to afford a quality ECD program. The program would be financed and managed as follows: A state or local government, in partnership with the private sector and the federal government, would create an ECD endowment to fund the scholarships. The scholarships would cover child tuition to qualified ECD programs *plus* the cost of parent mentoring to ensure parental involvement. Scholarships would be outcome-based, meaning that they would include incentives for achieving significant progress toward the life and learning skills needed to succeed in school.

Evidence of a High Return to ECD

[2] Conditions that can indicate whether a child is at risk include low family income, violence or neglect in the home, low parent education levels, low birth weight and parent chemical addiction.

We find that the return to ECD is extraordinary whether compared to most dollars invested in conventional economic development or even to opportunities in the private sector.

Conventional economic development: a zero public return

In the name of economic development and creating new jobs, virtually every state in the union has a history of subsidizing private businesses. Previous studies have shown that the case for these subsidies is short-sighted and fundamentally flawed.[3] From a national perspective, jobs are not created—they are only relocated; that is, the public return is at most zero. From a state and local perspective, the apparent economic gains are also suspect because the gains would likely have been realized without the subsidies. In other words, what often passes for economic development and sound public investment is neither.

In a recent court decision, the economic bidding war has also been called into question on legal grounds. The U.S. Supreme Court has ruled that the Constitution's Commerce Clause prohibits states from interfering with interstate commerce. Surely these bidding wars can be viewed as an interference with interstate commerce. And that is exactly what was ruled. On Sept. 2, 2004, the U.S. Court of Appeals for the Sixth Circuit struck down Ohio's tax incentives given to DaimlerChrysler – in connection with the location decision for its new Jeep assembly plant – for violating the Commerce Clause.[4]

[3] Melvin Burstein & Arthur Rolnick, "Congress Should End the Economic War Among the States: Federal Reserve Bank of Minneapolis Annual Report Essay, " *The Region*, no. 1 (March 1995), 3-4.
[4] *Cuno v. DaimlerChrysler, Inc*., No. 01-3960 (6th Cir. 2004).

If using public subsidies to influence the location decision of private companies is the wrong way to promote economic development, what is the right way? Invest in human capital. Economists have long been interested in what determines the wealth of nations. They find that several factors appear to play an important role, especially the rule of law and well-established property rights. In addition, most successful economies are associated with a high-quality workforce, which includes workers with formal education as well as experienced workers with on-the-job training. Increased investment in skills and knowledge provides future economic returns through increases in labor productivity.[5] Minnesota is a good example of how long-term investment in education and training has helped to make the state's economy one of the most successful in the country.[6]

For the most direct evidence on the importance of education to the economic success of individuals and an economy, consider the increase in the so-called education premium. Twenty years ago the education premium, the average value of a college degree (four years or advanced degrees) over a high-school degree, was worth 40 percent more in terms of lifetime earnings. Today that premium has grown to over 70 percent,[7] and we think it is still growing.

Early childhood development: an extraordinary public return

[5] William Schweke, *Smart Money: Education and Economic Development* (Washington D.C.: Economic Policy Institute, 2004), iv.
[6] Terry Fitzgerald, "Business Cycles and Long-Term Growth: Lessons from Minnesota," *The Region* 17, no. 2 (June 2004), 60-61.
[7] William Schweke, *Smart Money: Education and Economic Development* (Washington D.C.: Economic Policy Institute, 2004), 10.

Knowing that we need an educated workforce, however, does not tell us where to invest limited public resources. Policymakers must identify the educational investments that yield the highest public returns. Here the literature is clear: Dollars invested in ECD yield extraordinary public returns.

The quality of life for a child and the contributions the child makes to society as an adult can be traced to the first few years of life. From birth until about 5 years old a child undergoes tremendous growth and change. If this period of life includes support for growth in cognition, language, motor skills, adaptive skills and social-emotional functioning, the child is more likely to succeed in school and later contribute to society.[8] Conversely, without support during these early years, a child is more likely to drop out of school, receive welfare benefits and commit crime. To provide such support for at-risk children, we need high-quality ECD programs. The problem is that most ECD programs fall short. Today, for example, Head Start is spending roughly $7,000[9] per child, and we estimate that a high-quality program requires at least $9,500[10] and as high as $15,000 for children with multiple risk factors. Moreover, Head Start's funding allows it to accommodate only about 60 percent of eligible children.

The question we addressed in our previous essay[11] is whether the return to ECD justifies closing the ECD funding gap. We argued that it did, that the benefits achieved from ECD programs far exceed their costs. Our finding was based on several longitudinal studies that essentially reached the same conclusion – the return to ECD

[8] Martha Farrell Erickson & Karen Kurz-Riemer, *Infants, Toddlers and Families: A Framework for Support and Intervention* (New York: The Guilford Press, 1999), 19.
[9] *Head Start Program Fact Sheet* [online], Administration for Children & Families, U.S. Department of Health and Human Services Web Site [cited November 2004], available from World Wide Web: (http://www.acf.hhs.gov/programs/hsb/research/2004.htm).
[10] Rob Grunewald & Arthur Rolnick, "Early Childhood Development: Economic Development with a High Public Return," *The Region* 17, no. 4 Supplement (December 2003), 10.
[11] Ibid.

programs that are focused on at-risk families far exceeds the return on most projects that are funded as economic development. The cost-benefit analyses conducted on the Perry Preschool, Abecedarian Project, Chicago Child-Parent Centers and the Elmira Prenatal/Early Infancy Project range from $3 to almost $9 for every dollar invested. Expressed as an internal rate of return, we estimate the real (adjusted for inflation) internal rates of return on these programs range from about 7 percent to above 16 percent annually.

A recently released 40-year summary report of the Perry Preschool Study shows that the long-term benefits registered at the 27-year mark of the study continued into adulthood. The total benefit cost-ratio is now estimated at $17 for every dollar invested; the benefit-cost ratio in respect to benefits that went to the general public is almost $13-to-$1.[12] These new findings indicate that our original internal rate of return estimates for the Perry Preschool are too low.

Several other recent studies of ECD programs also indicate that investments to help young children prepare for school and beyond pay big dividends to society:

- An evaluation of the 1995-1996 class of children of the Michigan School Readiness Program for at-risk children showed that a sample of participants through grade four were less likely to be held back a grade and had higher

[12] Lawrence J. Schweinhart, "The High/Scope Perry Preschool Study Through Age 40: Summary, Conclusions and Frequently Asked Questions." The High/Scope Educational Research Foundation, November 2004, 3.

percentages of satisfactory ratings on standardized achievement tests in reading and mathematics relative to a comparison group.[13]

- Assessments of kindergarten children in New Jersey's highest poverty school districts, or Abbott districts, showed marked improvement in the 2003-2004 school year compared with previous years. Since 1999 these districts were mandated by the state's Supreme Court to provide preschool for 3- and 4-year-old children in these districts. Language scores were significantly higher in the 2003-2004 school year compared with scores four years earlier, and the percentage of children scoring "very strong" in early reading skills increased to 47 percent from 42 percent a year earlier.[14]

- A recent study of children attending Oklahoma's Pre-K program (available to all 4-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.[15]

- Two studies of child care released in 2004 found that enrollment in center-based child care was associated with positive cognitive outcomes for young children,

[13] Z. Xiang and L. J. Schweinhart, "Effects five years later: The Michigan School Readiness Program evaluation through age 10," Research report to the Michigan State Board of Education, 2002.
[14] "A Rising Tide: Classroom Quality and Language Skills in the Abbott Preschool Program," Early Learning Consortium, New Jersey Department of Education, (September 2004), 5.
[15] W. T. Gormley & D. Phillips, "The effects of universal Pre-K in Oklahoma: Research highlights and policy implications," unpublished manuscript, October 2003.

particularly when providers had high levels of skill and education and child-teacher ratios were low.[16,17]

How to Invest in ECD

Research shows that high-quality ECD programs, particularly for at-risk children, produce substantial public and private benefits. In addition, research reveals the ingredients necessary for healthy development. For example, high-quality ECD providers with well-trained teachers, relatively low child-to-teacher ratios, and effective parent education and involvement are more likely to succeed than providers with lower levels of quality.[18,19] Furthermore, the current level of public investment in ECD is too low, as demonstrated by the number of families who don't have access to high-quality ECD programs.

While we are convinced that well-focused ECD investments will produce high returns, questions remain about the mechanism that would most effectively bring ECD to a larger scale. We argue that potentially the most effective and efficient means to improve access to, and quality of, ECD is to implement incentives within the existing

[16] S. Loeb, B. Fuller, S. L. Kagan, & B. Carrol, "Child care in poor communities: Early learning effects of type, quality, and stability." *Child Development, 75* no. 1 (2004), 47-65.
[17] NICHD Early Child Care Research Network. "Does amount of time spent in child care predict socioemotional adjustment during the transition to kindergarten?" *Child Development, 74* no. 4. (2003), 976-1005.

[18] W. Steven Barnett, "Better Teachers, Better Preschools: Student Achievement Linked to Student Qualifications," *Preschool Policy Matters* (National Institute for Early Education Research), no. 2 (March 2003), 2.
[19] Jeanne Brooks-Gunn, Sara McLanahan and Cecilia Rouse. "Introducing the Issue (School Readiness: Closing Racial and Ethnic Gaps)," *The Future of Children* 15, no. 1 (Spring 2005), 12.

market for ECD, particularly providing scholarships to families with at-risk children. The ECD market refers to current ECD providers from the public and private sectors, which represents a diverse mix of preschools, child care providers and home-visiting programs.

Below we discuss why a market-oriented approach is more effective than a top-down, planned system. We then outline details of the scholarship system. Next we propose an endowment as a permanent mechanism to fund the scholarships, and address concerns that have been raised by this proposal. Finally, we offer suggestions on conducting pilot projects to test the effectiveness of this approach.

A Market-Oriented Approach

Programs such as Head Start and some other recent attempts to reach a large number of at-risk families have not consistently generated high returns. While a full critique of Head Start is well beyond the scope of this paper, several studies have concluded that even though there are pockets of short-term success, long-term gains from Head Start have fallen short of the studies cited above, such as the Perry Preschool and Abecedarian programs.[20] As already noted, we think Head Start is underfunded. We do not, however, think the problem can be solved by more funding alone. We argue that funding a top-down, planned system is unlikely to yield consistently high returns. Instead, we propose a bottom-up, market-oriented system that first and foremost empowers at-risk families and keeps decision-making about individual programs at the micro level with ECD providers.

[20] Janet Currie, Elina Garces & D. Thomas, "Longer-Term Effects of Head Start," *The American Economic Review* 92, no. 4 (September 2002), 1011.

A well-intentioned ECD demonstration project, which was labeled a "Noble Bet" helps to illustrate our concerns with a top-down, planned system.[21] In 1996, in Allegheny County, Pennsylvania (including the city of Pittsburgh), an early childhood initiative was started. The Allegheny County program was an attempt to replicate the high returns found in small-scale demonstrations projects on a large, countywide scale. The goal was to serve, within five years, 7,600 at-risk children ages birth to 5. The average cost per child of the program was estimated at $4,000 to $5,000, and $59 million was budgeted over the five-year horizon.

The managers of the initiative chose what was called a community-driven approach, which employed a substantial bureaucratic structure both centrally and at the neighborhood level. Money and decision-making flowed from the central oversight board, through neighborhood organizations and ultimately to ECD providers.

Three-and-a-half years into the program, the initiative fell far short of its enrollment targets. Instead of enrolling 7,600 children, fewer than 700 were being served. Program costs turned out to be much higher than anticipated and, while difficult to untangle the financials, it appears that a substantial amount of resources went to building educational infrastructure and the bureaucratic abyss.

The Allegheny County program illustrates an inherent problem with a top-down, planned ECD system; it fails to effectively engage the parents. Instead of resources going directly to parents, they are spent on projected infrastructure needs of the industry. Much of economic policy research, however, demonstrates that resource allocation

[21] Brian Gill, Jacob W. Dembosky & Jonathan P. Caulkins, *A "Noble Bet" in Early Care and Education*, Rand Corporation, 2002.

decisions are more efficiently made by markets at the micro level (that is, by individuals and businesses) rather than by planning committees at the macro level.

Scholarships and the Endowment

Instead of managing ECD from the top-down, we propose a market-oriented approach by creating a permanent scholarship fund for all at-risk children. We note that providing ECD to at-risk children provides the highest rate of public return. In addition, robust parent education and involvement are essential for desired child outcomes. Finally, a permanent source of funding is required to ensure an effective market response.

Based on these premises, we propose a tuition-plus scholarship program for all at-risk children. A tuition-plus scholarship would cover tuition for the at-risk child to a qualified ECD program *plus* the cost of high-quality parent mentoring and home visits. The scholarships and parent mentoring would be funded with a permanent endowment lead by state governments.

Delivery System

While reaching families with the most at-risk children provides the highest return, they often can be difficult to reach. Therefore parent mentors would play a key role in providing parent education and information about available high-quality ECD programs. The delivery system would work as follows:

1. Eligible families with at-risk children below the age of 5 are identified through various methods, including referrals from social service agencies, doctors or screening procedures.
2. Letters go out to all families with at-risk children explaining that they qualify for parent mentoring and tuition to an ECD program for children at ages 3 and 4.

ECD providers that meet quality standards would be eligible to receive children with scholarships.

3. Parent mentors follow up with eligible families by providing parent education, information about available financial, health and human services, and guidance on selecting an ECD provider for their children.
4. Families select and enroll children with an ECD provider at ages 3 and 4; parent mentoring continues during this time.

Parent Mentors

According to the ECD research, parent involvement is critical to a successful program, and home visits by qualified mentors are among the best ways to achieve a high degree of parent involvement. To this end, as noted above, the scholarships would provide funds for qualified mentors. Mentor qualifications would include ECD training, parent training and counseling on issues related to health and financial issues as well as education. Mentors would help parents decide which of the qualified ECD providers best meets the family's needs and would advise the parents throughout the program.

Research shows that reaching children with multiple risk factors as early as possible is essential; even 3 years old may be too late. Therefore, we suggest that while scholarships would pay tuition for a child to attend an ECD program beginning at age 3, the parent mentoring program should start much earlier. High quality home-visiting programs for pregnant at-risk mothers through the first year or two after birth have shown significant cost savings to the public, particularly for at-risk mothers.[22] Prenatal/early infancy mentors could help assess the types and intensity of services parents and children require before age 3.

[22] A study of the Elmira Prenatal/Early Infancy Project showed a benefit-cost ratio of $4-to-$1 to the public. In this program registered nurses visited the homes of at-risk mothers prior to birth and until their children were two years old. See Karoly, L. A., Kilburn, M. R., Bigelow, J. H., Caulkins, J. P., & Cannon, J.S. *Assessing Costs and Benefits of Early Childhood Intervention Programs*. RAND. 2001

ECD Providers

An executive board that manages the ECD endowment sets standards that ECD providers must meet in order to register the scholarship children. The standards would be consistent with the cognitive and social-emotional development needed to succeed in school. We envision a mix of providers from the public and private sectors competing to serve at-risk children, including preschools, child care providers[23] and home-visiting programs.[24]

To encourage ECD providers to compete for the most at-risk children, scholarships would be based on initial conditions. To this end, the scholarship amount would be highest for a child with multiple risk factors. This would create an incentive for providers to register children who require more costly resources.

We should note several additional features of the scholarships. First, a partial scholarship could be layered on top of existing funding streams that providers currently receive.[25] The scholarship layer would serve to boost the quality of the program in order to achieve school readiness outcomes. Second, the scholarship provided to the family would be for qualified ECD services only; actual payments would flow from the endowment directly to the family-chosen provider. And third, the scholarships would include financial incentives to providers based on accountability measures.

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[23] Child care providers would include both center- and home-based programs. Smaller home-based programs may choose to join an association of family child care providers or partner with a larger center-based child care program or school district to serve as fiscal agent.

[24] Qualified home-visiting programs could enhance children's development when they are cared for in family, friend and neighbor settings and at unlicensed day-care programs.

[25] The concept of blending early childhood funding streams is discussed in Margaret Flynn & Cheryl D. Hayes, "Blending and Braiding Funds To Support Early Care and Education Initiatives," Financing Strategy Series, The Finance Project, (January 2003), 4.

The endowment board

To manage the program, we recommend a working group headed by an executive director and consisting of a small professional staff that would report to an outside board of directors. This group would oversee the management of the endowment, scholarships, assessment process and parent mentors.

The role of the executive director and professional staff:

- Identify all eligible families.
- Set financial parameters and incentives of the scholarships.
- Set standards for ECD providers.
- Adopt an early childhood assessment tool for ongoing evaluation of ECD providers and overall success of the scholarship program.
- Set mentoring standards and develop a mentoring program that would work with existing organizations.

The board of directors:

- The board should comprise of 12 members – state-appointed positions.
- Members should have expertise in at least one of the following fields: education, evaluation, business administration and management.

The board's main responsibilities:

- Appoint executive director.

- Approve salaries for executive director and staff.
- Review and approve overall management strategies for endowment and scholarships.
- Audit use of funds and compliance of rules.
- Prepare annual report on the progress of the program, including number of families served and results of evaluations.

Expected Outcomes

We expect the market-oriented approach to achieve strong results because the scholarships would directly involve the parents with their children's education. Parents would be empowered to choose among the various providers and select one based on location, hours of service, quality of program, and other features. The process of self-education and provider choice would itself involve the parent.

The market-oriented approach would be outcome based, so scholarships would include financial incentives focused on performance and would encourage innovation. While programs would have to meet requirements to accept children with scholarships, providers would have room for innovation in providing services. Furthermore, the scholarships would be priced at a level that will cover the costs needed to produce successful results.

Unlike a top-down, planned system, the ECD market, through parent decisions and response by providers, would determine the structure of the ECD industry. While the structure would be influenced by standards that are set by the executive board, families and ECD providers will make independent micro level decisions. This would allow the

diverse mix of current providers and new entrants into the market find the best means to supply high-quality ECD.

The Advantages and Efficacy of an Endowed ECD Fund

An endowed fund for ECD represents a permanent commitment and effectively leverages resources by public and private stakeholders. Because the endowment would provide a stable funding source, we would expect the market response to be better than otherwise. A permanent commitment sends a market signal to providers that they can expect a consistent demand for their product. By drawing up a business plan that demonstrates it can successfully attract scholarship children, an ECD provider can leverage funds for capital expansions or improvements from low-interest loan sources and philanthropic organizations; lenders will be assured by the stability of the ECD endowment.

State governments are well-positioned to provide leadership to build a public/private endowment. Just as they do for capital campaigns for physical buildings, state governments can lead drives to build human capital through ECD. The state can encourage contributions to the fund by matching donations and providing tax credits.[26] A donation of $50,000 to $150,000 would help provide ECD for an at-risk child every year into perpetuity.

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[26] For example, in Colorado any taxpayer who makes a monetary contribution to promote child care may claim an income tax credit of 50 percent of the total contribution. Examples of qualifying contributions include donations to establish a grant or loan program for parents in Colorado requiring financial assistance for child care and donations for the establishment or operation of a child care facility or program in Colorado. *Income Tax (Child Care Contribution Credit)*[online], Colorado Department of Revenue Web site [cited Oct. 26, 2004], available from World Wide Web: (http://www.revenue.state.co.us/taxstatutesregs/incomeindex/childcarecontwhatisit.html).

In Minnesota we suggest that the state dedicate the School Trust Land funds to ECD and encourage matching grants from the federal government and the private sector. This existing education endowment could serve as the backbone of an endowment that focuses resources on ECD. It would not require additional taxes. (See Appendix A for more details.) Furthermore, states could shift the millions of dollars spent each year on economic development schemes to an endowment for ECD. Since there is little economic benefit to these schemes, shifting these funds to ECD would secure a much higher return.

As mentioned above, a board of directors with representatives from the public and private sectors would provide oversight for the endowment. Under the board's supervision, the program's executive director would determine the number of families eligible for scholarships, oversee the parent mentoring component and design incentives for providers to ensure desired outcomes while promoting best practices.

How much money would the endowment need to raise?

Based on costs used in previous studies and current programs for at-risk children, we estimate that total resources needed to fund an annual scholarship for a high-quality ECD program for an at risk 3- or 4-year-old child would be about $9,500 to $15,000 for a full-day program. The scholarship either would cover the full cost of tuition or would be layered on top of existing private and public funds, such as child-care subsidies, to enhance quality features that correlate with school-readiness outcomes. A mentoring program for at-risk mothers, beginning before or near the time of birth, would likely cost

between $500 and $4,000 per family annually, depending on the number of visits and qualifications of the home visitor.

The endowment board could vary the amount of the scholarship to reach children in families just over the poverty line on a sliding scale or increase the amount of the scholarship for children facing multiple risk factors. The board may also consider providing scholarships for families that don't qualify based on income, but whose children are identified with risk factors other than living in poverty.

To derive an approximate dollar amount for the endowment, therefore, a state would have to estimate the number of children to be covered, multiply that by the average scholarship and calculate the investment return for the interest derived from investing the endowment funds in low-risk government or corporate bonds.

In Minnesota, for example, we estimate that in order to ensure that all 3- and 4-year-old children living below poverty receive high-quality ECD, the state needs about an additional $85 million annually. For children who aren't already involved in an ECD program, the scholarship would give them access. For children who are enrolled in a child-care center or preschool, the scholarship would ensure that the quality is at the necessary level to meet school readiness goals. A one-time outlay of about $1.5 billion would create an endowment that could provide scholarships to the families of children living below poverty on an annual basis. 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 the scholarships, pay for program monitoring and assessments, and supplement existing revenue sources as needed for early childhood screening and teacher training reimbursement programs.

Addressing the Concerns

We have discussed the market-oriented approach with various stakeholders in ECD, including ECD professionals and business leaders, who have posed thoughtful questions that need to be addressed.

- How does the market-oriented approach respond to the infrastructure needs of the ECD industry?
- What is the role of accountability in the market-oriented approach?
- How does this approach address the needs of infants and toddlers?
- How do we encourage families to participate in the program?
- How does K-12 education quality impact investments in ECD?
- How does the market-oriented approach fit with initiatives for universal preschool and child-care subsidy tiered reimbursement systems?

How does the market-oriented approach respond to the infrastructure needs of the ECD industry?

Several observers have asked how the market-oriented approach addresses the infrastructure needs of the ECD industry, such as increasing the number of trained teachers and upgrading or building additional physical capacity. They point out that without first expanding teacher training and the number of centers, the industry won't be able to serve all at-risk children.

We have two responses. First, because an endowment takes about three years to build, there is time to increase the number of trained teachers and physical capacity before the first scholarships are rolled out. Second, with the commitment of an endowment to fund the scholarships, we expect the market would respond, that is, providers will address their infrastructure needs in order to enroll children with scholarships.[27]

The endowment board would ensure that providers and teachers have access to mechanisms to improve quality and capacity, such as low-interest loans and tuition reimbursement funds. However, the endowment board would not create a centralized system to train teachers and build more centers. We argue that these decisions are best made at the micro-level by providers, not at the macro-level.

What is the role of accountability in the market-oriented approach?

Accountability plays an important role in the market-oriented approach and all other systems of ECD. First, since benefits of ECD programs are relatively intangible, broad-based and provider-specific assessments help make the gains in early childhood more tangible to stakeholders. Second, an accountability system produces data that can be used to provide incentives to achieve strong child outcomes. Third, accountability measures help ECD providers identify and implement best practices.

School readiness assessments have been used at the state and school district levels to measure how many children are ready for kindergarten in cognitive and social-

[27] Expanding physical capacity would not likely require much additional building, but rather renovating current structures. For example, school districts with excess physical capacity could renovate vacant space for early childhood programs.

emotional development. Data from these broad assessments have helped make the level of a state or local area's ECD progress, at least from the outside, more tangible.

For example, in Minnesota the state's School Readiness Study brought awareness to the number of children beginning kindergarten – just less than half – who were rated proficient in four domains of cognitive and social-emotional skills by their teachers in fall 2003.[28] These statistics helped energize policymakers and business and community leaders to discuss ECD issues.

Program level assessments analyze the structure, process and child outcomes of ECD programs. Structural elements include building size, qualifications of teachers and teacher-child ratios, while process elements include the actual experiences that occur, such as child-teacher interactions and educational activities.[29] Child outcomes are measured through tools that assess cognitive and social-emotional progress.

In the market-oriented approach, program level assessments of structure and process would determine whether an ECD program qualifies to receive scholarship funds. If the quality of a qualified program drops, the program would be given a probationary period to make improvements; if improvements aren't made, the program would eventually be taken off the list.

Assessments of child outcomes would be used to measure the progress children make in the programs, to provide incentives for strong performance and to identify best practices. Financial incentives would be rewarded for successful progress in child outcomes on measures of cognitive and social-emotional elements between entry and exit

[28] "Minnesota School Readiness, Year-Two Study: Fall 2003," Minnesota Department of Education (February 2004), 12.
[29] Linda M. Espinosa, "High-Quality Preschool: Why We Need it and What it Looks Like," *Preschool Policy Matters*, National Institute for Early Education Research, no. 1 (November 2002), 2-3.

in a program on a child-by-child or a class-by-class basis. Those programs that perform above a certain level would receive either full payment and/or a bonus commensurate with the number of children with scholarships.

Concerns have been raised about using, or not using, child outcome measures. On one hand, some ECD professionals have raised concerns about tying child outcomes to financial incentives. They point out that it's difficult to measure the progress of a child's development since it is complex and influenced by environments other than the ECD program, particularly the child's home environment. On the other hand, some prospective funders and policymakers have raised concerns over how they can know whether an ECD program is achieving desired results. They want to be sure their money and public funds that they advocate for are spent productively.

We feel that this tension regarding accountability – the difficulty inherent in measuring child outcomes and the use of this data to provide performance incentives – will ultimately be productive. There is strong demand for fair, comprehensive and cost-effective assessments of child outcomes. We feel that using this data to provide incentives for outcomes will attain desired results. Several examples in economic research demonstrate that incentives work and can be effective and efficient in meeting policy objectives.

Finally, collecting data on program structure, process and child outcomes helps the ECD field identify best practices and disseminate information about best practices among providers. This feedback loop promotes quality and strengthens programs.

How does this approach address the needs of infants and toddlers?

Concerns have been raised that beginning an ECD program at age 3 is too late, especially for children who are considered at high risk. Furthermore, neuroscience shows that when a child receives an intervention as an infant or toddler, the brain is more receptive than when the intervention is delivered at ages 3 and 4.

While we certainly agree that each year from birth to age 5 is critical for child development, for this proposal we argue beginning the scholarships for ECD programs at age 3 for two reasons. First, the parent mentoring component of this program can begin much earlier than age 3. Parent mentoring would help parents be involved in their children's education prior to age 3. Furthermore, mentors would provide guidance to parents on the settings in which their children are cared for during the day, whether inside or outside the home.

Second, given limited resources, this proposal can reach more children than if the scholarships are priced for five years at an ECD provider (birth to age 5). Of course, with the same or slightly more resources, scholarships for ECD programs could alternatively be applied to children at ages 1 and 2 instead of 3 and 4; however, this would leave a gap between the conclusion of an age 1 and 2 program and the start of kindergarten. As demonstration projects on proposals such as this are conducted, researchers will learn more about the relative *cost-effectiveness* of ECD scholarships for at-risk children ages 3 and 4 relative to programs for children birth to age 5, or programs that focus on children's first two or three years.

How do we encourage families to participate in the scholarship program?

It's important to consider that the scholarship program is voluntary. Qualifying for a scholarship doesn't mandate families to enroll their children in an early childhood program. However, we are confident that most families would take advantage of the scholarship and enroll their children in a high-quality ECD program. Nevertheless, for families that may not at first enroll, incentives would likely help encourage them to participate.

Based on experiences with preschool programs for at-risk children in Minneapolis and St. Paul, simple incentives, such as a coupon for a bag of groceries, have been effective in encouraging participation among families with low incomes and multiple challenges. The incentive is a way to reduce a family's overall costs of participating in an ECD program. Even though the program covers tuition, families may be discouraged from participating because of other out-of-pocket costs, such as those incurred traveling to and from the program location. Incentives can persuade them to participate despite such expenses.

One important aspect of successful programs is continuity. A challenge to early childhood programs is working with a population that tends to be relatively transient. Incentives to keep families involved in a program may be important to maintaining continuity with an ECD program.

How does K-12 education quality impact investments in ECD?

Even if the market-oriented approach is successful at getting at-risk children ready for kindergarten, the gains will be short-lived if children go into dysfunctional schools. According to Nobel Laureate economist James Heckman, "The complementarity or

synergism between investments at early ages and investments at later ages suggests that early investment has to be complemented by later investment to be successful."[30] Research indicates that gains made at Head Start centers in cognitive skills faded out over time in part due to the sub-par quality of later schooling.[31]

We expect that ECD would help schools by improving children's cognitive and social-emotional development before they reach kindergarten. The inputs will be better. The market-oriented approach to ECD would allow us to see how well children from families with scholarships achieve in schools. The data collected on these children as they move through school would help show which schools are performing well and which schools are falling behind. The board should consider this data to make sure that children who receive ECD scholarships are attending schools that support their continued progress.

How does the scholarship program fit with initiatives for universal preschool and child care subsidy tiered reimbursement systems?

The proposal for a scholarship program fits with current initiatives in several states, including universal preschool and child-care subsidy tiered reimbursement initiatives. Universal preschool for 4-year-old children is offered in a few states, including Georgia and Oklahoma, and is under consideration in several more. In those states where universal preschool plans are moving forward, the time horizon to fully implement these programs is up to 10 years out. A scholarship program for at-risk 3-and 4-year-old

[30] James J. Heckman & Dimitriy V. Masterov, "The Productivity Argument for Investing in Young Children: Working Paper 5," Invest in Kids Working Group, Committee for Economic Development (October 2004), 23.
[31] Janet Currie and D. Thomas, "School Quality and the Longer-Term Effects of Head Start," *Journal of Human Resources* 35, no. 4 (Fall 2000).

children could begin much sooner and serve as a stepping stone toward a universal preschool.

In our view the decision to implement a universal preschool program is a matter of resource allocation. The highest public return to investments in ECD on a per-child basis comes from reaching children who are most at risk. The cost to provide free voluntary preschool is about three to four times more expensive than a fully funded targeted preschool program.[32] While universal preschool does reach at-risk children, and may even be more effective in reaching at-risk children than a targeted program because universal programs don't have to screen children for qualifications,[33] the cost of preschool for all children is much higher. Nevertheless, a choice to go universal doesn't preclude a targeted program for at-risk children in the near term.

Another widely discussed policy option that has been piloted in a number of states is tiered reimbursement for child-care subsidies based on quality, that is, child-care centers with higher levels of quality based on a rating scale would receive higher reimbursement rates for child-care subsidies relative to programs with lower quality. Higher reimbursement rates provide an incentive – and the means, since quality requires more resources – for a program to make enhancements, such as training teachers and lowering child-to-teacher ratios. Rating systems encourage quality enhancements throughout the ECD market, potentially improving early education and care environments for children from all family income levels and from infancy and to school

[32] Richard Brandon, "Financing Access to Early Education for Children Age Four and Below: Concepts and Costs," Human Services Policy Center, Evans School of Public Affairs, University of Washington (October 2004), 25.
[33] W. Steven Barnett, Kristy Brown & Rima Shore, "The Universal vs. Targeted Debate: Should the United States Have Preschool for All?" *Preschool Policy Matters* (National Institute for Early Education Research), no. 6 (April 2004), 7.

age. The scholarships for at-risk children we suggest in this proposal would be available to child-care centers that attain the highest quality rating.

Conclusions

The evidence is clear that investments in ECD for at-risk children pay a high public return. Helping our youngest children develop their life and learning skills results in better citizens and more productive workers. Compared with the billions of dollars spent each year on high-risk economic development schemes, an investment in ECD is a far better and far more secure economic development tool. Now is the time to capitalize on this knowledge.

We argue that a market-oriented approach to ECD has several strong features. The present ECD landscape includes a variety of providers from the public and private sectors; a market-oriented approach would help improve the access and quality of ECD without creating additional bureaucracy. Focusing on at-risk children and encouraging direct parent involvement would help reach those children and families with the greatest need for ECD programs. Providers would receive incentives for successful outcomes and make local decisions on how to best achieve strong results. Finally, with a long-term, demand-side commitment through the creation of state-level public/private endowments, we expect a strong response from the supply-side of the ECD market.

This essay outlines a market-oriented approach to ECD, and we acknowledge that the proposal should be tested in pilot projects to learn from practical experience. For example, a pilot project that distributes 200 or 300 scholarships over a five-year period would provide experience and lessons about implementing a scholarship system. The

groundwork for such a pilot project was recently proposed by the Minnesota School Readiness Business Advisory Council – to create a public-private fund designed to "find cost-effective ways of ensuring that all of Minnesota's children ages 0 to 5 are ready for success in school when they reach kindergarten."[34] A key effort is to test the scholarship system with a demonstration project in which scholarships are distributed to families with at-risk children for use at providers that meet performance standards (See Appendix A). With information from demonstration projects such as this, researchers, policymakers and practitioners could convene to make informed recommendations.

In our view, the case is closed for why we must invest in ECD. Now it is time to design and implement a system that will help society realize on a large scale the extraordinary returns that high-quality ECD programs have shown they can deliver.

[34] "Winning Start." Minnesota School Readiness Business Advisory Council, (October 2004), 28.

Appendix A:

An Early Childhood Development Endowment in Minnesota

Minnesota could focus the School Trust Land fund on ECD and encourage matching grants from the federal government and the private sector. In 1858 when Minnesota became a state, the federal government granted Minnesota land for use of schools, therefore creating a trust. According to a 1998 evaluation of the fund, the long-term objective of the trust is to "generate as much revenue as possible to aid public education." [35] Named the Endowment and Permanent School Fund, this mechanism would require little need to raise taxes.

One option suggested in the evaluation is to use "distributions from the Permanent School Fund for special projects within public education instead of offsetting the general fund appropriation."[36] This would likely bring more visibility to the fund and generate more attention to how the principal of the Endowment and Permanent School Fund is invested and trust lands are managed.

The state Legislature could shift the focus of the Endowment and Permanent School Fund from a funding stream for education generally to fund ECD programs that emphasize school readiness. The cost of shifting the focus of the fund is estimated at about $25 million,[37] the amount of revenue in recent times allocated to finance K-12 education (about $19 million) and transferred to the general fund (about $6 million). Over time, improved early childhood outcomes are expected to reduce costs to the K-12

[35] "School Trust Land: A Program Evaluation Report, Report #98-05a." Office of the Legislative Auditor, State of Minnesota (March 1998), x.
[36] Ibid., xxv.
[37] "Consolidated Fund Statement, May 2004 End of Legislative Session and Governor's Executive Actions. Department of Finance, State of Minnesota (June 24, 2004), 38.

system through reductions in grade retention and special education.[38] The state could replace the share allocated to K-12 with general revenue until these cost savings are realized. Alternatively, the state could shift funds typically used for economic development schemes to cover the difference. The fund's annual net receipts, including investment income and other earnings, total over $41 million. Perhaps there is latitude to transfer a larger share of net receipts to programs.

[38] Clive R. Belfield, "Early Childhood Education: How Important are the Cost-Savings to the School System?" Report prepared for Center for Early Care and Education (February 2004), 1. Between 41 percent and 62 percent of an initial investment in a universal early childhood education system would be offset by medium-term savings elsewhere in the education system. The dollar-for-dollar medium-term savings for an effective targeted program for at-risk children would likely be higher.

Appendix B:

"Minnesota Early Learning Fund," a proposal by the Minnesota School Readiness Business Advisory Council

The Minnesota School Readiness Business Advisory Council (MSRBAC) is a 200-member organization of CEOs, senior executives and business leaders representing more than 100 companies and organizations focused on the role business can play in improving school readiness for young children in Minnesota. The Council is involved in advocacy for school readiness, identifying best practice to support parenting and environments for young children, and developing a public policy proposal to advance school readiness throughout the state.[39] MSRBAC's public policy paper, "Winning Start," outlines a proposal to create the Minnesota Early Learning Fund (MELF), a public-private fund to "find cost-effective ways of ensuring that all of Minnesota's children ages 0 to 5 are ready for success in school when they reach kindergarten."[40] Over a two- to three-year period, the MELF would fund demonstration projects and evaluate results with the goal of providing recommendations to the legislature and the governor about how Minnesota can best invest in ECD.

A key effort of the MELF is to test the scholarship system with a demonstration project in which scholarships are distributed to families with at-risk children for use at providers that meet performance standards established by the MELF Board, and providing bonuses for providers who meet performance goals. The demonstration project should demonstrate the advantages and challenges of administering an ECD scholarship program.

[39] Ready4K Web site http://www.ready4k.org, (click on Business, then MSRBAC) Accessed on April 4, 2005.
[40] "Winning Start." Minnesota School Readiness Business Advisory Council, (October 2004), 28.

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