

Education Policy Brief

Closing the Achievement Gap Series: Part I Is Indiana Ready for State-Sponsored Prekindergarten Programs?

Michael Conn-Powers, Alice F. Cross, and Jason S. Zapf

VOLUME 4, NUMBER 7, SUMMER 2006

CONTENTS

Why Should Indiana Implement Prekindergarten Programs?	2
Which Children Should be Served Through Prekindergarten?	4
How Should Prekindergarten be Designed?	4
What is the State's Role in a Publicly-funded Prekindergarten Program? ..	5
How Much Will it Cost Indiana to Achieve the Desired School Readiness Outcomes for Young Children?	6
Policy Perspective - Indiana State Representative, Luke Messer	8
Policy Perspective - Director of NIEER, W. Steven Barnett	9
Recommendations	10
References	11
Authors	11

CEEP EDUCATION POLICY BRIEF SERIES ON CLOSING THE ACHIEVEMENT GAP

- ✓ *Is Indiana Ready for State-sponsored Prekindergarten Education Programs?*
- ✓ *Response to Intervention (RTI): Basic Elements, Practical Applications, and Policy Recommendations*
- ✓ *The Impact of NCLB on the Inclusion Movement for Special Education Students*

In 2003, Indiana's Education Roundtable adopted *Indiana's P-16 Plan for Improving Student Achievement*. This plan represented a concerted effort among government, education, and business leaders to address future challenges to the educational success of our youngest Hoosiers. As stated in its opening paragraph:

The world in which we live has become increasingly complex and interconnected. Advances in technology, science, and communication are occurring at an unprecedented pace. Our children, and the generations of children to follow, will need far more knowledge and skill than ever before to make sense of the world around them, to make reasoned judgments about their lives, and to contribute to society. (p. 2)

A key component of the P-16 Plan was early learning and school readiness. It recognized the importance of the child's first years of life that research has shown is a period of "opportunity and vulnerability for healthy physical, emotional, social, and cognitive development" (Karloly, Kilburn, & Cannon, 2005, p. xv; National Research Council, 2001; National Research Council and Institute of Medicine, 2000). The Plan emphasized the need for early childhood interventions to improve student achievement through health and developmental checkups for all children, access to high quality prekindergarten programs that prepare them for school, full-day kindergarten, and methods to improve parent involvement and education (Indiana's Roundtable, 2003).

Prekindergarten programs, in particular, are an education policy strategy presently receiving much attention across the country. A prekindergarten program is an educational program for preschool-age children (typically three- and four-year-old children) with the explicit goal of improving school readiness. In 2004, 38 states offered publicly-funded prekindergarten programs (Barnett, Hustedt, Robin, & Schulman, 2005a), in part to address the same challenges that Indiana faces. States typically operate prekindergarten through their state education agency (SEA), even though public schools or private early care and education programs may provide the local prekindergarten services. The requirement that districts offer prekindergarten programs is generally optional, not mandatory, in most states.

In this Education Policy Brief, Indiana University's Center for Evaluation and Education Policy and Indiana Institute on Disability and Community tackle major policy questions regarding publicly-funded prekindergarten programs: Why should Indiana invest in prekindergarten? Who should be served? What should prekindergarten look like in Indiana? And how much will it cost? Answering these questions may help policymakers to explore the feasibility of prekindergarten as a strategy that complements efforts underway to implement full-day kindergarten programs statewide and maximize the opportunity for critical cognitive development and school preparedness for Hoosier children.

1. Why Should Indiana Implement Prekindergarten Programs?

The impact of prekindergarten programs

Prekindergarten programs have been extensively evaluated for their quality and impact. Research studies and program evaluations have demonstrated numerous positive short- and long-term educational, social, and economic outcomes, especially for children in families of poverty. While researchers have examined numerous prekindergarten programs, this brief will highlight important outcomes documented from three well-established comprehensive programs: the Abecedarian Preschool Program, the High/Scope Perry Preschool Program, and the Chicago Child-Parent Center Preschool Program (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002; Karoly, Kilburn, & Cannon, 2005; Reynolds, Temple, Robertson, & Mann, 2001; Schweinhart, 2004). Table 1 highlights the educational, social, and economic outcomes found in these three programs, with attention to results when comparing children who did and did not receive prekindergarten.

The benefits outlined in this table translate into substantial economic returns for funds spent on prekindergarten programs. A number of cost-benefit analyses conducted for prekindergarten programs across the country indicate that these programs yield long-term positive economic returns. These analyses have calculated the return on investment (ROI) for prekindergarten programs to range from \$4.00 to \$12.90 in public savings for every \$1.00 spent on the program. The ROI translates into significantly reduced public expenditures on social services and costs associated with crime, increased education savings, and increased revenue from taxes. The calculated cost savings have been as high as \$195,621 per participant (Schweinhart, 2004).

These research findings come from studies conducted on individual, high quality, early education programs that were initiated 20-40 years ago. How well do these results hold as states implement prekindergarten programs statewide? The results of large-scale studies of state prekindergarten programs are beginning to appear and the findings are encouraging. One of them, *The Effects of State Prekindergarten Programs on Young Children's School Readiness in Five States*, examined the impact of one year of state-funded prekindergarten on four-year-olds. Each of the programs used "all or nearly all teachers . . . [with] a four-year college degree with an early childhood specialization" (Barnett, Lamy, & Jung, 2005, p.2). The researchers found that there were "statistically significant and meaningful impacts on children's early language, literacy, and mathematical development" (p.2), skills that promote later school readiness.

Are other states publicly funding prekindergarten?

In 2004-05, 38 states, excluding Indiana, offered state-funded prekindergarten programs (see Figure 1). These programs served an estimated 11 percent of all three- and four-year-old students in the participating states (Barnett et al., 2005a). This includes all states surrounding Indiana, many of which have offered publicly-funded prekindergarten and early education for several years. Recent headlines and online newsletters have indicated that the majority of states are recognizing the importance of prekindergarten programs and are moving to initiate programs or expand existing prekindergarten programs. A recent issue of Education Week noted

Are other states publicly funding prekindergarten?

In 2004-05, 38 states, excluding Indiana, offered state-funded prekindergarten programs (see Figure 1). These programs served an estimated 11 percent of all three- and four-year-old students in the participating states (Barnett et al., 2005a). This includes all states surrounding Indiana, many of which have offered publicly-funded prekindergarten and early education for several years. Recent headlines and online newsletters have indicated that the majority of states are recognizing the importance of prekindergarten programs and are moving to initiate programs or expand existing prekindergarten programs. A recent issue of Education Week noted

TABLE 1. Educational Benefits of Prekindergarten Participation

Educational	<i>Lower special education referral rates:</i>	<ul style="list-style-type: none"> Up to a 41 percent reduction in special education placements.
	<i>Reduced grade retention rates:</i>	<ul style="list-style-type: none"> Up to 40 percent reduction in grade retentions.
	<i>Improved academic performance:</i>	<ul style="list-style-type: none"> Higher performance on intelligence and achievement tests (including literacy tests and language tests) through age 27.
	<i>Increased educational attainment:</i>	<ul style="list-style-type: none"> Higher high school completion rates and higher rates of college attendance.
Social	<i>Reduced crime rate:</i>	<ul style="list-style-type: none"> Lower arrest rates through age 40 and reduced arrests for violent offenses.
	<i>Reduced social services utilization:</i>	<ul style="list-style-type: none"> Lower rates of social services usage at ages 27 and 40.
	<i>Reduced child abuse and neglect:</i>	<ul style="list-style-type: none"> 51 percent reduction in maltreatment of own children.
Economic	<i>Increased earnings:</i>	<ul style="list-style-type: none"> Higher median monthly and annual earnings at ages 27 and 40.
	<i>Increased employment rate and job skill level:</i>	<ul style="list-style-type: none"> Higher employment rates at ages 21, 27, and 40. Higher rate of employment in skilled jobs at age 21.

that governors in at least 20 states proposed expansions of prekindergarten and early childhood programs this past year (Jacobson, 2006). Most recently, Illinois announced their “Preschool for All” initiative to offer prekindergarten education for all three- and four-year-olds.

Clearly, the majority of state policymakers in other states appear to recognize and understand the importance of early childhood education and its significant impact on academic, social, and economic outcomes, especially for at-risk children living in poverty and/or with limited English proficiency (LEP). In their review of state prekindergarten programs, Bryant and colleagues (2002) noted that the overarching goal of prekindergarten programs among states is the preparation of children to meet early educational standards and help prevent early school failure, especially for at-risk students. Research indicates a substantial achievement gap between students living in high versus low socio-economic families when they enter kindergarten (Lee & Burkham, 2002). States are responding by offering prekindergarten services as one strategy for closing achievement gaps that exist for many at-risk students (Bryant et

al., 2002). In fact, some states offer expanded prekindergarten programs, providing comprehensive services for children who are at-risk, including health and social services. These services further ensure that program goals are met and students are well prepared for future success.

How does publicly-funded prekindergarten fit with current Indiana initiatives?

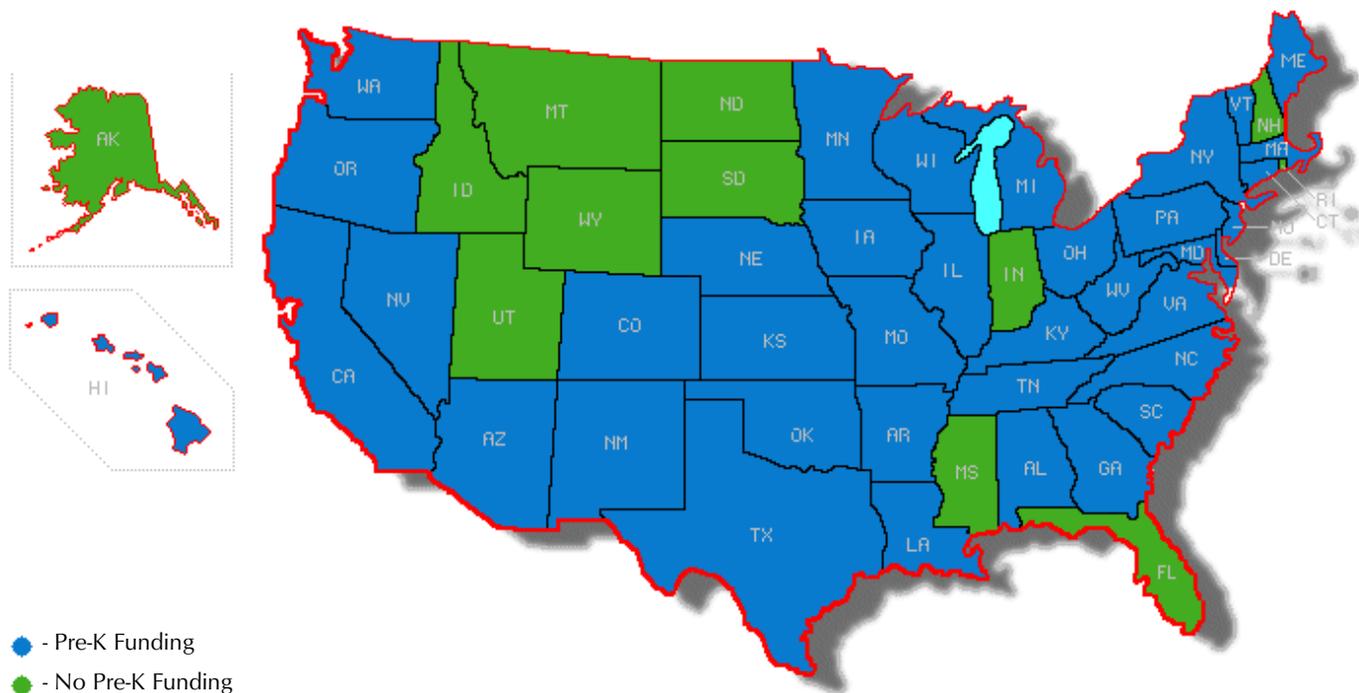
The P-16 Plan clearly states a vision that “all children have the early learning experiences they need to enter kindergarten ready to learn” (Indiana’s Education Roundtable, 2003, p. 22). In response, Indiana has undertaken a few initiatives to improve the education and preparedness of its students, especially in the area of early childhood education. These initiatives have included:

- An early learning and school readiness provision in the P-16 Plan for Improving Student Achievement developed by Indiana’s Education Roundtable (2003),
- The development of the Foundations for Young Children to the Indiana Academic Standards (Indiana Department of Education, 2004), and

- Proposed legislation regarding full-day kindergarten during the 2005 and 2006 sessions of the Indiana General Assembly.

While the prospect for implementation of full-day kindergarten in Indiana appears promising, state initiatives to establish publicly-funded prekindergarten appear to be lacking. This lack of program emphasis at the state level contrasts with what is happening at local levels. Many school corporations have already demonstrated their belief in the importance of prekindergarten programs. In 2004, at least 188 of the 293 school corporations in Indiana provided some type of prekindergarten program for their students (Cross, 2004). Indiana Department of Education data indicate that for the 2005-06 school year 190 school corporations and three charter schools served 10,463 children in prekindergarten programs. However, estimates of economically at-risk students, based on free and reduced lunch eligibility data, indicate that in 2004-05 approximately 19,220 at-risk students were not served in publicly-funded prekindergarten programs.

Figure 1. States Funding Prekindergarten Programs: 2004-05



Source: Data for this figure were obtained from Barnett et al., 2005a.

2. Which children should be served through prekindergarten?

If Indiana were to offer prekindergarten programs, which children should it serve? Should prekindergarten programs target only those children most in need, or should it be universally accessible for all preschool-aged children? Currently, most states target four-year-old children who are at-risk (Barnett et al., 2005a). *The State of Preschool: 2005 State Preschool Yearbook* report found that most state prekindergarten programs targeted children from poor families, and children who are at risk for entering school already behind and lacking important skills (Barnett et al., 2005a). This report noted that 29 of the 38 states providing prekindergarten programs had income requirements. Some states also include other children identified as at-risk, including children with LEP, children of parents with low levels of educational attainment, and/or children of parents with a history of drug/alcohol abuse.

States have generally limited eligibility for their prekindergarten programs primarily for cost reasons, choosing to concentrate limited resources on children who need them the most. This decision has some support from research. Karoly and colleagues (2005) reviewed past research and found that there are greater developmental and economic benefits for programs that target the most at-risk children as compared with programs that served children less at-risk. They found that children who are less at-risk do experience developmental and economic benefits; these benefits, however, were not as great.

Even so, a few states are beginning to offer universal access to their prekindergarten programs (Barnett et al., 2005a; Schumacher, Ewen, Hart, & Lombardi, 2005). Universal access generally connotes that these states have chosen to make prekindergarten services voluntarily available to all children, either free or at affordable rates. Universal prekindergarten programs typically include four-year-old children, but some states are also looking at the inclusion of three-year-old children as well. Bryant et al. (2002) make the case that if only the neediest are targeted and served, then prekindergarten inadvertently creates homogenous classes that may not prepare

children for the social demands of the heterogeneous kindergarten classroom. Barnett, Brown, and Shore (2004) have probably made the strongest argument for states to offer universal access. Their major points in support of universal preschool or prekindergarten services include:

- The provision of universal prekindergarten yields an increased educational effectiveness and economic efficiency.
- States avoid the costs and challenges associated with implementing an eligibility-based program and ensure that all are more easily identified and served.
- Programs that target the poor are generally of lower quality and do not receive strong public support for the funding needed to reach high quality standards.
- School readiness is not a problem that is limited to the poor; children from middle-income families can be at risk because of family problems, cultural/linguistic differences, and developmental issues.

3. How should prekindergarten be designed?

Should prekindergarten begin when children turn four years of age or three? Should they be half-day programs or full-day programs? Should prekindergarten services be provided in public schools or in private early care and education settings?

Research is beginning to offer some guidelines in answering these questions. Robin, Frede, and Barnett (2006) reviewed research looking at service intensity and found that more is generally better in promoting greater learning outcomes among children. This includes serving children earlier (at three years of age versus four), and for full-day programs versus half-day programs. Their own research demonstrated that full-day services were more beneficial for children than half-day programs (Robin, Frede, & Barnett, 2006).

What research recommends and what states typically choose to do, however, differ greatly. States must balance evidence-based practice guidelines with economic considerations in determining when services should begin and how much is enough (Bryant, Clifford, Early, & Little, 2005). Most states begin offering services when children turn four years of age (Bar-

nett et al., 2005a). Nationally, there is a wide variety of offerings in terms of program length and duration. Some states offer full-day programs, ranging from five to seven hours per day, five days per week. However, states typically provide children with half-day services of two-and-one-half to three hours per day five days per week (Barnett et al., 2005a; Clifford et al., 2005).

Concerning where children and families should go to receive prekindergarten services, research has not provided a definitive answer (Bryant et al., 2005). Clifford and his colleagues have identified the two most common options: (1) public schools only, where prekindergarten programs are offered only in public schools, or (2) mixed delivery option, where prekindergarten programs are offered in public schools and other community settings, including Head Start, private preschool, and child care centers (Bryant et al., 2002; Clifford et al., 2005).

Bryant et al (2002) have pointed out the logic behind each option. The first option, locating all prekindergarten programs within public schools, might result in a greater focus on educational goals, greater articulation and alignment with school curricula and standards, and easier transitions for all parties (Reynolds, Magnuson, & Ou, 2006). In addition, beginning a new program from scratch is easier than trying to shape existing community programs to follow new procedures and standards.

The mixed delivery option, the one most frequently employed by states, offers states the opportunity to build on existing service capacity that may not exist in schools (Bryant et al., 2002). It can foster greater connections between schools and private programs; and aligning private programs with the schools would serve to improve the overall quality of these programs, particularly in addressing standards of quality concerning important educational outcomes. Schumacher et al. (2005) have also pointed out that a mixed service model can bring about the same impact as the public-school-only option. At the same time, mixed service models can better provide for the needs of children and families that extend beyond education, including health, social, and child care needs.

4. What is the state's role in a publicly-funded prekindergarten program?

There are a number of key program components states should put into place if prekindergarten is to have the intended impact on children. These components include program standards and professional development, program coordination and management, monitoring and evaluation, and funding (Mitchell, 2005; National Prekindergarten Center, 2004).

What standards should be in place to ensure state goals and desired outcomes for children?

High quality prekindergarten programs yield significant school readiness outcomes for children (Barnett et al., 2005b; Reynolds, Magnuson & Ou, 2006). Likewise, programs that do not implement the evidence-based elements of quality fail to achieve desired outcomes. Ackerman and Barnett (2006) found that poor program results were generally the consequence of weak program standards, and that program standards were typically lower than K-12 education standards. The National Institute on Early Education Research (NIEER) has identified the essential quality standards (see Figure 2) found in programs that yield desired results (Ackerman & Barnett, 2006).

The most critical aspect in achieving desired outcomes is teacher preparation. Research has repeatedly found that teachers with four-year degrees, specialized

training in early education, and ongoing professional development are more effective. These teachers align their instruction with early learning standards, promoting higher levels of language and cognitive skills in young children (Ackerman & Barnett, 2006).

Second, along with establishing learning and professional development standards to reach desired outcomes, it is important for the state to monitor how well local programs are implementing these standards. This implies monitoring the quality of early education services and evaluating their impact. Program monitoring and evaluation ensure that (1) funds are used responsibly, (2) data are available to promote ongoing program improvement to ensure that students are receiving the best educational experience possible, and (3) the goals and outcomes of the program are being met.

What program coordination/management options ensure fiscal and programmatic oversight?

Questions surrounding the selection of appropriate governance structures include the selection of a governing or coordinating office or organization, and whether governance should be centralized or decentralized. Currently, there is little research to guide policymakers in the selection and implementation of the most effective structures (Raden & McCabe, 2004). Among the 38 states with prekindergarten programs, the majority of states locate their programs within the SEA. However, a number of states have established governance mechanisms that cross state agency

lines, bringing together departments of education, children's affairs, health, and social services.

What are possible funding strategies and mechanisms for publicly-funded prekindergarten?

State plans for funding prekindergarten programs are as varied as the governance models. Funding packages typically combine state, federal, local, and private dollars.

State Funding

States provide the core funding for prekindergarten programs, most commonly from general revenue, dedicated funds, or state school funding formulas. Each of the sources has benefits and challenges.

1. **General Revenue:** The majority of states providing prekindergarten programs utilize general revenue as a funding mechanism (Stone, 2006). General revenue comes from a range of state taxes and fees, including sales tax, individual and corporate taxes, and others. General revenue is a flexible source and can remain stable once established. At the same time, this source can be influenced by political conditions, as well as the state economic climate to create competition for tight resources among programs geared toward young children.
2. **Dedicated Funds:** Dedicated funds are used to fund prekindergarten programs in several states (Stone, 2006). Georgia, North Carolina, and Tennessee allocate lottery funds for prekindergarten, while Missouri uses non-lottery gaming revenue. "Sin" taxes on alcohol and tobacco generate funds for California and Arkansas. Tobacco settlement money is used by Louisiana and Kansas. The advantage of using these funds for prekindergarten is that they do not draw on general revenue funds and so reduce competition for early childhood resources. The challenge of dedicated funds is variability in annual revenue, particularly from the lottery and gaming sources. Furthermore, tobacco settlement money will end at some point.
3. **School-funding Formula:** Prekindergarten programs are funded as part of the state school funding formula in six states including Maine, Nebraska, Oklahoma, Vermont, West Virginia, and Wisconsin (Stone, 2006). In these

Figure 2. NIEER's Evidence-based Program Standards

1. Comprehensive early learning standards
2. Teachers with bachelor's degrees
3. Teachers with specialized training in prekindergarten
4. Assistant teachers with Child Development Associate (CDA) or equivalent degree
5. Inservice training for a minimum 15 hours per year
6. Maximum class size of 20 children
7. Staff-child ratio of 1 to 10 or fewer
8. Required screening/ referral for vision, hearing, & health and minimum of 1 family support activity
9. At least 1 meal per day
10. Required monitoring through site visits

Source: Barnett, Hustedt, Robin, & Schulman, 2005.

states, prekindergarten education is part of school reform efforts. This approach to funding affords considerable stability to prekindergarten, assures districts a known enrollment-based per-child funding rate to use in planning, and is less likely to be withdrawn than some of the other funding methods. The challenge is getting the initial buy-in for improved school readiness outcomes for young children in order to increase tax revenues.

Federal Funding

States supplement their resources by incorporating Title I and Individuals with Disabilities Education Improvement Act (IDEA) funds for school improvement and special education. Head Start funding is drawn into the mix while retaining the federal enrollment and implementation standards. Likewise, Temporary Assistance for Needy Families (TANF), Even Start, and child care grants have been used for children whose families meet income and other eligibility criteria. These funds were most useful for increasing the number of children served by the prekindergarten program.

Local Funds and Parent Fees

A majority of the states that offer prekindergarten serve children in a range of settings from public schools to private child care and church preschools. Ten states require a local match that can be in the form of in-kind space or services in these non-school settings (Barnett et al., 2005a). In addition, local philanthropies may contribute in order to improve local education outcomes. States may also ask families to pay a fee for children's attendance, which occurs in Massachusetts and Connecticut (Barnett et al., 2005a).

5. How much will it cost Indiana to achieve the desired school readiness outcomes for young children?

Determining the cost of prekindergarten education in Indiana will depend upon the decisions policymakers make concerning: (1) which children will be eligible for services, and (2) the scope of services offered based upon the intended outcomes. If policymakers should decide to serve only four-year-old children who are at risk, the num-

ber of children eligible for prekindergarten will be significantly less than if the decision is to serve all four-year-olds. While there are strong logical and empirical reasons for serving all four-year-olds, as discussed earlier, there are also obvious economic considerations. If policymakers should decide to offer only educational services for children, the costs per child for services would be significantly less than if the decision is to offer more comprehensive services, such as health, child care, and family social services. While research data suggest that more comprehensive services yield increased outcomes, increased costs accompany these enhanced benefits.

Table 2 provides current data on four-year-olds in Indiana. Based upon 2004-05 census and prekindergarten enrollment data, this table presents information on the estimated number of Indiana four-year-olds in the following groups: all four-year-old children, children currently receiving publicly-funded prekindergarten services, and children not in a publicly-funded prekindergarten program (and that may or may not be in a private program). While approximately 4,700 four-year-olds received prekindergarten services and 7,400 received Head Start services in Indiana in 2004-05, over 66,000 children were not served by a publicly-funded prekindergarten program. For children who were at risk, over 19,220

four-year-olds did not receive publicly-funded prekindergarten services.

Table 3 presents cost information (per child) for prekindergarten services for the 2004-05 school year. The national average of state spending for prekindergarten per child for the 2004-05 school year was an estimated \$3,551 (Barnett et al., 2005a). This figure is simply the total of all estimated state funding divided by the total estimated enrollment. State expenditures per child for each of Indiana's neighboring states ranged from \$2,404 to \$9,383, due in part to the variability in hours of operation (most programs are half-day), program year, scope of services provided, and state versus local contributions. Ohio funds three prekindergarten programs: a prekindergarten education-only program, a program that supplements local Head Start efforts, and the Head Start Plus Program. The latter program represents a more comprehensive, full-day prekindergarten program, which includes a range of health and family social services. The figures in Table 3 average the costs of Ohio's two Head Start programs. The costs are higher due to length of the day, scope of services, and the fact that no local dollars are available to offset the costs. It is important to note that these costs represent the state portion of the total costs associated with providing prekindergarten services. Local dollars typi-

Table 2. Number of Four-Year-Olds in Publicly-funded Prekindergarten in Indiana

Indiana's Four-Year-Olds	All Children	Children At Risk
Total number of four-year-olds	87,413 ¹	31,644 ²
Number of four-year-olds receiving local public prekindergarten	4,704 ³	1,703 ⁴
Number of four-year-olds receiving Head Start services	7,400 ⁵	7,400 ⁵
Number of four-year-olds receiving special education services	9,173 ⁶	3,321 ⁶
Total Number of Four-Year-Olds Not in Publicly-funded Prekindergarten	66,136 ⁷	19,220 ⁷

¹2004 U.S. Census Bureau

²Estimate of free/reduced lunch eligible four-year-olds, using K-12 incidence rate of 36.2%

³2004-05 Indiana Department of Education public prekindergarten enrollment

⁴Estimate of 2004-05 public prekindergarten enrollments that were free/reduced lunch eligible based on K-12 incidence rate of 36.2%

⁵2004-05 Head Start enrollment in Indiana was 14,231; estimated 52% were four-year-olds

⁶2004-05 Indiana Department of Education December 1, 2004 Part B of IDEA Preschool Count indicates 9,173 prekindergarteners received special education services; portion of children at risk estimated using incidence rate of 36.2%

⁷Note: This number includes four-year-old children likely served in private prekindergarten programs, such as preschools, nursery schools, child care centers, and other early education settings.

Table 3. Features and Costs of Public Prekindergarten Programs in Neighboring States

	National Averages	Illinois	Kentucky	Michigan	Ohio	
					Pre-K	Head Start
Ages served: % of four-year-olds % of three-year-olds	17% 3%	26% 12%	30% 11%	19% 0%	3% 1%	2% 2%
Hours of operation	Most often a local decision	Usually ½ days 5 days/wk	At least 2½ hrs/day 4-5 days/ wk	At least 2½ hrs/day 4 days/wk	At least 3½ hrs/day 4 days/wk	At least 3½ hrs/day 4 days/wk
Program year	Most often academic year	Academic year	Academic year	At least 30 weeks/ year	At least 32 weeks/ year	At least 32 weeks/ year
Quality benchmarks met (see Figure 2)	6	8	9	4	3	7
Annual per child state spending	\$3,551	\$2,980	\$2,404	\$3,366	\$3,454	\$9,383

Source: Data from *The State of Preschool: 2005 State Preschool Yearbook*, Barnett et al., 2005a.

cally contribute to the overall costs associated with providing high quality services (Barnett et al., 2005a). Barnett (personal communication, 2006) notes that the \$3,551 figure represents the state’s share of the total costs of offering half-day educational programs for prekindergarten children. He estimates that the total cost of a half-day, high quality program in Indiana would be \$5,000.

Using the child count and cost figures presented above, we are able to calculate the estimated costs for funding prekindergarten services for four-year-olds in Indiana. Table 4 presents the estimated costs of providing publicly-funded prekindergarten to Indiana’s remaining four-year-old population. It presents two funding scenarios: serving four-year-old children who are at risk, with education-only services, and serving all four-year-old children not in publicly-funded prekindergarten in Indiana with education-only services. It also provides costs based upon two per child cost

figures: \$3,551 per child and \$5,000 per child.

While the costs for providing publicly-funded prekindergarten services are substantial, there are two important additional considerations. First, as mentioned on page 2, researchers have demonstrated sizable returns on investment (ROI). These ROIs have ranged from \$4.00 to \$12.90 for every dollar spent on high quality prekindergarten services. Therefore, if Indiana chose to serve its at-risk four-year-old population, at \$4 for each \$1 invested it could expect a conservatively estimated ROI of more than \$273 million in saved educational, social, and legal costs over the students’ lifetimes.

The second consideration is whether all families in Indiana would enroll their four-year-old children in public prekindergarten programs. A number of families will choose to keep their children home, and a number of families will choose to enroll their children in private prekindergarten

programs and/or full-day child care programs. Currently, the 38 states that fund public prekindergarten are only serving, on the average, 17 percent of the four-year-old population. The percentage served ranges from 68 percent in Oklahoma to less than 1 percent in New Mexico (Barnett et al., 2005a). The data presented in Table 3 show that the four states surrounding Indiana served approximately one-fifth of their four-year-olds. The implication is that if Indiana were to offer publicly-funded prekindergarten to all eligible four-year-olds, it is unlikely that all families would enroll their four-year-olds. This, in turn, significantly reduces the required investment.

*Please see
Recommendations
on page 10.*

Table 4. Estimated Costs of Providing Public Prekindergarten Services in Indiana

	Half-Day Prekindergarten (\$3,551/child)	Half-Day Prekindergarten (\$5,000/child)
Targeted prekindergarten for all 19,220 four-year old children who are at risk	\$68,250,220	\$96,100,000
Universal prekindergarten available for all 66,136 four-year old children not in public prekindergarten programs, assuming approximately 2/3 of the population participate (44,091)	\$156,567,141	\$220,455,000

Policy Perspective

AN ACTION PLAN FOR INDIANA

Luke Messer



Over the last decade, the early learning public policy debate in Indiana has focused on full-day kindergarten. Late-Governor Frank O'Bannon first introduced the idea in the last 1990's, and current-Governor Mitch Daniels has committed to making full-day kindergarten his number one education priority during the 2007 legislative session.

That is certainly good news for young Hoosiers. However, sometimes lost in the full-day kindergarten debate has been the important role that pre-kindergarten programs can play in the successful development of a child.

Study after study has shown that early learning benefits children, their families, and their communities. From improved academic outcomes to the economic savings for schools and states, the benefits of high-quality early learning are irrefutable. Research has shown that pre-K increases high school graduation rates, improves standardized test scores, reduces crime and delinquency rates, and lowers rates of teen pregnancy.

According to the National Institute for Early Education Research, while Indiana has remained static on this issue, other states are beginning to recognize the benefits of early education. Over the last four years, there has been an astounding 20% increase nationally in 4-year-olds served by government funded preschool dollars and an 8% increase in 3-year-olds served. Despite difficult times for state budgets, state spending on pre-school education grew by 7.5% nationally and is nearing \$3 billion nationwide.

Those increases may become even more dramatic as Florida begins implementing its new universal pre-K program. This program, championed by Florida Governor Jeb Bush, will allow Florida's 4-year-olds to attend a pre-kindergarten program of their parents' choice.

The Florida program serves as a cutting-edge model for expanding pre-K educational opportunities without huge capital investments. An estimated 130,000 new students could enroll when the program begins in August, mostly at existing preschools and private day-care centers. The voluntary program would provide 540 hours of instruction during the school year with no more than 18 students in a classroom and a more intense 300-hour summer option with a maximum of 10 students per classroom.

Last session, I authored HB 1333, an attempt to use \$35 million in federal TANF dollars to fund a pre-K choice program for needy Hoosier families. Unfortunately, that effort was unsuccessful. However, given the emerging consensus on the need for full-day kindergarten in Indiana, I am hopeful we can begin to look seriously at the need for stronger preschool programs in our state, particularly for disadvantaged young people. With that thought in mind, I offer a few guiding principles for consideration:

Let's focus on at-risk children. Research shows that the students who benefit the most from pre-kindergarten are often economically disadvantaged. Middle- and upper-income families already have access to quality early childhood education, and do not need government disrupting that relationship. School readiness is not a universal problem and therefore does not require a universal solution.

Let's not reinvent the wheel. Indiana already has a diverse infrastructure of quality early childhood educational options for parents to choose from. Why devise an entirely new, public school driven system for pre-kindergarten that would be costly, unnecessary, and burdensome?

We must leverage our assets, not compete against them. We must not burden our existing school districts—already struggling with serious obligations—with yet another program to administer. We must utilize the existing system, but also provide public school districts the opportunity to participate, if they choose.

Let's not create another unfunded mandate. There is no reason to create a new, underfunded educational system for pre-kindergarten, when we already struggle to fully fund existing K through 12. By targeting any new program to those who need it most, we have the opportunity to fund a meaningful pre-K opportunity, without cutting dollars to other important educational programs.

Let's provide flexibility and choices for parents. In addition to providing parents with a broad selection among existing preschools, we must assure that parents can access the amount of pre-kindergarten education they believe is appropriate for their child. Rather than requiring that all students who receive funding participate in a full-day, full-week program, we must allow parents the flexibility to decide how many hours a day and how many days a week they want their young children to attend pre-kindergarten.

Let's ensure high standards of educational quality. Any preschool proposal must assure high quality by requiring that all participating preschool programs provide instruction in the areas that experts have deemed are most critical for providing success in the early years of education. But, we must refrain from setting forth rigid standards that stifle the wide variety of educational approaches that respond to the unique needs of every child.

Working together, we have an opportunity to provide important new opportunities for Indiana's youth. Today's preschoolers will be the Hoosier workforce of tomorrow. Let's give them the tools they need to compete in a global economy!

Luke Messer represents District 57
in the Indiana House of Representatives

Policy Perspective

MAXIMIZING RETURNS FROM THE PUBLIC'S PRESCHOOL INVESTMENT

W. Steven Barnett



No area in education has grown as rapidly in recent years as preschool education. Much of that growth has been due to new and expanding state-funded programs. Indiana, New Hampshire, and Mississippi are now the only states east of the Dakotas without state-funded prekindergarten. It is now widely understood that a good education for our youngest citizens can be a sound public investment. This is evident from long-term research as well as the impressive gains in school readiness now being produced by some of the newer state pre-K programs. Early education can start children off with a stronger foundation for success in both academic skills and personal behavior that will contribute to greater school and post-school success.

Yet, if the public investment in preschool is to deliver the kinds of benefits the citizenry should rightly expect, policymakers must take care to design policies and programs that have been proven to produce the intended results. We at the National Institute for Early Education Research evaluate and monitor the progress of state-funded preschool across the country and conduct research into program effectiveness. While there are numerous examples of success, there are also examples of poor planning and policy—often with a large dose of wishful thinking. Our work provides some important lessons for states like Indiana that are developing new policies.

Quality Is Essential. Most child care and preschool programs in the United States today are too educationally weak to produce the results that research has shown are possible and citizens expect from public investments in pre-K. Unless states set high standards for learning and teaching in these programs, the results will be disappointing and a waste of taxpayer dollars. Highly effective programs have: learning standards that set appropriate yet intellectually challenging expectations, teachers with four-year college degrees and specialized training who are paid on par with K-12 teachers, and an accountability system that monitors program performance.

Curriculum Matters. Too often people think that policymakers and programs must choose between direct instruction and play or between cognitive development and social and personal growth. A good curriculum provides children with balanced and integrated learning opportunities that include direct instruction and play and engages children in activities that promote their cognitive, social, emotional, and physical development all at the same time. State standards should ensure that state-funded preschool education programs use one of the good, balanced curricula with proven results and that the necessary training and support to implement it well is obtained. Of course, the state should require periodic monitoring of this implementation, as well.

You don't have to do everything at once. Taking the time to gradually bring a program to scale allows a state to build the infrastructure and qualified workforce required to support high quality preschool education. Teachers currently in classrooms can be given time and financial support to improve

their qualifications. When a state launches a new early childhood program it can make sense to focus on the most disadvantaged children first—those in poverty or below 150% of the poverty line for example. Disadvantaged children are likely to make the largest gains as the result of state pre-K. However, it is important that the plan encompass all children at some point in the future, even if that goal is a decade away. The benefits to preschool education do not abruptly cease at some point as family income rises, and many moderate-income families will have no access to a quality preschool education for their children without assistance.

Build on Existing Strengths. Local public schools already serve many preschoolers, using their own resources and with state and federal support for children with disabilities. Head Start and private providers also serve many children. Each sector has its own strengths and talents. A new state system can build on these by allowing all current providers to participate under a single new set of high, but very limited, standards that apply equally to all providers. Policies should be developed with the participation of all these providers to ensure that full use is made of local and federal revenues with state revenues supplementing these to meet state standards and that child care and education services are effectively integrated when necessary to meet the needs of children and families.

Above all else, remember to put children first. If long-term educational effectiveness is the goal, the concerns of the adults in the early education system can be fairly addressed, but they cannot be allowed to override what is best for the children.

W. Steven Barnett, Ph.D. is the Director of the National Institute for Early Education Research, and Professor of Education Economics and Policy, Rutgers University

RECOMMENDATIONS

A wealth of research demonstrates the impact of high quality early education on children's school readiness. When combined with the growing educational challenges of preparing children for the 21st Century and the need to address persistent achievement gaps among children, there is a growing necessity to offer prekindergarten education for our youngest Hoosiers. It is difficult to ignore the quality and quantity of research demonstrating its importance and the large number of states that are taking action to address the school readiness needs of their preschoolers.

This brief has presented information to assist Indiana's policymakers in exploring the feasibility of publicly-funded prekindergarten. Based on this information, the authors offer the following recommendations to provide starting points in this exploration.

1. Build on existing foundations for studying and planning publicly-funded prekindergarten programs.

The work of Indiana's Education Roundtable and their P-16 plan represent worthwhile starting points; and restarting the Early Learning and School Readiness Commission provides a broad-based, bipartisan mechanism to provide guidance and oversight.

2. Identify and agree upon the purpose, goals, and desired outcomes of a publicly-funded prekindergarten program.

As Indiana stakeholders, policymakers, and legislators proceed, a critical first step is to begin with the end in mind. It likely will be the most difficult step in the process, but is necessary if later efforts are to be successful. Decisions concerning whom to serve, how to serve, and funding will all flow from this initial agreement.

3. Examine service delivery options that build on existing prekindergarten programs and phase in services statewide.

Establishing prekindergarten services statewide will present two major issues to policymakers. These are high costs and the need to develop service capacity including personnel, classrooms, and other infrastructure resources. While research shows prekindergarten services to be a wise investment, providing high quality services is not inexpensive. Decisions about the state's purpose, goals, and outcomes will determine the extent to which the capacity exists and how much will need to be developed.

4. Link the level of funding for a statewide prekindergarten program with the desired program goals and outcomes.

Determining appropriate levels of funding must be based upon what it will cost to accomplish the goals and outcomes identified under the first recommendation. Recognizing the fiscal realities facing Indiana, any compromise in the levels of funding must be linked with an understanding of what will or will not be accomplished.

5. Identify a funding source that is stable and continuous.

If Indiana commits to offering publicly-funded prekindergarten, it must ensure those services are ongoing and of high quality. A stable source of funding is a prerequisite.

6. Determine and commit to a state and local governance system for prekindergarten programs.

Determining the lead agency, commission, or consortium to administer the state prekindergarten program early in the process is critical for two reasons. First, state and local administrative entities will be responsible for ensuring accountability and promoting high quality services and outcomes. Second, making these decisions early in the process is important in order to foresee and address potential roadblocks before they arise.

REFERENCES

- Ackerman, D.J., & Barnett, W.S. (2006). *Increasing the effectiveness of preschool programs*. Retrieved June 27, 2006 from the National Institute for Early Education Research web site at <http://nieer.org/docs/?DocID=135>
- Barnett, W. S., Brown, K., & Shore, R. (2004). The universal vs. targeted debate: Should the United States have preschool for all? *Preschool Policy Matters*, (6). New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W.S., Hustedt, J.T., Robin, K.D., & Schulman, K.L. (2005a). *The state of preschool: 2005 state preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Barnett, W.S., Lamy, C., & Jung, K. (2005b). *The effects of state prekindergarten programs on young children's school readiness in five states*. New Brunswick, NJ: National Institute for Early Education Research.
- Bryant, D., Clifford, R., Early, D., & Little, L. (2005). *NCEDL pre-kindergarten study. Early Developments*. Chapel Hill, NC: FPG Publications.
- Bryant, D., Clifford, R.M., Saluja, G., Pianta, R. Early, D., Barbarin, O., Howes, C., & Burchinal, M. (2002). *Diversity and directions in state pre-kindergarten programs*. Chapel Hill: The University of North Carolina, FPG Child Development Institute, NCEDL.
- Campbell, F.T., Ramey, C.T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science*, 6(1), 42-57.
- Clifford, R.M., Barbarain, O., Chang, F., Early, D., Bryant, D., Howes, C., Burchinal, M., & Planta, R. (2005). What is pre-kindergarten? Characteristics of public pre-kindergarten programs. *Applied Developmental Psychology*, 9(3), 126-143.
- Cross, A.F. (2004). Indiana's public schools offer prekindergarten education (The Early Childhood Center Preschool Series: Briefing Paper 2). Bloomington: Indiana Institute on Disability and Community.
- Indiana Department of Education. (2004). *Foundations for young children to the Indiana academic standards*. Indianapolis:author.
- Indiana Department of Education. (2005). *Designing the future: 2005 annual performance report*. Retrieved June 28, 2006 from http://www.doe.state.in.us/publications/pdf_other/2005-IDOEPPerfReport.pdf
- Indiana Division of Exceptional Learners. (2005). *2004-2005 Special Education Statistical Report*. Indianapolis, IN: Indiana Department of Education
- Indiana's Education Roundtable. (2003). *Indiana's p-16 plan for improving student achievement: Phase I*. Indianapolis, IN: Author. Retrieved June 14, 2006 from <http://www.edroundtable.state.in.us/pdf/P16/P-16plan.pdf>
- Jacobson, L. (2006). An earlier start. *Education Week*, 25(36), 28-30.
- Karoly, L.A., Kilburn, M.R., & Cannon, J.S. (2005). *Early childhood interventions: Proven results, future promises*. Retrieved June 14, 2006 from http://www.rand.org/pubs/monographs/2005/RAND_MG341.pdf
- Lee, V., & Burkham, D. (2002). *Inequality at the starting gate: Social background and achievement at kindergarten entry*. Washington, DC: Economic Policy Institute.
- Mitchell, A. (2005). *Stair steps to quality: A guide for states and communities developing quality rating systems for early care and education*. Retrieved June 28, 2006 from http://national.unitedway.org/files/pdf/sb6/StairStepstoQualityGuidebook_FINALforWEB.pdf
- National Prekindergarten Center. (2004). *Prekindergarten policy framework*. Retrieved June 28, 2006 from <http://www.fpg.unc.edu/%7Eenpc/framework/index.cfm>
- National Research Council. (2001). *Eager to learn: Educating our preschoolers*. Washington, DC: National Academy Press.
- National Research Council and Institute of Medicine. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
- Raden, A., & McCabe, L. (2004). *Researching universal prekindergarten: Thoughts on critical questions and research domains from policy makers, child advocates, and researchers*. New York, NY: Foundation for Child Development.
- Reynolds, A., Magnuson, K., & Ou, S-R. (2006). *PK-3 education: Programs and practices that work in children's first decade*. Retrieved June 30, 2006 from <http://www.ffcd.org/pdfs/PK-3EducationProgramsandPracticesthatWork.pdf>
- Reynolds, A.J., Temple, J.A., Robertson, D.L., & Mann, E.A. (2001). *Age 21 cost-benefit analysis of the title I Chicago-child parent centers: Executive summary*. Madison, WI: Institute for Research on Poverty. Retrieved June 14, 2006, from http://datacenter.spps.org/sites/2259653e-ffb3-45ba-8fd6-04a024ecf7a4/uploads/Age_21_Cost_Benefit_Analysis.pdf
- Robin, K.R., Frede, E.D., & Barnett, W.S. (2006). *Is more better? The effects of full-day vs half-day preschool on early school achievement*. Retrieved June 30, 2006 from <http://nieer.org/resources/research/IsMoreBetter.pdf>
- Schumacher, R., Ewen, D., Hart, K., & Lombardi, J. (2005). *All together now: State experiences in using community-based child care to provide pre-kindergarten*. Washington, DC: Center for Law and Social Policy.
- Schweinhart, L.J. (2004). *The High/Scope Perry preschool study through age 40: Summary, conclusions, and frequently asked questions*. Ypsilanti, MI: High/Scope Educational Research Foundation.
- Stone, D. (2006). *Funding the future: States' approaches to pre-k finance*. Washington, DC: Pre-K Now.

AUTHORS

Michael Conn-Powers, Ph.D. (mipower@indiana.edu) is the Director of the Early Childhood Center, Indiana Institute on Disability and Community

Alice F. Cross, Ed.D. (afcross@indiana.edu) is a Research Associate at the Early Childhood Center, Indiana Institute on Disability and Community

Jason S. Zapf (jzapf@indiana.edu) is a Graduate Research Assistant at the Center for Evaluation & Education Policy.

WEB RESOURCES

National Institute for Early Education Research

www.nieer.org

United Way Success by Six

www.national.unitedway.org/sb6/

National Prekindergarten Center at Frank Porter Graham Child Development Institute

www.fpg.unc.edu/~npc/

State Early Childhood Policy Technical Assistance Network

www.finebynine.org/

High/Scope Educational Research Foundation

www.highscope.org

The Trust for Early Education

<http://www.trustforearlyed.org/docs/Legislative%20Report-9-9.pdf>

Education Policy Briefs are published by the

Center for Evaluation & Education Policy

Indiana University
509 East Third Street
Bloomington, IN 47401-3654
812-855-4438

More about the Center for Evaluation & Education Policy
and our publications can be found at our Web site: <http://ceep.indiana.edu>



INDIANA UNIVERSITY
SCHOOL OF EDUCATION
BLOOMINGTON