



Select Reports and/or Research Related to Prekindergarten Including 4-Year-Old Kindergarten

This selection of articles was collected by Jill Haglund and summarized by John Philips/Kay Ihlenfeldt for use by the Department of Public Instruction. For more information on early childhood, contact: Jill Haglund, Early Childhood Consultant, 608-267-9627, jill.haglund@dpi.state.wi.us.

Adams, Diane, Durant, Diana, Edie, David, Ittig, Maureen, Riley, Dave and Roach, Mary. **"Trends Over Time: Wisconsin's Child Care Workforce."** *Wisconsin Child Care Research Partnership*, Madison, WI, 2003.
<http://www.uwex.edu/ces/flp/wccrp/pdfs/trends.pdf>.

The UW-Extension report summarizes data, collected from four statewide surveys conducted over the past 20 years, concerning the education, wage and turnover characteristics of the Wisconsin child care workforce: 1) in twenty years the percent of teachers with B.A. degrees has decreased from 44 to 14 percent; 2) low wages are forcing college-educated staff from the field while many teachers live in poverty; 3) a turnover rate of 40 percent precludes creation of high quality programs.

The American Prospect. **"Starting Young: The Case for Investing in Early Childhood."**
November 2004,
<http://www.prospect.org/web/page.wv?section=root&name=starting+young>

Special Report includes:

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| Beatty, Barbara | Past, Present, and Future. What we can learn from the history of preschool education. |
| Blank, Helen | Head Start Under Assault. The administration's misguided plan could dismantle a cherished program. |
| Fitzgerald, Joan
Hunt, Daphne | Raising the Bar. How to reward better-trained early educators. |
| Kennedy, Edward M. | Keeping Faith with Our Children. Why early-childhood education is the best investment we can make. |
| Kirp, David L. | You're Doing Fine, Oklahoma! The universal pre-K movement takes off in unlikely places. |
| Lombardi, Joan | Starting Right. Building on proven strategies for babies and toddlers. |
| Mendel, Dick | Leave No Parent Behind. The best child-development programs involve parents, too. |
| Meyers, Marcia K.
Gornick, Janet C. | The European Model. How other nations support families that work. |
| Rothstein, Richard | Too Young to Test. Why we need a better means of evaluating young children. |
| Thompson, Ross A. | Shaping the Brains of Tomorrow. What developmental science teaches. |

Washington, Valora **Where Do We Go From Here. Building a movement on behalf of young children.**

Barnett, W. Steven. **"Better Teachers, Better Preschools: Student Achievement Linked to Teacher Qualifications.** *Preschool Policy Matters* (Issue 2, March 2003), National Institute for Early Educational Research, New Brunswick, NJ.
<http://nieer.org/resources/policybriefs/2.pdf>.

Once they begin kindergarten, America's children are taught by professionals with at least a four-year college degree. Prior to kindergarten their teachers are far less prepared. Fewer than half of preschool teachers hold a bachelor's degree, and many never even attended college.

New research indicates that young children's learning and development depend on the educational qualifications of their teachers. The most effective preschool teachers have at least a four-year college degree and specialized training in early childhood. Despite a substantial body of evidence, public policy has yet to fully recognize the value of well-educated, professional, early education teachers.

Barnett, W. Steven. **"Low Wages = Low Quality. Solving the Real Preschool Teacher Crisis.** *Preschool Policy Matters* (Issue 3, March 2003), *National Institute for Early Educational Research*, New Brunswick, NJ.
<http://nieer.org/resources/policybriefs/3.pdf>.

Recruiting and retaining good teachers ranks as one of the most significant roadblocks to solving the preschool quality crisis facing this country. Evidence points to the low wages and benefits offered to preschool teachers as the single most important factor in hiring and keeping good teachers.

Despite the importance of their responsibilities, American preschool teachers are paid less than half of a kindergarten teacher's salary — less than janitors, secretaries, and others whose jobs require only a high school diploma and a few years experience. Pay and benefits for assistant teachers are even worse, with the full-time average wage too low to keep a family of three out of poverty.

Barnett, W. Steven. **"Preschool Education: A Concept Whose Time Has Come."** *Principal* (National Association of Elementary School Principals) 85(1): 14-18, 2005.
<http://www.naesp.org/ContentLoad.do?contentId=1665&action=print>.

As more and more states begin funding pre-kindergarten programs, four-year-olds are becoming an increasingly common sight in the nation's public schools.

If we expect to close the achievement gap that exists between advantaged and disadvantaged students and to increase the capabilities of all our children to successfully compete for jobs in the international economy, a more cohesive national plan recognizing the role of early childhood education will be required. That means making Head Start a more integral and effective part of preschool education.

An optimist's view of the future holds that universal pre-kindergarten will join the K–12 public education system sooner than one might think. There is another view, however, which holds that America's public schools cannot provide the highly effective preschool programs that could produce the kinds of gains found in seminal research like the Perry Preschool Program and the Abecedarian studies. America cannot afford to succumb to this sort of pessimism.

Barnett, W. Steven, Brown, Kristy and Shore, Rima. **"The Universal vs. Targeted Debate: Should the United States Have Preschool for All?"** *Preschool Policy Matters* (Issue 6, April 2004), National Institute for Early Education Research, New Brunswick, NJ.
<http://nieer.org/resources/policybriefs/6.pdf>.

The debate over universal vs. targeted preschool programs is explored in this policy brief. While targeted programs traditionally have lower costs, universal programs are more effective at reaching all targeted children. And while the academic achievement gap is most dramatic between children in

poverty and those with the most resources, school readiness is not just a problem of the poor. School readiness for the majority of children can improve with better preschool education.

Policy recommendations include a gradual move toward voluntary universal preschool programs with federal matching funds used to encourage states to fund high-quality preschool for all.

Barnett, W. Steven, Hustedt, Jason T., Robin, Kenneth B. and Schulman, Karen L. **"The State of Preschool: 2004 State Preschool Yearbook."** *National Institute for Early Education Research*. New Brunswick, NJ, <http://nieer.org/yearbook/pdf/yearbook.pdf>.

In developing the second annual report on state prekindergarten, NIEER found that the number of children attending state-funded preschool programs rose from 693,000 in school year 2001-2002 to 738,000 in 2002-2003. Although this finding is heartening, state-funded preschool programs only reached about 10 percent of the nation's 3- and 4-year-olds. Couple that with the fact that 10 states account for three-quarters of all the children served and it becomes painfully obvious that some states are much worse than others when it comes to offering preschool education. The state preschool picture across the United States is one of haves and have-nots, with notable regional differences. Access to a good education depends on where a child lives and the income of the family. Parents looking for a state where state-funded preschool is universally available will find only two states from which to choose.

Barnett, W. Steven, Lamy, Cynthia, and Jung, Kwanghee. **"The Effects of State Prekindergarten Programs on Young Children's School Readiness in Five States."** *National Institute for Early Education Research*. New Brunswick, NJ, 2005. <http://nieer.org/resources/research/multistate/fullreport.pdf>.

This NIEER study of high-quality prekindergarten programs in five states reveals significant improvement in children's early language, literacy and mathematical development. The study finds that children attending state-funded pre-k programs in the five states (Michigan, New Jersey, Oklahoma, South Carolina, and West Virginia) gained significantly regardless of ethnic background or economic circumstances

Barnett, W. Steven, Schulman, Karen and Shore, Rima. **"Class Size: What's the Best Fit?"** *Preschool Policy Matters* (Issue 9 December 2004), National Institute for Early Education Research. New Brunswick, NJ. <http://nieer.org/resources/policybriefs/9.pdf>

What is known: 1) class size reduction is a policy that can increase educational effectiveness; 2) small class size and better staff-child ratios offer health and safety benefits; 3) most state preschool programs and the federal Head Start program do not require the small class sizes found to produce the large educational gains desired for disadvantaged students; 4) some state preschool programs set no limits on class size; 5) costs of class size reduction depend on the starting point, opportunities for more efficient allocation of staff, and the extent of cost-savings from lower administrative costs (from reduced turnover, for example).

Just as smaller classes benefit young children, smaller classes also cost more. Therefore policy makers and parents face a tradeoff. They must weigh the value of the gains to children from reducing class size against the costs. This is a difficult task, made more difficult by the fact that the costs are easily measured while the benefits may be hard to see and measure without rigorous research. This brief provides information on costs and guidance on comparing the benefits from smaller classes to those costs.

Barnett, W. Steven and Yarosz, Donald J. **"Who Goes to Preschool and Why Does It Matter?"** *Preschool Policy Matters* (Issue 8 August 2004), National Institute for Early Educational Research. New Brunswick, NJ. <http://nieer.org/resources/policybriefs/8.pdf>.

This study investigates the influence on preschool attendance by child age, ethnicity, family size, income and parental education. It identifies an alarming gap in preschool participation between children in lower and higher income families. This gap was actually worse for working families somewhat above

the poverty line than for those in poverty. If not addressed this gap threatens to exacerbate the achievement gap between lower and higher-income students that plagues education in the U.S.

Barton, Paul E. and Coley, Richard J. **"The Family: America's Smallest School."** *Educational Testing Service*, Princeton, NJ, 2007.

http://www.ets.org/Media/Education_Topics/pdf/5678_PERCReport_School.pdf

In the ETS Policy Information Center's new report, *The Family: America's Smallest School*, ETS researchers Paul E. Barton and Richard J. Coley outline the family and home conditions affecting children's cognitive development and school achievement and how gaps beginning early persist throughout life. With a preface and endorsement by Marc H. Morial, President of the National Urban League, both organizations call on leaders and policymakers to improve not only schools, but also home and family conditions, to help all students succeed.

Critical factors examined in the report include child care quality, parental involvement in schools, parent/pupil ratio, family finances, literacy development, student absences and physical home environments.

Belfield, Clive R. **"The Early Childhood Education: How Important Are the Cost-Savings to the School System?"** *Teachers College, Columbia University*. New York, NY, 2004.

http://www.winningbeginningny.org/databank/documents/belfield_report_000.pdf.

The author reviews the return-on-investment literature from well-resourced, good quality early childhood education programs for a reasonable period of time (including Perry Preschool, Head Start, Abecedarian, Chicago study) and outlines short, medium and long-term benefits and cost savings. Medium-term cost-savings of from \$2,591 to \$9,547 per child result from reducing the incidence of special education, lowering grade repetition rates, improving educational productivity and enhancing children's well-being. Between 41 and 62 percent of an initial invest in early childhood education would be offset by medium-term saving elsewhere in the education system.

Belfield, Clive R. **"The Fiscal Impact of Universal Pre-K: Case Study Analysis for Three States."** *Committee for Economic Development*. Invest in Kids Working Group, Working Paper No. 6, Washington, DC, 2005.

http://www.ced.org/docs/report/report_ivk_belfield2005.pdf.

This study applies an investment appraisal technique to pre-K provision. The technique allows for a full consideration of where additional funds should be invested and what the fiscal consequences are. Using national and state-specific data, these impacts are calculated for Massachusetts, Wisconsin, and Ohio. Each state already has some pre-K provision, and the proposal is to extend that opportunity to all children. Although a large financial commitment is necessary, economic modeling indicates that – given current patterns of spending, the educational pathways students follow, and government revenue sources and expenditures – the net present value should be strongly positive.

Belfield, Clive R. **"Investing in Early Childhood Education in Ohio: An Economic Appraisal."** *Teachers College, Cornell University*. New York, NY, 2004.

http://www.americanprogress.org/atf/cf/{E9245FE4-9A2B-43C7-A521-5D6FF2E06E03}/belfield_report.pdf.

Using economic analysis and new empirical evidence, this paper describes and calculates economic pay-off for the state of Ohio of expansion of early childhood education. Currently, only 28% of three-year olds in Ohio participate in publicly-supported educational programs before kindergarten (through state/federal Head Start, Special Education, or pre-K providers). The proposal here is to raise that proportion to 57% and to offer education for two years before kindergarten. This proposed policy

would require 42,874 new pre-K places. It would require a total investment of between \$285 million and \$482 million.

This investment is likely to yield a strong pay-off for the state government. Economic analysis is used to estimate this pay-off, using existing research evidence, new findings from national datasets, and state-specific data for Ohio. The analysis indicates that an expanded pre-K program would yield cost-savings across several domains: 1) The school system would save \$242 million. These savings would arise from lower costs of special education, less grade retention, improved working conditions for teachers, lower teacher turnover/absenteeism, and improved school safety. 2) Tax revenues would be higher by \$140 million. Parents and guardians would be free to enter the labor market and the pre-K children would have higher earning capacity in the future. 3) Health and welfare systems would reap savings of \$25 million in resource redistribution from existing programs. 4) Criminal justice system savings would be \$375 million. Pre-K programs have a powerful impact in reducing both juvenile and adult criminal activity.

The net present value to the state of Ohio from expanding pre-K provision in Ohio is therefore estimated at \$372 million. This estimate is based on a 5% discount rate and with conservative assumptions about impacts. Sensitivity analysis indicates that the net present value is unlikely to fall below \$108 million.

Belfield, Clive R. **"The Pre-K Payback."** *Center for Early Care and Education*. Albany, NY, 2004. http://www.winningbeginningny.org/brochure/documents/belfield_execsummary.pdf.

While most everyone agrees that early education benefits child, parent, and society, Pre-K's critics often decry adding a year of free prekindergarten to public school as an unaffordable luxury. An education economist's report analyzing Pre-K costs and benefits shows otherwise. Clive R. Belfield, reviewed 19 published research studies of early childhood education programs from around the nation, and analyzed their outcomes relevant to New York State school spending. He concludes that making quality prekindergarten universally available to the state's 4-year-olds would result in later savings in remedial costs and other school services that would pay back 41% to 62% of the Pre-K investment.

Belfield, Clive R. and Winters, Dennis K. **"The Economic Returns to the Education System from Investments in four-year-old kindergarten for Wisconsin."** *Trust for Early Education (TEE)* research paper, New York, NY and Madison, WI, 2004.

This paper considers the economic impact to the K-12 education system in the state of Wisconsin and in the district of Milwaukee from expanding provision of pre-kindergarten. For Wisconsin, expanding the 4K program by a factor of three would allow 32,102 extra four-year old children to participate each year (in other states, around 70% of families take advantage of high-quality pre-kindergarten). For these new places for children, the total investment cost would be \$207 million, less than 3% of annual expenditures on education in Wisconsin.

The focus here is on the consequences of expanding 4K for K-12 educational budgets in Wisconsin. The education system is affected because children progress more efficiently through their schooling as a result of early childhood programs. State-specific data, published research, and new evidence are used to estimate these fiscal benefits to the school system.

With expanded 4K programs fiscal benefits to the K-12 school system would come from: lower grade retention; lower special education placement; higher job satisfaction for teachers; more teachers retained by the public schools; fewer substitute teachers; reduced spending on school safety; and reduced pressure on student aid services. In total, these benefits amount to \$140.96 million.

The net economic impact of comprehensive state-wide pre-schooling is calculated as a benefit-cost ratio. For each cohort of four-year olds, the benefits of investment in comprehensive 4K offset 68% of the costs. For every dollar committed to 4K, 68 cents would be returned in savings.

The analysis is also performed for the Milwaukee school district. This district has higher K-12 per-student expenditures, and higher rates of grade repetition and special education. Accordingly, the K-12 cost-savings are found to be higher. The benefits of investment in comprehensive 4K for Milwaukee would offset 76% of the costs of the program, when only K-12 educational budgets are considered.

When all benefits are accounted for, there is a clear economic motive for investment in four-year-old kindergarten across the state of Wisconsin.

Boethel, Martha. **"Readiness: School, Family, & Community Connections. Annual Synthesis 2004."** *Southwest Educational Development Laboratory*, Austin, TX. <http://www.sedl.org/connections/resources/readiness-synthesis.pdf>

The fourth synthesis, focusing on family and community connections with schools, describes 48 research studies on the contextual factors associated with children's readiness. It explores children's abilities as they make the transition to kindergarten, factors associated with these abilities, and implications of these factors on children's later success. It also discusses the effectiveness of a variety of early childhood or preschool interventions that include a family or community focus.

According to Catherine Jordan, director of SEDL's National Center for Family & Community Connections with Schools, "Young children enter kindergarten with a range of cognitive and social skills that contribute to their achievement during kindergarten. ...The research suggests that the achievement gap starts early and persists. Our challenge is to find strategies that can help all children to experience that critical early success."

The studies indicate that a variety of factors contribute to children's readiness for kindergarten, according to Jordan. "For example, the home environment is strongly associated with children's early skills and abilities," she says. "Though we still have a lot to learn about what works, there is evidence that early interventions not only can help children directly, they can also help families to develop more effective supports for their young children's learning."

Brandon, Richard N. **"Financing Access to Early Education for Children Age Four and Below: Concepts and Costs."** *Human Services Policy Center*, working draft (permission required for citation) prepared for The Brookings-University of North Carolina Conference "Creating a National Plan for Education of 4-Year-Olds," 2004. <http://www.brookings.edu/dybdocroot/es/research/projects/wrb/200411Brandon.pdf>

The author argues that the most cost-effective policy is to make high quality early care and education available for all children birth through five. A financing approach that combines a subsidy to providers, that is not related to the income of particular children, with an income-related voucher for parents can make early learning experiences affordable for all families at a relatively modest national commitment — an investment equivalent to from 3 to 13 percent of current public elementary and secondary education spending.

Brandon, Richard N, Kagan, Sharon Lynn, and Joesch, Jutta M. **"Design Choices: Universal Financing for Early Care and Education."** *Human Services Policy Center*," Seattle, WA, 2002. <http://hspc.org/publications/pdf/designchoices.pdf>.

The Financing Universal Early Care and Education (ECE) For America's Children Project analyzes the costs and impacts of alternative approaches to financing early care and education for American children age 0-5 on a universal basis. The policy brief describes the components of a modeling effort which includes the costs of paid care to families, employers and government, estimating changes in amount and type of ECE used by families, and estimating changes in the employment of mothers of young children. It discusses lessons learned from analyzing key features of near-universal social benefits in the U.S., and how they might be applied to ECE.

Brauner, Jessica, Gordic, Bonnie and Zigler, Edward. **"Putting the Child Back Into Child Care: Combining Care and Education for Children Ages 3-5"** *Social Policy Report*, vol. 18,

no. 3, 2004. University of Michigan, Ann Arbor,
http://www.srcd.org/Documents/Publications/SPR/SPR18_3.pdf.

Currently there is a lack of affordable, accessible, quality child care in America. A substandard child care system not only negatively affects families, but also impacts broader societal and political issues, such as the economy, gender equity, tax and budget policies, and welfare reform. The inadequate state of child care is in part due to the fact that care and education continue to be viewed as separate issues.

In this report, the authors explore current state regulations, the economics of child care, and how child care is framed in order to illustrate why poor quality care continues in the United States. The authors propose two recommendations to help improve the quality of child care in the United States. First, they assert that an infrastructure that combines care and education must be built. One approach is to place educational components into the child care system. A more enduring approach is to place care into the educational system.

Brown, Brett V. and Bogard, Kimber. [Pre-Kindergarten to Third Grade \(PK-3\) School-Based Resources and Third Grade Outcomes](#) *CrossCurrents* (Issue 5, August 2007), Child Trends Data Bank.

<http://childtrendsdatbank.org>

This new data brief finds that three elements of elementary school environments - strong principal leadership, high academic standards, and frequent teacher meetings to plan instruction - are associated with higher third grade math and reading scores. In addition, higher teacher turnover, which can indicate an unstable school, is related to lower rates of student self-control and school engagement among third grade students.

Many elementary school students do not experience environments that will maximize their outcomes:

- 30 percent of all children attend elementary schools that do not have strong principal leadership.
- Just over half of all children are in schools where their teachers meet together regularly to plan sequenced and coordinated instruction.
- 15 percent of children are in schools where teacher turnover is a problem.

Bruner, Charles. **"A Stitch in Time: Calculating the Costs of School Unreadiness."** *The Finance Project*. Washington, DC, 2002.

<http://www.financeproject.org/Publications/stitchintime.pdf>.

This monograph presents approaches that states and communities can use to make the case for investments in early childhood, focusing on the investment potential of early childhood services to school readiness. It synthesizes the evidence on early childhood development and school readiness and its relationship to future social problems and costs, presents alternative approaches used to estimate the cost of school unreadiness, with examples of communities using these approaches.

The costs to society of school unreadiness are significant and are preventable through early intervention. To produce the greatest gains, successful programs need to be comprehensive as well as well-designed, employing skilled and dedicated staff who provide high-quality services.

"Can a College Degree Help Preschoolers Learn?" *National Institute for Early Education Research*. Fast Facts (Issue No. 1, December 2003), New Brunswick, NJ.

<http://nieer.org/resources/factsheets/5.pdf>.

Teachers who have earned four-year college degrees (BA or BS) are better equipped to provide high quality preschool education than are teachers with a two-year-degree (AA), Child Development

Associate (CDA) certificate, or High School diploma (even when these teachers have had training in child development).

Carnevale, Anthony P. and Desrochers, Donna M. **“Standards for What? The Economic Roots of K-16 Reform.”** *Educational Testing Service*, Princeton, NJ, 2003.
http://www.ets.org/research/dload/standards_for_what.pdf

The authors offer a powerful analysis of the forces that have stimulated the and sustained education reform since the 1980s, forces certain to be a decisive influence on the future of American education. Focusing on standards and their implementation, they identify and describe the societal trends that are redefining the contemporary educational landscape. Educators may find their attention drawn to the suggested mismatch between the jobs and careers of the new economy and the current core high school curricula and pedagogy.

Center on the Developing Child at Harvard University (2007) **“A Science-Based Framework for Early Childhood Policy”**
http://www.developingchild.harvard.edu/content/downloads/Policy_Framework.pdf

The Center on the Developing Child at Harvard University has released A Science-Based Framework for Early Childhood Policy, in which neuroscience, child development research, and program evaluation data are used to present a framework for developing science-based early childhood policies and practices. The paper asserts that early experiences determine whether a child’s developing brain architecture provides a strong or weak foundation for future learning, behavior, and health. It then identifies several “effectiveness factors” to inform early childhood policies and programs and enhance their ability to have a positive impact on development in the first five years. These factors were derived from evaluations of successful early childhood intervention programs, and they expand a number of areas significant to early childhood development—including early care and education and family environments. The effectiveness factors are used to form the basis for a set of policy framework principles designed to promote healthy early childhood development. These principles include:

- The participation of children from low-income families in very high-quality early education centers can enhance their developmental outcomes.
- Two-generation programs that provide direct support for parents while providing high-quality, center-based care and education for children from families experiencing significant adversity can have positive impacts on both.

“Children Entering School Ready to Learn: School Readiness Information 2003-04. Relationship of Prior Early Care Experiences on School Readiness Skills: Maryland Results.” *Maryland State Department of Education*. Baltimore, MD, 2004.
<http://www.mdk12.org/instruction/ensure/MMSR/srr.pdf>.

The analyses of the relationship between school readiness skills and prior early care experience provides a series of statewide results: 1) the student outcomes indicate that enrollment in early care and education programs before kindergarten is more beneficial in terms of school readiness than being in home or informal care. Those benefits are consistent for children from low-income families. 2) almost 2 out of 10 children are not enrolled in any type of regulated early care and education program. 3) prekindergarten and Head Start children who are also enrolled at child care centers are improving their school readiness skills significantly, presumably, due to the additional hours of regulated early care. 4) children with disabilities who stay at home or are enrolled in Head Start do not fare as well in terms of school readiness as those who attend nursery or prekindergarten programs. 5) more than 2 percent of entering kindergartners are repeating the grade. Yet, their school readiness results are below the state average.

"Children Entering School Ready to Learn: School Readiness Baseline Information: 2003-2004 School Year by State & County." *Maryland State Department of Education*. Baltimore, MD, 2004.

<http://www.marylandpublicschools.org/NR/rdonlyres/BCFF0F0E-33E5-48DA-8F11-28CF333816C2/2434/Complete2004.pdf>.

This report describes school readiness in Maryland for the 2003-2004 school year. The report provides a profile of children's skill levels as they enter school based on the evaluations of their teachers. Data show that 55 percent of the entering kindergarten students were evaluated by their teachers as "fully" ready for kindergarten, a 3 percent increase over the previous year. This significant increase occurred for both the composite score and the results for Language and Literacy. Children from minority groups, those with limited English proficiency, and children with disabilities made significant progress over last year. However, these students groups are still lagging behind other children their age.

Christina, Rachel and Nicholson-Goodman, JoVictoria. **"Going to Scale with High-Quality Early Education."** *The Rand Corporation*. Santa Monica, CA, 2005.

http://www.rand.org/pubs/technical_reports/2005/RAND_TR237.pdf.

The study says public pre-kindergarten programs being launched in several states have great potential but face challenges, including: making sure all children have equal access to educational services; finding enough well-trained teachers; and combining funds from different sources to support high-quality programs.

Cobb, Kathy. **"The ABCs of ECD: Conference Explores the Latest Research on the Economics of Early Childhood Development."** *The Region*, Federal Reserve Bank of Minneapolis, December, 2003. <http://minneapolisfed.org/pubs/region/03-12/ecd.cfm>.

The Economics of Early Childhood Development: Lessons for Economic Policy conference provided a rare opportunity for economists, public policy analysts, medical professionals and educators to share their research on early childhood development. The conference, hosted by the Minneapolis Fed and Minnesota's McKnight Foundation, in cooperation with the University of Minnesota, focused largely on the economics of early childhood development, but economists' findings were supported by sociological and biological evidence presented by other speakers.

DeLapp, Lynn R. **"Supporting Early Childhood Initiatives: Legislative Strategies for Everyday People."** *The Finance Project*, New York, NY, 2003.

<http://www.financeprojectinfo.org/Publications/LegislativeStrategies.pdf>.

This brief addresses strategies to ensure that policy makers hear the voices of children and families so that effective early childhood initiatives can be enacted, implemented, and sustained. It helps readers understand how they can influence the basic legislative processes of creating statutes, resolutions, budgets and appropriations, and when to use alternatives to legislation. It includes examples and lessons learned from efforts across the country to support early childhood and other child and family initiatives in good times as well as bad. And it provides key guidelines and advice for everyday people—including parents, teachers, and other service providers; members of business, religious, and community groups; and many others—for educating and working with policy makers to support initiatives that promote the well-being of young children and their families

Diefendorf, Martha and Goode, Sue. **"Minibibliography. Long Term Economic Benefits of High Quality Early Childhood Intervention Programs."** *NECTAC Clearing House on Early Intervention and Early Childhood Special Education*, University of North Carolina at Chapel Hill, 2004, www.nectac.org/~pdfs/pubs/econbene.pdf.

An extensive body of research indicates that high quality early intervention for at-risk infants, toddlers and young children and their families is a sound economic investment. Studies have found a number of long-term cost savings in terms of decreased grade repetition, reduced special education spending, enhanced productivity, lower welfare costs, increased tax revenues, and lower juvenile justice

costs. This 9-page mini-bibliography by Martha Diefendorf and Sue Goode provides a selection of articles, reports, and book chapters that review some of the major findings on this topic. Some of the included studies focus on services for young children with disabilities, although most address early intervention for children who are at risk for adverse developmental outcomes due to poverty and other environmental factors.

Doyle, Jim. **"KidsFirst: The Governor's Plan to Invest in Wisconsin's Future."** *State of Wisconsin*, Madison, WI, 2004. <http://www.wisgov.state.wi.us/docs/kidsfirst.pdf>.

KidsFirst is a comprehensive agenda to invest in Wisconsin's future by improving the lives of the state's children. The plan outlines Governor Doyle's priorities to make sure children are ready for success; are safe at home, in school and in their communities; have the opportunity to be raised by strong families; and grow up healthy. The plan includes a wide range of initiatives – public-private partnerships, legislative proposals, budget priorities – that were developed in an unique collaboration of the Governor, First Lady, School Superintendent, and the secretaries of the Departments of Health and Family Services, Workforce Development and Corrections.

Dugger, Robert. **"American Kids, Workforce Quality and Fiscal Sustainability: A Multi-Year Plan for the Invest in Kids Working Group,"** Working Paper No. 4, *Invest in Kids Working Group*, revised January 2005. http://www.ced.org/docs/report/report_ivk_dugger_2005.pdf

Initial evidence suggests that spending on early nurturing, health, and education has tangible economic returns as high as or higher than alternative options. Early childhood development appears to be essential to maximizing the number of future American workers who can compete effectively in a global marketplace. Successful youth human capital development would instill the kind of long-term thinking necessary to achieve needed spending compromises. This together with stronger growth would make it easier to achieve fiscal sustainability and avoid crisis.

Early, Diane, Howes, Carollee, Kraft-Sayre, Marcia, Barnett, W. Stephen; et al. **"Pre-Kindergarten in Eleven States: NCEDE's Multi-State Study of Pre-Kindergarten & Study of State-Wide Early Education Programs (SWEEP). Preliminary Descriptive Report."** *National Center for Early Development & Learning*, Chapel Hill, NC, 2005. http://www.fpg.unc.edu/~ncedl/pdfs/SWEEP_MS_summary_final.pdf.

This working paper reports on two studies of state-funded pre-kindergarten programs, providing detailed information on pre-kindergarten teachers, children, and classrooms in 11 states, encompassing 79% of U.S. children in pre-K. The shared goals of the two studies are to understand variations among pre-kindergarten programs and their relation to child outcomes at the end of pre-k and in kindergarten. This first report of the data provides a descriptive picture of pre-k children and classrooms only.

Seventy-nine percent of the classrooms were estimated to meet class size and child-teacher ratios recommended by NAEYC and NIEER. Seventy-three percent had a teacher with a Bachelor's degree, and 57% had teachers with both a degree and a state teacher certificate for 4-year-olds. Nonetheless, the quality of interactions and activities provided for children were, on average, lower than expected. Although classrooms were generally warm and friendly, instructional quality was low, and learning interactions between teachers and children were infrequent.

The report's findings point to the need to improve state-funded pre-k classroom process quality and instruction. It appears that states cannot rely solely on professional standards and structural indicators of quality (e.g., ratios, teacher education) to ensure that their programs are fulfilling their potential. To improve classroom quality and interactions, states may consider providing teachers with additional supports to further their knowledge and use of appropriate instruction for young children. These supports might come in the form of mentoring relationships, technical assistance, or increased supervision. Likewise, state systems of teacher preparation and professional development may require supports in order to increase their capacity and quality.

“The Early Childhood Challenge: Preparing High-Quality Teachers for a Changing Society.” *American Association of Colleges for Teacher Education Focus Council on Early Childhood Education*, Washington, DC, 2004.
http://www.aacte.org/News_Awards/Press_Room/ECEpaper.pdf.

After analyzing the changing needs of and new challenges for children, society, institutions, the profession, and professionals working in early childhood education, the focus council offers recommendations for schools, colleges and department of education; policy development; and the private sector.

“The Early Childhood Education and Care: Challenges Facing Wisconsin.” *Wisconsin Departments of Public Instruction and Workforce Development and UW Waisman Center*, Madison, WI, 2003. <http://www.wisconsin.edu/submit/papers/earlyChildhood.pdf>.

This working paper provides state leaders with a context for viewing the economic challenges facing Wisconsin. It seeks to stimulate thoughtful reflection and substantive discussion on the relationship between the quality of Wisconsin’s early childhood programming and the future growth of our state’s economy. This paper advances the argument that any efforts toward building the state’s future economic capacity must start with providing high quality early childhood education and care for our youngest residents. The major premise is that consideration of public policy issues associated with early childhood education and care must be included in any comprehensive economic planning effort intending to improve Wisconsin’s future economic conditions.

“Early Learning Left Out.” *The Child and Family Policy Center and Voices for America’s Children*, Washington, DC, 2004.
<http://www.voicesforamericaschildren.org/Template.cfm?Section=Home&CONTENTID=3363&TEMPLATE=/ContentManagement/ContentDisplay.cfm>.

Early Learning Left Out, presents the most comprehensive picture, to date, of public investments in the education and development of children by three age groupings – the early learning years, the school-aged years, and the college-aged years. It is based upon detailed analysis of state, federal, and school district spending in 12 states across the country, conducted by organizations in those states with strong understanding of early childhood services and state budgeting. It is designed to give policy makers and the public a better understanding of overall public investments on education and development of children, in the context of the research on brain growth and child development and the research on potential returns on investment from early learning programs. The study found that while 85% of a child’s core brain structure is formed by age three, less than 4% of public investment in education and child development occurs during that period. For every dollar the government invests in the education of school-aged children, it invests only 13.7 cents in the earliest and most critical learning years.

Edie, David, Adams, Diane, Riley, David and Roach, Mary. **“Alternative Models for an Early Care and Education System.”** *Wisconsin Child Care Research Partnership* Report No. 4, Madison, WI, 2004. <http://www.uwex.edu/ces/flp/wccrp/pdfs/policy0204I.pdf>.

This report examines the landscape of early education and child care programs after forty years of dramatic growth, and explores the possibilities of developing a coherent system for early care and education. The paper provides a background on early care and education developments nationwide and in Wisconsin. It examines relevant research, efforts by other states, and possible rationale for a system; and presents alternative models and criteria for evaluating a potential new Wisconsin early care and education system. A coherent early care and education system could provide parents with access to high quality early care and education services that enable them to work and prepare their children for school.

Figure 1, page 8, provides a funding chart, developed by Wisconsin Early Childhood Collaborating Partners, that illustrates the complexity of the funding streams and the inter-linking involvement of three primary state agencies.

Epstein, Ann S., Schweinhart, Lawrence J. DeBruin-Parecki, Andrea and Robin, Kenneth B. **"Preschool Assessment: A Guide to Developing a Balanced Approach.** *Preschool Policy Matters* (Issue 7 July 2004), National Institute for Early Education Research. New Brunswick, NJ. <http://nieer.org/resources/policybriefs/7.pdf>.

This brief addresses the many questions about testing preschool children. Its purpose is three-fold: (a) to provide basic information about the terms and issues surrounding assessment; (b) to add an empirical and pragmatic perspective to what can sometimes be an impassioned debate; and (c) to support parents, policy makers and early childhood educators in using assessments to do what is best for young children and support the programs and policies that serve them.

The authors set forth the criteria for a comprehensive and balanced assessment system that meets the need for accountability while respecting the well-being and development of young children. Such a system can include testing, provided it measures applicable knowledge and skills in a safe and child-affirming situation. It can also include informal assessments, provided they too meet psychometric standards of reliability and validity.

Espinosa, Linda M.. **"High-Quality Preschool: Why We Need It and What it Looks Like."** *Preschool Policy Matters* (Issue 1 November 2002), National Institute for Early Education Research. New Brunswick, NJ. <http://nieer.org/resources/policybriefs/1.pdf>, <http://nieer.org/resources/factsheets/1.pdf>

Research has consistently shown that 3- and 4-year-olds who attend a high-quality preschool are more successful in kindergarten and beyond—both academically and socially. But the majority of preschool programs in the United States are not judged as good, with many rated far below that.

Many of our most vulnerable children attend the lowest quality programs, and children who are at risk for school failure are more strongly influenced by the quality of preschool. Many children from middle-class families also attend preschools that are not of good quality.

Ewen, Danielle, Mezey, Jennifer and Matthews, Hannah. **"Missed Opportunities? The possibilities and Challenges of Funding High-Quality Preschool through Title I of the No Child Left Behind Act."** *Center for Law and Social Policy*. Washington, DC, 2005. http://www.clasp.org/publications/missed_opp.pdf.

This paper provides general background on the legislation behind Title I and provides an overview of the available data on the use of Title I funds for preschool, as well as illustrative examples of how a few states and local communities have used Title I funds for these programs. It also examines the U.S. Department of Education's statutes, regulations, and guidance on the use of Title I funds for preschool and raises some unanswered questions. Finally, it discusses how the implementation of the No Child Left Behind Act may affect the availability of Title I funding for preschool programs.

Falk, Erika. **"The Analysis of the Messages of the Early Childhood Movement."** *Annenberg Public Policy Center*, Washington, DC, 2003. http://www.annenbergpublicpolicycenter.org/05_media_developing_child/2003_APPCAnalysisMessagestxt.pdf.

This report presents a list of state and national organizations engaged in early childhood education and development, documents patterns found in the messages produced by these organizations, and suggests ways to improve these texts. The goal of this endeavor was to provide a guide to child-centered organizations that would help in developing a shared communication strategy by letting them know what other organizations are doing and saying and by providing suggestions for improvement.

Fay, Juliette, Gilbert, Jennifer and Wrean, Katherine. **"Building Villages to Raise Our Children: Funding and Resources."** *Harvard Family Research Project*, Cambridge, MA, 1993. <http://www.enterprisefoundation.org/model%20documents/912.Building%20Villages%20o%20Raise%20our%20Children.doc>

Produced by The Harvard Family Research Project, this booklet is one of a series of six based on the theme "it takes a village to raise a child." The Introduction clarifies that the book is not about how to write grants but "we will discuss general principles of financing strategy, potential funding sources, tips on finding and maintaining those sources, and marketing and public relations." One section of the book discusses designing a funding plan, including clarifying the reason for funding, how to present plans to potential funders and effective public relations. Another section presents the varied array of funding sources and how to find them. The final section discusses the various issues involved in managing a resource base and then presents six case studies which illustrate a range of funding strategies and the lessons learned. Programs profiled are in: Brattleboro, VT; Cedar Rapids, IA; Polk and Scott Counties, IA; Gainseville, FL; Minneapolis, MN; and Barberton, OH. The booklet concludes with a Bibliography and a Federal Funding Information Resources guide.

"Federal Reserve Economist Urges Much Wider Public Investment in Preschool: Expert Says Preschool Pays Public up to 15 Percent on Every Dollar Spent." *Preschool Matters* (Vol. 1, No. 3). National Institute for Early Education Research. New Brunswick, NJ, 2003. <http://nieer.org/resources/printnewsletter/Dec2003.pdf>.

Art Rolnick, head of research for the Federal Reserve Bank in Minneapolis, wants to create a new trust fund, a \$1¼ billion endowment, to pay for prekindergarten for all of Minnesota's low-income three- and four-year-olds. He says that it is a bargain compared to other investments, such as a sports stadium; \$1¼ billion is equivalent to the cost of two sports stadiums. Investment in pre-K returns \$7 for every \$1 spent, far outdistancing the return on investment for a sports stadium, factory or Target store. "What I am proposing is an endowment for public preschool, like Harvard of Yale has, that will represent a permanent commitment by the people of Minnesota to its children."

Flynn, Margaret and Hayes, Cheryl D. **"Blending and Braiding Funds To Support Early Care and Education Initiatives."** *The Finance Project*, Washington, DC, 2003. http://www.financeprojectinfo.org/Publications/FP%20Blending%20Funds%201_24.pdf.

The authors highlight the successes and lessons learned in blending early childhood funding streams. They present financing strategies that state and local policy makers, community leaders, and program coordinators can employ to align, coordinate, and integrate discrete, categorical funding streams. When used effectively, these strategies can help reduce duplication, increase the efficient use of resources, reduce the administrative burden of multiple categorical programs, and fund early childhood supports and services that are more integrated and coordinated.

Leaders at the federal, state, local, and community levels are striving to link the discrete, fragmented supports and services that have developed over a number of years into a system of early childhood supports and services that makes sense for families and providers. Critical to the success of these efforts are financing strategies that enable program developers and community leaders to use categorical funding streams in more flexible and coordinated ways. For these efforts to be most successful, the ground-level work of program leaders to braid and blend a variety of funding sources must be supported by policy making that increases the flexibility of and aligns funding streams.

Frede, Ellen; Jung, Kwanghee; and W. Steven Barnett et al. **"The Abbott Preschool Program Longitudinal Effects Study (APPLES)"** *National Institute for Early Education Research (NIEER)* (June 2007) <http://nieer.org/docs/index.php?DocID=173>

Abbott Pre-K Follow-up Study Shows Achievement Gains Through Kindergarten

The gains children made in language, literacy and math during preschool were largely sustained during their kindergarten year, leading to a narrowing of the achievement gap, say researchers who conducted

the just-released NIEER study of New Jersey's Abbott Preschool Program. Kindergarteners who attended the Abbott program serving the state's neediest districts closed more than 50 percent of the gap between their literacy scores and the national average. Those who didn't attend the program closed 18 percent of the gap. In math, children who attended Abbott pre-K continued to outperform in kindergarten those who did not. NIEER Co-Director Ellen Frede, principal author and former head of the department at the New Jersey Department of Education responsible for implementing the Abbott pre-K program, said the findings are heartening because "One of the goals of mandating the program was to help underprivileged children close the achievement gap."

Other findings from the Abbott Preschool Program Longitudinal Effects Study (APPLES), which will continue to track the Abbott children, are these:

- Children who attended for two years at ages 3 and 4 significantly outperformed those who attended for only one year at age 4.
- The gains in language and math from two years of Abbott attendance are quite large — nearly double for language and 70 percent larger for math.
- Adequate funding, high quality standards and intensive professional development have resulted in good classroom quality across all Abbott classrooms whether in private provider or school district settings.
- Almost 90 percent of Abbott classrooms evaluated in 2006 scored above the average score found in 2000.
- Areas of classroom improvement were those most directly related to child learning such as language and reasoning activities, interactions and program structure.

"Full-day Kindergarten Programs Improve Chances of Academic Success." *The Progress of Education Reform 5(4)*. Education Commission of the States, Denver, CO, 2004. <http://www.ecs.org/clearinghouse/54/83/5483.pdf>.

While much research has been conducted over the past 25 years on the effects of full- versus half-day kindergarten programs, definitive answers remain elusive. Recent research has helped shed light on the subject. Experts now are in general agreement there are no detrimental effects to attending full-day kindergarten and, in fact, students in full-day programs show significantly stronger academic gains over the course of the kindergarten year than their half-day counterparts. The research also finds that poor and minority students especially can benefit from participation in full-day programs. There is less agreement about the degree to which benefits gained from attending full-day kindergarten carry forward throughout a student's academic career. While further studies are needed to confirm the extent of this impact, the research outlined here establishes full-day kindergarten as a promising tool in the policy-maker's arsenal for improving schools and closing academic achievement gaps.

Galinsky, Ellen **"The Economic Benefits of High-Quality Early Childhood Programs: What Makes the Difference."** *The Committee for Economic Development*, Washington, DC, 2006. http://www.ced.org/docs/report/report_prek_galinsky.pdf.

Ellen Galinsky examines three oft-cited early childhood programs with longitudinal data: The Abecedarian Program, the Chicago Child-Parent Centers, and the Perry Preschool Program. All three programs reported substantial economic pay-offs and are often used to justify the need for a wide array of early childhood initiatives. Galinsky examines the common attributes of these programs to determine the probable cause for such pronounced economic benefits. She suggests that the "overarching principles" that produced long-term benefits for participants need to be taken into account in order to expect any sort of financial pay-off.

These include: 1) Beginning early in the child's life; 2) Teachers who were well-educated, trained, and well-compensated; 3) Small class sizes and teacher-child ratios; 4) Programs lasting more than one

year; 5) Transition services to elementary school; and 6) Support for parents through home visits and encouraging parental participation in the classroom.

Gallagher, James J., Clayton, Jenna R. and Heinemeier, Sarah E. **"Education for Four-Year-Olds: State Initiatives. Technical Report #2."** *National Center for Early Development & Learning*, Chapel Hill, NC, 2001. <http://www.fpg.unc.edu/~ncedl/pdfs/EdFours-tr.pdf>.

In an effort to understand the policy shift to establishment of state-funded prekindergarten programs in a number of states, the authors attempted to answer the following questions: How did the states manage this distinctive shift in educational policy to prekindergarten? What were the major facilitators and major barriers to be overcome, and the particular strategies that appeared to be useful in achieving this result?

Georgia, Illinois, New York, South Carolina, and Texas were chosen on the basis of previous surveys that determined that they were making substantial progress in establishing a prekindergarten program in their state. The objective of this study was to discover the forces at work in each state by conducting structured interviews of knowledgeable people in each of the five states and by examining documents provided by them. The people interviewed represented early childhood, Head Start, child care, the political scene, and others who were seen as relevant to the educational policy in that

"Getting Ready: Findings from the National School Readiness Indicators Initiative. A 17 State Partnership." *Kids Count*, Providence, RI, 2005. <http://www.gettingready.org/matriarch/d.asp?PageID=303&PageName2=pdfhold&p=&PageName=Getting+Ready+%2D+Full+Report%2Epdf>.

This national report shows how tracking progress on key indicators of school readiness can lead to more effective policies and investments in early childhood. The report is based on research that shows that too many young children enter kindergarten unprepared for school success. These children often suffer from physical, social, emotional and cognitive deficits that could have been addressed earlier in their lives. The report is based on a set of core indicators of school readiness that emerged from the work of 17 states involved in the National School Readiness Indicators Initiative.

State policymakers play a critical role in allocating resources to support the school readiness of young children. Increasingly, state policymakers are asking for results-based accountability in making their funding decisions. While policymakers may recognize the importance of early learning and school readiness, they also need measurable indicators that enable them to track progress. The school readiness indicators that are included in this report were selected because they have the power to inform state policy action on behalf of young children. They emphasize the importance of physical health, economic well-being, child development and supports for families.

Gilliam, Walter S. and Zigler, Edward F. **"State Efforts to Evaluate the Effects of Prekindergarten: 1977 to 2003."** *National Institute for Early Education Research*, New Brunswick, NJ, 2004. <http://nieer.org/resources/research/StateEfforts.pdf>.

Today, there are at least 55 statewide prekindergarten systems that are funded and administered by states, operating in 40 states (see Figure 1). Typically, there are two different ways that states invest in prekindergarten services: (a) developing, funding and administering their own unique prekindergarten systems and (b) providing state funds to increase the number of children served by Head Start in their state. Currently, 11 states both fund their own unique prekindergarten and supplement Head Start, 27 fund a state prekindergarten system, but do not supplement Head Start, 2 supplement Head Start, but do not fund a unique state prekindergarten system, and 10 states do neither.

The 20 evaluations of prekindergarten programs reviewed in this paper represent our best current knowledge of the child level impacts of these programs as they were implemented in 18 different states. In some states, the evaluation methods are too weak to estimate the effectiveness of these programs. In several other states, the studies offer some modest indication of the likely benefits of these programs, especially in terms of short-term developmental gains and longer-term indicators of educational progress (e.g., reduced grade retention, better school attendance, and improved school-administered

test scores). In a few instances, the studies provide fairly solid data on the effects of these programs, using sound quasi-experimental evaluation methods to control for baseline differences between participants and contrasts.

Gormley, Jr., William T. and Gayer, Ted. **"Promoting School Readiness in Oklahoma: An Evaluation of Tulsa's Pre-K Program."** *Center for Research on Children in the U.S. (CROCUS)*, Washington, DC, 2003.
http://www.crocus.georgetown.edu/reports/working_paper.1.pdf

Since the latter half of the 1990s, three states have established programs aimed at providing prekindergarten programs to all four-year old children. In 1998, the state of Oklahoma instituted such a universal pre-kindergarten program. The premise behind providing access to early education to all four-year olds is that it will improve educational and developmental outcomes of the children in the short and the long term. In our paper, we analyze the short-term effects of prekindergarten on children in Tulsa Public Schools (TPS). The main difficulty with testing the causal impact of a voluntary pre-kindergarten program on test scores is that certain parents are more likely to select pre-kindergarten for their children, and these parents might also have other unobservable characteristics that influence the test outcomes of their children. We rely on a quasi-experimental framework to address this selection bias. Within TPS, children qualified to attend pre-kindergarten in academic year 2000-01 if, and only if, they were born before September 1, 1996 (and after September 1, 1995). Children whose birthdays occurred on or after this cut-off date were required to wait until the following academic year to enroll in Tulsa prekindergarten. Since TPS administered an identical test in September 2001 to children just beginning pre-kindergarten and children just beginning kindergarten, we use a regression discontinuity design to compare test outcomes of "old" pre-kindergarten students to "young" kindergarten students who attended pre-kindergarten the previous year. We find that the Tulsa pre-kindergarten program increases cognitive/knowledge scores by approximately 0.39 standard deviation, increases motor skills scores by approximately 0.24 standard deviation, and increases language scores by approximately 0.38 standard deviation. We find no impact on social/emotional test scores. Also, we find that the impacts tend to be larger for blacks and even more so for Hispanics, although we find little impact for whites. Children who qualify for the full free-lunch program also have much larger impacts than the population as a whole.

Gormley, Jr., William T. and Phillips, Deborah. **"The Effects of Universal Pre-K in Oklahoma: Research Highlights and Policy Implications."** *Center for Research on Children in the U.S. (CROCUS)*, Washington, DC, 2003.
<http://www.crocus.georgetown.edu/reports/oklahoma2.pdf>.

The Tulsa pre-K program offers an example of the success with which systematic, school-based initiatives can launch four-year-olds on the promising trajectory into elementary and secondary school education. Minority children showed dramatic gains in the cognitive and language skills that predict strong kindergarten achievement. These effects were evident in full-day programs but not in half-day programs. The effects of pre-K on white children were weaker and were limited to half-day programs, but future research, employing a different testing instrument, will be better suited for high-performing children, who are more likely to be white..

Gormley, Jr., William T., Gayer, Ted, Phillips, Deborah and Dawson, Brittany. **"The Effects of Universal Pre-K on Cognitive Development."** *Georgetown University*, Washington, DC, 2004. <http://www.crocus.georgetown.edu/reports/oklahoma9z.pdf>.

"This paper reports on the school readiness of children who attended the universal pre-K program in Tulsa, Oklahoma during the 2002-03 school year... Our research supports the proposition that a universal pre-K program financed by state government and implemented by the public schools can improve pre-reading, pre-writing, and prenumeracy skills for a diverse cross-section of young children. ...we estimate the impact on test scores of attending Tulsa pre-K; we cannot estimate the impact on the population's test scores of making the Tulsa pre-K program available to everyone. Can the Oklahoma experience be replicated elsewhere? While it is difficult to generalize, we should note Oklahoma's high teacher education requirements, which other research has found to be a strong predictor of high quality

environments for young children (NICHD ECCRN, 1999, 2002). Also noteworthy is Oklahoma's willingness to compensate pre-K teachers at the same level as elementary and secondary school teachers in the public schools, which helps pre-K programs to recruit and retain talented teachers."

Gormley, Jr., William T., Gayer, Ted, Phillips, Deborah and Dawson, Brittany. **"The Effects of Universal Pre-K on Cognitive Development."** *Developmental Psychology* 41(6):872-884, 2005.

In this study of Oklahoma's universal pre-K program, the authors relied on a strict birthday eligibility criterion to compare "young" kindergarten children who just completed pre-K to "old" pre-K children just beginning pre-K. This regression-discontinuity design reduces the threat of selection bias. Their sample consisted of 1,567 pre-K children and 1,461 kindergarten children who had just completed pre-K. The authors estimated the impact of the pre-K treatment on Woodcock-Johnson Achievement test scores. The authors found test impacts of 3.00 points (0.79 of the standard deviation for the control group) for the Letter-Word Identification score, 1.86 points (0.64 of the standard deviation of the control group) for the Spelling score, and 1.94 points (0.38 of the standard deviation of the control group) for the Applied Problems score. Hispanic, Black, White, and Native American children all benefit from the program, as do children in diverse income brackets, as measured by school lunch eligibility status. The authors conclude that Oklahoma's universal pre-K program has succeeded in enhancing the school readiness of a diverse group of children.

Hart, Betty and Risley, Todd R. **"The Early Catastrophe: The 30 Million Word Gap by Age 3."** *The American Educator*, Spring, 2003.
http://www.aft.org/pubs-reports/american_educator/spring2003/catastrophe.html.

By age three, children from privileged families have heard 30 million more words than children from poor families. By kindergarten the gap is even greater. The consequences are catastrophic.

The problem of skill differences among children at the time of school entry is bigger, more intractable, and more important than the authors had thought. So much is happening to children during their first three years at home, at a time when they are especially malleable and uniquely dependent on the family for virtually all their experience, that by age 3, an intervention must address not just a lack of knowledge or skill, but an entire general approach to experience.

Heckman, James J. **"Invest in the Very Young."** *Ounce of Prevention Fund and University of Chicago*. <http://www.ounceofprevention.org/downloads/publications/Heckman.pdf>.

"Current policies regarding education and job training are based on fundamental misconceptions about the way socially useful skills embodied in persons are produced. By focusing on cognitive skills as measured by achievement or IQ tests, they exclude the critical importance of social skills, self-discipline and a variety of non-cognitive skills that are known to determine success in life. Furthermore, this preoccupation with cognition and academic 'smarts' as measured by test scores to the exclusion of social adaptability and motivation causes a serious bias in the evaluation of many human capital interventions.

The conventional wisdom espoused by most politicians, educated laypersons and even many academics places formal educational institutions in a central role as the main producers of the skills required by the modern economy. However, it neglects the crucial roles of families and firms in fostering skill and the variety of abilities required to succeed in the modern economy..."

Heckman, James J. and Masterov, Dimitriy V. **"The Productivity Argument for Investing in Young Children: Working Paper 5."** *Invest in Kids Working Group, Committee for Economic Development*, Washington, DC, 2004.
http://www.ced.org/docs/report/report_ivk_heckman_2004.pdf.

On productivity grounds alone, it appears to make sound business sense to invest in young children from disadvantaged environments. An accumulating body of evidence suggests that early childhood interventions are much more effective than remedies that attempt to compensate later in life for early neglect.

U.S. labor force skills are generally poor. Labor force quality has stagnated and already reduced American productivity growth. If current trends continue, the U.S. economy will add many fewer educated persons to the workforce in the next two decades than it did in the past two decades. "This is a major drag on U.S. competitiveness and a source of social problems."

Ability gaps between disadvantaged and other children open up early, before schooling begins. Conventional school-based policies start too late to completely remedy early deficits, although they can do some good. Children who start ahead keep accelerating past their peers, widening the gap.

Studies of early education interventions directed towards children in low-income families with long-term follow up find that these programs can greatly help reduce (but not completely eliminate) that gap. Participants experienced increased achievement test scores and high school graduation, and decreased grade retention, time in special education, experience with crime and delinquency. These gains persist into adulthood, contradicting the perception that they fade within a very few years. These programs benefit not only the participants, but their own children and society at large.

Children who have quality early education will start on a better life trajectory that means they are not only more successful in the early years, but will be better able to use higher education and job training later in life. Workers who need to change careers or just acquire new skills will benefit from better learning abilities acquired early in life.

Henrich, Christopher; Ginicola, Misty M.; and Finn-Stevenson, Matia **"The School of the 21st Century Is Making a Difference: Findings from Two Research Studies"** *School of the 21st Century* (Issue Brief 2006), Yale University: New Haven, CT.
<http://www.yale.edu/21c/publications.html>

This issue brief discusses findings from two research studies supporting the view that good quality early childhood education can be successfully implemented in public schools and make a difference. The programs can help to improve children's academic achievement and have a positive impact on the entire school. Implementing such programs is often difficult, but informed leadership and teamwork can help overcome these difficulties.
Free.

Henry, Gary T., Rickman, Dana K., Ponder, Bentley D., Henderson, Laura W., Mashburn, Andrew and Gordon, Craig S. **"The Georgia Early Childhood Study 2001-2004 Final Report."**, *Andrew Young School of Policy Studies*, Georgia State University, Atlanta, GA, 2005.
<http://aysps.gsu.edu/publications/2005/EarlyChildhoodReport.pdf>.

Georgia students enrolled in the state's Pre-K program made major academic progress as they advanced through first grade, eclipsing national norms in both math and language skills. For the first time, this study provides evidence that children learn more when they have more highly skilled peers in their classrooms. According to Dr. Henry, "The study also supports the argument for universal pre-kindergarten programs, in that children learn more in classrooms with other children who have higher abilities." He adds, "Children who enter Pre-K with lower levels of social and language skills get a boost from being in a mixed classroom where they can learn directly from interactions with more highly skilled peers."

Herzenberg, Stephen, Price, Mark and Bradley, David. **"Losing Ground in Early Childhood Education. Declining Workforce Qualifications in an Expanding Industry, 1979-2004."** *Economic Policy Institute*, Washington, DC, 2005.
http://www.epinet.org/studies/ece/losing_ground-full_text.pdf.

The new report fills the data vacuum using the 1979-2004 Current Population Survey (CPS). The study focuses on teachers and administrators (i.e., directors) in center-based ECE programs, over 95% of whom are women. The report finds that the education levels of ECE teachers reached a cyclical peak in the early 1980s recession. Since 1983, there has been a fall in educational attainment that only stopped in 2001, when slow job growth made more educated workers available to ECE.

The share of U.S. center-based teachers and administrators with at least a four-year college degree averaged 43% from 1983-85, but only 30% from 2002-04. The share of center-based teachers and administrators with a high school education or less climbed from less than 25% in 1983 and 1984 to around 30% in recent years. Only a third of center-based teachers and administrators get health care through their job, and only a fifth participate in any kind of pension plan. A quarter of center-based teachers and administrators have incomes below 200% of the poverty line, roughly the minimum necessary to pay for basic necessities without public assistance.

The story that emerges from the data is that the position of ECE in the labor market has changed for the worse since the early 1980s. Center-based early childhood education began as a small industry with a highly selective workforce. Its rapid growth took place during a period when female college graduates had expanding career opportunities in other fields and, in some families, greater economic needs. In this new environment, center directors often find that they must hire individuals with low education levels and no specialized training in early childhood development.

More daunting still, ECE today confronts the retirement of its most educated age cohort, now in its late 50s. As more educated teachers retire, maintaining a qualified early childhood workforce will grow yet more difficult.

Hodgkinson, Harold L. **"Leaving Too Many Children Behind: A Demographer's View on the Neglect of America's Youngest Children."** *Institute for Educational Leadership*, Washington, DC, 2003. <http://www.iel.org/pubs/manychildren.pdf>.

Using demographic data on those children captured in Census 2000, the author examines forces like poverty and family instability and how they work to prevent equality of opportunity in school and in life. The report presents some of the programs and techniques that effectively reduce the effects of these forces and concludes with recommendations for increasing the nation's concern for improving the quality of infant and child care and making high quality programs available for all infants and young children throughout the nation, as is done in virtually every other developed nation. The paper addresses why, in the wealthiest nation in the world, we invest such a pitifully small percentage of our resources and our concern in the early years of the people who will obviously inherit the nation.

Holcomb, Betty. **"A Diverse System Delivers for Pre-K: Lesson Learned in New York State."** Washington, DC: Pre-K Now, 2006
http://www.preknow.org/documents/DiverseDelivery_Jul2006.pdf

"Diverse" or "mixed" delivery uses both community-based and school sites to provide pre-k services. This report examines the experience of New York using a diverse system. As of 2006, 29 states had instituted some version of diverse delivery. New York defined pre-k as an integral part of school reform and thus, the State Education Department stands at the pre-k helm. Other states have created an independent agency. In New York the results have been impressive. By 2006, more than 60,000 children were attending pre-k classes at sites as diverse as schools, child care centers, and even settlement houses. The New York's Board of Regents adopted a policy supporting expansion of pre-k services to reach every three and four year old in the state. The report also addresses the consensus that must be reached on competing regulatory standards, educational philosophies, and even disparate resources and support.

LHowes, Carollee, Bryant, Donna, Burchinal, Margaret, Clifford, Richard, Early, Diane, et al. **"Preschool: Its Benefits, and Who Should Teach."** *National Center for Early Development and Learning*, University of North Carolina at Chapel Hill, NC, 2006.
<http://www.fpg.unc.edu/%7ENCEDL/pdfs/NCEDLPreschoolStatement.pdf>.

Results of a decade of studies, including over 2,000 children, more than 700 teachers and classrooms in 11 states, speak to two questions: Does preschool benefit all children? and Should a Bachelor's degree be required for all pre-kindergarten teachers?

Children who experienced better quality of early care and education in their first 4½ years of life continued to manifest somewhat greater academic achievement across the primary grades than children who experienced lower quality programs. That these relations were sustained through 3rd grade is notable because reading and math competencies at the end of 3rd grade are highly predictive of future academic performances.

In this analysis teachers with more than a Bachelor's degree received higher scores on observed teaching and interaction, but not on other measures of classroom or instructional quality. When teachers had more education, children gained more in math skills. However, teachers' education level was not linked to children's gains in language or literacy.

"Investing in Head Start Teachers." *Preschool Policy Matters* (Issue 4 August 2003). National Institute for Early Education Research. New Brunswick, NJ. <http://nieer.org/resources/policybriefs/4.pdf>.

Efforts to improve the effectiveness of Head Start must begin with teachers. Research shows that preschool produces the strongest effects when teachers are well qualified. Preschool teachers with a BA degree in early childhood education are the most effective, yet most Head Start preschool teachers don't hold even the minimum teaching degrees required to teach kindergarten. Moreover, Head Start teachers are paid less than half the salary of a kindergarten teacher, making it impossible for Head Start to hire and retain equally qualified teachers.

The cost to put a well-qualified teacher in every Head Start classroom, phased-in over an eight year period, would range from \$177 million in the first year to \$1.4 billion in year eight, or less than a rounding error in the projected federal budget. By the time the figures reach their highest level in the eighth year, the cost represents less than 1/1000th of the federal budget.

Jenkins, Diane. **"Wisconsin School Readiness Indicator Initiative: The Status of School Readiness Indicators in Wisconsin."** *Wisconsin Council on Children and Families, Inc.*, Madison, WI, 2003. <http://www.wccf.org/pdf/WSRII.pdf>.

The report of the Wisconsin School Readiness Indicators Initiative (WSRII) presents a comprehensive definition of school readiness, a set of indicators with proven relevance to school readiness, and an assessment of the current availability of state administrative data on these indicators. It represents an important first step in building a statewide infrastructure to monitor and improve the readiness of Wisconsin children to succeed in school.

Wisconsin is one of seventeen states participating in the National School Readiness Indicators Initiative (WSRII), whose aim is to build an agenda for improving school readiness and ensuring early school success. In Wisconsin, this work is designed to occur in three phases over two years (2002-2004). Phase 1, reflected in the current report, involved defining and developing a set of indicators relevant to school readiness, with recommendations for data infrastructure development. Phase 2 will involve the identification and assessment of state policies that affect school readiness, with recommendations for policies that would improve school readiness. In Phase 3, the WSRII will develop a school readiness policy agenda and plans for monitoring and improving school readiness indicators.

Johnson, Carol A. and Tragesser, Susan G. **"Stepping Up to Quality: An Overview of Child Care Tiered Reimbursement Systems."** *Planning Council for Health and Human Services, Inc.*, Milwaukee, WI, 2003. http://www.planningcouncil.org/docs/reports/tiered/Tiered_Reimbursement_Report.pdf.

The most common form of tiered strategy is typically referred to as tiered reimbursement. In tiered reimbursement systems, states provide higher rates for child care centers and family child care homes that achieve one or more levels of quality beyond basic licensing requirements.

Some tiered reimbursement systems include only two levels: the first level generally ties its lower reimbursement rate to the provider meeting basic licensing requirements, while the second level

provides a higher rate—typically a rate based primarily on achieving accreditation by a national organization.

However, a growing number of states are adopting tiered reimbursement strategies that involve more levels (or tiers) of quality criteria. For example, states may incorporate the criteria of staff training and credentialing, such as the proportion of staff who have received a Child Development Associate (CDA) or other approved credential. Other quality criteria include components such as staff-child ratios, director education and credentialing, staff compensation, learning environment, regulatory compliance, curriculum, parent involvement, program evaluation, and accreditation. Several states include accreditation by a national organization, and additional quality criteria that must be met at that level.

Often in tiered reimbursement systems, any child care program may voluntarily choose to participate in the state's program, by choosing to meet the higher standards required by the tiered reimbursement system; however, only programs agreeing to provide subsidized child care are eligible to receive the differential reimbursement, although the quality of the child care services provided would be enhanced for all children served by the program.

Kauerz, Kristie. **“Full Day Kindergarten. A Study of State Policies in the United States.”** Education Commission of the States, Denver, CO, 2005.
<http://www.ecs.org/clearinghouse/62/41/6241.pdf>.

The report identifies four key areas where states need to strengthen their full-day kindergarten policies. Most states: 1) lack policies that provide definitional *clarity* on what *is* full-day kindergarten, 2) lack policies that provide universal *access* to full-day kindergarten, 3) lack adequate *funding* policies for full-day kindergarten, and 4) lack policies that adequately address the *quality* of full-day programs.

The ECS calls on state legislators, school board members, state education department leaders and other policymakers to: 1) ensure full-day kindergarten is a component of states' early learning and elementary school improvement efforts, 2) require school districts to provide full-day kindergarten, 3) fully fund full-day kindergarten and provide other financial incentives to increase access to full-day kindergarten.

Kauerz, Kristie. **“Ladders of Learning: Fighting Fade-out by Advancing PK-3 Alignment.”** *New America Foundation*, Early Education Initiative Brief #2, Washington, DC, 2006.
http://www.newamerica.net/Download_Docs/pdfs/Doc_File_2826_1.pdf.

A report from the New America Foundation suggests that aligning pre-kindergarten with grades K-3 may prolong the benefits of pre-k and full-day kindergarten. According to the report, a growing body of research shows immediate gains for disadvantaged children who attend pre-k and full-day kindergarten, but that these benefits dissipate during the early elementary school grades. However, the author argues that this does not indicate pre-k and kindergarten are ineffective; rather, she suggests that improving quality in grades K-3 and better coordination with pre-k is part of the solution.

Three aspects of alignment are posited: 1) Horizontal: within each grade level, the learning environment is coordinated through curriculum, standards, and teaching practices; 2) Vertical: among grade levels, the learning environment builds on previous experiences and builds on what comes next; and 3) Temporal: children have access to quality learning environments throughout the calendar year that are vertically and horizontally aligned.

Kauerz, Kristie and McMaken, Jessica. **“Implications for the Early Learning Field — No Child Left Behind Policy Brief”** *Education Commission of the States*, <http://www.ecs.org/>.

Aside from creating a few new grant opportunities, the No Child Left Behind Act (NCLB) is not directly focused on the early learning education sector; though in the future, it presents some unique challenges and opportunities: State concerns over adequate yearly progress may be used to develop a marketing strategy to proffer early learning as a solution for meeting 3rd-grade accountability benchmarks. Teaching quality components of NCLB bring attention to the importance of high-quality professional development, offering an opportunity to make policymakers and the public more aware of

current discrepancies in pay and training between early childhood educators and K-12 teachers. NCLB's reading/literacy components represent a unique opportunity to integrate early literacy into a state's overall literacy agenda.

Karoly, Lynn A. and Bigelow, James H.. **"The Economics of Investing in Universal Preschool Education in California."** *Rand Corporation*, Santa Monica, CA, 2005.
http://www.rand.org/pubs/monographs/2005/RAND_MG349.pdf.

Investing public money to make preschool available to every 4-year-old in California would generate an estimated \$2 to \$4 in benefits for every dollar spent. The study estimates that the cost of a high quality universal preschool program would be more than offset by benefits such as a drop in the amount of special education provided, less grade repetition among K-12 students, less youth and adult crime, and a more productive state workforce.

"There is strong and growing evidence that providing children a year of high quality preschool before they enter kindergarten boosts their achievement over a long period of time and prevents many problems," said Lynn Karoly, a RAND senior economist and lead author of the report. "Our analysis shows that an investment in universal preschool in California would provide a net economic benefit to the state."

Karoly, Lynn, Kilburn, M. Rebecca and Cannon, Jill. **"Early Childhood Interventions: Proven Results, Future Promise."** *Rand Corporation*, Santa Monica, CA, 2005.
http://www.rand.org/pubs/monographs/2005/RAND_MG341.pdf

Considers the potential consequences of not investing additional resources in children's lives, the range of early intervention programs, the demonstrated benefits of interventions having high-quality evaluations, the features associated with successful programs, and the returns to society associated with investing early in the lives of disadvantaged children. Major conclusions:

- The period from birth to age 5 is one of opportunity and vulnerability for healthy physical, emotional, social, and cognitive development.
- A sizable fraction of children face risks that have the potential to limit their development in the years prior to school entry. Variations in early childhood experiences are manifested in disparities in school readiness measures, and these gaps often persist as children age.
- Early childhood intervention programs are designed to counteract various stressors in early childhood and promote healthy development.
- Rigorous evaluations of early childhood interventions can inform our understanding of the array of outcomes at school entry and beyond that programs may improve.
- Rigorous scientific research has demonstrated that early childhood interventions can improve the lives of participating children and families in both the short run and longer run. A very limited evidence base points to several program features that may be associated with better outcomes for children: better-trained caregivers, smaller child-to-staff ratios, and greater intensity of services.
- The favorable effects of early childhood programs can translate into dollar benefits for the government, participants, and other members of society.
- Economic analyses of several early childhood interventions demonstrate that effective programs can repay the initial investment with savings to government and benefits to society down the road.
- The economic benefits of early childhood interventions are likely to be greatest for programs that effectively serve targeted, disadvantaged children compared with universal programs or programs that serve more-advantaged children.

Kraemer, Jacqueline. **"Building Villages to Raise Our Children: Collaboration."** *Harvard Family Research Project*, Cambridge, MA, 1993.

<http://www.enterprisefoundation.org/model%20documents/1646.htm>

Produced by The Harvard Family Research Project, this booklet is one of a series of six based on the theme, "It takes a village to raise a child." With the underlying premise that no one program can provide all the services that a family may need, this booklet discusses various aspects of collaboration amongst social programs and services in order to serve families more coherently, efficiently, and effectively. The Introduction explains "It is clearly critical to restructure systems of social support in ways that truly work for families." Written for practitioners and based on input from practitioners, the book addresses concrete questions and issues surrounding the collaborative process. The opening chapter discusses what collaboration is and its different stages, with subsequent chapters discussing strategies to use in implementing collaboration, the planning process, and problems and overcoming them. The final chapter addresses the long term challenges of collaboration, including sustaining for the long term, governance arrangements, and issues of accountability. A Bibliography and a Resource Guide complete the booklet.

Lamy, Cynthia, Barnett, W. Steven and Jung, Kwanghee. **"The Effects of New Jersey's Abbott Preschool Program on Young Children's School Readiness."** *National Institute for Early Education Research*. Rutgers University, New Brunswick, NJ, 2005.

<http://nieer.org/resources/research/multistate/nj.pdf>.

Children who attended state-funded prekindergarten in New Jersey's poorest districts made major gains in language, literacy and math skills, according to the largest study yet of the Abbott Preschool Program. The findings were hailed as an affirmation of the expansive, and expensive, program that served 38,000 children at a cost of \$367 million in state funds in 2004, the year the children were tested as part of the study. The results are part of a larger look at state-funded preschool programs in five states, all of which showed gains in the development of language, literacy and math. "This clearly shows the investment pays off," New Jersey Acting Commissioner of Education Lucille E. Davy said. "Having the data helps you make the case to do something somewhere else or to expand the programs."

Lamy, Cynthia, Barnett, W. Steven and Jung, Kwanghee. **"The Effects of Oklahoma's Early Childhood Four-Year-Old Program on Young Children's School Readiness."** *National Institute for Early Education Research*. Rutgers University, New Brunswick, NJ, 2005.

<http://nieer.org/resources/research/multistate/ok.pdf>.

A new study of high quality pre-kindergarten programs in five states shows that Oklahoma children in pre-kindergarten classes gained pre-reading and mathematics skills regardless of their ethnic background or economic circumstances. "Our voluntary, public school pre-kindergarten classes were already considered the national model by NIEER," State Superintendent Sandy Garrett said. "Now, we have evidence that shows Oklahoma's early childhood education classes for 4-year-old children improve all students' language, reading and math abilities in statistically significant ways."

Lamy, Cynthia, Barnett, W. Steven and Jung, Kwanghee. **"The Effects of South Carolina's Early Childhood Programs on Young Children's School Readiness."** *The National Institute for Early Education Research*, Rutgers University, New Brunswick, NJ, 2005.

<http://nieer.org/resources/research/multistate/sc.pdf>.

A study shows state-funded programs for 4-year-olds improve literacy and vocabulary skills in children. In the study partly funded by the state education department, the National Institute for Early Education Research found that students who went through a half-day preschool program gained about four months progress in vocabulary growth entering kindergarten. "It's no longer enough to say that high-quality pre-kindergarten is important, or that it's a good investment," Tenenbaum said. "For a state like South Carolina, where half of our students come from low-income families, Pre-K is absolutely essential."

Lamy, Cynthia, Barnett, W. Steven and Jung, Kwanghee. **"The Effects of the Michigan School Readiness Program on Young Children's Ability at Kindergarten Entry."** *The National Institute for Early Education Research*, Rutgers University, New Brunswick, NJ, 2005. <http://nieer.org/resources/research/multistate/mi.pdf>.

The study estimated the effects of preschool programs on entering kindergartners' academic skills. 865 preschool and kindergarten children were tested on math, vocabulary and early literacy skills in the fall of 2004. The NIEER study found that, as a result of attending the Michigan's program at age 4:

- 1) Children showed gains in vocabulary that were 24 percent higher than the gains of children without the program;
- 2) Preschool increased children's gains in math skills by 64 percent compared to children's growth without the program;
- 3) The program produced a 117 percent increase in growth in print awareness among children enrolled compared to growth of children without the program.

"The NIEER studies show considerable gains for children who participate in high-quality programs. The differences in outcomes may be because of higher qualifications and compensation for teachers," Barnett said. Michigan and the other states studied almost universally require prekindergarten teachers to be licensed teachers with BA degrees and certification in early childhood education.

"The message in our study for people who run state and federal preschool programs is that they need to be of high quality. They need, in particular, to have highly qualified teachers if they're going to make a real difference for children's school readiness," Barnett said.

Lamy, Cynthia, Barnett, W. Steven and Jung, Kwanghee. **"The Effects of West Virginia's Early Education Program on Young Children's School Readiness."** *The National Institute for Early Education Research*, Rutgers University, New Brunswick, NJ, 2005. <http://nieer.org/resources/research/multistate/wv.pdf>.

A new study of West Virginia's Early Childhood Education Program for 4-year-olds shows significant improvement in children's early language, literacy and mathematical development. "Early childhood education is a priority for West Virginia evidenced by the unwavering support of educational and political leaders across the state. The West Virginia Board of Education, the Governor, state legislators and teachers should all be commended for the meaningful impacts on children's early literacy and mathematical development," said State Superintendent of Schools Steve Paine. "Our state has sound early childhood education policies in place, some of the country's most qualified early childhood teachers, and perhaps most importantly, leaders that embrace early educational development of all West Virginia children."

Lamy, Cynthia E., Frede, Ellen, Seplocha, Holly, et al. **"Inch by Inch, Row by Row, Gonna Make this Garden Grow: Classroom Quality and Language Skills in the Abbott Preschool Program."** *Early Learning Improvement Consortium*. Year One Report 2002-2003. Department of Education, New Jersey, 2004. <http://www.state.nj.us/njded/ece/abbott/inch.pdf>.

A 1998 New Jersey Supreme Court decision (Abbott v. Burke) mandated that that three- and four-year-old children in the 30 highest poverty districts in the state receive a high-quality preschool education. The Abbott Preschool Program, which includes the 30 districts, is ranked one of the highest in the nation for level of quality, the resources committed to it and the proportion of children served. This research was conducted to inform policy and practice by describing preschool classroom characteristics and children's skills at kindergarten entry. In the fall of 2002, the Early Learning Improvement Consortium administered tests of oral language development and early literacy skills to randomly selected kindergarten students statewide. The test results gave a general picture of children's "readiness" to succeed in school. In the following winter and spring of 2003, faculty from the universities conducted structured classroom evaluations on 13 percent of the Abbott preschool classrooms to provide information on classroom practices likely to influence child learning.

Overall, the majority of classroom scores range from tolerable to good with 13% scoring good to excellent. The evidence suggests that as a result of preschool, children are entering kindergarten with

improved language skills but still below average. There are promising indications of early literacy readiness abilities. Although the increases in program quality and children's language and literacy abilities are modest, they indicate that the classrooms are improving and are having a positive affect on children. The results reveal important areas for further improvement. Classroom quality is not high enough and, in some cases, is quite inadequate. The DOE and the ECE staff in the Abbott districts and contracting centers have been concentrating professional development and other initiatives on improving overall quality and literacy and mathematics, in particular.

"Leading Early Childhood Learning Communities: What Principals Should Know and Be Able to Do." *National Association of Elementary School Principals (NAESP)*, Alexandria, VA and *Collaborative Communications Group*, Washington, DC, 2005. <http://nieer.org/resources/hottopics/naespexecsum.pdf>.

Sets standards for principals as they define quality in early childhood programs and engage in conversations about the quality of early childhood programs where they live. NAESP calls on principals to work with policy makers and community leaders to create and lead early childhood (EC) learning communities by advocating for: 1) universal access; 2) fully funding Head Start; 3) creating transition programs and close contact among Head Start and preschool programs, day care and public schools; 4) providing full-day 5K and K-MS after-school programs; 5) ensuring that EC programs meet the needs of the whole child; 6) keeping student-teacher ratio less than 15-to-1 for EC, K and grades 1-3; 7) providing professional growth programs for principals; 8) training parents to participate in their child's early learning.

Liu, Zhilin. Ribeiro, Rosaria and Warner, Mildred. **"Child Care Multipliers: Analysis from Fifty States."** *Linking Economic Development and Child Care Research Project*, Ithaca, NY, 2004. <http://government.cce.cornell.edu/doc/pdf/50StatesBrochure.pdf>.

Economists and planners are recognizing the important contributions the early care and education sector makes to the economy in both the short and long terms. Across the country, states and localities are using regional economic analysis to estimate the size of the early care and education sector and the extent of its linkages in the broader regional economy. A complete data base of these studies is found on the Cornell Linking Economic Development and Child Care project website. This research brief presents a summary of the regional linkages of child care in all 50 states and the District of Columbia.

Regional economic analysis shows child care is a good economic development investment, both for its direct effects on employment and its relatively high linkage effects in the regional economy. The relative rank and size of this economic linkage calls for greater economic development attention be given to the child care sector. This, in addition to the sector's importance as social infrastructure supporting parent workers and human development of the future workforce, makes it a worthy target for economic development policy.

Lombardi, Joan, Cohen, Julie, Stebbins, Helene, et al. **"Building Bridges from Prekindergarten to Infants and Toddlers: A Preliminary Look at Issues in Four States"** *ZERO TO THREE Policy Center* and *The Trust for Early Education*, Washington, D.C., 2004. <http://www.zerotothree.org/policy/policybriefs/BuildingBridges.pdf>.

Because much policy work still remains to be done to ensure quality services for children ages birth to five, we believe that now is the time to begin to explore the connections and interactions between infant-toddler and prekindergarten policies and to create a dialogue about how to build systems that ensure the maximum benefit for children of all ages while avoiding the negative consequences that could result without an intentional discussion about how the parts fit together.

This paper begins to explore these interactions through a very limited number of interviews with early childhood leaders in four states (Georgia, Illinois, New Jersey, and New York). It provides an initial glimpse into some of the issues involved in building high-quality learning opportunities for infants, toddlers, and preschoolers.

Love, Jeannine, Williams, Erica and Mitchell, Anne W. **"The Status of Early Care and Education in Wisconsin"** *The Institute for Women's Policy Research*, Washington, D.C., 2004. <http://www.iwpr.org/States2004/PDFs/Wisconsin.pdf>.

The growing need for quality early care and education programs calls for an increased effort on the part of the federal government and the Wisconsin state legislature to move toward developing a universal, voluntary prekindergarten system that will provide all of Wisconsin's families with access to a dependable, safe, and nurturing system of care and education for their preschool-aged children.

Although Wisconsin ranks fairly high for providing state-funded preschool to the state's four-year-olds, it ranks poorly among the states on access, particularly for three-year-olds and all low-income children. Current programs in Wisconsin improve quality for some children but do not meet the needs of all families, especially poor families.

Ludwig, Jens and Phillips, Deborah. **"The Benefits and Costs of Head Start"** *Social Policy Report* Vol. XXI, No. 3 (2007) http://www.srcd.org/documents/publications/spr/21-3_early_childhood_education.pdf

The authors argue that Head Start's impact on children will likely generate benefits for participants and society that outweigh the program's cost. Drawing on findings from previous Head Start evaluation studies, Ludwig and Phillips demonstrate the long-term benefits of the program, which range from reductions in child mortality to increases in educational attainment and reduced participation in criminal activity for participants. Next the authors compare Head Start short-term data to that of other early childhood programs whose long term benefits have been assessed for their dollar value. This analysis enables Ludwig and Phillips to demonstrate that current short-term Head Start evaluation data further support the program as cost effective. The paper also compares evaluations of state pre-kindergarten programs with short- and long-term evaluations of Head Start. The authors conclude that while it appears that Head Start may generate long-term benefits, additional research is needed to identify the most efficient use of future early childhood investments.

Ludwig, Jens; Sawhill, Isabel V. **"Success By Ten: Intervening Early, Often, and Effectively in the Education of Young Children."** *Hamilton Project Discussion Paper*, February 2007-02

Full paper: <http://www3.brookings.edu/views/papers/200702ludwig-sawhill.pdf>

Policy Brief: http://www3.brookings.edu/views/papers/200702ludwig-sawhill_pb.pdf

The Brookings Institution's Hamilton Project has released a new paper and policy brief, "Success by Ten." The paper draws on years of research and finds that, in order to close the achievement gap, young children need access to high quality early interventions across the first five years of a child's life. The authors suggest that these interventions should be modeled on the successful Abecedarian project, which included transportation, low ratios, monitoring and comprehensive services and supports for children and their families. To continue to support children's learning, this early intervention would be followed by an early elementary program modeled on Success for All, a comprehensive reading based program. Overall, the proposal would cost \$40 billion more than current funding levels for Head Start and Title I, and would be implemented over time to allow for needed changes and evaluation.

Lynch, Robert G. **"Early Childhood Investment Yields Big Payoff."** *WestEd*, San Francisco, CA, 2005. http://www.wested.org/online_pubs/pp-05-02.pdf.

Investing in a national preschool program today could help shore up our ailing Social Security. Lynch says Social Security starts to run into financial difficulties in 2018 when the bulge of retired baby

boomers will draw heavily on the system. That's about when the first class of today's preschoolers would enter the workforce. He said investing \$12,000 per child in the 1.6 million disadvantaged youngsters most likely to cost taxpayers money when they grow up would turn them into net contributors to the system since they would enter the workforce at higher skill levels. Not only would Social Security run a surplus by 2021, says Lynch, but the nation's gross domestic product would rise.

Lynch, Robert G. **"Exceptional Returns: Economic, Fiscal, and Social Benefits of Investment in Early Childhood Development."** *Economic Policy Institute*, Washington, D.C., 2004. [http://www.epinet.org/books/exceptional/exceptional_returns_\(full\).pdf](http://www.epinet.org/books/exceptional/exceptional_returns_(full).pdf).

This study demonstrates that providing all 20% of the nation's three-and four-year-old children who live in poverty with a high-quality early childhood development (ECD) program (initial cost about \$19 billion/year) would have a substantial payoff for governments and taxpayers in the future. As those children grow up, costs for remedial and special education, criminal justice, and welfare benefits would decline. Once in the labor force, their incomes would be higher, along with the taxes they would pay back to society.

Within about 17 years, the net effect on the budget would turn positive (for all levels of government combined). Within 30 years, the offsetting budget benefits would be more than double the costs of the ECD program (and the cost of the additional youth going to college).

Maeroff, Gene. **"Universal Pre-Kindergarten: State of Play (excerpt)."** In: First Things First: Pre-Kindergarten as the Starting Point for Education Reform. *Foundation for Child Development*, New York, NY, 2003. <http://www.fcd-us.org/about/annualreports/fcd.2003.ar.pdf>.

The federal government is now applying its influence through the No Child Left Behind Act to try to make schooling rewarding for more young people, but it is much easier not to be left behind if you don't start behind. Reviewing data from three decades of the National Assessment of Educational Progress, the Educational Testing Service Policy Information Center noted as "disturbing" the large differentials in reading scores by the fourth grade that are "already there when children enter kindergarten." The portion of children who recognize letters of the alphabet at the start of kindergarten is 80 percent for Asian Americans, 71 percent for whites, 59 percent for blacks, and 51 percent for Hispanics.

Socioeconomic and educational levels of households go hand-in-hand with academic achievement levels. Policymakers must identify mechanisms in addition to UPK—programs dealing with health, motivation, home life, and skills development—that help trigger productive experiences for preschool children. There is a tendency in pushing for UPK to overlook the role of other forces in shaping outcomes for children, whose development is also the product of family, neighborhoods, and economic and social circumstances.

Magnuson, Katherine A., Ruhm, Christopher J. and Waldfogel, Jane. **"Does Prekindergarten Improve School Preparation and Performance?"** *National Bureau of Economic Research Working Paper No. 10452*, Cambridge, MA, 2004. Nontechnical summary: <http://www.nber.org/digest/mar05/w10452.html>, <http://papers.nber.org/papers/w10452>.

Prekindergarten programs are expanding rapidly, but to date, evidence on their effects is quite limited. Using rich data from Early Childhood Longitudinal Study, we estimate the effects of prekindergarten on children's school readiness. We find that prekindergarten increases reading and mathematics skills at school entry, but also increases behavioral problems and reduces self-control. Furthermore, the effects of prekindergarten on skills largely dissipate by the spring of first grade, although the behavioral effects do not. Finally, effects differ depending on children's family background and subsequent schooling, with the largest and most lasting academic gains for disadvantaged children and those attending schools with low levels of academic instruction.

Malone, Lizabeth, West Jerry, Flanagan, Kristin Denton, Park, Jen. **"The Early Reading and Mathematics Achievement of Children Who Repeated Kindergarten or Who Began**

School a Year Late" U.S. Department of Education Institute of Education Sciences, Washington, DC, 2006.

<http://nces.ed.gov/pubs2006/2006064.pdf>.

This report examines the association between kindergarten enrollment status (e.g., repeating kindergarten or delaying entry into kindergarten) and children's first grade reading and mathematics achievement. Based on the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K), the statistics in brief reports that in the fall of 1998 5 percent of all children in kindergarten were repeating kindergarten and 6 percent were attending kindergarten for the first time even though they were age-eligible to do so a year earlier (i.e., delayed entry). In terms of children's first grade performance by kindergarten enrollment status, at the end of first grade, children who repeated kindergarten have lower reading and mathematics knowledge and skills than those who started on time. At the end of first grade, children whose kindergarten entry was delayed, in general, demonstrate slightly higher reading knowledge and skills than those who started on time. In mathematics at the end of first grade, children whose kindergarten entry was delayed kindergarten are behind their classmates who began kindergarten on time.

Mathews, Cara. **"Education Chief Pushes Pre-School Aid Increase. Long-Term Economic Benefits Cited."** *Press & Sun-Bulletin*, December 9, 2005, Binghamton, NY.

<http://www.pressconnects.com/apps/pbcs.dll/article?AID=/20051209/NEWS01/512090337/1006>.

The long-term economic consequences of not channeling more money into children's early schooling would be dire, with too few people having qualifications for high-skill jobs, the state education commissioner said. Demographics in New York are changing rapidly, Commissioner Richard Mills said at an Assembly Education Committee hearing on early childhood education. The proportion of minority students is rising, but those students do not get the same level of education as other students in the state. Many live in high-poverty areas and fall further behind in achievement each year, he said.

Mead, Sara. **"Open the Preschool Door, Close the Preparation Gap."** *Progressive Policy Institute*, Washington, DC, 2004. http://www.ppionline.org/documents/PreK_0904.pdf

Decades of research have produced reams of compelling evidence that preschool is a sound public investment. Children who attend prekindergarten programs that prepare them to read and build cognitive, verbal, and social skills go on to do measurably better in school and life than their peers who do not. They score higher on academic achievement tests, they get better jobs, and they are less likely to become dependent on welfare or engage in criminal activity. These trends are particularly noticeable among disadvantaged children. When those factors were taken into account, studies of high-quality preschool experiments in Michigan and North Carolina found that investments in preschool delivered a seven-to-one return over time.

Mitchell, Anne. **"The State with Two Prekindergarten Programs: A Look at Prekindergarten Education in New York State (1928-2003)."** *Early Childhood Policy Research*, Climax, NY, 2004. <http://nieer.org/resources/files/NYCaseStudy.pdf>

New York State has both a longstanding preschool program, the Experimental Prekindergarten Program that began in 1966 simultaneously with the start of the nation's launch of Head Start, and a more recent one, called Universal Prekindergarten that began in 1997. This paper provides a short history of prekindergarten education in New York, starting in the early 20th century and documents the birth and evolution of both of programs. It sheds light on some of the factors and context that led to the establishment of these programs and explains ways the two programs have grown closer in recent years. The paper gives readers a data-based status report on the programs for the 2002-2003 school year as well as information, from Interviews with district administrators, that offer insights into how districts managed both programs.

Mitchell, Jane. **"DPS Preschools Likely to Boost City Enrollment, Study Shows."** *Rocky Mountain News*, July 20, 2006.

http://insidedenver.com/drmn/education/article/0,1299,DRMN_957_4856667,00.html

Children who attended a Denver Public Schools preschool were about 10% more likely to be in a Denver school in third grade than children who did not attend a DPS preschool, according to an analysis of 1998-99 through 2003-04 data by the school system. The findings could lead the district to tout early childhood education as a means of boosting its flat enrollment.

Moreau, Carolyn. **"Learning in Mixed Company: Study Shows Low-income Preschoolers Learn Better, Faster Alongside more Affluent Peers."** *ctnow.com (The Hartford Courant)*. October 19, 2002. <http://www.ctnow.com/about/hc-archives.htmlstory>

A new study by St. Joseph College in West Hartford has found that low-income children attending preschool alongside more affluent children learned vocabulary and language skills six times faster than if they were schooled exclusively with other low-income children.

Preschool is often cited as the best way to help low-income children catch up to their middle-income peers, but now it seems the most progress is made when children from different economic backgrounds are put in the same classrooms.

National Association of State Boards of Education (NASBE). **"From Planning to Practice: State Efforts to Improve Early Childhood Education."** Alexandria, VA, 2005, <http://www.fcd-us.org/news/experimental.html>.

A pilot preschool initiative of a network of six states — Illinois, Kansas, Louisiana, Massachusetts, Ohio, and Wyoming — designed to ensure that all children start school ready to learn, faced enormous challenges in establishing a coordinated, coherent preschool system that provides children with well-trained teachers. While many states developed a hodgepodge of programs over the years rather than focusing on the system as a whole, the network states overcame these obstacles by focusing on seven core areas to merge separate preschool funding streams and integrate common standards and teacher licensing requirements:

- Successful partnering among state agencies (the cornerstone of an integrated state early childhood education infrastructure);
- Engaging all stakeholders and sustaining public support;
- Strategic planning by the state department of education;
- Establishing comprehensive early learning standards based on research;
- Developing quality early childhood teachers;
- Demanding program quality assurances (i.e., accountability);
- Integrating special education.

National Scientific Council. Center on the Developing Child of Harvard University **"The Science of Early Childhood Development: Changing the Gap Between What We Know and What We Do"** Cambridge, MA 2007, <http://www.developingchild.net>.

This report focuses on the cumulative knowledge of decades of research that has been subjected to rigorous peer review. Its goal is to promote an understanding of the basic science of early childhood development, including its underlying neurobiology, to inform both public and private sector investment in young children and their families.

Neuman, Michelle J. and Peer, Shanny. **"Equal from the Start: Promoting Educational Opportunity for all Preschool Children – Learning from the French Experience."** *The French-American Foundation*, New York, NY, 2002. <http://www.frenchamerican.org/>.

The most important lesson from the French experience is that it is possible to provide additional resources and support to disadvantaged children within a high-quality system of universal services. A

universal, comprehensive approach is the best way to ensure that children from low-income and immigrant backgrounds receive the quality early learning experiences they need.

An analysis of the French system and comparison with the US. led the French-American Foundation to propose that policymakers: 1) develop a system of early care and education for all children, 2) target additional resources in low-income communities to help narrow the achievement gap, 3) focus more on the social and educational needs of children from immigrant and non-English speaking backgrounds, 4) coordinate universal preschool with health and human services.

Olson, Lynn. **"States Push to Align Policies from Pre-K to Postsecondary."** *Education Week* 25(41):1,16,19-20, (June 21) 2006.
<http://www.edweek.org/ew/articles/2006/06/21/41p16.h25.html>

Faced with stiffer economic competition and worried about the skills of their future workforces, many states are trying to connect education from preschool through postsecondary so that more students are prepared for further study, work, and citizenship.

In the past decade, 30 states have created what are often called "P-16" councils or initiatives designed to increase collaboration across those levels of education, according to the Denver-based Education Commission of the States.

Patrick M. Callan, the president of the National Center for Public Policy and Higher Education, a policy and research group based in San Jose, Calif., suggests that too many statewide P-16 initiatives have a "tendency to equate activity with progress."

One problem, Mr. Callan said, is that while political leaders may preach to educators about the importance of collaboration, few states have been willing to change the policy infrastructure that makes such work difficult, such as the existence of separate legislative and budget committees for K-12 and higher education.

Phillips, Deborah; Gormley, William T., Jr.; Lowenstein, Amy. **"Classroom Quality and Time Allocation in Tulsa's Early Childhood Programs; Paper Presented at the Biennial Meetings of the Society for Research in Child Development."** Boston, MA, March 30, 2007 http://www.fcd-us.org/resources/resources_show.htm?doc_id=507566

The researchers evaluating the Tulsa pre-k program are working on the next phase of their study: examining the relationship between teacher characteristics on the one hand and classroom quality and time allocation for various learning activities on the other. According to this [working paper](#), among the teacher characteristics that are predictive of classroom quality are years of experience and ability to speak Spanish. The study also compared the Tulsa pre-k and Head Start programs with a sample of public school-based pre-k programs and Head Start programs in 11 states. It found that the Tulsa programs provide better instructional support (e.g., quality of feedback, productivity) and devote more time to academic activities than programs across the nation. The authors suggest that these differences could be related to the state's high standards for teacher compensation and qualifications (e.g., BA with early childhood certification).

"Prekindergarten Policy Framework." *National Prekindergarten Center*, University of North Carolina at Chapel Hill, 2003, <http://www.fpg.unc.edu/~npc/framework/>.

The framework provides research-based information to state and local leaders who are planning for, implementing, or expanding prekindergarten program and delineates the primary components of successful prekindergarten programs. When there is a body of research knowledge, it is synthesized to provide succinct reviews about best practices.

"Preschool for All." *Committee for Economic Development*, New York, NY, 2002.
http://www.ced.org/docs/report/report_preschool.pdf.

The Committee for Economic Development (CED) calls on the federal and state governments to undertake a new national compact to make early education available to all children age 3 and over. To ensure that all children have the opportunity to enter school ready to learn, the nation needs to reform its current haphazard, piecemeal, and underfunded approach to early learning by linking programs and providers into coherent statebased systems. The goal should be universal access to free, high-quality prekindergarten classes, offered by a variety of providers, for all children whose parents want them to participate.

"Quality Pre-Kindergarten for All: State Legislative Report." *The Trust for Early Education (TEE)*, Pew Charitable Trust, Washington, D.C., September 2004,
<http://www.trustforearlyed.org>

As the bell rings in another year of school, more American children than ever before will have the opportunity to attend a high quality pre-kindergarten program. Despite budget deficits, fifteen states increased spending on pre-kindergarten, making the program available to an estimated 60,000 more three- and four-year-olds in the upcoming year (a 17% increase over 353,000 in 2001).

These children will dash to their kindergarten classrooms already at the head of the class. Yet far too many of their playmates will needlessly enter kindergarten already behind, with little hope of catching up to their peers. It is time to give all children a chance to begin kindergarten ready to learn.

Rathburn, Amy and West, Jerry. **"From Kindergarten Through Third Grade: Children's Beginning School Experiences (NCES 2004-007)."** *U.S. Department of Education, The National Center for Education Statistics*, Washington, DC, 2004.
<http://nces.ed.gov/pubs2004/2004007.pdf>

This report highlights children's gains in reading and mathematics over their first 4 years of school, from the start of kindergarten to the point when most of the children are finishing third grade. It also describes children's achievement status in reading, mathematics, and science at the end of third grade. Information is also presented on children's perceptions of their competence and interests in school subjects, their relationships with peers, and their perceptions about any problem behaviors they might exhibit. Comparisons are made in relation to children's sex, race/ethnicity, number of family risk factors, kindergarten program type, and the types of schools (i.e., public or private) children attended in the first 4 years of school. It is the fourth in a series of reports from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99.

Rendell, Edward G. **"Governor Rendell Says Historic Investment in Education Improves Learning, Sets the Stage for Productive Futures for 75,000 Children."** *Office of the Governor*, December 12, 2005, Harrisburg, PA.
<http://www.pdenewsroom.state.pa.us/newsroom/cwp/view.asp?a=3&q=116735>.

Governor Edward G. Rendell said 75,000 children benefited from Pennsylvania's \$200 million investment in its schools last year through the Accountability Block Grant Program. School districts spent more than \$2 out of every \$3 in block grant funding they received during the 2004-2005 school year on early childhood education programs, like pre-kindergarten, full-day kindergarten and class-size reduction. Nearly 75,000 Pennsylvania children in more than 300 rural, suburban and urban school districts benefited from the investments.

Reynolds, Arthur J.; Temple, Judy A.; Ou, Suh-Ruu; et al. **"Effects of a School-Based, Early Childhood Intervention on Adult Health and Well-Being"** *Archives of Pediatrics and Adolescent Medicine* Vol. 161, No. 8, pp. 730-739 (August, 2007)
<http://archpedi.ama-assn.org/cgi/content/full/161/8/730>

The article demonstrates long-term benefits for participants in the early childhood educational enrichment and comprehensive family services program provided by the Chicago Child-Parent Centers (CPC). This follow-up study found that at age 24, program participants who received CPC services through the Chicago Public Schools system from preschool to third grade fared better than non-participants on a wide range of indicators, such as educational attainment, adult arrests and incarceration, behavior, health, and economic well being. Key findings from the study reveal that CPC participants were 7.7 percent more likely than non-participants to complete school and 6.3 percent more likely than non-participants to have full-time employment.

Reynolds, Arthur J., Temple, Judy A., Robertson, Dylan L. and Mann, Emily A. **"Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Center Program."** *University of Wisconsin Waisman Center*, Madison, WI, 2001.
<http://www.waisman.wisc.edu/cls/cbaexecsum4.html> or
<http://www.waisman.wisc.edu/cls/index.html>.

This study conducted the first cost-benefit analysis of the federally financed Title I Chicago Child-Parent Center (CPC) Program. The major question addressed was: Do program benefits exceed costs? The CPC program is a school-based preschool and early school-age intervention for low-income children that emphasizes parent involvement and the development of literacy skills. Previous studies have indicated that program participation beginning in preschool is independently associated with higher school achievement, higher rates of school completion through age 20, lower rates of school dropout, lower rates of juvenile arrest for violent and non-violent charges, and with less need for school remedial services.

Relative to the comparison group, results showed preschool participants had a 29% higher rate of high school completion, a 33% lower rate of juvenile arrest, a 42% reduction in arrest for a violent offense, a 41% reduction in special education placement, a 40% reduction in the rate of grade retention, and a 51% reduction in child maltreatment. School-age participation and extended program participation for 4 to 6 years were associated with 30 to 40% lower rates of grade retention and special education placement. Compared to children with 1 to 3 years of participation, extended program participants also had higher achievement test scores in adolescence and lower rates of child maltreatment by age 17.

Results of the cost-benefit analysis indicated that each component of CPC program had economic benefits that exceeded costs. With an average cost per child of \$6,730 (1998 dollars) for 1.5 years of participation, the preschool program generated a total return to society at large of \$47,759 per participant. The largest benefit was program participants' increased earnings capacity projected from higher educational attainment. Economic benefits of the preschool program to the general public (taxpayers and crime victims), exclusive of increased earnings capacity, were \$25,771 per participant. The largest categories of public benefits were increased tax revenues associated with higher expected earnings capacity (28%), criminal justice system savings due to lower rates of arrest (28%), savings on tangible costs for crime victims (24%), and savings on school remedial services (18%). Overall, \$7.10 dollars were returned to society at large for every dollar invested in preschool. Excluding benefits to participants, the ratio of program benefits to costs for the general public was \$3.83 for every dollar invested. The ratio of benefits to costs for government savings alone was \$2.88 per dollar invested.

Reynolds, Arthur J., et al. **"Effects of a School-Based, Early Childhood Intervention on Adult Health and Well Being: A 20-Year Follow Up of Low-Income Families."** *Early Childhood Research Collaborative Discussion Paper 102*, August 2006.
<http://www.earlychildhoodrc.org/papers/SP102.pdf>

Arthur Reynolds, the principal investigator of the Chicago CPC study, updated the findings of the CPC participants as they turn 24. Among its more novel findings are ones relating pre-k participation with greater likelihood of having health insurance and lower incidence of depression. They had higher rates of school completion, higher rates of attendance in 4-year colleges, and more years of completed education. They also had lower rates of felony arrests and incarceration as well as criminal convictions.

Reynolds, Arthur; Magnuson, Katherine (University of Wisconsin); and Ou, Suh-Ruu. **"PK-3 Education: Programs and Practices that Work in Children's First Decade."** *Foundation for Child Development*, 2006. http://www.fcd-us.org/resources/resources_show.htm?doc_id=447398

They authors synthesized evidence on the pre-K to third grade (PK-3) practices that lead to children's school success. The authors analyze data from the Early Childhood Longitudinal Study-Kindergarten Cohort of 1998-99 (ECLS-K) to show links between PK-3 components and children's performance in grade 3. The analysis shows that children participating in educational programs that include PK-3 program components perform better in school than their peers who do not.

Robin, Kenneth, Frede, Ellen, Barnett, W. Stephen. **"Is More Better? The Effects of Full-Day vs. Half-Day Preschool on Early School Achievement."** *National Institute for Early Education Research*, New Brunswick, NJ, 2006. <http://nieer.org/resources/research/IsMoreBetter.pdf>.

Findings from a randomized trial comparing children in half-day and full-day public preschool programs show that children attending full-day programs fared better on mathematics and literacy tests than children in a traditional 2.5 to 3-hour public preschool program. What's more, those achievement gains continued at least until the end of first grade. Even though the children were from low-income families, those who received the full-day program achieved test score gains that approached national norms. NIEER researchers conducted the trial with a sample of about 300 4-year-olds in an urban school district in northern New Jersey.

Robinson, Adelle. **"The Preschool Imperative: What Boards Need to Know About Early Learning."** *Policy Research Brief (fall/winter 2003)*, National School Boards Association, Alexandria, VA. <http://www.nsba.org/site/docs/32000/31942.pdf>.

Ensuring that all children start school ready to learn is all the more crucial in light of the No Child Left Behind Act, which ultimately holds schools accountable for ensuring that their students meet high academic standards by third grade. This Policy Research Brief examines the nature and value of good preschool programming and the infrastructure needed to support it. This information should give school boards a stronger foundation for fostering coordination with local preschool providers and providing policy oversight for the programs their school districts operate.

Rolnick, Art and Grunewald, Rob. **"Early Childhood Development: Economic Development with a High Public Return."** *fedgazette*, Federal Reserve Bank of Minneapolis, March, 2003. <http://minneapolisfed.org/pubs/fedgaz/03-03/earlychild.cfm>.

Early childhood development programs are rarely portrayed as economic development initiatives, and we think that is a mistake. Such programs, if they appear at all, are at the bottom of the economic development lists for state and local governments. They should be at the top. Most of the numerous projects and initiatives that state and local governments fund in the name of creating new private businesses and new jobs result in few public benefits. In contrast, studies find that well-focused investments in early childhood development yield high public as well as private returns.

Rusk, David and Mosely, Jeff. **"The Academic Performance of Public Housing Children — Does Living in Middle Class Neighborhoods and Attending Middle Class Schools Make a Difference?"** *The Urban Institute*, Washington, DC, 1994. <http://www.brookings.edu/dybdocroot/es/research/projects/wrb/200411Zaslow.pdf>

When poor children attend middle class neighborhood schools, to what extent does their school environment affect their academic performance compared to other factors? That is the question addressed by this study, which measures the academic performance of 1,108 children from scattered site public housing households in Albuquerque, New Mexico.

Many metropolitan areas are highly fragmented into many cities and towns and many school systems. Fragmented governance perpetuates a fragmented society. In such fragmented metropolitan areas many of its poorest members — inner city public housing tenants — are sealed off socially from the majority of the middle and upper class, who live in independent suburbs with their own independent suburban school systems.

Metropolitan Albuquerque, by contrast, is highly unified. Metro Albuquerque has, in effect, one dominant city government and one unified, metro wide school system. As a result of aggressive annexation the city contains almost 80 percent of the total metro population — and an even higher proportion of the area's middle class households. City government scatters small public housing projects and subsidizes poor families' rents in private housing throughout the city. As a result public housing families live in a greater variety of neighborhoods than is typical of many metropolitan areas.

This study has focused on a substantial segment of the Albuquerque's poorest residents — those living in public housing projects or in rent-assisted private housing. At a median income per household member of \$1,680 (1991) these public housing families are well below even the federal government's poverty threshold (\$3,169 in 1989).

Yet, despite their family circumstances, children from public housing households living in middle-class neighborhoods and attending middle-class schools show measurable improvement in their academic performance over children of similar individual and family characteristics living in low-income neighborhoods and attending low-income schools. What are the implications of these findings for public policy?

Though effective schools make a difference, school academic performance does not rise far beyond the socioeconomic level of their students. Many champions of educational reform focus solely on issues of school administration, school finance, or classroom pedagogy. They reject any goal of achieving a socioeconomic mix as essential for broadly-shared educational improvement. Many accept the severe stratification of the nation's urban areas by economic class (with all the racial and social implications that flow from class segregation). They see economic segregation as either "natural" or stable, mixed income communities as politically unattainable.

Schechter, Carlota; Bye, Beth. **"Preliminary Evidence for the Impact of Mixed-Income Preschools on Low--Income Children's Language Growth."** *Early Childhood Research Quarterly* 22: 137-146, 2007.

http://www.sciencedirect.com/science?_ob=MImg&_imagekey=B6W4B-4MJJMW2-1-1&_cdi=6538&_user=10&_orig=browse&_coverDate=03%2F31%2F2007&_sk=999779998&view=c&wchp=dGLbVlb-zSkzk&md5=54a38d41ed47406fdf312a20c65c83e0&ie=/sdarticle.pdf (available limited time only) Also at <http://www.sciencedirect.com/science/journal/08852006>

A study comparing the receptive language growth of low-income preschool age children that attended economically integrated early care and education programs to that of low-income children that attended early care and education programs for low income families found that children from the economically integrated programs had significantly higher language scores. Researchers at Saint Joseph College report that the language scores of the two groups were not significantly different when the children entered their respective programs in the fall but children from the economically integrated early care and education programs scored significantly higher when tested in the spring. Additionally the test scores of the low income children in economically integrated programs were comparable to their more affluent classmates. The impact of program type on language growth was most evident for children from low-income families who spoke English at home and there was no significant impact for children who spoke a language other than English at home .

Schellenback, Karen. **"Child Care & Parent Productivity: Making the Business Case."** *Linking Economic Development and Child Care Project*, Cornell University, Ithaca, NY, 2004. <http://government.cce.cornell.edu/doc/pdf/ChildCareParentProductivity.pdf>.

Child care breakdowns leading to employee absences cost businesses \$3 billion annually in the United States. Fifty-four percent of employers report that child care services had a positive impact on employee absenteeism, reducing missed workdays by as much as 20% to 30%. Furthermore, a child care program can reduce turnover by 37% to 60%. Employee retention is a key driver of customer retention, which in turn is a key driver of company growth and profits. One study showed that a 7% decrease in employee turnover led to increases of more than \$27,000 in sales per employee and almost \$4,000 in profits per employee. Companies with childcare programs or who are considering them need to be able to measure the value of these programs as a return on their investment.

"School Readiness: Closing Racial and Ethnic Gaps." *The Future of Children*, Vol. 15, no. 1, 2005. Woodrow Wilson School of Public and International Affairs, Princeton University and the Brookings Institution, <http://www.ounceofprevention.org/downloads/publications/shonkoffweb.pdf>; Executive Summary, http://www.futureofchildren.org/usr_doc/School_Readiness_Summary.pdf.

Racial and ethnic differences in school readiness are issues confronting educators across the country. Although these gaps in educational achievement have narrowed over the past thirty years, test score disparities among American students remain significant. Furthermore, these sizable gaps already exist by the time children enter kindergarten. Research suggests that what happens to children early in life has a profound impact on their later achievement. These issues are addressed in the above-named Spring 2005 issue of *The Future of Children*, which includes eight articles written by leading authorities. The articles address the size of the gap, synthesize what is known about its causes and identify some policy solutions and strategies.

Schulman, Karen and Barnett, W. Steven. **"The Benefits of Prekindergarten for Middle-Income Children."** *National Institute for Early Education Research*. Policy Report (March 2005), Rutgers – The State University of New Jersey, <http://nieer.org/resources/policybriefs/report3.pdf>.

Many children from middle-income families enter kindergarten behind their peers, often because the supply of early care and education programs in middle-income neighborhoods is no greater than in low-income neighborhoods. Yet research shows that high-quality preschool programs provide gains for middle-income children, particularly in letter-word identification and spelling scores.

This policy report analyzes what the research says about access to and gains made in high-quality preschool programs by children from middle-income families.

Recommendations include expanding publicly funded preschool programs to include middle-income children and strengthening standards for child care and early education programs.

Schumacher, R., Ewen, D., Hart, K. and Lombardi, J. **"All Together Now: State Experiences in Using Community-Based Child Care to Provide Pre-Kindergarten."** *The Center for Law and Social Policy (CLASP)*, Washington, DC, 2005, http://www.clasp.org/publications/all_together_now.pdf.

This paper, commissioned by the Brookings Institution, studies the emergence of the mixed delivery model, in which pre-kindergarten is delivered in community-based settings and schools. It describes findings of CLASP survey of states that was undertaken to understand the policy choices, opportunities, and challenges of including community-based child care providers in their pre-kindergarten programs.

Schumacher, Rachel, Irish, Kate and Lombardi, Joan. **"Meeting Great Expectations: Integrating Early Education Program Standards in Child Care."** *The Center for Law*

and *Social Policy (CLASP)*, Washington, DC, 2003.
http://www.clasp.org/publications/meeting_rpt.pdf

This report highlights examples of how seven states have integrated early education program standards in child care, as well as provided technical assistance, monitoring, and funding to child care providers willing to meet these standards. It discusses why program standards are critical to meeting raised goals for education and why child care must be part of this strategy; presents findings from a group of states in which program standards and oversight of child care centers that participate in these early education initiatives (both pre-kindergarten and Head Start) clearly exceeded those of the basic state licensing rules; showcases one state's experience with child care contracts as an example of the potential of that strategy; describes how one state funded the integration of a state pre-kindergarten program into child care; and recommends goals for policy and future research.

Schweinhart, Lawrence. **"The High/Scope Perry Preschool Study Through Age 40. Summary, Conclusions, and Frequently Asked Questions"** *High/Scope Educational Research Foundation*, Ypsilanti, MI. <http://www.highscope.org/welcome.asp>.

The major conclusions of this midlife phase of the study is that high-quality preschool programs for young children living in poverty contribute to their intellectual and social development in childhood and their school success, economic performance, and reduced commission of crime in adulthood. The study confirms that the long-term effects are lifetime effects and that the return to the public on its initial investment in such programs is not only substantial but larger than previously estimated.

Scott, Carol. **"Leadership Matters: Governors' Pre-K Proposals Fiscal Year 2006."** *pre[K]now*, Washington, DC, 2005.
<http://www.preknow.org/documents/LeadershipReport.pdf>.

Nineteen budget-savvy governors recently recommended increased investment in a cost-effective strategy, high-quality voluntary pre-kindergarten, that saves taxpayers money, boosts state economies, and prepares our youngest citizens for future success. This report evaluates all 50 U.S. governors and the mayor of the District of Columbia in terms of their budgetary proposals and State of the State remarks in support of voluntary pre-k for all.

In Wisconsin, 4-year-old kindergarten investments are part of the school funding formula. Governor Jim Doyle proposed \$3 million in grants for new start-up programs; no new investment in Head Start, flat funded at \$3.5 million; but shifted the source of revenue from TANF to state funds.

Segal, Ann, Grossman, Lisa and Lovejoy, Anna **"A Governor's Guide to Children's Cabinets."** *National Governors Association Center for Best Practices*, Washington, DC, 2004.
<http://www.nga.org/cda/files/0409GOVGUIDECHILD.pdf>

Governors' Children's Cabinets are collaborative governance structures that seek to promote coordination across state agencies and improve the well-being of children and families. A strong and effective Children's Cabinet can improve coordination and efficiency across state departments and local levels of government; mobilize resources around the governor's priorities for children; facilitate a holistic approach to serving children; and strengthen partnerships with the non-profit and private sectors.

At least 16 states have a Children's Cabinet, and all indications suggest that many others are likely to follow. Though many features vary from state to state, Children's Cabinets typically involve senior state officials, including cabinet executives from a range of state agencies (i.e., health, mental health, education, child care, income supports, child and family services, youth development, labor, and juvenile justice services.) Many Children's Cabinets also include representatives of key stakeholders from the private sector.

Shonkoff, Jack P. **"Science, Policy, and the Young Developing Child: Closing the Gap Between What We Know and What We Do."** *National Scientific Council on the Developing Child*, Brandeis University, Waltham, MA and *Ounce of Prevention Fund*, Chicago, IL, <http://www.ounceofprevention.org/downloads/publications/shonkoffweb.pdf>.

The notion of "starting earlier" to make sure that more young children arrive at school eager to learn is gaining momentum. Yet, there remains a staggering gap between what we know and what we do as a society when it come to early care and education. The gap exists for three basic reasons: mistaken impressions, misunderstandings and misplaced priorities. First, many people think that infants, toddlers and preschoolers are "too young" to learn. Second, many people do not have a clear understanding of how a good early learning program works. Third, too often, political rhetoric about the critical importance of early education is not translated into reality when public officials are devising and voting on budgets.

Shore, Rima, Bodrova, Elena and Leong, Deborah. **"Child Outcome Standards in Pre-K Programs: What Are Standards; What is Needed To Make Them Work?"** *National Institute for Early Education Research. Preschool Policy Brief* (Issue 5, March 2004), New Brunswick, NJ. <http://nieer.org/resources/policybriefs/5.pdf>.

The authors 1) provide an overview of how the standards movement is being extended to preschool programs; 2) describe child outcomes standards in relation to other types of standards and quality indicators; 3) offer an overview of the conditions needed for standards to work; and 4) describe the special considerations that must be taken into account if child outcome standards are to have a positive impact on preschool children and programs.

"Small Elementary Class Size Boosts High School Grad Rates." *HealthDay News*, May 9, 2005.
http://story.news.yahoo.com/news?tmpl=story&cid=97&ncid=97&e=2&u=/hsn/20050509/hl_hsn/smallelementaryclasssizeboostshighschoolgradrates.

Beginning in the 1980s researchers tracked nearly 5,000 students in 165 Tennessee schools from kindergarten through grade 12, initially randomly assigning students either to classes of 13-17 students or 22-26 students with a FT teachers aide. Students kept in small classes for up to 4 years had an 11.5 percent increase in graduation rates.

Jeremy D. Finn, co-author of a May 2005 *Journal of Educational Psychology* (volume 97, issue 2) research report, is quoted in *HealthDay News*: "Our results contradict arguments that just one year in a small class is enough to reap long-term academic benefits. Three of four years of small classes are needed to affect graduation rates, and three of four years have been found necessary to sustain long-term achievement goals."

Spector, Michael J. (Chair). **"Governor's Task Force on Educational Excellence."** *The Office of the Governor*, Madison, WI, 2004.
http://edexcellence.wisconsin.gov/reports/63004_taskforce_final_report.pdf

Early Childhood Education. The Task Force believes that early childhood education is one of the best, most cost effective investments the state can make. Research convincingly demonstrates the many long-term benefits of high quality early childhood education. Children who participate in early education programs demonstrate higher academic outcomes and are more likely to graduate from high school. They are less likely to need special education services, and are less likely to become involved with the criminal justice system. The benefits of early childhood education are particularly true for children from low-income families where parents, often single parents, do not have the time or the resources to provide adequate learning environments for their children at home or to afford high quality day care. Research shows that the achievement gap between economically disadvantaged children, children of color and their peers exists before children even enter school, but that early childhood education programs help to reduce this gap.

“Study Reveals Prolonged Effectiveness of Early Intervention Program.” *The Robert Wood Johnson Foundation*, Boston, MA, March 6, 2006.

<http://www.rwjf.org/newsroom/newsreleasesdetail.jsp?id=10396>.

A new study discusses the findings of an 18-year follow-up of low birth weight infants, some who were provided with early preschool and others who did not participate. The study finds that the children who did receive early education, particularly the "heavier" low birth weight group had better academic and behavioral outcomes (i.e. less risky behaviors) as their lives progressed than their peers who did not. This has important implications for education and health policy, given the positive outcomes measured over the years. In terms of public health priorities, the results strengthen the case for greater investment in early education for pre-term infants.

“Tough Choices or Tough Times: The Report of the New Commission on the Skills of the American Task Force.” Washington, D.C.: National Center on Education and the Economy, 2007.

Executive Summary http://skillscommission.org/pdf/exec_sum/ToughChoices_EXECSUM.pdf

The report challenges the country to develop an educational system that can compete globally for future generations. Step Six of the 10 recommendations is to provide high-quality, universal early childhood education. To quote the recommendation, “For decades, researchers have almost universally concluded that high-quality early childhood education is one of the best investments a nation can make in its young people. But this country has never committed the funds necessary to provide high-quality early childhood education to its 3- and 4-year-olds. The funds freed up by the Commission’s proposals for altering the student progression through the system will, for the first time, make it possible for the whole nation to do what should have been done many years ago.”

The full report in book form was published by Jossey-Bass, a Wiley Imprint.

Tyre, Peg, Phillips, Mathew, Scelfo, Julie, et al. **“The New First Grade: Too Much Too Soon?.”** *Newsweek*, September 18, 2006,

<http://www.msnbc.msn.com/id/14638573/site/newsweek/>

“Kindergarten and first grade have changed so much because we know so much more about how kids learn. Forty years ago school performance and intelligence were thought to be determined mainly by social conditions—poor kids came from chaotic families and attended badly run schools. If poor children, blacks and Hispanics lagged behind middle-class kids in school, policymakers dismissed the problem as an inevitable byproduct of poverty. Its roots were too deep and complex, and there wasn't the political will to fix it anyway. Since then, scientists have confirmed what some kindergarten teachers had been saying all along—that *all* young children are wired to learn from birth and an enriched environment, one with plenty of books, stories, rhyming and conversation, can help kids from all kinds of backgrounds achieve more. Politicians began taking aim at the achievement gap, pushing schools to re-conceive the early years as an opportunity to make sure that all kids got the fundamentals of reading and math. At the same time, politicians began calling for tests that would measure how individual students were doing, and high-stakes testing quickly became the sole metric by which a school was measured.”

U.S. Department of Health and Human Services. **“State-Funded Pre-Kindergarten. What the Evidence Shows.”** Washington, DC, December, 2003.

<http://aspe.hhs.gov/hsp/state-funded-pre-k/paper.pdf>.

This report’s evidence shows that selected states are already major providers and funders of pre-kindergarten programs. Though there is great variation across states, most state-funded pre-kindergarten programs meet widely accepted and research-based quality standards, offer key expanded

services to meet children's health and nutrition needs, and use a range of strategies to involve parents in their children's education.

Although existing research has technical limitations that constrain what can be known about the impact of state efforts on children's outcomes, and although studies were not designed to answer critical questions, such as whether state-funded pre-kindergarten programs produce better outcomes than other programs serving similar populations or whether they reduce or eliminate achievement gaps, there is promising evidence that states can implement programs that produce positive outcomes in areas that include cognition, language, and academic achievement, with some evidence of improved achievement test scores, reduced grade retention and increased school attendance in the elementary grades.

Not all states currently have the capacity to undertake the administration of a coordinated and comprehensive early childhood education system that includes a strong evaluation component to measure results. However, the overall pattern of findings indicates that selected states appear ready to meet this challenge.

U.S. General Accounting Office. **"Prekindergarten: Four Selected States Expanded Access by Relying on Schools and Existing providers of Early Education and Care to Provide Services."** GAO-04-852 Report, September, 2004.
<http://www.gao.gov/new.items/d04852.pdf>.

This work focused on four states (Georgia, Oklahoma, New York, and New Jersey) that have expanded their preschool programs to serve more children. In these states, GAO addressed (1) how prekindergarten programs were designed and funded, (2) the potential implications of these program features for children's participation and other programs that serve four year-olds, and (3) the outcome data that have been collected on participating children and families. To gather this information, GAO conducted site visits in four states.

The four states' expanded prekindergarten programs had some similarities in their design features. For instance, programs were offered at no direct cost to parents, regardless of family income, and each state incorporated some level of collaboration with community-based providers such as Head Start and large child care facilities. Some key differences in their design features also existed. For example, Georgia and Oklahoma had statewide programs providing prekindergarten services to over half of their four-year olds, while New York's and New Jersey's programs were more geographically targeted. States and school districts also varied in offering full- or half-day prekindergarten programs. States also varied in teacher qualifications, the percentage of prekindergarten children served by community-based providers, funding methods, and in the amount of funding per child.

Vernon-Feagans, L.; Hurley, M.M.; Yont, K.M.; et al. **"Quality of Childcare and Otitis Media: Relationship to Children's Language during Naturalistic Interactions at 18,24, and 36 Months."** *Journal of Applied Developmental Psychology* 28(2), 2007.
Summary online at <http://www.fpg.unc.edu/~snapshots/snap40.pdf>

The Family Policy Group of The University of North Carolina at Chapel Hill conducted a longitudinal study comparing the language development of children enrolled in high quality child care to those enrolled in low quality child care. The homogeneous composition of the study's population (white children of dual earning, middle income parents who possessed some level of higher education) makes it different from many other studies that also sought to examine the relationship between child care quality and language development. The study, Quality of Childcare and Otitis Media: Relationship to Children's Language during Naturalistic Interactions at 18, 24 and 36 Months, found that children in higher quality child care significantly outperformed those in lower quality child care when evaluated for grammatical comprehension and vocabulary development. For example, children in higher quality care had double the number of words by 36 months than those in lower quality care. Additionally, children in higher quality care acquired key markers of language development at a more rapid rate over time than the children in lower quality care. These differences were greater over time.

"Wallis, Claudia. **"The Myth About Homework."** *Time Magazine*, September 4, 2006, <http://www.time.com/time/magazine/article/0,9171,1376208-1,00.html>.

'Success on standardized tests is, of course, only one measure of learning--and only one purported goal of homework. Educators, including Cooper, tend to defend homework by saying it builds study habits, self-discipline and time-management skills. But there's also evidence that homework sours kids' attitudes toward school. "It's one thing to say we are wasting kids' time and straining parent-kid relationships," Kohn told me, "but what's unforgivable is if homework is damaging our kids' interest in learning, undermining their curiosity."

"Whitebook, Marcy. **"Early Education Quality: Higher Teacher Qualifications for Better Learning Environments – A Review of the Literature."** *Center for the Study of Child Care Employment*. University of California, Berkeley, CA, 2003, <http://ist.socrates.berkeley.edu/~iir/cscce/pdf/teacher.pdf>

The author poses the central question whether teachers with a BA degree in early childhood education (or higher) provide better-quality preschool experiences that lead to better outcomes for three- to five-year-olds.

Throughout the United States, many children are failing to reach their full potential in school. But driven in part by what we have learned about early childhood development, the academic, business (The Business Roundtable, 2003) and policy communities now recognize that high-quality preschool programs are an important way to rectify this situation.

Based on what the research has shown thus far, it appears that teacher preparation at the four-year college degree level is the best way to achieve such quality. We do need, however, to learn more about effective alternative pathways to teacher preparation, particularly to ensure linguistic and cultural diversity in preschool programs.

Williams, Erica and Mitchell, Anne W. **"The Status of Early Care and Education in the States."** *The Institute for Women's Policy Research*. Washington, DC, 2004. [http://www.iwpr.org/store/Details.cfm?ProdID=46&category=.](http://www.iwpr.org/store/Details.cfm?ProdID=46&category=)

Increased effort is needed on the part of federal and state policymakers to work toward a universal, voluntary early care and education system that will provide all families with access to a dependable, safe, and nurturing system of care for their preschool-aged children.

The report outlines the need for such care by working parents and by children in the early stages of development, discusses the benefits of such care for children, and provides an overview of the programs that currently exist. The report presents national and state-by-state data on the availability, quality, and cost of early care and education programs, and recommends steps for states and the federal government to expand and improve current early care and education programs, putting the United States on a path toward a system of high-quality, voluntary, universal early care and education.

Winton, P., Buysse, V. (Eds.), Manuel, J. (writer). **"Much More at Four."** *Early Developments*, 8(3): 10-14, 2004. http://www.fpg.unc.edu/~ncedl/PDFs/ED8_3.pdf
[http://www.fpg.unc.edu/~mafeval/.](http://www.fpg.unc.edu/~mafeval/)

The research on the benefits of high quality early education for later school success, especially for "at-risk" children, has prompted many states to make major investments in the education of young children. North Carolina's More at Four Pre-kindergarten Program is one state's solution to ensuring that all children enter school ready to learn and succeed. FPG Child Development Institute is conducting the statewide evaluation of this program in order to provide information about its effectiveness as well as to offer suggestions for program improvement. More at Four has expanded rapidly since its inception nearly 3 years ago and evaluators have had to respond to changing needs for supporting information. Local administrators and teachers are enthusiastic about the program and hope to use the evaluation results not just to confirm their success, but to make improvements.

Wisconsin Child Care Resource & Referral Network, Inc. **"Trust for Early Education (TEE): Report on Collaborative Planning Activities for Community Approaches to Four Year Old Early Care & Education."** Madison, WI, 2004.

Twelve agencies of the Wisconsin CCR&R Network were involved in the TEE grant planning activities and events in six regions of the state. CCR&R agencies reported that early care & education programs and professional support groups, head start, school districts, UW-Extension, UW and local colleges, WCCF, special education, coordinators and county human services were represented in planning for the regional events held. The community coaches were involved in planning and events at varying levels.

Some of the outcomes pertaining to community/consensus building around 4K included: 1) Building stronger relationships with school systems, early care & education programs, CCR&R and other community organizations; 2) Informing and assisting early care & education providers in 4K collaborations; 3) Involving a variety of individuals and organizations in community planning by a variety of methods, methods designed with local needs in mind; 4) Holding a wide variety of activities and events that encouraged diverse participation.

Wolff, Tom (Ed.). **"Coalition Building Tip Sheets, 2nd edition.** *Community Partners, Inc.*, Amherst, MA, 2003.

The editor has compiled tip sheets, originally printed in the Community Partners newsletter, *Community Catalyst*, as a way to help coalitions become effective vehicles to build communities, create change and increase their capacity. Community Partners learned over the years that communities are mobilizing around the world to create coalitions on a wide variety of issues. When they are successful, coalitions are 'magic' – they allow disenfranchised residents to mobilize around local issues and create change. They bring the various sectors of the community together to find solutions that would have been impossible to achieve individually. However, it is 'devilishly' hard for coalitions to become successful and harder still to sustain that success. Numerous coalitions start, sputter, and fail. Others drag on with all those attending wishing that the coalition would die. When run badly, coalitions can be a huge sinkhole of time, using up untold hours in ineffective meetings. The phase 'Help, I'm caught in a coalition and can't get out' is true too much of the time.

"Working & Poor: Ready Or Not, Here They Come!" *Wisconsin Council on Children and Families*, Issue 3, 2004/2005,
http://www.wccf.org/pdf/Working_Poor_Early_Education.pdf.

Most policies that affect parents' childcare options are designed to facilitate employment and do little to help parents simultaneously ensure that their children receive safe, nurturing, and stimulating early care and education. One significant way to address this gap is to weave public school funding for four-year-old kindergarten into early care and education settings through locally based collaborations, blending the best of childcare programs with the resources of the school district.

Zaslow, Martha, Tout, Kathryn, Maxwell, Kelly and Clifford, Richard. **"The Role of Professional Development in Creating High Quality Preschool Education."** *The Brookings Institute*, Washington, DC, 2004.
<http://www.brookings.edu/dybdocroot/es/research/projects/wrb/200411Zaslow.pdf>

This paper focuses on professional development as a contributor to high quality preschool education. It looks first at the research on the linkages between professional development and the quality of early childhood care and education environments. Then it assesses the challenges that states currently face or will face as they make the decision to substantially expand their preschool programs so that all low income children, or all children irrespective of income, have access to a high quality preschool program for at least one year before kindergarten. The authors conclude by noting steps that can contribute to an expansion of a well-qualified early childhood workforce.