

Investing Early
in Tomorrow's
Workforce

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Preschool matters



FROM THE DIRECTOR'S CHAIR

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PRESCHOOL MATTERS

One misconception about preschool education is that it's mostly about giving children an early start on the academic skills they'll need later. Maybe it's because early reading and math skills are more easily assessed or because parents and those who market to them often emphasize the academic side of children's early learning.

Whatever the case, we run the risk of short-changing the role preschool education plays in the broader cognitive, social, and emotional development of young children. As the article on page 4 points out, there's growing concern over children's inability to regulate their behavior in preschool and the later grades. Socio-

emotional development is an issue that, if not addressed in the preschool years, relegates children with recurring conduct issues to a life of social problems and diminished achievement.

Researchers may disagree about whether challenging behaviors are more common today than in previous times and if so, what the causes may be. One thing there isn't much disagreement on is the role preschool education can play in turning out children who are socially capable and do well in school. As the article on the opposite page explains, the experiences children have during their preschool years can critically shape the way they think and react to challenges throughout their lives.

That's why high-quality education during this period is such an efficient expenditure of public workforce development dollars. At no other time in children's lives do *new* investments generate so much "bang for the buck."

I would caution that this is not so much biologically determined as reflective of the existing pattern of private and public investments in education and child development. Nor are the most productive investments cheap. Moreover, if we better prepare our children, the returns to later investments, such as a college education, could

actually increase.

As we look to the future when today's preschoolers will comprise tomorrow's workforce it's not too soon to ask, What will we need to be globally competitive? People who know how to focus their attention on learning a new task and know how to get along and work together surely are at the top of the list. ■

W. Steven Barnett
Director, NIEER



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Public Investment in Early Care and Education is an Efficient Way to Strengthen Our Future Workforce

People who make policy have long challenged academia to “give us research we can use.” In recent decades, researchers in a number of fields have made steady progress in understanding how children’s brains develop, the ways in which early experiences affect acquisition of skills, and how to apply an investment framework to public expenditures aimed at maximizing the skills today’s children will bring to tomorrow’s workforce. The result has been a growing body of research across disciplines that converges on one conclusion—one efficient way to invest public money to ensure a skilled workforce is to invest it in quality care and education early in children’s lives.

That message has long been espoused by early childhood advocates. These days, it isn’t uncommon to hear it from corporate leaders and economists who worry about America’s future competitiveness. Last year, it formed the conclusion in a scholarly article in the *Proceedings of National Academy of Sciences*. Explaining the science behind the conclusion were Stanford University neurobiologist Eric I. Knudsen, University of Chicago economist James J. Heckman, University of Pittsburgh psychiatrist Judy L. Cameron, and Brandeis University pediatrician Jack P. Shonkoff (now at



Early childhood experiences have a uniquely powerful influence on the development of cognitive and social skills.

Harvard University).

All leaders in their fields, the authors raise concerns that as current demographic trends unfold in the future a growing proportion of America’s workforce will be raised in disadvantaged environments, at risk of low achievement and adverse outcomes during their critical formative years. The authors cite research in economics, developmental psychology and neuroscience, to support four conclusions:

- The architecture of the brain and the process of skill formation are both influenced by an interaction between genetics and individual experience.
- Both the mastery of skills essential for economic suc-

cess and the development of their underlying neural pathways follow hierarchical rules in a bottom-up sequence so that later attainments build on foundations laid down earlier.

- Cognitive, linguistic, social and emotional competencies are interdependent. They are powerfully shaped by experiences as children develop and contribute to success in the workplace.
- Although adaptation continues throughout life, human abilities are formed in a predictable sequence of sensitive periods during which the development of neural circuits and the behaviors they mediate are most receptive to environmental influences.

Based on these conclusions, the authors make a case that early childhood experiences have a uniquely powerful influence on the development of cognitive and social skills. Children’s earliest experiences have what the authors call the “unique advantage of instructing a pattern of (brain) connectivity in a circuit without interference from an already-established pattern.” While experiences later in life can add to the effects of earlier experiences, they argue that later efforts require more intensity to do so and are less effective.

These neurological and behavioral propositions are supported by economic arguments about human capital formation and evidence that economic returns to investing early in an individual’s life cycle can be high. Whereas remediation of inadequate early investments is difficult and costly, early investment facilitates gains in productivity from later investments. As the authors put it, “Skills beget skills, success breeds success and the provision of positive experiences in early life is considerably less expensive and more effective than the cost and effectiveness of corrective intervention at a later age.” For more information, read the article at <http://www.pnas.org/cgi/content/full/103/27/10155>. ■

Rx for Behavior Problems in Pre-K

There's Growing Emphasis on Social Skills-Building and Teacher Training as Behavior Issues Rise in Pre-K. Coping Successfully Requires a Quality Program, Sound Practices, and a Multi-layered Approach.

Early childhood researcher Lisa McCabe doesn't have to search for an example of preschoolers exhibiting challenging behaviors. "I saw it just this morning," she says. "Two children were playing with cars on a little track. A third asked to join in the play. The first two said 'No.' Growing angry, the third child kicked the cars off the track." In quick succession, McCabe, who studies early childhood programs at Cornell University, rattles off two more incidents—one where one child pushed another to the ground.

If these behaviors sound normal in the sometimes rough-and-tumble world of pre-K, the frequency with which they are occurring may not be. Research suggests the incidence of challenging behaviors in young children is on the rise. No one knows with certainty whether it's the kids who have changed or their environments—or both. A long-term study conducted by the National Institute of Child Health and Development suggests one possible contributor: children spending lots of time in early non-maternal child care. Whether that's the culprit or not, McCabe knows one thing for sure: "Teachers tell me they didn't face this many behavior problems years ago."

Many teachers feel ill-prepared to handle children who regularly act out. As McCabe puts it, "They don't have a lot of tools in their

toolbox." The same can be said for preschool programs where cognitive skills are emphasized at the expense of social skills. Children with challenging behaviors who attend academic-oriented pre-K programs run the risk of removal from the programs or entering K-12 education without their problems having been addressed. Either way they lose since a pattern of challenging behaviors during the preschool years is a strong predictor of later problems like delinquency, substance abuse, and aggression.

McCabe and NIEER co-director Ellen Frede recently developed a policy brief to address the issue. They say a central question policymakers want answered is, "What role does preschool education play in regard to problem behaviors? Is it a contributing factor or can it provide experiences that lead to a reduction in these behaviors?" As might be expected, the answer hinges on program quality, curriculum choice, and teaching practices.

Building the Right Program

McCabe and Frede say building social skills shouldn't take a back seat when it comes to choosing preschool program curricula. "Parents often think it's the academic skills that are critical to their children's success when they enter kindergarten but if you talk to a broad sample of kindergarten teachers, as researchers have done, the

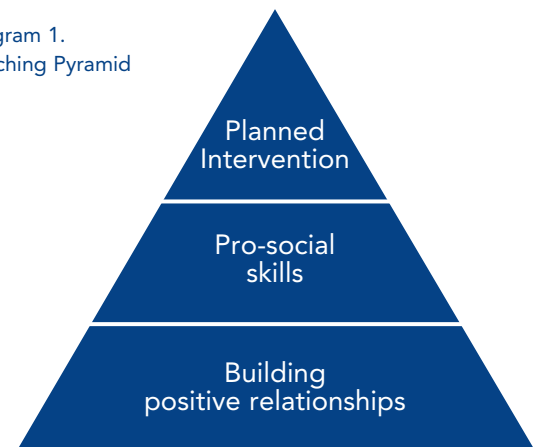
social skills turn out to be more important at that age," says Frede. She and McCabe recommend that programs give strong consideration to curricula and interventions that emphasize social skills and adopt a teaching approach that provides a sound base for social skills-building and additional layers of help for children who need it. In the brief, McCabe and Frede highlight programs that emphasize social and emotional development and are backed up by research. Among them are:

- **The Incredible Years: Teacher Training Program** – Focuses on positive management and discipline strategies and social competence in the classroom. *Research Result:* Children demonstrated fewer conduct problems at school. Teachers showed better classroom management skills.
- **Positive Behavior Support** – Encourages pro-social development using func-

tional assessment to gather information about the context of children's challenging behaviors, teaching strategies, environment modifications and positive reinforcement. *Research Result:* Preliminary evidence showed reduced problem behaviors in children identified by teachers as needing additional support.

- **Second Step** – A universal intervention program designed to teach children in preschool through middle school empathy, impulse control, and social problem-solving skills. Teachers are trained to use large photograph cards of children in various social situations as a basis for teacher modeling and children's role playing. *Research Result:* While research on preschoolers hasn't yet been published, a study of second and third graders suggests a decrease in observed aggression and an increase in neutral and pro-social skills.

Diagram 1.
Teaching Pyramid



• **Tools of the Mind** –

Emphasizes the development of self-regulation in a broad educational context. Approaches learning as socially mediated by peers and teachers through a focus on play. *Research Result:* Executive function improved, behavior problems decreased, and language and literacy development increased.

• **Self-Determination**

Intervention – Uses a story and song format to teach preschool children direction following, sharing and problem solving. *Research Result:* Decreased behavior problems and increased adaptive skills in children.

• **Social-Emotional**

Intervention for At-Risk 4-Year-Olds – Teachers are trained to deliver a multi-component program that involves relationship building (between teachers and children), teaching children emotional knowledge and strategies to control negative feelings. Children are taught cognitive problem-solving skills. *Research Result:* Decrease in negative emotion, more positive peer activity and improved social adjustment.

• **Promoting Alternative Thinking Strategies (PATHS) Curriculum** –

Uses once a week lessons covering themes such as compliments, basic and advanced feelings, self-control strategies, and problem solving, using the teaching of skills as well as the creation of real-life opportunities to practice those skills. *Research Result:* Increase in emotion knowledge skills (e.g., emotion vocabulary, ability to identify facial expressions, less bias toward misidentifying

emotional expressions as angry).

Teaching Approach

High-quality programs with developmentally appropriate curricula—along with sound teaching practices—can go a long way toward helping children develop the social skills they’ll need to succeed. However, that’s not enough for some children. McCabe and Frede say they should be viewed in the context of a larger “teaching pyramid.”

Framed for preschool settings by University of South Florida research professor Lise Fox and colleagues, the pyramid aims to support social competence and prevent challenging behaviors by providing three levels of support for children (See Diagram 1). The primary level, or foundation, consists of building positive relationships that help reduce challenging behaviors and implementing preventive practices in classrooms such as creating well-organized learning centers and establishing routines and expectations children understand.

The secondary level of the pyramid consists of intentional teaching of pro-social skills such as interpersonal problem solving to children who need it. A key goal here is to enable children who struggle socially to identify their feelings and those of others and to act upon them in appropriate ways. Fox describes the process as helping kids develop “emotional literacy” through developing an understanding of “feeling words” that in turn heightens their ability to recognize and control anger and impulses.

When children regularly exhibit challenging behaviors even after the primary and

Harvard’s Jack Shonkoff: Social, Emotional and Cognitive Development Are Inextricably Intertwined

The social and emotional development of children are inextricably intertwined with their cognitive development, says pediatrician and director of the Center on the Developing Child at Harvard University Jack Shonkoff. “Emotional well-being and social competence provide a strong foundation for emerging cognitive abilities. Together they are the ‘bricks and mortar’ of the foundation of human development. So concerns about behavior should be viewed as one part in the larger story of how children develop. The brain is a highly integrated organ. Social development and regulation of behavior are as much a part of development as cognitive learning,” he says. (See article on page 3.)

“Let’s face it,” Shonkoff says, “Little kids aren’t famous for being able to stand still, share with others or pay attention. Challenging behaviors occur in normal children with good parents just as they do in children from disadvantaged backgrounds.” He thinks those who take care of young children need to have a better knowledge base for managing behavior. “Preschool teachers should know as much about social and emotional development as teaching literacy. We [in the early childhood community] haven’t done a good job of developing that.”

“We should provide specialized help for kids who are in trouble. There are cases, especially when children have major disorders, where even well-trained teachers can’t deal with them. That’s where differentiating the services we provide individual kids comes in,” he explains. Like McCabe and Frede, Shonkoff is not an advocate of removing children from preschool classrooms. “It should be extraordinarily rare that a kid be pulled from a program.”

As to the question of whether problem behaviors are on the rise, he says it’s “unanswerable” since we don’t have good data for comparing previous periods with today. “We can’t really tell if there’s more. Everyone agrees we’re noticing it more.”

For more information on the science of early childhood development or the Center on the Developing Child, go to www.developingchild.harvard.edu.

secondary levels have been experienced, the pyramid calls for planned interventions that are individualized to each child’s problems. Interventions such as those prescribed by the Positive Behavior Support program are planned and implemented by a team for application in home, early education, and

other settings.

Asked if preschool education can cure challenging behaviors, Frede answers with a “yes” and then adds this qualifier: “Just as there is good and not-so-good parenting, there is good and not-so-good preschool education.” ■

The Push to Unionize Family Child Care Providers

Low pay and poor benefits are major reasons family child care providers—those providing services in their homes—often quit the field. Recently, they have also been motivators for providers to look to unions for bargaining strength.

Recognizing the economic disadvantage in this sector (and a way to expand their ranks), unions began paying attention to it in recent years. Little wonder. According to the Center for the Child Care Workforce, an affiliate of the American Federation of Teachers, annual earnings for family child care providers range from only \$6,200 in New Mexico to \$16,300 in Washington state.

So far, nine states have approved child care workers' ability to unionize—Illinois, Iowa, Maryland, Michigan, New Jersey, New York, Oregon, Washington and Wisconsin. Providers in three other states—California, Massachusetts and Rhode Island—are working to gain that status. Child care providers in Illinois, Oregon and Washington have already signed contracts with unions like the Service Employees International Union (SEIU). In Minnesota, Ohio and Pennsylvania, home-based providers can be represented by unions locally but these unions have no state-level authorization, so their power to negotiate certain provisions of home-based care may be limited. Most recently,

three-quarters of child care providers in Maryland voted to allow SEIU to organize providers in the state and New York City providers of subsidized care joined the United Federation of Teachers.

Family child care providers, unlike center-based providers, are self-employed and act as independent contractors for the state when accepting children whose care is subsidized by federal and state child care money. These subsidies, however, often fall below the amount a paying parent would be charged. In a report released earlier this year by the National Women's Law Center, a preliminary look at unionized child care providers found that the contracts signed with unions led to increases in subsidy reimbursement rates as well as access to more training opportunities.

Those who support the unionization of home-based child care providers say the union contracts could also lead to a more enriching environment for the children who attend the programs. They base this on the terms of some union contracts. In Illinois, for example, contracts provide for higher reimbursement rates for unionized providers who meet certain training or quality requirements. ■

South Carolina Judge Decides Decision Stands

Judge Thomas W. Cooper, Jr. made a landmark decision in December 2005, declaring that the state of South Carolina provides minimally adequate education in its public schools but does not invest enough in early childhood programs.

In the early spring of 2007, both sides of the case requested that Judge Cooper reconsider his original ruling. The school districts who brought the suit sought a broader ruling addressing failings in facilities, teacher pay, and support for middle and high school students, as well as a detailed course of action and time frame to meet the state's early education needs. The state desired the removal of the requirement to implement preschool education and early intervention programs.

Both sides were sorely disappointed in midsummer when the judge refused to reconsider his initial ruling. He said the case had "never been about what is best" for school-age children, but merely addresses the issue of the state's constitutional requirement to provide "minimally adequate education."

Education First, a coalition of public educators and supporters of public education, launched an ad campaign in an attempt to keep pressure on lawmakers to reform the school finance system. The campaign consisted of billboards along interstates, welcoming travelers to South Carolina, "Home of 'Minimally Adequate Education.'" The ads also call for policymakers to "fund education equity now!"

Recently, both the school districts and the state decided to appeal the original decision. ■

Idaho Home-Visit Program May Fold for Lack of Funds

Parents as Teachers, a program designed to help parents get their preschool-age children ready for school, had been assisting the families of more than 2,500 children in Idaho—until questions about funding shut its doors.

Governor Butch Otter closed the program after a state audit suggested the current funding formula for the program was risky, using federal funds intended for a variety of family-assistance programs such as Head Start to support the Parents as Teachers program. The audit also suggested that the state could lose its Temporary Assistance to Needy Families (TANF) grant because of this set-up.

Sue Stepleton, the CEO of the national Parents as Teachers program, is working with early education employees and advocates in Idaho to find a way to get the program's funding returned. They are prepared to consider private funds to help provide the program if they cannot receive funds from the state. ■

Bills Pending in U.S. Congress to Expand Pre-K in the States

The past year has seen an influx of bills presented in Congress aimed at expanding access to high-quality preschool education.

The “Providing Resources Early for Kids Act” (PRE-K Act), introduced and sponsored by Hawaii Representative Mazie Hirono, calls for \$1 billion per year through 2013 to help states build high-quality, universally available preschool education programs. The bill places an emphasis on quality by limiting grants to states that have (or are committed to creating) programs with research-based curricula, teachers with bachelor’s degrees, and high teacher-child ratios. The bill also requires states to collaborate with private providers as well as Head Start programs and child health services. Other members of the House of Representatives have indicated that they will make the PRE-K Act a priority.

A second significant bill is the “Prepare All Kids Act,” sponsored by Pennsylvania Senator Robert Casey and New York Representative Carolyn Maloney. This bill would assist states in providing at least one year of high-quality preschool education to children. The act would make pre-K programs available to all children and free for low-income children. The bill has a

target population of children from families at or below 200 percent of the federal poverty level. The bill calls for \$5 billion for 2008 with a \$1 billion increase yearly through 2012, with states required to match 50 percent. This act also calls for high-quality standards such as research-based curricula, teachers with bachelor’s degrees, and high teacher-child ratios.

A third bill is the “Ready to Learn Act,” sponsored by New York Senator Hillary Rodham Clinton and Missouri Senator Kit Bond. Like the Prepare All Kids Act, this act would target children from families below 200 percent of the federal poverty level. Under this bill, local schools, child care facilities, Head Start programs, and other preschool education programs would be eligible to receive federal money. The federal funds would be used to supplement, not supplant, each program’s existing pre-K expenditures. The bill doesn’t include an estimated price tag for helping states expand access to preschool education programs.

For a side-by-side comparison of these three bills plus a summary of some of the other early childhood bills introduced in 2007, visit <http://www.preknow.org/policy/positions/charts/billcomparison.cfm>. ■

Pre-K Takes Big Step Forward in Virginia

Virginia Governor Tim Kaine announced a plan to more than double the number of 4-year-olds receiving state pre-K. The Start Strong proposal calls for increasing access to the Virginia Preschool Initiative, the existing state-funded program, by about 17,000 children. This would bring the total number of preschoolers in the state preschool education program to nearly 30,000 by 2012.

Access to the program designed for low-income 4-year-olds would increase through broadening eligibility requirements. Currently, a family of four with an income of no more than \$26,800 is able to enroll their 4-year-old children in the program. Under the proposed plan, the cutoff would be changed to \$38,200 for a family of four.

The proposal does not include free or subsidized preschool education services for other middle- or high-income families. Kaine’s plan to help out these families is to have the state operate a preschool quality rating system that would allow parents to compare programs in their communities. Plans also call for a voluntary 5-Star Quality Rating System.

The expanded access, which Kaine’s office said could serve up to 67 percent of the state’s 4-year-olds when fully implemented, will cost \$75 million more annually. However, the budget crunch has some lawmakers concerned that there will not be enough funding for this proposal.

A recent study from the University of Virginia found that of the approximately 105,000 4-year-olds in the state, nearly 45,000 were not enrolled in any type of preschool education program. Children from families with incomes below the poverty level are the least likely to be enrolled in a preschool program. Children are more likely to be enrolled in some type of program if: their mother is at least a high school graduate; they do not have a grandparent living at home; and they have at least one parent in the labor force. ■



Olivia Golden: Head of New York's First-Ever Children's Cabinet

Olivia Golden, chief of operations of New York State, has just been appointed head of the state's first-ever Children's Cabinet, with pre-K expansion its first order of business.

it was supposed to have. The infusion of significant additional funding brings with it the challenges of growing a program very, very quickly.

One challenge we are working on is ensuring that school districts all over the state, whether urban, rural, or suburban, large or small, have the information they need to be excited about prekindergarten and to plan effectively for it. The State Education Department partnered with Head Start and child care agencies to conduct forums around the state this year as a way of reaching out to districts and to community agencies to build capacity. I was struck by the different ways the issues play out in different communities—and also by the extraordinary creativity of many communities in addressing the issues.

Other challenges of growth include helping school districts and community-based agencies collaborate even more effectively than in the past, responding to the needs of some families for full-day programs for their children, helping communities address a lack of appropriate facilities, and addressing the transportation issues that some families and communities experience. And of course an overarching challenge is promoting quality both in prekindergarten programs and across the early childhood system, since we know from the research that quality is crucial to the successful outcomes we want

for children.

Many communities are showing the way with creative strategies for addressing complex problems. For example, in Rochester, the school superintendent and the mayor have partnered in efforts to convince parents of the importance of enrolling their child in universal prekindergarten. In addition, the superintendent has enlisted the support of business leaders to cover transportation costs of children who otherwise would be hard to serve. We will make every effort to make information about promising practices available to other communities struggling with these same issues. In addition, where needed we will seek regulatory and statutory changes to support successful implementation of the program.

Q: How will you provide enough qualified teachers?

A: Because New York State is able to build on a historical base of requiring qualified teachers in many settings, local communities have not so far experienced substantial difficulties in obtaining qualified teachers. Specifically, the legislation requires that district-operated classrooms be led by a certified teacher, but allows non-certified teachers in classrooms operated by a community-based organization to lead the classroom as long as they have a five year-plan to become certified. In the 2006-2007 school year, more than 75 percent of UPK teachers were certified.

The ability to obtain certified teachers to lead UPK classrooms is partially due to the fact that teachers in child care programs in New York City are already required to be certified.

Q: Are there plans to move to full-day services or add 3-year-olds to the program in the coming years?

A: One of the important advantages of the Children's Cabinet approach is that we can look at a whole range of early childhood settings and funding streams in thinking about the best strategies for the future. In fact, we are putting together a team made up of state staff and outside advisors from our Children's Cabinet Advisory Board to look at questions of how best to blend funding or otherwise use available funding streams collaboratively to achieve the best results for children.

Right now, 60 percent of UPK classrooms are operated by community-based programs such as child care and Head Start programs. Often, these programs use the funding to enhance the quality of services and, if part-time, extend the day and year of services. In this way we are able to meet the needs of families for full-day care by linking resources of two or more programs. In addition, we are identifying and exploring potential modifications to New York state's UPK program that will meet the needs of families whose children are not yet being served by UPK.



Golden has a long history as a policy researcher and an advocate for children, with stints at the Children's Defense Fund and in the Federal Health and Human Services Administration and will now oversee one of the most ambitious expansions of early childhood education ever attempted. Governor Eliot Spitzer has promised to make pre-K available to every 4-year-old during his first term in office.

Q: As head of the new Children's Cabinet, you are now charged with overseeing the expansion of the Universal Prekindergarten program. What are the biggest challenges?

A: In the past 10 years, New York State's UPK program didn't receive the resources

Q: New York has not yet adopted early learning standards—will the Children’s Cabinet press for these?

A: You are asking this just at the right moment—the Children’s Cabinet is discussing right now how to link the ongoing work of the State Education Department in developing early learning standards with the plans of our Office of Children and Family Services to develop clear standards for quality in child care. We are currently establishing a working group that will bring together state staff and outside advisors to

focus on these issues of quality and standards across early learning settings.

We think these issues matter because it is important to know how we will assess the quality and effectiveness of our pre-K and other early learning programs. Since so much of our prekindergarten program is delivered through school and community-based organization partnerships, we need to make sure that our expectations are clear and consistent.

Q: New York has moved toward a new approach to funding prekindergarten.

How does that work and why is it better?

A: New York state’s funding of Universal Prekindergarten has included a couple of strategies that helped lead to successful program implementation. First, while school districts are the only organizations that are eligible for state funding, a minimum of 10 percent of their funding must be used to support collaborative programs in a variety of settings to meet family needs. With 60 percent of classrooms operated by agencies other than the school district, we are very proud of the collaboration

that has arisen from our approach to funding.

In addition, after several years of operation as a grant program, funding for Universal Prekindergarten in the 2007-2008 school year has been included in the school funding formula. This reduces the administrative bureaucracy required to operate the program and signals to school districts that Universal Prekindergarten is now a part of regular educational programming and is no longer at risk of being de-funded. ■

Discoveries: New Hope for Children at Risk for Antisocial Behavior

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intervention.

In the parent groups, group leaders used videotapes, group discussion and other techniques to teach appropriate strategies for parenting. Parents were encouraged to use non-harsh, consistent discipline and to use positive reinforcement and play interactions to promote social competence. In the preschool groups, group leaders taught children social skills, reinforced positive behaviors and provided consequences for negative behaviors. At the end of each session, group leaders encouraged parents to practice specific parenting skills and strategies during the 30-minute guided parent-pre-

schooler interactions. Home visits by group leaders helped parents implement what they learned in the home settings. The control group did not receive the intervention.

During an assessment before and after the intervention, children were presented with a social challenge in the form of a visit to a nearby nursery school where children were required to join an unfamiliar peer group for 30 minutes of play. Before leaving for the school, each study child was told he or she was “going to a school to play with some other children” so that they were made aware of an impending stressful experience. Upon arrival, a saliva sample was taken. After 30 minutes of play, another

saliva sample was taken.

When the saliva samples were tested to determine the level of cortisol prior to children’s entry into the unfamiliar peer setting (that is, in anticipation of the social challenge), the pattern of findings was striking. Before the program, as a group, these high-risk children did not show the expected elevation in cortisol in anticipation of the social challenge. After the program, children from the intervention group showed higher cortisol levels in anticipation of the social challenge while those from the control group showed cortisol levels that remained low. The post-challenge cortisol levels of both groups were low and did not change with

intervention. The challenge cortisol levels were compared to baseline values from samples taken at home under non-stressful conditions.

Taken together, these findings suggest that participation in a family-based prevention program has an effect on children’s response to stress, as reflected in the levels of the hormone cortisol. Furthermore, this study provides evidence to suggest that early experiences, including non-pharmacologic interventions (such as programs to improve parenting and child behavior) early in childhood can have an impact on neurobiological systems in children. ■

Mixed Report: Early Reading First

Experts Call For Program to Be Revised

When President Bush rolled out the No Child Left Behind Act (NCLB) six years ago, some early childhood educators felt its emphasis on K-12 education missed new opportunities to better prepare children during their preschool years. Only two initiatives from the NCLB effort addressed preschoolers—Early Reading First (ERF) and the Early Childhood Educators Professional Development grants. NCLB has dedicated \$450 million to fund grants for preschool literacy programs, since its enactment. ERF is a companion to the much larger

Reading First program that addresses literacy in kindergarten through third grade. Five years after ERF went into effect, the final evaluation report on the program is out and the results are mixed.

The evaluation, conducted by a research firm under contract to the U.S. Department of Education, found ERF's most positive effects to be in improvements in classroom activities related to literacy, teaching materials, and the practices used by teachers. In classrooms receiving the ERF funding, teachers received more professional development and tutoring on literacy and curriculum aspects than did teachers in classrooms not receiving ERF funding. The ERF teachers also received more mentoring.

It also found a higher percentage of English Language Learners in ERF-funded programs than in other programs.

The evaluation found that children in ERF-funded classes had higher quality interactions with teachers, more access to activities that build literacy such as early writing exercises, and they had regular assessment of their progress. Even so, the report's findings showed ERF had no statistically significant effect on preschooler's oral language skills, phonological processing, or social and emotional development. On the other hand, it did find statistically significant positive effects on children's print and letter knowledge.

Experts say that while the findings could have been better as far as child outcomes go, especially in the area of oral expressive language, the program should be continued but revised. Dorothy Strickland, NIEER distinguished research fellow and early literacy expert on faculty at the Rutgers University Graduate School of Education says, "The program should be continued with emphasis on the importance of developmentally appropriate practices that foster language and literacy development in young children." She said ERF also provides an opportunity to bring increased attention to the need for valid and reliable assessment tools that are age appropriate for improving instruction.

Having participated in site visits during the onset of ERF, Strickland noted that

the quality of the programs tended to be uneven. She wonders if there is some way to look at successful programs with a view to aligning features and quality in relation to outcomes. Of course, following the progress of ERF children in later grades would also add to our body of knowledge.

Proposed revisions to the ERF, created by the joint collaboration of the National Association for the Education of Young Children (NAEYC), International Reading Association, and National Council of La Raza, which are part of the discussion draft for NCLB reauthorization by Chairman George Miller and Representative Buck McKeon, would focus the program more clearly on effective early literacy teaching with young children.

In particular, it would focus on oral expressive language as well as alphabet knowledge. In addition, it would require funds to be used to expand the number of early childhood literacy mentors, individuals with expertise in early literacy and in early childhood effective pedagogy, to help educators in individual programs.

"Given the findings of the national evaluation, it is clear Early Reading First is doing some good," says Adele Robinson of NAEYC. "But we also know that the resources could be used even more effectively if they are focused on professional development in effective teaching and coaching and mentoring support educators need." ■



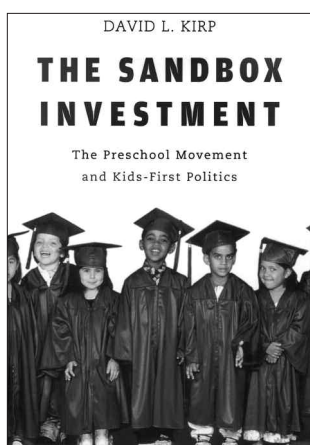
Related Reading

The Sandbox Investment: The Preschool Movement and Kids-First Politics

David L. Kirp, 2007

Harvard University Press
Cambridge, MA

352 pp., ISBN-13:978-0-674-02641-4
\$26.95



The Sandbox Investment, just out from Harvard University Press, is an expansive, politically insightful and engaging account of the preschool movement in the United States today. A University of California public policy professor and former newspaper editor, David Kirp traveled the country and read volumes of written material in researching his current book on preschool education. It shows. He easily moves from science to

policy to politics in telling the story.

The Sandbox Investment begins with a tour of Chicago preschool programs, including the much studied Chicago Child-Parent Centers. This tour combines a child's-eye view of educational quality with an adult's-eye view of the policies that shape educational quality. Following this tour, Kirp reviews three bodies of research: (1) studies of preschool education's effects on learning and development, (2) studies of the economics of early development and investments therein, and (3) relevant research on neuroscience and genetics of early development. These reviews are well documented, but unlike traditional research reviews, researchers comment on their own and others' work and policy recommendations. This helps clarify, if not resolve, conflicting claims. After reviewing the science, Kirp shifts back to policy with a concise history of preschool politics and policy from WWII to 2001.

Kirp picks up the history from there, describing the role of philanthropic foundations, including The Pew Charitable Trusts, in "jumpstarting a movement" for high-quality preschool education for all. Proponents and critics of the "movement" are extensively quoted regarding key issues of policy and politics. Should preschool education be means-tested or universal? Should parental choice be unconstrained or limited by standards and regulation? What policy and political goals should be pursued immediately and in the long-term? Kirp follows up with four case studies of state sandbox politics that illustrate the consequences of various choices of policy and political strategy.

The final chapters of *The Sandbox Investment* examine child-focused politics and policy in the United Kingdom and then "Kids-First" politics in the U.S. Support for child rearing and development has changed in the UK. *The Sandbox Investment* pinpoints the beginning of that change in Prime Minister Tony Blair's 1999 promise to end child poverty in a generation. What followed was a bold set of policies: a minimum wage of nearly \$10 an hour, paid parental leave, earned income and child tax credits, and new preschool initiatives. The preschool initiatives include free education for every 3- and 4-year-old beginning with 12.5 hours a week (for 38 weeks) and rising to 15 and then 20 hours over several years, and a much broader effort called Sure Start.

What Kirp calls Kids-First policies—making work pay, increased tax credits, decentralization, children's health care, and parental choice in early education and child care—have been highly popular with the British public. In *The Sandbox Investment*, he suggests that similar Kids-First policies may be effective politics in the United States and offers as evidence several recent examples, citing those of Governor Jim Hunt of North Carolina and Congressman Chet Edwards. Hunt's Smart Start policies have much in common with and may have inspired the UK's Sure Start. Edwards was one of only two Democrats to survive the election after being targeted by Texas redistricting in 2003, and Kirp attributes his survival to Kids-First politics.

Unfortunately, policies need not be educationally effective to be politically effective. Politicians eager to please constituents are inclined to seek the most slots for the fewest dollars and in the process sacrifice quality. Kirp is well aware of this risk and aptly quotes Berkeley psychologist and universal pre-K advocate Alison Gopnik (p.6): "My nightmare is that when it [preschool for all] actually happens it will be terrible." How to avoid the nightmare while pursuing the dream is one of the tough questions raised by this book.

Indeed, like many good books, *The Sandbox Investment* raises as many new questions as it answers. How far will the preschool movement and Kids-First politics go toward addressing the needs of all American children? Will policies remain tethered to the means-tested, targeted approaches of the past? As *The Sandbox Investment* recognizes, these are not just economic questions—they are also moral and political questions. In the next few election cycles we may learn much about how Americans decide to answer those questions. The full review of this book is available at <http://www.tcrecord.org/Content.asp?ContentID=14620>. ■

Reviewed by Steve Barnett
Director, NIEER

New Hope for Children at Risk for Antisocial Behavior: Cortisol Stress Levels Studied

Family-Based Interventions Can Lead to More Typical Stress Responses

Researchers have known for some time that the level of the hormone cortisol rises in preschoolers when presented with social stresses such as joining unfamiliar peer groups. Cortisol rises in normally developing children in socially challenging situations but it remains puzzlingly low in children who develop antisocial behaviors. This atypical cortisol response is consistent with other patterns of response in delinquent youth, such as difficulty interpreting social cues and being less responsive to social reinforcement. Cortisol is readily measured from saliva samples, making it a useful measure of stress in young children. It also sheds light on how early experiences and early intervention affect neurobiological systems.



Cortisol levels rise in normally developing children when presented with social stresses such as joining unfamiliar peer groups.

Despite its obvious relevance, no randomized trials had been done examining changes in children's stress response to social challenges until New York University clinical psychologist Laurie Miller Brotman and colleagues took on the challenge.

Brotman, who led the study, says the findings have a number of implications. "They show that behavior is

not 'hard-wired' into children but can be altered by effective interventions," she says. In this and previous work, she has found that important changes in parenting and child behavior can be made through effective family intervention delivered to high-risk children during the preschool period.

They identified 92 families with (a) a preschool-age

child and (b) an older child who had been adjudicated in the courts for offenses indicative of antisocial behavior. Satisfied they had a sample of preschool children at risk of developing antisocial behavior, they randomly divided the sample into a treatment and a control group.

The treatment group received a family-based intervention in the form of an adapted version of the Incredible Years parent training program. It consisted of 22 weekly, 90-minute group sessions for parents and preschoolers, 30 minutes of guided parent-preschooler interactions at the end of each of the 22 sessions, a minimum of 10 biweekly home visits with additional home visits as needed during the 6- to 8-month period of

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