POLICY NOTES

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Preschool Education: New Jersey and the Nation

A child's chance for success in school and in life can be greatly enhanced by their participation in a high-quality preschool program. This message was made loud and clear by participants in a policy forum, "Preschool Education: New Jersey and the Nation," sponsored by ETS, the New Jersey Department of Education and the Public Education Institute of Rutgers University.

"The research has shown us clearly that early education is critically important in shaping a child's academic and intellectual development. And literally, the early years of a child's life present a once-in-a-lifetime opportunity," noted ETS Senior Vice President and Edmund W. Gordon Chair **Michael Nettles** as he opened the policy forum and the discussion on trends, policies and effective preschool programs. "Our three organizations are co-sponsoring today's conference because of the shared belief in the fundamental importance of early childhood education — for individuals, for our economy and, ultimately, for our democracy."

'Our three organizations are co-sponsoring today's conference because of the shared belief in the fundamental importance of early childhood education — for individuals, for our economy and, ultimately, for our democracy.' *— Michael Nettles*

ETS's President and CEO **Kurt M. Landgraf** also stressed the critical importance of preschool education to the children themselves, to society and to our economy. He cited the results of a 2006 study by the Brookings Institution that found that high-quality, universal preschool could add $2 trillion to

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The policy forum attracted more than 150 policymakers, educators and researchers who came together to examine some of the most significant trends and policies regarding the state of preschool in New Jersey and in the United States. The conference was held at ETS's world headquarters in Princeton, N.J., on March 3, 2009. This issue of *ETS Policy Notes* provides an overview of the issues, research and insights discussed during the policy forum.

Symposium sessions included:

- The State of Preschool in the United States: Trends and Policies
- Programs and Policies to Reduce School Readiness Gaps
- Educational and Economic Benefits of Preschool
- New Jersey: Where We've Been, Where We're Going, and the Challenges Ahead

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the nation's GDP by 2080. While Landgraf described preschool education and the impact it has on children as a "no-brainer," he lamented the fact that public policy has not always caught on.

Landgraf cited evidence — gathered by the National Institute for Early Education Research (NIEER) and other researchers — that preschool education can make a huge difference. For example, a study that examined the impact of preschool programs in five states, including New Jersey, found that children attending high-quality, state-funded preschool programs experienced significant improvements in language, literacy and math development regardless of their socioeconomic background. In addition, data from the Chicago Child-Parent Center calculated a $10 return for every $1 invested in preschool programs. And in New Jersey, new research points to gains from preschool programs mandated by the Abbott legislation. "The facts all point in one direction," concluded Landgraf. "Devote more resources to preschool and you will have a very different outcome in K–12".

Keynote speaker **Jerlean Daniel**, Deputy Executive Director of the National Association for the Education of Young Children, echoed Landgraf's belief in the importance of preschool education, but she also explained that there is still much work to do as there are signs that all of us — researchers, program administrators, teachers, teacher-educators, community activists, legislators and parents — are still trying to get it right.

While the work is not easy and often is frustrating, Daniel assured the audience that there are signs that we are beginning to look in the right place. Preschool programs like Perry Preschool and Abecedarian demonstrate that when we employ the key elements that have been shown to be effective, we can help fulfill the dreams that parents have for their children and for their communities. Daniel also pointed to recent successes in New Jersey, where data are increasingly positive. For example, as a result of the Abbott preschool programs, retention in second grade is on the decline.

"We have learned many lessons regarding how to do a better job in early childhood education, but we are always looking for the silver bullet — it is in our nature," stated Daniel. "We've learned, however, that there is no silver bullet — one size does not fit all. The work must continue. It is critical to student outcomes to continue examining and rethinking preschool programs to make sure they are as effective as they can be in meeting the needs of our children while having a positive impact on the community."

Daniel posed what she termed the counterintuitive notion that early childhood education is "rocket science," and she asserted that "it will take all of us working

together to get it right." As we learn lessons about the "rocket science" of early childhood education, Daniel reminded the audience that we need to be mindful of several issues as we build our systems. One issue is the interrelatedness of all aspects of early childhood care and education. For example, as research findings accumulate, teachers need support and professional development. Teachers need the time and opportunity to reflect on new developments and modify teaching.

She also reminded the audience that we need to focus on the whole child — the social, emotional and cognitive aspects. We know that children who do well in school are those who are emotionally and socially well-adjusted. They know how to engage and interact with teachers and other adults and are better able to get what they need.

Researchers also are making new discoveries about developmental learning progressions in reading, math and writing that are having a positive impact on the field. The challenge, she said, is how to avoid taking the research out of context and considering it as the silver bullet. "How do we think about the research in the context of the system that we need to build — the outcomes we want for the children, the skill sets they need to develop, issues around teacher preparation, assessment and screening systems and learning standards? How do we avoid getting carried away and putting all our marbles in one basket?," she asked. Daniel suggested that perhaps the recognition that we are building a system and an infrastructure to support our efforts will keep us from focusing on the silver bullet. In closing, Daniel noted that New Jersey is starting to figure out this "rocket science" and can provide valuable lessons to others around the country.

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Where We Are: The State of Preschool in the United States

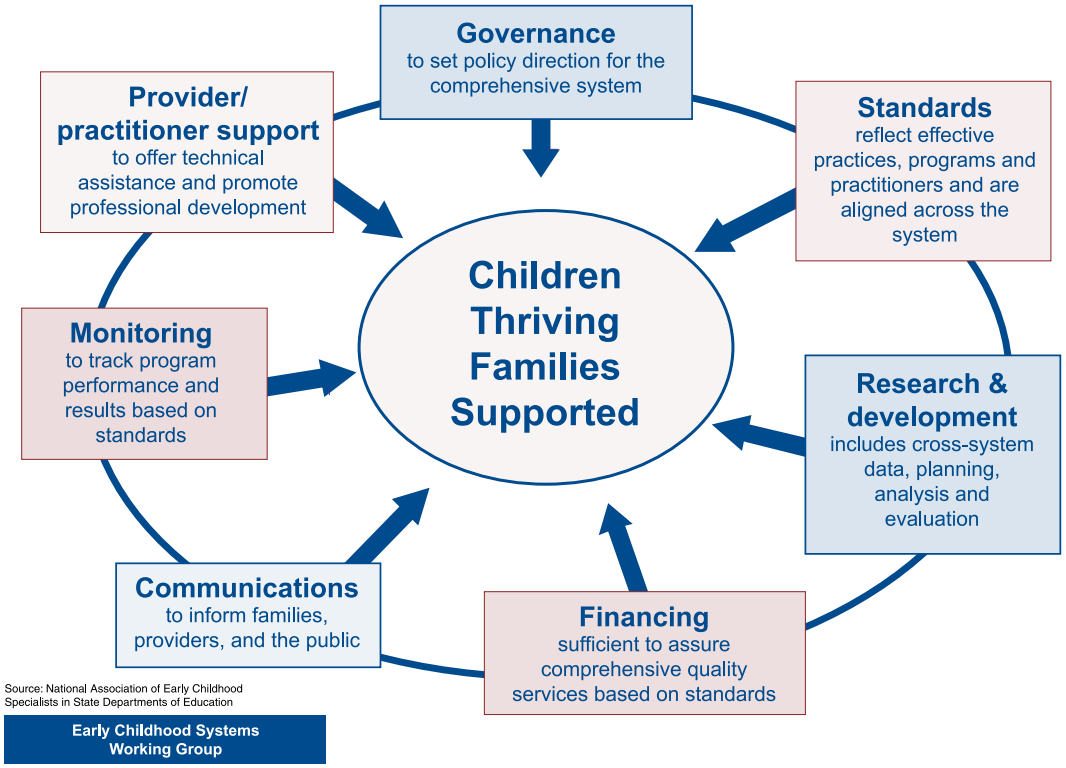
Creating a structure that is useful in discussing trends and policies in preschool education across the nation, **Jana Martella**, Executive Director of the National Association of Early Childhood Specialists in State Departments of Education, provided a visual depiction of the systematic approach that goes into a full-scale successful effort for young children.

Martella outlined the following elements of an early childhood development program and what is happening across the United States:

- Governance structures are reorganizing. For example, New Jersey now has a Pre-K through third-grade initiative within its Department of Education.

- Standards are being revised. There is a concerted effort to broaden and deepen the reach of standards across domains and the learning continuum.
- Research and development in preschool education has increased across the nation. As states have rolled out their preschool programs, a tremendous amount of research and evaluation has been conducted, adding to the body of knowledge on the effects of preschool education.
- There has been an increase in funding at the same time finance structures have been altered. For example, public-private partnerships are funding many preschool initiatives, thereby establishing new ways of thinking about governance issues.
- Data are being shared with practitioners in the classroom to inform instruction, with families to inform them on how their children are doing, and with other stakeholders to inform them on how programs are performing.
- While most states do not conduct large-scale assessments of young children (age five and under), such assessments are picking up speed across the country. States also are increasingly developing and examining their data systems for young children.

Figure 1: Core Elements of an Early Childhood Development System



- The usefulness of these core elements of an early childhood development system is dependent on the quality of support and professional development that practitioners receive in helping them use the data and information.

'Single elements should not be the focus; rather, a systemic approach is needed.' — *Jana Martella*

While all of these components are getting increasing attention across the states, Martella cautioned that single elements should not be the focus; rather, a systemic approach is needed. These components should form the basis for a skill set developed among stakeholders — and particularly among the practitioners who are interacting with the children and focusing on their development.

Programs and Policies to Reduce School Readiness Gaps

While the achievement gap is persistent, the investment that we make in a child early in life is the most promising thing we can do to change outcomes for children in New Jersey and in the nation. The earlier we can reach children and ensure that they are ready for school, the better off they will be as they progress through the educational system.

Jeanne Brooks-Gunn, Virginia and Leonard Marx Professor of Child Development, Teachers College and the College of Physicians and Surgeons at Columbia University, discussed school readiness in terms of a child's academic and socioemotional skills. During her discussion, she illuminated the rationale for why we need to look not only at adolescents, but also at younger children since school readiness gaps begin early and persist as children progress through school. Alarmingly, children who are not "ready" for school are more likely to perform less well in elementary and secondary school, become teen parents, engage in criminal activities and suffer from depression.

Presenting data from the National Assessment of Educational Progress (NAEP) Reading Assessment, she showed how the racial/ethnic gaps that exist in 12th grade also are seen in fourth grade. In fact, the reading and mathematics achievement gap among racial/ethnic and socioeconomic groups is present at kindergarten. According to Brooks-Gunn, socioeconomic differences account for a good part of the test score differences. "When we talk about school readiness differences, race/ethnicity is definitely a factor, but the bottom line is poverty," Brooks-Gunn said. On average, the Black and Hispanic populations are more likely to be low-income and have lower levels of education.

'When we talk about school readiness differences, race/ethnicity is definitely a factor, but the bottom line is poverty' — *Jeanne Brooks-Gunn*

Brooks-Gunn focused her discussion on two strategies used to reduce school readiness

gaps: access and attendance and quality, which play very important roles in improving early childhood education. Low levels of access to early childhood education continue to be a problem for certain groups. For example, three- and four-year-old Hispanic children are less likely to be enrolled in preschool education than other children. About 10 percent of all three- and four-year-olds are enrolled in Head Start (20 percent of Black children, 15 percent of Hispanic children, and four percent of White children). If Head Start did not exist, the racial/ethnic gaps in preschool enrollment would increase, thereby increasing gaps in school readiness. According to Brooks-Gunn, Head Start is probably the one program that has done the best job of enrolling Hispanic children in the United States.

Conducting a simulation based on the effect of going to any preschool program at age four, Brooks-Gunn asserted that if all children whose families were in poverty (100 percent of the poverty level or less) were in a preschool, reductions in test gaps would be two to 12 percent for Black children and four to 16 percent for Hispanic children. Taking it a bit further, Brooks-Gunn found that if all children whose families were at or below 200 percent of the poverty threshold were in a preschool, reductions in test gaps would possibly double. Increasing preschool access would not wipe out the test score gap, but it would make huge reductions.

In regard to high-quality preschool programs, indicators include:

- teacher education
- teacher-to-child ratios
- class size
- language and conversation in the classroom
- organization of the classroom
- ongoing training of teachers

To give an example of the kinds of results that can be demonstrated in small-scale early childhood education evaluations, Brooks-Gunn focused on her study of the Infant Health and Development Program Intervention Services. The children in the study all received the same intervention: home visits in the child's first and second years of life, and enrollment in a day care center in the child's second and third years of life (transportation available, center open throughout the workday). The intervention and follow-up groups received free medical surveillance and referrals to specialists in the child's first three years of life. The positive effects on IQ and vocabulary-test performance were substantial, as shown in Figure 2. There was a significant effect at

Figure 2: Infant Health and Development Program Impacts from Age 3 to 18

	IQ	PPVT
3 Years	14.3	9.4
5 Years	3.7	6.0
8 Years	4.4	6.7
18 Years	3.3	5.1

Heavier low birth weight children only
All impacts were significant

Source: National Center for Children and Families (NCCF) – Teachers College, Columbia University, www.policyforchildren.org.

age three, although there was a drop after the intervention ended. Sustained effects on IQ and vocabulary were observed through to age 18 — a remarkable finding since the intervention ended at age three.

Brooks-Gunn cited several important elements that should be given attention if we are to improve the quality of child care programs. These elements include the need to train teachers to identify children with moderate to severe behavior problems and to work with them to improve their emotional and social skills; a parent-training component for mothers with low literacy; documented efforts to encourage high attendance; and well-defined and tested curricula.

The Educational and Economic Benefits of Preschool Education

W. Steven Barnett, Director of the National Institute for Early Education Research at Rutgers University, focused his presentation on three studies that assess the economic benefits of preschool education programs: Abecedarian, High/Scope Perry Preschool, and Chicago Child-Parent Centers. It is important to examine these programs because comprehensive benefit-cost data are available for them. Each program has a different focus, and the programs were implemented in different decades and in different regions of the country.

- The Abecedarian Project is one of the longest running, most carefully controlled and respected studies on early education. It began in the 1970s in North Carolina and compared two groups of infants from low-income families randomly assigned to a high-quality childcare setting or to a control group. The treatment included educational activities that addressed each child's needs and focused on social, emotional and cognitive development. The children were followed from infancy through age five.

- The High/Scope Perry Preschool Study examined the lives of a sample of 123 African American children born into poverty and at high risk of failing in school. Participants received a high-quality preschool program at ages three and four based on High/Scope's participatory learning approach. It was conducted as a prospective randomized trial with the most recent follow-up at age 40.

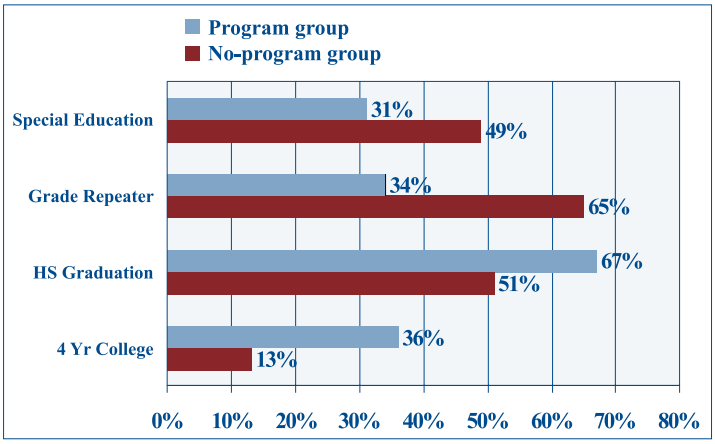
- The Chicago Longitudinal Study is a federally-funded quasi-experimental evaluation of the Child-Parent Center (CPC) program. This CPC study investigates the long-term effects of the CPC Program with 1,539 children in the Chicago public schools who completed kindergarten in 1986. The CPC Program provided comprehensive educational and parent involvement services.

Barnett reported that each of these programs had a great impact. The Abecedarian study showed that participants were less likely to repeat a grade, less likely to be placed in special education, more likely to graduate from high school and more likely to attend a four-year college. These data are shown in Figure 3.

The High/Scope Perry Preschool Study showed a reduction in placement in special education, increased achievement and increased high school graduation rates (Figure 4). Additional effects included increased income, decreased likelihood of receiving welfare as an adult and decreased likelihood of being arrested by age 27. The economic effects are not as stark at age 40, but are still apparent: Participants are more likely to have a savings account, more likely to be employed and less likely to commit crime.

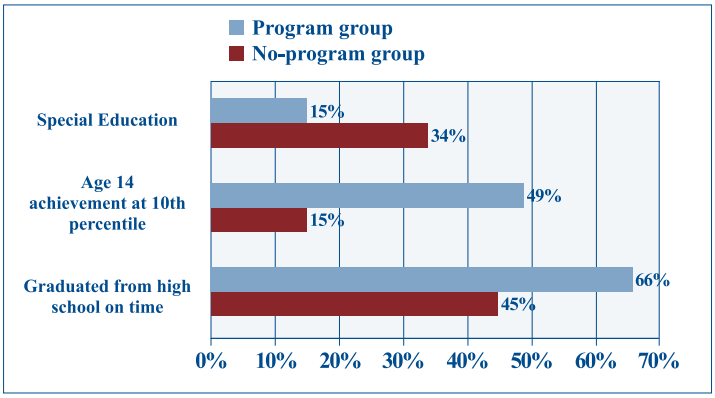
The Chicago Child-Parent Center study showed similar impacts on high school graduation, special education, grade repetition and juvenile arrest (Figure 5). For the most part, however, the effects were smaller than in the other two studies. Barnett concluded that this was an indication of the dose-response relationship — i.e., the same treatment is given, but it is less intensive.

Figure 3: Abecedarian – Academic Benefits



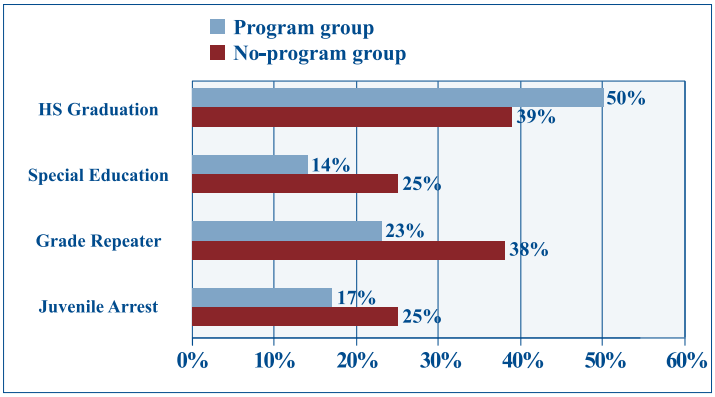
Source: Barnett, W.S., & Masse, L.N.(2007). Early childhood program design and economic returns: Comparative benefit-cost analysis of the Abecedarian program and policy implications, *Economics of Education Review, 26,* 113-125; Campbell, F.A., Ramey, C.T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science, 6* (1), 42 - 57.

Figure 4: High/Scope Perry Preschool – Educational Effects



Source: Berrueta-Clement, J.R., Schweinhart, L.J., Barnett, W.S., Epstein, A.S., & Weikart, D.P. (1984). *Changed lives: The effects of the Perry Preschool Program on youths through age 19*. Ypsilanti, MI: High/Scope Press.

Figure 5: Chicago CPC – Academic and Social Benefits at School Exit



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As an economist, Barnett asked the question, "What is all of this worth in terms of dollars and cents? Are these programs good investments?" The economic returns of these three programs are shown in Table 1. The table shows the cost of the intervention, the value of the benefit, and the benefit/cost ratio. The Perry Preschool program costs $17,599 and results in benefits of $284,086, for a benefit/cost ratio of 16. This means that for each dollar spent on the Perry Preschool Program, there was a benefit to society of $16.

Table 1: Economic Returns to Pre-K for Disadvantaged Children

(In 2006 dollars, 3% discount rate)

	Benefits	Cost	B/C
• Perry Pre-K	$284,086	$17,599	16
• Abecedarian	$176,284	$70,697	2.5
• Chicago	$83,511	$8,224	10

Source: Barnett, W.S., & Masse, L.N.(2007). Early childhood program design and economic returns: Comparative benefit-cost analysis of the Abecedarian program and policy implications, *Economics of Education Review, 26,* 113-125; Belfield, C., Nores, M., Barnett, W.S., & Schweinhart, L.J. (2006). The High/Scope Perry Preschool Program. *Journal of Home Resources, 41(1),* 162-190; Temple, J.A., & Reynolds, A.J. (2007). Benefits and costs of investments in preschool education: Evidence from the Child-Parent Centers and related programs. *Economics of Education Review, 26(1), 126-144.*

While the Abecedarian program does not produce nearly as high a return, there are reasons for this, Barnett pointed out. The Abecedarian program is a much more expensive program and there were no crime benefits (possibly due to fact that the location of the program is not a high crime area).

The Chicago Child-Parent Center, which resulted in a benefit/cost ratio of 10, is a less intensive program, but also less expensive. Barnett emphasized that even though more intensive may mean more expensive, the additional payoff may be worthwhile.

Thus, the evidence shows us that preschool education can be a sound investment with high economic payoffs if it is done right. The educational and economic benefits depend on quality, quantity and who is served. There now is strong evidence that all children benefit from preschool education; however, Barnett stressed, disadvantaged children, in particular, gain more than middle-income children if they attend with middle-income children.

'The evidence shows us that preschool education can be a sound investment with high economic payoffs *if* it is done right.' — *W. Steven Barnett*

New Jersey: Where We've Been, Where We're Going and the Challenges Ahead

Jacqueline Jones, former Assistant Commissioner of the Division of Early Childhood Education in the New Jersey Department of Education, began this session of the policy forum by describing how New Jersey's preschool education program has evolved to become one of the most admired systems in the country. The Abbott Preschool Program was established in response to a state Supreme Court ruling mandating that preschool programs be provided to all three- and four-year-old children in the state's highest-poverty districts.

'Intensive preschool and full-day kindergarten enrichment programs are necessary to reverse the educational disadvantages these children start out with.' — *New Jersey Supreme Court in* Abbott v. Burke, 1998

Jones outlined the critical components of New Jersey's preschool initiatives:

- Early-learning standards and program guidelines
- Evidence-based curricula
- A certified teacher and assistant in each class
- Maximum class size of 15 students
- Full-day program
- Support for English-language learners
- Support for children with potential learning disabilities
- Professional development for key staff

Ellen Wolock, Director of the Division of Early Childhood Education in the New Jersey Department of Education, gave the audience a status report on New Jersey's preschool education programs and where they are headed. Close to 43,000 of the state's 54,000 eligible students are enrolled in preschool education today. This number represents 74 percent of the state's three-year-olds and 87 percent of the state's four-year-olds.

Today, all preschool teachers have a bachelor's degree and appropriate certification, and as of December 2007, the *Praxis*™ assessment was required for the P–3 certificate. Wolock mentioned that this testing requirement is seen as an important move in further professionalizing the field. Additionally, the quality of the state's preschool programs has increased from "adequate" to "good" as assessed by the Early Childhood Environment Rating Scale. A rating of "good" has been associated with learning gains for children, according to Wolock.

For the future, New Jersey seeks to expand their preschool programs beyond the Abbott districts. Over the next five years, the goal is to reach at least 90 percent of the eligible population in all of New Jersey's school districts.

A strong advocate for preschool and early childhood education, **Lucille Davy**, New Jersey's Commissioner of Education, thanked Kurt Landgraf, ETS and the Public Education Institute for creating a forum to not only discuss the importance of high-quality preschool and what is happening in New Jersey, but to take some credit for the good work that has been done. Davy went on to say that history shows that carefully designed preschool programs can make a significant difference in classroom quality, thereby having a significant and positive influence on student learning outcomes. "We now have evidence in New Jersey that if we close the gap at kindergarten, the rest of the outcomes for these children change dramatically

beginning in first and second grade and continuing right up the line." Davy encouraged the audience members to keep their passion for high-quality early childhood education because it does make a difference.

'We now have evidence in New Jersey that if we close the gap at kindergarten, the rest of the outcomes for these children change dramatically beginning in first and second grade and continuing right up the line.' — *Lucille Davy*

New Jersey offers many lessons for the rest of the country about effective preschool policies and the kinds of supervision, support and resources that programs need to have in order to get the job done. Lucille Davy put the focus back on the children and offered the notion that "together we will … create a future for our youngest children that will allow them to be successful in their lives no matter what path they choose in future years."

Symposium participants were enthusiastic and unanimous in their acknowledgment that the educational and economic benefits of preschool education are substantial, and that the evidence shows that high-quality preschool programs can make a significant difference in student learning outcomes.

THIS ISSUE *(continued from page 1)*

In addition, during lunch, ETS Government Affairs manager **Shannon Litton** provided conference participants with an overview of the Obama administration's "Education" Stimulus and what it could mean for early childhood education programs across the country.

Supporting materials from the presentations are available as PowerPoint files at www.ets.org/preschooledconf.

Save the Dates!

You are invited to ETS's 12th Addressing Achievement Gaps Symposium

After the Bell Rings:

Learning Outside of the Classroom and Its Relationship to Student Academic Achievement

When: October 5 – 6, 2009

Where: The Fairmont Washington, D.C.
2401 M Street, NW
Washington, D.C. 20037

This symposium will discuss how out-of-school learning plays a critical role in overall student academic achievement. It will feature a public discussion of leading supplementary education research, practice, assessment and ideas for public policy. It will also help to stimulate efforts to advance out-of-school learning at the local, state and national levels. The goal of the symposium is to enhance the way in which policymakers, researchers and practitioners think about the contemporary role of out-of-school education for improving academic performance and closing achievement gaps.

For more information about the event, contact Symposium Coordinator Jane Cairns at **1-609-734-5212** or **jcairns@ets.org**.

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Educational Testing Service
Rosedale Road, MS 19-R
Princeton, NJ 08541-0001
(609) 734-5212

e-mail: pic@ets.org

www.ets.org/research/pic

Director: Richard J. Coley

This article was written by Lisa Belfield and edited by Richard J. Coley and Eileen Kerrigan.

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