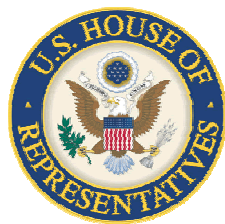


# NATIONAL SUMMIT ON AMERICA'S CHILDREN



## PATHWAYS FROM BRAIN RESEARCH TO POLICY: HIGHLIGHTS FROM THE NATIONAL SUMMIT ON AMERICA'S CHILDREN



US HOUSE OF REPRESENTATIVES

3/1/2008

## INTRODUCTION

When it comes to the healthy development of our children, there are many issues on which we all agree. Everyone wants to see healthy mothers, stable parents, thriving babies, children ready for school, and youth prepared to be productive when they become adults. None of us wants to see deprivation, disease, and dysfunction. These do more than wreck havoc on individual lives; the associated societal costs begin before birth and reverberate for decades.



We all agree as well that achieving our goals for children is a shared responsibility. It is divided among individuals and families who require information and choices to act responsibly; businesses in whose ultimate interest it is to respect and support the needs of their employees; and communities and the public and private sector that depend on stable families and thriving children for a robust future.

Smart policy – in both the public and private sectors – can make a dramatic difference in whether and how we reach the outcomes we seek for our children. We know that the policies that will help build a bright future must be comprehensive and will take time to put in place.

Research, especially the accelerating new findings on brain development, demonstrates that there is a clear pathway to this future. We ignore this research – and the directions it provides – at society’s peril. Brain architecture starts developing very early, and its early formation provides the structure on which

***“The discussion we need is not about whether government should be raising children because it can’t. It cannot. The discussion should be about how both sides of the political aisle can work together with the private sector to meet the needs of all our children and families because we must.”***

Jack P. Shonkoff, M.D.  
Center on the Developing Child  
Harvard University

more complex brain functions are built. Getting it right during early childhood makes much more sense – and is much less costly – than catching up later.

Scores of the nation’s best scientists shared their most recent research and latest knowledge with us at the National Summit on America’s Children, hosted by Speaker Nancy Pelosi. This report highlights the exciting research findings and important implications for policy provided at the summit.

## PATHWAYS FROM BRAIN RESEARCH TO POLICY

A knowledge revolution is transforming our understanding of how young children grow and learn, what they need to succeed in school, and how they can reach adulthood as healthy, productive, and participating members of society. This remarkable advance is critical for policymakers – it directs us to the nature of the environments, supports and relationships that are fundamental for all children.

***We now have the basis to make informed decisions that will significantly affect the future of our children, our families, our economy, and our society.*** The combination of recent findings from neuroscience, early intervention studies, and program evaluation provides excellent guidance for designing policy and directing resources to ensure children’s healthy development.

That’s the big message from the National Summit on Children. Panels of distinguished experts – scientists and medical professionals, business leaders and law enforcement, academics and experienced evaluators – presented the latest science about how the brain develops, what interventions make a difference and why, and how family stability is central to a child growing up ready to achieve.

The core discoveries focus on how the human brain realizes its unique role in processing information, managing emotions, and regulating behavior; the brain is the source of skill development and productivity. While genetic material provides the basic structure of the brain, it is the nutrition, stimulation and human interaction the brain receives that creates its essential refinements and characteristics. These findings are no longer a matter of conjecture – there is now solid, replicable evidence substantiating them. Consequently, they add a critical new dimension to our considerations of policies supporting the nation’s families and children.

Policies supporting early childhood development also represent strong fiscal policy. Nobel Laureate economist James Heckman has demonstrated that investment in children’s early development makes economic sense, improves economic

### **James Heckman, Nobel Laureate in Economics, on the argument for public support of high quality early childhood interventions for disadvantaged children**

- Many major economic and social problems such as crime, teenage pregnancy, dropping out of high school and adverse health conditions can be traced to low levels of skill and ability.
- While the percentage of college graduates in the U.S. is growing, at the same time, properly counted, the high school dropout rate (which includes exam certified graduates (GEDs) is increasing, reaching nearly 30 percent annually.
- Ability gaps between the advantaged and disadvantaged open up very early in children’s lives.
- Skill formation throughout the life cycle is dynamic. Skill begets skill. Motivation begets motivation. If a child is not motivated and stimulated to learn and engage early on in life, the more likely it is that when the child becomes an adult, it will tend to fail in social and economic lists.

productivity, and reduces social and economic inequality. Poor birth outcomes increase the odds of dropping out of high school, lowering labor force participation, and reducing earnings.<sup>i</sup>

This report captures the lessons of brain research in three primary areas:

- Healthy Births and Positive Physical and Mental Health
- Parent Supports and Early Childhood Care and Education
- Family Economic Security

In each area, this report draws attention to the knowledge base and its implications for policy to reach our desired outcomes: thriving children, stable families, and strong communities.

## WHAT SCIENCE TELLS US ABOUT ACHIEVING HEALTHY BIRTH OUTCOMES AND POSITIVE PHYSICAL AND MENTAL HEALTH DURING EARLY CHILDHOOD

***Brain architecture begins developing before birth*** and involves billions of nerve connections, or synapses, which are shaped over time to generate human skills and functions. Shaping these connections starts prenatally and continues over time.

***Adult health contributes to infant health and development.*** A mother's health and nutrition during the prenatal period significantly affect her baby's brain development. Factors shaping the increasing number of poor birth outcomes, especially the increasing number of premature births (most of which are low birth weight), rest in young women's health problems even before conception. Low birth weight can lead to developmental delays, disability, and death. Infant mortality – death before age one – now accounts for almost 60 percent of all deaths in childhood from birth through age 18.<sup>ii</sup>

***"Hereditary risk factors load the gun, but it's environmental risk factors that pull the trigger."***

Rucker C. Johnson, Ph.D  
University of California,  
Berkeley

***Adequate nutrition supplies the developing brain with fundamental nourishment for its normal growth.*** Poor young children from food insecure households are 40 times more likely to be scored at developmental risk on validated screening tools than are their peers from food secure households, according to C-SNAP (the Children's Sentinel Nutrition Assessment Program).<sup>iii</sup> One in eight



U.S. households with an infant is “food insecure” and among households with a low birth weight infant, one in seven is “food insecure.” Food insecure children who are eligible but do not receive housing subsidies are twice as likely as those who do receive housing subsidies to have stunted growth; stunting affects not only physical growth but also impedes brain growth as well.<sup>iv</sup>

***A home that is free of toxins prevents damage to the developing brain and improves children’s health.*** Many substances, including lead, mercury, and organic phosphate insecticides can be toxic to the genes, proteins and small molecules that contribute to the formation of the brain. Exposure to these agents can severely damage brain formation before and after birth, often leading to long-term harm to the developing child.<sup>v</sup>

## **POLICY IMPLICATIONS FOR HEALTH AND MENTAL HEALTH CARE, FOOD PROGRAMS AND HOUSING**

***Access to quality health care is essential for expectant mothers and young children.***

- Health care for pregnant women helps ensure appropriate nutrition and weight gain, prevent threats to healthy development such as tobacco, alcohol or drug use, and provide a means to detect problems early and provide intervention or treatment; these are all critical factors for normal brain architecture and a healthy birth.
- Access to health care for infants and young children is equally critical; it is the basis for monitoring healthy growth and development, identifying developmental delays, and providing anticipatory guidance and support to parents in the appropriate care and education of their young children.
- New evidence emerging from a 40 year longitudinal study shows links between low birth weight and child cognition, child health, educational attainment, adult health and labor market outcomes.<sup>vi</sup> Low birth weight, health insurance coverage and parental income during a child’s earliest years account for the racial disparities in adult health.
- With new genetic tools, it is possible to identify in early childhood the predispositions to adult chronic diseases, raising important new opportunities for prevention and early intervention and reducing later remediation and costly care.



***Comprehensive health coverage makes a significant difference to healthy birth outcomes and early physical, social, and emotional development.***

- Health coverage is the means most likely to ensure that pregnant women and children receive the regular preventive and wellness care that they need, which is critical for early brain formation. Children who would otherwise have little or no access to routine health and medical care because private insurance is either unaffordable or unavailable receive essential coverage through Medicaid and SCHIP.
- For families that have health insurance at birth, the lasting impacts of low birth weight on later health, educational achievement, and workforce participation are much smaller.
- In 2006, 9.4 million children were uninsured; employer-sponsored coverage of children is declining. Young African-American and Hispanic children are twice as likely to be uninsured as white children and significantly less likely to be in excellent or good health.
- There has been a slow but serious rise in chronic illness among children – asthma, obesity, and neurodevelopmental problems – but it is increasingly difficult for children to get the care they need.<sup>vii</sup> Minority children are less likely to be referred by their provider to specialists and more likely to make emergency room visits.<sup>viii</sup>
- Health insurance for children must be comprehensive to address both essential preventive care and the care and coordination that managing complex chronic illness and mental health problems require.



***Appropriate nutrition is essential for children's healthy development.***

- Food Stamps are the largest nutrition program reaching children, yet one in five eligible children do not receive Food Stamps; even those who do receive Food Stamps are not receiving a sufficient “dose” to promote healthy growth and development.
- Infants and toddlers in a “food insecure” household are 30 times more likely to have been hospitalized during the first three years of life, and 90 percent more likely to be in poor health.



***Increasing understanding about social-emotional development heightens the need to ensure mental health services for young children and their families.***

- Early childhood mental health refers to “the age appropriate development in infants, toddlers and preschoolers of the capacity to manage, regulate emotions, relate to adults and peers and how they feel about themselves.”<sup>ix</sup>
- Children at risk for early mental health problems include those living in low-income families, those whose parents lack knowledge about how to manage children’s behavior and those whose parents suffer from depression, alcohol or substance abuse, domestic violence, or other trauma that may lead to harsh, inconsistent or absent parenting.
- Of the 900,000 children maltreated in 2005, the highest rate of child victimization – from physical, sexual or emotional abuse and neglect – occurred among children under age three. More than 60 percent of the children who come to the attention of the child welfare system are victims of neglect or deprivation.
- To address children’s mental health needs requires focusing on adult risk factors that impair children’s healthy development; neither Medicaid nor SCHIP currently permit reimbursement for addressing these conditions.
- EPSDT (Early, Periodic Screening, Diagnosis and Treatment), a part of Medicaid, is a critical program for identifying and treating children with developmental delays and physical or mental disabilities, but many children cannot access these services, and managed care often is unaware of or minimizes access to EPSDT’s availability and services; in addition, most Medicaid agencies do not require validated screening tools for young children.

***Physical environments, especially adequate housing, where children live, play and learn, contribute measurably to children’s health.***

- Adequate and affordable housing is a critical aspect of children’s early environment; substandard housing or housing that includes toxic chemicals such as lead, cockroach infestations and certain insecticides can be damaging to the developing brain *in utero* or in infancy.
- 30 percent of urban children and 20 percent of suburban children are allergic to cockroaches; children with asthma who are allergic to cockroaches and then exposed to them in their home are three times more likely to be hospitalized for asthma.



## WHAT SCIENCE TELLS US ABOUT STRATEGIES THAT SUPPORT LEARNING AND DEVELOPMENT IN THE FIRST YEARS OF LIFE

**Early childhood is a critical period for brain development** and the first three years of life are an extraordinarily rapid period of the brain's formation and growth. Early experiences combined with genes, not genes alone, build the brain. Developing basic human functions – seeing, hearing, language, and mental and emotional processes – relies on exposure to typical daily experiences in a normal environment. Early brain development is also fundamental to how the brain continues its maturation process, which proceeds into young adulthood.



**Learning and social emotional development are intertwined.** Children learn most effectively in relationships that tell them – verbally and nonverbally – that they are listened to, heard and enjoyed.<sup>x</sup> Cognitive and motor skills are learned more efficiently in a healthy social environment.<sup>xi</sup>

**“Preventing crime means investing in proper approaches to get to children and their families while children are still young, approaches like early education and home visiting.”**

Chief Alberto Melis  
Former Chief of Police  
Waco, TX

**Families and caregivers matter most.** The interaction between parents or other caregivers and infants – “the process of seeing and responding to what the other is doing” – is key to learning, communication and language. Parents are the present, predictable, and trustworthy safe haven for young children. Next to parents, the second most important developmental relationship for young children is with caregivers in child care settings.<sup>xii</sup>

**All children experience stress – what matters is the type of stress and how it is supported.** Positive stress – when a caregiver provides warmth and responsiveness to relieve it – fosters normal brain development. Toxic stress – when no one responds tenderly or the response is harsh or hurtful – actually interrupts brain development

by reducing or changing neural connections and can have long-term negative consequences. When parents are absent, unpredictable, compromised or unsafe, it actually interrupts the firing of the synapses that create healthy brain architecture.



***Exposure to adverse circumstances in early childhood can influence the growing brain.***

Extreme poverty or limited access to basic material resources, abuse, neglect, being born to parents who are undereducated, severely overburdened, seriously depressed or substance abusers – can influence the growing brain and places children at risk for developmental delays and physical and mental disorders.

***"Talk with children...Studies overwhelmingly indicate that early school achievement and literacy for all children have their roots in early adult/child communication and patterns of interaction."***

Delores G. Norton, Ph. D.  
School of Social Service  
Administration  
University of Chicago

## **POLICY IMPLICATIONS FOR PARENTING SUPPORT AND EARLY CHILDHOOD CARE AND EDUCATION**

### **Support for New Parents and Parents of Young Children**

***Strategies that provide intensive support and education to new parents can improve parenting skills, increase maternal employment, and enhance children's learning and social behavior.***

- Intensive family services provided at home or in an environment familiar to the parents have significantly strengthened the parenting capacities of young and new parents. There are a wide range of parent support programs.
- Home visiting programs that meet certain standards of quality have proved most effective. Quality indicators for these programs include: well-trained professionals, adequate supervision, clear goals for the services provided, a specific target population, and success in keeping families in the program for its duration.

***"Earlier is better than later. We know this because years of research tells us that one clear principle of brain development is that providing the right childhood experiences and reducing those that may be detrimental will be the most effective and least costly means for promoting healthy brain architecture, brain chemistry and early child development."***

Pat Levitt, Ph.D.  
Kennedy Center for Research on Human Development

## Early Quality Matters in Care and Education Settings

*Quality early care and education experiences contribute to better cognitive and social-emotional skills, school readiness, and have many long-term benefits.*

- Nearly 12 million children under the age of 5 are regularly in some type of child care.<sup>xiii</sup> Studies show that the average quality of child care in the U.S. is mediocre and does not adequately support children's development.<sup>xiv</sup>
- Repeated studies demonstrate that participation by low-income children in high quality center-based programs generates positive effects on cognition and social development, promoting readiness for school and continuing those benefits into the early grades.<sup>xv</sup>
- The more disadvantaged the child, the more powerful the effects of high quality early care and education interventions. An estimate of the cost-benefit ratio of the Perry Preschool Program is 8:1, or an 18 percent rate of return. Similar returns have been found for other early intervention programs.<sup>xvi</sup>
- Very young children in high quality services show better cognitive development at 24 months and better language development at 36 months.<sup>xvii</sup>
- In a 19-year follow-up of the Chicago Parent-Child Centers, a high quality preschool program, participants showed significantly higher rates of school completion, attendance at four-year colleges, and health insurance coverage. They also had lower rates of felony arrests, convictions and incarceration, and out-of-home placement.<sup>xviii</sup>
- High quality preschool experiences increase children's future educational attainment, and employability, thereby increasing their long-term earnings. Investment of state revenues in quality preschool programs result in both significant impact on the state economy and, as a consequence of the mobility of preschool graduates, positive effects on the economies of other states and the nation.<sup>xix</sup>



“By the time our investment in public education begins at age five, a substantial amount of brain architecture has already been built, and children who miss important learning opportunities or who experience significant adversity are already behind their peers on the first day of school.”

Jack P. Shonkoff, M.D.  
Center on the Developing Child  
Harvard University

- It is possible to create high quality child care and early learning experiences across a wide range of programs and settings. In the military's Family Support Program, more than 90 percent of the child care programs meet the accreditation standards of the National Association for the Education of Young Children, widely viewed as the gold standard for early learning programs.
- Child care and early education programs that do not meet performance measures like those incorporated in Head Start, Early Head Start or the NAEYC accreditation standards have been shown to have limited if any impact on children.

## QUALITY MATTERS

High quality programs have:

- Well-trained teachers
- Small numbers of children per class
- High adult-to-child ratios
- Age-appropriate curricula
- Stimulating materials
- A safe setting
- Language-rich environments
- Warm, responsive interactions between staff and children
- High and consistent levels of child participation

***Recognition of mental health needs and linkages to mental health services have become critical components of quality child care, early learning and Pre-K programs.***

***When considering how deprivation influences brain development, we must consider four factors: What the child was deprived of, the degree of deprivation, for how long the deprivation occurred and when in the course of deprivation the deprivation occurred."***

Charles A. Nelson, Ph.D.  
Children's Hospital Boston  
Harvard Medical School

- There is increasing recognition of the need for early childhood mental health services in conjunction with early care and learning environments; promising programs work with children in small groups, work with parents, and train teachers to work appropriately on social-emotional skill.
- Children exposed to toxic stress – abuse or maltreatment, severe maternal depression, and parental substance abuse – need more intensive interventions by highly skilled professionals; there is evidence that these interventions can strengthen parent-child interactions and improve cognitive development.
- Children's mental health problems are showing up in the numbers of young children expelled from child care and pre-kindergarten settings, numbers much higher than the numbers of children expelled from K-12.

***Early intervention opportunities for young children with disabilities, at home and in child care settings, are key to their developmental progress and ability to participate in school.***

- Without intensive formal intervention, there is a general decline in performance on developmental measures for children with disabilities.
- Children with disabilities, where possible, should be served in high quality child care centers, just as their nondisabled peers are, in order to reap the most benefit from high quality learning environments and the language, communication and behavior styles of their nondisabled peers.
- Part C of the Individuals with Disabilities Education Act (IDEA), designed to provide early identification and intervention services for infants and toddlers with disabilities and those with identified abuse or neglect, serves fewer than half of those who might benefit; only six states serve children at risk of developmental delays.

***“Early in life intense and chronic stress literally kills brain cells...Without supportive adult care, even every day stressors can create toxic stress. When young children don't receive supportive care from adults they have few means of turning off or unplugging the stress system.”***

Megan Gunnar, Ph.D.  
Institute of Child  
Development  
University of  
Minnesota

### **NORTH CAROLINA'S SMART START**

- North Carolina, in 1993, established Smart Start, a funding stream for 0-5 year olds using general revenue to provide funding to every county to combine with private funds. The funds support a network of local nonprofit organizations to provide child care activities, developmental screenings and access to health services, parent education and developmental screenings. The state also pioneered T.E.A.C.H. and WAGE\$ to strengthen the training, credentialing, and compensation of early childhood teachers and other caregivers.
- Rigorous evaluations demonstrate that participating children are healthier, have better math and language skills and fewer behavioral problems when they arrive in kindergarten than those who did not participate; in 2006, North Carolina's NAEP scores at the end of fourth grade were the most improved in the nation.

## WHAT SCIENCE TELLS US ABOUT THE LINKS BETWEEN FINANCIAL RESOURCES AND CHILDREN'S HEALTHY DEVELOPMENT

***Child health and development are influenced by family economic security.*** Poor children are more likely than non-poor children to experience developmental delays, learning disabilities, lower IQs, grade repetition, dropping out of school, lower achievement, increasingly falling behind at school, behavioral and emotional problems, and problems with self-regulation and impulsivity.

***Low income and material hardship affects parenting and child outcomes.*** Low income and material hardship increases family stress, including the types of toxic stress that affect brain growth and development. Material hardship, such as food insecurity and substandard housing, can constrain the time and money parents can invest in their children, and can lead to parental stress and harsh or inattentive parenting which directly affect children's social-emotional development.<sup>xx</sup>

***Most children live in families where parents work.*** The majority of preschool and school-aged children in the U.S. live in families in which all parents work. Most poor families work, but their earnings are so low that they remain poor. Among the three leading causes of job turnover are the worker's health, the health of the worker's child, and the birth of a child.

***Increasing family income improves child outcomes.*** Recent research experiments have found that when the income of poor families is increased, children have better cognitive and academic outcomes.

*"The best incubator for developing a child's human capital tomorrow is a family that is not living in poverty today."*

Gordon Berlin, President  
MDRC, New York City

*"Income matters to children's development. Material hardship matters to children's development. We know how to improve incomes of poor families and reduce their material hardship, and when we do they're going to learn better and be stressed out less."*

J. Lawrence Aber, Ph.D.  
New York University

*"If you look at it from a business point of view, our raw material today, in a knowledge-based economy, our raw material are children. They are the students that are coming out of our schools. Quite frankly, in order to be confident about the future we have to be confident about that raw material, the raw material that's going to make up the U.S. of tomorrow, that's going to create the success."*

James Rohr, CEO and  
Chairman  
PNC Financial Services  
Group

## IMPLICATIONS FOR POLICIES THAT CAN BOOST FAMILIES' ECONOMIC STABILITY

*Leave policies are an important means to provide time for working parents to support their children's development and care for their children when they are sick.*



- 169 countries provide paid maternity leave; 66 countries provide paid paternity leave; only the United States, out of the 20 most competitive economies, does not provide paid maternity leave.
- In the U.S., the Family and Medical Leave Act currently covers 60 percent of workers with 12 weeks of unpaid leave for the birth or adoption of a child; of those who have unpaid leave, about two-thirds can't use it sufficiently because it provides no income during their absence from work.
- Paid leave to care for a sick child increases the speed with which children recover from acute illnesses and improves the management of children's chronic illnesses. A parent is five times as likely to care for a sick child if she has paid leave to do so.
- 137 countries guarantee paid annual leave, generally at least two weeks, for family time; parents need time with children when they are healthy as well as when they are sick.

*Strategies to supplement income show considerable promise in improving parental labor market participation and strengthening young children's academic success.*

- A strong body of research demonstrates that supplementing parents' earnings helps raise families out of poverty and improves young children's school performance.
- Various policy changes can increase family income in ways that can benefit children's outcomes, including work incentives, minimum wage increases, tax incentives, and improvements in Food Stamp utilization and benefit levels.
- Work-based earnings supplements, including the Earned Income Tax Credit (EITC) and the Child Tax Credit boost employment and employment stability and increase family earnings and income.<sup>xxi</sup>
- Under current law, the Child Tax Credit fails to fully cover 20 million children in working families who earn too little to be able to get the credit; making the Child Tax Credit refundable will



enable these families to be eligible for the credit.

- The EITC can be refined to make it available for individuals and singles, second earners and two parent families; these changes are likely to reduce child and family poverty, increase employment and support marriage and co-parenting.



***Other work supports provide benefits to employers and employees alike.***

- Making child care available on-site, through benefit packages, or by ensuring stable and high quality community child care, improves worker productivity.<sup>xxii</sup>
- Various studies also have demonstrated that child care helps businesses recruit and retain workers, reduce turnover and absenteeism, and increase punctuality.<sup>xxiii</sup>
- Employers report that providing health insurance to their employees generates greater productivity and higher satisfaction among their workforce. Offering preventive health care and health education also helps increase productivity while also helping manage employees' health care utilization.<sup>xxiv</sup>

**One out of Five Young Children is Poor - More are Near-Poor**

- Thirteen million children – 18 percent of all U.S. children – live in families earning less than the poverty level.
- 10 percent of white children, 28 percent of Latino children, and 35 percent of African American children are poor.
- 20 percent of children under age six – nearly 5 million children – live in poverty, and almost half of these children live in deep poverty.
- 23 percent of children under age six – more than 5.5 million additional children – live in families with incomes between 100 and 200 percent of poverty.
- Growing up poor has serious long term consequences for the nation's economy – foregone productivity, goods and services and the excess costs of illness, crime, and other special needs in adulthood have been estimated at \$500 billion annually.

## MOVING FORWARD

The latest brain research is powerful and exciting; and its lessons make strong economic and business sense – early investment in the healthy development of children reaps both immediate and long-term benefits for our families, communities, and country. More than ever, policymakers now have the chance to create effective policy based on strong science and solid economics.

The lessons from the National Summit on America's Children provide a blueprint for how we might best apply the newest and best scientific knowledge to the policies we design. Policymakers can use these lessons and this report as a starting point for discussions with a wide range of organizations, leaders, and families in their communities and work to build a new vision and stronger policies that support our families and build stronger communities.

The children of the 21<sup>st</sup> century deserve the best support that science tells us will give them opportunities for healthy, educated and productive lives. Through our efforts we can make that happen.

## National Summit on America's Children Panelists and Speakers

Tuesday, May 22, 2007

### Members of Congress

The Honorable Nancy Pelosi, Speaker of the House

The Honorable George Miller

The Honorable Rosa DeLauro

The Honorable Chaka Fattah

### The Science of Early Childhood Development - Panelists

Pat Levitt, Ph.D., Professor of Pharmacology, Annette Schaffer Eskind Chair and Director, Kennedy Center for Research on Human Development, Vanderbilt University Medical Center

Dolores G. Norton, Ph.D., Samuel Deutsch Professor, School of Social Service Administration, University of Chicago

Charles A. Nelson, Ph.D., Richard David Scott Chair in Pediatric Developmental Medicine Research, Children's Hospital Boston Professor of Pediatrics, Harvard Medical School

Megan Gunnar, Ph.D., Regents Professor and Distinguished McKnight University Professor, Institute of Child Development, University of Minnesota

Jack P. Shonkoff, M.D., Julius B. Richmond FAMRI Professor of Child Health and Development, Director, Center on the Developing Child, Harvard University

### Early Learning - Panelists

Oscar A. Barbarin, Ph.D., L. Richardson and Emily Preyer Bicentennial Distinguished Professor for Strengthening Families, School of Social Work, Senior Investigator, Frank Porter Graham Child Development Center, University of North Carolina, Chapel Hill

James E. Rohr, Chief Executive Officer and Chairman, PNC Financial Services Group

Karen W. Ponder, Former President and Chief Executive Officer, North Carolina Partnership for Children

Donna Davidson, President and Chief Executive Officer, Easter Seals of North Georgia

Alberto Melis, Chief of Police, Waco Police Department, Texas

## Keynote Speaker

James Heckman, Ph.D., Henry Schultz Distinguished Service Professor of Economics  
Director, Economics Research Center at the Department of Economics; Director, Center for Social  
Program Evaluation at the Harris School of Public Policy, University of Chicago

## Health and Mental Health - Panelists

Jane Knitzer, Ed.D, Director, National Center for Children in Poverty, Columbia University Mailman  
School of Public Health

Paul H. Wise, M.D., MPH, Richard E. Behrman Professor of Child Health and Society Center for Health  
Policy, Freeman Spogli Institute for International Studies, Center for Primary Care and Outcomes  
Research, Stanford School of Medicine, Stanford University

Glenn Flores, M.D., FAAP, Professor, Pediatrics and Population Health, Medical College of Wisconsin,  
Director, Center for the Advancement of Underserved Children, Medical College of Wisconsin and  
Children's Hospital of Wisconsin

Carol Wilson Spigner, MSW, DSW, Co-Director, Field Center for Children's Policy Practice and  
Research, Kenneth. L.M. Pray Professor, School of Policy and Practice, University of Pennsylvania

Col. Elisabeth M. Stafford, M.D., Fellowship Director, Adolescent Medicine, San Antonio Military  
Pediatric Center

## Income and Family Support - Panelists

J. Lawrence Aber, Ph.D., Director, Institute for Human Development and Contextual Change  
Professor of Applied Psychology and Public Policy, Steinhardt School of Education, New York  
University

Rucker C. Johnson, Ph.D., Assistant Professor, Goldman School of Public Policy, University of  
California, Berkeley

Deborah A. Frank, M.D., Director, Grow Clinic for Children, Professor of Pediatrics, Boston University  
School of Medicine

Jody Heymann, Ph.D., M.D., Founding Director, McGill Institute for Health and Social Policy, Founding  
Director, Project on Global Working Families at Harvard University  
Professor, Faculties of Medicine and Arts, McGill University

Gordon Berlin, President, Manpower Demonstration Research Corporation (MDRC)

<sup>i</sup> James D. Heckman, Ph.D., Keynote Address, National Summit on America's Children, U.S. House of Representatives, May 22, 2007

<sup>ii</sup> Paul Wise, M.D., Statement at the National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>iii</sup> Deborah A. Frank, M.D., Statement, National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>iv</sup> Megan Sandel, M.D., MPH, Presentation to Members of the U.S. House of Representatives, May 8, 2007; Meyers, A. et al. Subsidized Housing and Children's Nutritional Status: Data from a Multi-site Surveillance Study, *Archives of Pediatric and Adolescent Medicine*, 2005; 159:551-556.

<sup>v</sup> Jack P. Shonkoff, M.D., Statement, National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>vi</sup> Rucker C. Johnson, Ph.D., Statement at the National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>vii</sup> Paul Wise, M.D., MPH, Statement, National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>viii</sup> Findings from The National Survey of Early Childhood Health, cited by Glenn Flores, M.D., FAAP, Statement at the National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>ix</sup> Jane Knitzer, Ed.D., Statement at the National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>x</sup> Delores Norton, Ph.D., Statement at National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>xi</sup> Pat Levitt, Ph.D., Statement at National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>xii</sup> National Research Council and Institute of Medicine (2000). *From Neurons to Neighborhoods: The Science of Early Child Development*. Committee on Integrating the Science of Early Childhood Development. Jack P. Shonkoff and Deborah A. Phillips, eds. Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, D.C.: National Academy Press..

<sup>xiii</sup> U.S. Department of Education, National Center for Education Statistics, National Household Education Surveys Program.

<sup>xiv</sup> National Research Council and Institute of Medicine (2000). *From Neurons to Neighborhoods: The Science of Early Child Development*. Committee on Integrating the Science of Early Childhood Development. Jack P. Shonkoff and Deborah A. Phillips, eds. Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, D.C.: National Academy Press..

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<sup>xvii</sup> Cost, Quality and Outcomes Study; Early Head Start evaluation.

<sup>xviii</sup> Reynolds, A.J., Temple, J.A., et. al., "Effects of a School-Based, Early Childhood Intervention on Adult Health and Well-being: A 19-Year Follow-up of Low-Income Families," *Archives of Pediatrics and Adolescent Medicine*, Vol.161, No. 8, August 2007.

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<sup>xx</sup> J. Lawrence Aber, Ph.D., Statement at the National Summit on America's Children, U.S. House of Representatives, May 22, 2007.

<sup>xxi</sup> Gordon Berlin, Statement at the National Summit on America's Children, U.S. House of Representatives, May 22, 2007

<sup>xxii</sup> National Conference of State Legislatures, "The Economic and Labor Implications of Early Childhood Care and Education," in *Early Childhood Care and Education: An Investment that Works*, 1997. See also, Matthews, H., "Child Care Assistance Helps Families Work: A Review of The Effects of Subsidy Receipt on Employment," Center for Law and Social Policy, April 3, 2006.

<sup>xxiii</sup> Ibid.

<sup>xxiv</sup> "The "Business Case" for Investing in Employee Health: A Review of the Literature and Employer Self-Assessments," EBRI Issue Brief #267, Employee Benefit Research Institute, 2004.