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**Long-Term
Consequences
of Child Care**

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*With this issue, we welcome Turner McCollum as our new graphic designer for **Early Developments**. Turner has taken over the responsibility from Miki Kersgard who has joined another department at UNC-Chapel Hill. We hope that you will enjoy the new look to the magazine.*

We want to salute Miki for her work in doing the layout and design for the magazine previously and wish her well in her new position.

The cover for this issue is from a child enrolled in the Frank Porter Graham Child Care Center.

Typefaces used in the publication are: Arial Black, Arial Narrow, Gil Sans, Garamond (body text) and Nueva.

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Don Bailey

Long-Term Consequences of Child Care

“Benefits of Quality Care Persist into Adulthood”

“Mom’s Depression Can Affect Children’s Learning”

“More Children Attending PreK in Public Schools”


“Child-Teacher Relationship Predicts Social Relations”

Headlines such as the above this year reflect the exciting research that is giving us more insight into child care and child development. For example, new studies by the Frank Porter Graham Center and the National Center for Early Development & Learning, both based at the University of North Carolina at Chapel Hill, reinforce the growing public awareness that programs for helping children should start much earlier than they typically do.

In this issue, we look at the dramatic results of the Abecedarian Project Follow-Up, which shows that the positive effects of educational child care on poor children, which was given almost from birth to kindergarten, persist until at least age 21. This article starts on page two.

Our research continues to show that child care programs must be of high quality. Such programs need to stimulate children, provide for more teacher training and compensation, offer comprehensive learning curricula, and encourage staff to work more closely with families.

We are learning more about the importance of relationships for very young children. An article on page ten reports that at age three, children whose mothers are chronically depressed fare significantly worse on tests and other measures of school readiness, verbal comprehension and language skills than children of mothers who are never depressed. Another article, which begins on page 12, looks at the importance of child teacher relationships.

But there is still much to be done. What is the best way to implement the things we are learning? What should governing agencies do in the way of standards? How should we finance early childhood programs? In an article on pages 14-16, we take a look at some of the more innovative early childhood programs around the country. 

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Nearly 1,000,000 served 17
(inside back cover)

Gains from high quality child care persist into adulthood — landmark study

Poor children who received early educational intervention had higher scores on mental, reading, and math tests than children who didn't receive the intervention and, more importantly, these effects persisted until at least age 21, according to researchers at the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill.



DonTrull

“Our study provides scientific evidence that early childhood education significantly improves the scholastic success and educational achievements of poor children even into early adulthood. The importance of high quality, educational child care from early infancy is now clear,” said **Frances Campbell**, principal investigator of the Abecedarian Project Age 21 Follow-Up.

It is one of the longest running and most carefully controlled studies of its type in America, having begun more than two

decades ago, researchers said. It is believed to be the first study that definitively links high quality infant/preschool child care with positive outcomes in the children as adults.

Data also showed that more than twice as many children who received the intervention attended college than those who did not.

Furthermore, young adults in the intervention group were two years older, on average, when their own first child was born than those who didn't receive intervention.

“These data are significant,” said **Craig Ramey** of the University of Alabama, director of the early intervention study, “not only for parents, but for policymakers seeking to make a difference in children from low-income families and for directors and administrators of child care programs.”

“The degree of scientific control in this study gives us greater confidence that differences between the treated and untreated individuals can be attributed to the intervention itself, rather than to differences among treated and untreated families,” said Campbell.

The Abecedarian project differed from most other childhood intervention projects in that

- 1) it began in early infancy whereas other programs began at age two or older, and
- 2) treated children had five years of exposure to early education in a high quality child care setting whereas most other programs were of shorter duration.

The project began with 111 infants from low-income families. Of those, 57 were randomly assigned to a high-quality child care setting and 54 to a non-treated group. The latest assessment of the children, who are now 21 years old and older, covered 104 of the original group.

Joseph Sparling, who helped design the early childhood curriculum, said that each child had an individualized program of educational activities consisting of game-like interactions that were incorporated into the child's day. "These activities were designed to enhance social, emotional, and cognitive development, but gave particular emphasis to language," he said.

Over the years, Ramey said, children in the intervention group scored significantly higher on cognitive tests than children in the control group. Through middle adolescence, the differences between the groups remained large for reading and large-to-moderate for math.

Campbell said, "Welfare reform has increased the likelihood that children in poverty will need early child care. The educational stimulus value of these early caregiving years must not be wasted. More and more of America's children will need out of home care. This is especially true for poor children. We must not lose this opportunity to provide them the early learning experiences that will increase their chances for later success."

Researchers have placed the executive summary of the study and other information on the web site <www.fpg.unc.edu/~abc>.

It is believed to be the first study that definitively links high quality infant/preschool child care with positive outcomes in the children as adults.



Highlights of the study

- Young adults who received early educational intervention had significantly higher mental test scores from toddlerhood through age 21 than those who were untreated.
- Enhanced language skills in the children probably increased the effects of early intervention on cognitive skills performance.
- Reading achievement scores were consistently higher for individuals with early intervention. The differences between the groups remained large from primary school through age 21. Enhanced cognitive skills appeared to positively affect reading achievement.
- Mathematics achievement showed a pattern similar to reading, with treated individuals earning higher scores. The differences were medium in contrast to the large effects for reading. Again, enhanced cognitive functioning appeared to positively affect results.
- Those with treatment were significantly more likely still to be in school at age 21—40% of the intervention group as compared with 20% of the control group.
- A significant difference was also found for the percentage of young adults who ever attended a four-year college. About 35% of the young adults in the intervention group had either graduated from or were at the time of the assessment attending a four-year college or university. In contrast, only about 14% in the control group had done so.
- Young adults in the intervention group were, on average, two years older (19 years) when their first child was born compared with those in the control group (17 years), although the youngest individuals in both groups were comparable in age when the first child was born.
- Employment rates were higher (65%) for the treatment group than for the control group (50%), although the trend was not statistically significant.

For more information, search for Carolina Abecedarian Project at <www.fpg.unc.edu>.

Moussorgsky



Hal Robinson, 1966 *CourierJournal&LouisvilleTimes* • Billy Davis

R e m e m b e r i n g h o w w e b e g a n . . .

It was 1966. The Green Bay Packers were basking in the limelight of winning the first Super Bowl. The cassette was introduced as the newest technology for music. The Mamas and the Papas had exploded onto the music scene with two hits: "California Dreamin" and "Monday Monday."

And a two-year-old girl named Beth Robinson was the first enrollee at a new child care research center in three trailers on Cameron Street in Chapel Hill, NC. To mark the occasion, her father played a record of Beethoven's Ninth Symphony, fourth movement.

Beth's father was Hal Robinson, co-founder with Ann DeHuff Peters of the behavioral sciences arm of the Child Development Institute at the University of North Carolina at Chapel Hill. The other arm of the institute was the Biological Sciences Research Center, headed by Morris Lipton.

Those were the post-Kennedy days. Research money was beginning to flow toward disadvantaged children, mental retardation, and poverty. The civil rights movement was growing. Grants from the National Institutes of Health had gone out to a number of institutions that year concerning mental retardation, but the only one that focused on prevention was the one that came to UNC-Chapel Hill. Or more specifically to a child development unit now known as the Frank Porter Graham Family and Child Care Program.

"Hal was determined that our daughter would be the first enrolled," said Nancy Robinson, who directed research at the center. The Robinsons wanted to examine this basic question: Could child care help prevent intellectual deficits in what are now called at-risk families? Peripheral questions had to do with whether group care for infants was or was not a good idea, and what it took to do it well; and how mixed-race and mixed-socioeconomic groups could be created in a positive way.

The playing of Beethoven on Beth's first day was not only for dad. One way to help children at risk, so Hal theorized, was to stimulate them visually and aurally.

"I remember going to violin class. I learned how to play 'Humpty Dumpty' and the teacher, a woman I think, laughed a lot. I liked it," said Beth, now a geophysicist working in US Office of Management and Budget. "I remember being outside with my dad and mom in the morning, and I tried both of their coffees. I liked dad's a lot better (he took milk and sugar) than mom's (black.)"

"It was exciting. There was a sense of starting a project, a sense of doing something unique. We all had a sense of mission," said Joe Sparling who in the spring of 1967 joined the team that now included Isabel Lewis and Frank Loda, a pediatrician.

They were also part of an even grander, revolutionary idea that had been kicked around for a year or two: an entire complex for at-risk children from birth to age 12. It would be the first such complex in the nation and seed money had already been planted by the federal government, UNC-Chapel Hill, the Carnegie Foundation, the state and the Chapel Hill-Carrboro School system.

Part of the new complex would be an elementary school, and Sparling was recruited to help design and to be administrator of the school. In the meantime, he was named associate director of FPG.

The idea behind the complex, according to a newspaper article at the time, was "the prevention of intellectual deficit due to cultural deprivation and the enhancement of personal and social development." The medical facility would "be concerned with discovering the causes, prevention, treatment and cure of mental retardation and emotional disturbance."

From day one it was an intervention program for children at risk, but it was also a program that from the beginning set up a "real world" community mix of children and families from many walks of life.



Courtesy: Durham & Louisville, Inc. Photo by Davis

"Moussorgsky" and the "sight of goldfish dangling in a plastic bag on the crib" was how Newsweek magazine described the Robinson's project in a 1968 article. The children were also taught French.

Those early days were filled with the camaraderie of shared struggles. Sparling remembered rushing to cover his data when it rained because the roof leaked in one trailer. The children's playground was mostly sand and large rocks. Play equipment included tractor tires for swings and riding "horses" made of tree logs nailed onto 2 x 4s. Metal barrels with "diapers" written on them stood by the front door of one trailer.



Courier Journal & Louisville Times/Billy Davis

"There was a spirit of hopefulness. We talked about breaking the cycle of poverty. Really break it. We said it as if we were going to do it. We had a sense that we were going to accomplish something," said Sparling, now retired.

But as cost figures came in and other considerations were weighed, the complex eventually fell through, as did the ideal of a "real world" community. Funding became available only for children considered directly at risk.

The vision of scattered small buildings was replaced by a large administrative building that housed all the services. The Robinsons left, although the child care center itself continued and grew.

In 1970, **Jim Gallagher** was named director of FPG. He recruited Craig Ramey to take over the child care project, which was expanded and refined into the Abecedarian Project. Considered one of the premier longitudinal child care studies in America, it continues today with data showing that significant benefits of the "stimulating child care" persist until at least the children are adults. (See related story on page 2.)



Courier Journal & Louisville Times/Billy Davis

From the very beginning, there was a medical component studying health of children. For example, **Al Collier** and others began studying the frequency of child illnesses in the center. Their research expanded into respiratory tract infections and complications (children's respiratory tracts were cultured every two weeks at the center), vaccines against respiratory pathogens, new ways to detect respiratory infection, and otitis media.

During the 1970s, Sparling and Isabelle Lewis devised 100 experiences for young children from birth to 36 months in the form of games. Each game was self-contained on a card with pictures and descriptions, and the games were presented in sections spanning about six months of developmental age. *Infant Learning Games* was first published in 1978 in a loose-leaf notebook format with removable game cards. Later, the book became a hardback and a paperback and 100 learning games became 150 and then 300. That led to other popular books for parents and teachers, such as *Learning Games for the First Three Years* and *Learning Games for Threes and Fours and Partners for Learning*.

The Abecedarian children graduated from child care into school.

Investigator **Frances Campbell** rounded up grants and the work continued. Also, beginning in the mid-1970s, FPG began providing training for UNC nursing students, offering instruction and practice in such areas as child health assessment, infant stimulation, day care, and behavior management.

Additional researchers were recruited and worked in such areas as nutrition, premature infants, otitis media, the effect of second-hand cigarette smoke on infants, child care quality, and inclusion.

By the late 1970s and 1980s, center researchers were securing a stronger national reputation and adding more research into policy implications. The Carolina Institute for Research on Early Education for the Handicapped examined the experiences and perspectives of families of children with disabilities.

Through the years, the configuration of the child care operations changed in response to new research. For example, the child care program admitted its first children with disabilities in 1984. And several years ago, age groupings became more flexible to accommodate children with varying development levels. Also, child-sized toilets designed specifically for children with disabilities were added so that children with disabilities could learn independence and gain competence.

In the mid-1990s, the playground area was redesigned and equipped following the standards of the Consumer Product Safety Commission, which are based heavily on accident research.

The child care center has often been used to pilot a program. For example, **Jonathan Kotch**, a professor of maternal and child health at UNC-CH and an FPG fellow, directs a training program for early child care and education professionals, particularly in health and safety aspects. The study was

piloted at the FPG child care facility and later carried out at more than 65 child care centers.

Last year, two child care classrooms were added as part of a new model demonstration project for very young children (18-36 months of age) with autism and their families. FPG will disseminate the model to other early intervention programs in North Carolina and provide training and technical assistance.

Another study underway at the center may have significant program implications for early childhood teachers and child care center administrators. The project compares what happens when a child has the same caregiver for the first three years of life with what happens to children when caregivers change in each of the first three years.

The center continues to be a practicum site for students from a variety of health and education disciplines.

One of the original dreams of the founders of FPG died early on – a large research and medical complex and a laboratory school working with children at risk from birth to age 12.

Perhaps it was ahead of its time.

But what didn't die were the goals and beliefs and motivations of the women and the men who created the Frank Porter Graham Center. Those dreams live on: Intervention. Collaboration across disciplines and university departments. Solid research.

Helping young children and their families reach their full potential still drives our researchers and staff. Three decades later, you continue to feel the "excitement," the "spirit of hopefulness," and "a sense that we're going to accomplish something."

DonTrull



But knowledge cannot be pulled from basic research directly into practice any more than crude oil can be pumped from the ground into an automobile. It needs that crucial stage of development that transforms fundamental discoveries about children into curriculum products, teaching practices and parenting techniques.



Thirty-four years ago, Hal and Nancy M. Robinson helped begin the FPG Child Care Center. After leaving FPG, they joined the University of Washington. Before his death in 1981, Hal founded the UW Center for the Study of Capable Youth, now named for him. Nancy remained in the field of mental retardation but took up the reins of the center at Hal's death. Among the notable programs of the center, which serves gifted children, are a Transition School and Early Entrance Program for young teenagers, a clinic, summer program, and extensive research.



Nancy Robinson: "The idea was prevention aimed at poverty. The war on poverty and the war on mental retardation were going on side by side but nobody was saying they were the same one. At the beginning, this center was both middle-class and lower-income and cross-racial....and that was also a big issue at that point. There was a huge question at the time about whether infants could be accommodated in group care. And so the center started with infants and 2-year-olds."

Nancy: "In the child care center, children were grouped across ages, with a special effort to keep true siblings in the same group. Infants were kept together until fully ambulatory, I think, and then placed in the cross-age groups. Children were grouped by age for 'preschool classes' for ease of instruction and because there were some activities that just couldn't happen if there were toddlers interfering."

Earlier this year, Nancy Robinson visited FPG and at one point, she, former FPG Director Jim Gallagher and former Associate Director Joe Sparling, sat around reminiscing.


Here are selected excerpts:



Jim Gallagher: "I remember visiting you and Hal in 1965 or '66, I think it was. I was still at the University of Illinois; and you had put in a grant request to NICHD for your project here. I was part of a site team to visit and look around."



Joe Sparling: "Reception to our work? Some departments, say at the school of education and psychology were in general very cool toward what we were doing. I think they felt that our work was perhaps too messy and too vague. It wasn't what their professors 'ought' to be doing."

Jim: "There were a number of other projects around the country working on mental retardation and trying to stimulate development... so there was a community of researchers and scholars who were communicating with each other doing the same thing." 

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Children of depressed mothers score lower on measures than children of mothers who are never depressed

The on-going nationwide Study of Early Child Care by the National Institute of Child Health and Human Development (NICHD), continues to provide significant data for parents, professionals, and policymakers about the relationship between early child care and children's development.

Data released in the September 1999 issue of Developmental Psychology shows that at age three, children whose mothers are chronically depressed fare significantly worse on tests and other measures of school readiness, verbal comprehension and language skills than children of mothers who are never depressed. Those whose mothers are sometimes depressed fall somewhere in between.



AdobeImageLibrary

Here are other findings from this report:

- Depressed mothers in general were less sensitive to their children, their children displayed poorer verbal and language skills and showed

more problem behaviors.

- Children whose mothers were more sensitive, however, did better on measures and behaved better regard-


less of their mother's level of depression.

- Women with higher incomes and other advantages were more responsive and played better with their children despite their depression possibly because they were less stressed.
- Income made no difference in sensitivity and responsiveness among mothers who were not depressed.
- Women who were despondent most of the time not only were least sensitive but also were the only group to show a decline in sensitivity between the 15-month and 24-month assessments. As toddlers emerged from the period some call the "terrible twos" and became less willful, interactions with mothers grew more positive.

Other data released last year from the NICHD Child Care Study shows that higher quality child care is related to less problem behavior.

Here are highlights from that report:

- Day care in the United States is "fair," but not outstanding.
- Such factors as a family's income, mothers' psychological well-being, and maternal behavior have more of an influence on children's social competence at two and three years of age than does the children's day care arrangement.
- Quality child care was related to children displaying greater social competence and cooperation and less problem behavior at two and three years of age.

- More experiences in groups with other children predicted more cooperation with other children and fewer problem behaviors at both two and three years of age.
- The consistency of the day care setting also played a role in the development of social competence. At age two, children who had been in a number of different day care arrangements showed more problem behaviors than did children who had been in fewer day care arrangements.
- Child care experience has no discernible influence on the security of children's attachments to their mothers by age three.
- In general, the education of the mothers was more strongly related to positive qualities of maternal care than was the amount or quality of child care. However, mothers were slightly more positive and supportive with their children when less child care was used or when child care quality was higher.
- Parents have an important influence on children's development regardless of how much child care their children experience. Comparisons between children in child care and those experiencing exclusive care from their mothers tell us little until we consider the quality of care. High quality child care offers an advantage to children and low quality care a disadvantage for cognitive and language development as compared to care from the average mother. 

The researchers suggest possible ways for improving the nation's child care:

by improving the ratio of child care givers to children, lowering group sizes, increasing care givers' levels of education, and increasing the safety and intellectual stimulation of child care settings.

Investigators who are working on the NICHD team includes **Martha Cox** and **Margaret Burchinal** from FPG and the National Center for Early Development & Learning (NCELD), also based at UNC-Chapel Hill, and **Robert Bradley** and **Robert Pianta** from NCELD. Bradley is with the University of Arkansas at Little Rock and Pianta is with the University of Virginia at Charlottesville.

Besides UNC-Chapel Hill, other data collection centers are located at the universities of Arkansas at Little Rock, California at Irvine, Kansas, New Hampshire, Pittsburgh, Virginia, Washington at Seattle, Wisconsin, and Temple University. The overall NICHD study began in 1991.

Child-teacher relationship in child care predicts later social relations



Relationships *child&teacher*

Following are excerpts from "Social-emotional classroom climate in child care, child-teacher relationships and children's second-grade peer relations" by Carolee Howes, UCLA. Data for this paper, which is in press at Social Development, was gathered in the Cost Quality and Outcomes Study, a five-year on-going longitudinal study examining the effects of child care in four states.

The quality of children's early relationships with their teachers in child care is emerging as an important predictor of children's social relations with peers as older children. Our data explored the relative contributions of early classroom social/emotional climate and individual relationships and behaviors to social competence with peers five years later.

Results

- Children who rated high in peer aggression, disruption, and social withdrawal were rated high in child-teacher relationship conflict and low in child-teacher relationship closeness.
- Children who rated high in prosocial behavior with peers also were rated high in child-teacher relationship closeness and low in child-teacher relationship conflict.
- Classrooms with higher levels of behavior problems had lower levels of child-teacher closeness.

Predictive factors

Children's second-grade social competence with peers ratings could be predicted by

- preschool classroom social-emotional climate,
- four-year-old behavior problems and child-teacher relationship quality and
- contemporary child-teacher relationship quality.

Aggression ratings were best predicted by

- a preschool classroom high in behavior problems and low in child-teacher closeness,
- the child's poor child-teacher closeness as a four-year-old and
- contemporary child-teacher relationship conflict.

Disruption ratings could best be predicted by

- being a boy,
- preschool classroom climates high in behavior problems and low in child-teacher closeness as a four-year-old and
- high levels of child-teacher conflict as a second grader.

Prosocial ratings could best be predicted by

- being a girl,
- preschool classroom climates high in time spent interacting with peers,
- the child's low levels of behavior problems as a four-year-old and
- high levels of child-teacher closeness and low levels of child-teacher conflict as a second grader.

Ratings of social withdrawal could best be predicted by

- a classroom climate high on behavior problems,
- low levels of individual behavior problems as a four-year-old and
- low levels of child-teacher closeness as a second grader.

Discussion

Considerable individual variation in children's social competence with peers as second graders can be understood by examining both their individual experiences as four-year-olds in child care and the social emotional climate of their child care classroom.

These findings support the premise that individual relationships are constructed within particular contexts. The contributions of the individual children, their teachers and the climate of the context are all important predictors. Both child care teachers and elementary teachers may benefit from an increased awareness of the importance of the social and emotional climate of the classroom.

This suggests that teacher preparation programs may need to focus on this aspect of curriculum for young children as well as more traditional material.

Underpinning our thinking


Howe's perspective on teacher-child relationships is drawn from attachment theory, which assumes that children use their relationships with significant adults to organize their experiences.

Current research suggests that children with close child-teacher relationships are also socially competent with peers. Children perceived by teachers as difficult four-year-olds tend to build child-teacher relationships high in conflict.



These persist so that by kindergarten, children who were problematic four-year-olds tend to be less able than children with other relationship histories to use the child-teacher relationships to master the academic content of school.

Our outcome measure, second-grade social competence with peers, is significant because by mid-elementary school, individual differences in children's social competence with peers appears to stabilize and predict future adaptive or non-adaptive behavior in adolescence.

Aggression and social withdrawal are maladaptive behaviors, indicating the absence of social competence. 

If children feel emotionally secure with the teacher they can use her as a secure base and a resource for exploring the learning opportunities of the classroom.



Each child-teacher relationship is built independently of the child's prior adult-child relationships (including child-mother) and of the other child-teacher relationships in the classroom.

Georgia Conference

Nearly 1,000,000 Served

Innovative ideas in early education exchanged at Georgia conference

Educators, researchers, and legislators from Europe, Australia, and America came together just over a year ago in Atlanta, to talk about the “single most important investment we can make” as **Georgia Gov. Zell Miller** said. That investment is providing early education opportunities for the nation’s young children.

Participants in the conference “Education in the Early Years” heard from domestic and international programs; considered the most recent research; and discussed alternatives to structuring and financing these programs. Sponsors included the National Center for Early Development & Learning.

Following are excerpts from states
trying innovative techniques 

Collaborative innovations

Massachusetts’s discretionary grant program requires the collaboration of early care and education providers, families with young children, and other members of local communities, reports **Elisabeth Schaefer** of the state Dept. of Education. Local Community Partnerships for Children Councils:

- choose the lead agency that administers the project (public school, Head Start or child care agency)
 - conduct needs assessments
 - create comprehensive service systems for 3- and 4-year-old children and their families
 - evaluate community plans, implementation of plans, and outcomes and
 - serve as policy and planning bodies.
- The state mandates collaboration, a needs assessment plan, and then provides funds. Partnerships serve 3- and 4-year-olds in families with incomes up to the state median, \$55,000 for a family of 4. The state requires communities to use a sliding-fee scale to determine what parents pay for services, including services provided in schools.

Minnesota has created the State Department of Children, Families & Learning (CFL) that brings together K-12 education with community service programs, according to **Barbara Yates** of CFL. Parents and community members are part of program, advisory, and planning committees.

This means:

- Creation of a single voice for childhood services which gives these issues more prominence in the executive and policy arenas.
- More comprehensive and coordinated access to data.
- More integrated funding. Policymakers have a better opportunity to examine state-level barriers that impede services and give a more coordinated response.

Connecticut has two major collaborative thrusts, according to **Elaine Zimmerman** of the Connecticut Commission on Children.

- The school reading program (passed in 1997) offers full access for three- and four-year-olds, the pooling of dollars across social service and education departments to expand hours and quality, service integration linking healthcare, literacy, employment and job training at the preschool site. A career ladder supports the work experience, training and career paths of providers. Preschool programs must be accredited or in the process of accreditation with NAEYC, Head Start or other similar standards. The program gets \$80 million for the first two years of a five-year plan; it also contains \$70 million in loan funds for capital expansion.
- The literacy program (passed in 1998) creates a comprehensive early intervention strategy targeting at-risk children K-3rd grade. The state appropriated \$20 million for intensive reading programs, reduced class size, full-day kindergarten, after-school and summer school programs, and teacher training.

Parents are written into both bills as consumers with whom institutions must collaborate proactively.

Oregon's collaborative early childhood system serves children, ages 0-8, and their families, according to **Dell Ford** with the state Department of Education. The essential elements are family involvement, inclusion, positive relationships, child development, professional staff, continuity, health, an appropriate environment, and effective administration.

Oregon has an open competitive process for funding programs; all service providers can apply except religiously oriented programs. Also, schools must look at transition issues for preK students. Schools must coordinate with child care. Partnerships ensure that someone at the school works with health and human resources.

It is time that America determines to make the most out of this critical time in a child's life. If our children are going to compete in a global market, we must make them global thinkers. It is incumbent to do everything we can – as soon as we can – to prepare them to learn and to function in a world no longer limited by state or national boundaries.

— Zell Miller
Georgia governor

The state has allocated money for preK to partner with federal Head Start to increase the number of low-income children receiving early education services. This is known as Head Start Prekindergarten. Also, Temporary Assistance to Needy Families money is used to help federal Head Start expansion efforts to extend the day/year of Head Start services. Oregon's goal is to serve 50% of eligible children by 1999 and 100% by 2004.

Infrastructure innovations

Vermont, through its Early Childhood Workgroup, has developed a number of inter-related factors to strengthen its infrastructure, according to **Cheryl Mitchell** of the Vermont Agency of Human Services. These include:

- Core standards for all center-based, home-based, and home-visiting programs.
- A career lattice that links early childhood services across the career spectrum.
- Increased incentive payments for NAEYC-accredited programs.
- An extensive training system and the involvement of higher education in professional development.
- A revolving loan fund for improving child care settings and a mini-grant program for equipment, supplies, and specialized training.
- Use of interactive television and outreach.
- Partnership between state and community collaboratives around enhanced quality in early care and education.
- Links between schools, centers, and home-based providers.
- Reinforcement of family-centered practice.

Texas has formed the Texas Head Start-State Collaboration Project (THSSCP) which creates and supports statewide partnerships among Head Start, child care and preK programs. Parents are members of the THSSCP Task Force and participate in various workshops. THSSCP gets \$300,000 a year from Head Start (federal) and child development block grant (state). (continued on page 16)

(Texas continued from page 15)

These major projects are being implemented:

- Texas Core Standards
- Texas Career Development System
- Early Care and Education Collaboration Tool Kit
- Transition Training Pilots

North Carolina's "TEACH" component of its statewide Smart Start initiative is an umbrella for a variety of scholarship programs that help child care workers take college courses and get paid for it, according to **Sue Russell** of the Day Care Services Association. TEACH has operated for eight years and provided more than 4,000 scholarships.

Another state program—Child Care WAGES Project— provides salary supplements to eligible child care teachers, directors, and family child care providers linked to the level of their education.

Both projects maintain comprehensive databases that track participants' demographics, history, progress, increased education, turnover, and so forth. TEACH funds come from private and public sectors, including foundation and corporate sources. The Child Care WAGES Project is funded with Smart Start money. Both projects have shown that increased compensation can have a dramatic impact on turnover.

Funding innovation

Thirty nine states fund preschool programs with their own money from special taxes, lotteries and gaming, state general funds, state education appropriations, and other methods, according to **Anne Mitchell** of the Early Childhood Research Institute and **W. Steven Barnett** of Rutgers University Graduate School of Education.

Nationwide, child care and early education is funded 60% by families, 39% by government, and 1% by the private section.

PreK is rapidly growing in state budgets. Some 39 states have money for preK or add on to Head Start. The trend is for three- and four-year-olds with few initiatives for children birth to five.

Funding solutions suggested include

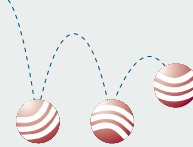
- Educating parents, the public and the government about the costs of low quality and a lack of services
- Building a system on existing resources and models
- Creating a funding partnership among parents, government, and employers
- Using a mix of public sources, such as general revenues from taxes and lotteries, state budget surpluses, increased tax on upper income families (especially capital gains), dependent care assistant plans with matching contributions and rollover, a children's trust fund similar to the Social Security system, and a 50% tax on campaign funds.

Evaluation innovation

Georgia's ongoing evaluation of its Prekindergarten Program looks for program characteristics that produce a "competitive advantage" for children, according to **Gary T. Henry** of Georgia State University. The evaluation also examines which educational practices in the years after preK enhance or dampen the effects of the preK program on four-year-olds.

Program quality, teachers' beliefs and practices, and developmentally appropriate practices in preschool are measured on a stratified probability sample of more than 3,000 children. Family background and preschool program characteristics are monitored. Parents are interviewed each year for the first three years.

These outcomes are measured: rating of student performance on cognitive, behavioral, and social skills, attendance, promotion, referrals to special programs, and expectations for each student by parents and teachers.



Nearly 1,000,000 preK children being served in public school areas

Schools and school districts are becoming increasingly involved in providing services to children and families prior to entry into formal school at the customary kindergarten entry age.

Using data from the 1995 National Household Education Survey (US Department of Education), a new study by researchers at NCEDL estimates that some 900,000 prekindergarten children were served in a public elementary, junior high or high school in 1995.

“School systems are a major new force in early childhood. This has both positive and negative implications for the field,” said Researcher **Richard M. Clifford**, who is also co-director of the National Center for Early Development at UNC-Chapel Hill.

On the positive side, he said, schools bring a strong tradition of service to all children. A 1999 report showed that standards for state-funded pre-kindergarten programs in many states are quite high. “Second, schools represent a strong potential ally in securing revenue for early childhood programming.”

On the negative side, school officials have been historically reluctant to incorporate services to children prior to kindergarten entry age—a position sometimes supported by public opinion regarding the appropriate role of the education system, said **Diane Early** who also worked on the study.

She said, “Schools have been slow to meet the needs of families for services beyond the traditional school day (usually about six-and-a-half hours/day) and school year (usually around nine months). Today most families with children three to four years old age need full-day (at least eight hours a day) and full-year services.”

In an article published in a recent *Young Children*, the researchers wrote, “We propose the creation of a National Commission on Early Childhood Services to examine the issue of how we, as a country, will serve our youngest citizens. Until we have agreement on the basic issues of who has responsibility for governing early childhood services, who has responsibility for financing these services, and how we can best take advantage of the rich resources for serving children in this country, many families will continue to face a patchwork of services with many children spending their early years in settings of unknown quality.”



For more information:

“Almost a Million Children in School Before Kindergarten: Who is responsible for Early Childhood Services?” Richard M. Clifford, Diane M. Early & Tynette Hills. *Young Children* 54 (5), 48-51.

“School systems are a major new force in early childhood. This has both positive and negative implications for the field.”

– *Richard M. Clifford*
Researcher, Co-director
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