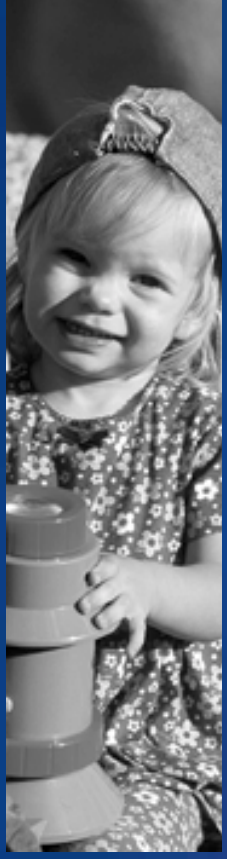

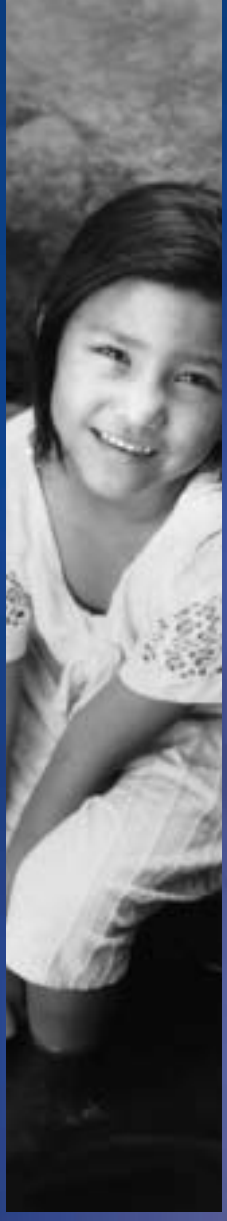

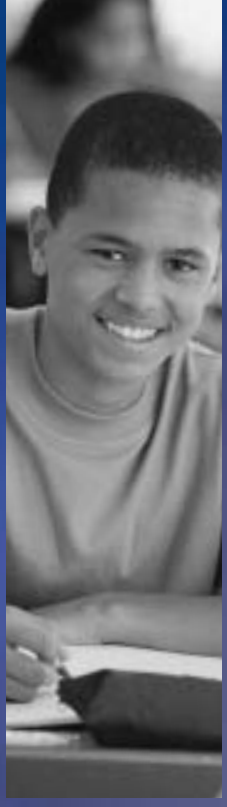

# Early Care and Education: The Keystone of Pennsylvania's Future

Preparing Our Children for Success

Commonwealth of Pennsylvania
The Governor's Task Force on Early Childhood Care and Education

Quality Study

# Governor's Task Force on Early Childhood Care and Education

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# The Pennsylvania Early Childhood Quality Settings Study

Report Prepared for the Governor's Task Force on Early Childhood Care and Education

**November 2002**


## Written by

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Universities Children's Policy Collaborative is dedicated to contributing to the health and welfare of children, youth, and families by providing nonpartisan information on public policy issues.


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# Introduction

This report constitutes the second in a series of two reports published by the Governor's Task Force on Early Childhood Care and Education. The 34-member Task Force, created by Executive Order 2-2002, was charged by Pennsylvania Governor Mark Schweiker with examining the full range of proven, evidence-based school readiness strategies available for early childhood care and education targeted at children age 0-8 and the existing Commonwealth services available to that age group. The Universities Children's Policy Collaborative (UCPC), comprised of researchers from Pennsylvania State University, Temple University and University of Pittsburgh, conducted comprehensive and Pennsylvania-specific research to support the work of the Task Force.

The first report, *Early Care and Education: The Keystone of Pennsylvania's Future,* was delivered to Governor Schweiker on September 30, 2002. This report provides the case for action, by synthesizing the most current research available on stable and nurturing parenting, brain development and the components of school readiness. These critical issues form the basis of the Task Force goal:

> *All Pennsylvania children should come to school ready to learn and prepared to succeed, ensuring Pennsylvania strong families, a responsible citizenry and an effective and educated workforce.*

The report sets forth an agenda for early care and education in Pennsylvania in the form of a blueprint for future action. The blueprint contains the fourteen recommendations developed by the Task Force to advance leadership and policy in early care and education. The Task Force calls upon the next administration to make necessary investments to ensure that all Pennsylvania children start school ready to learn.

In accordance with the Executive Order, the Task Force is now releasing the second report: *The Pennsylvania Early Childhood Quality Settings Study.* Both reports are available on the Commonwealth web site at **www.state.pa.us** Keyword: E*arly Care and Education*. The complete texts of the four supporting research reports, published by the Universities Children's Policy Collaborative, are available at **www.prevention.psu.edu/ECE**.

# Abstract

This report describes an early childhood quality settings study completed on 372 early care and education facilities in Pennsylvania. It is one of five studies completed by the Universities Children's Policy Collaborative (UCPC) for the Governor's Task Force on Early Childhood Care and Education. These studies provide a baseline to the early care and education services delivered in the Commonwealth of Pennsylvania. This particular study measured the environmental and interactional quality of 50 Head Start programs, 48 preschools, 111 child care centers, 109 family child care homes, 46 group child care homes, and 8 legally unregulated/relative/neighbor care. The results indicate that Head Start and preschools provide a higher level of quality, and that the educational level of providers and utilizing a curriculum is related to quality, especially if you are a family child care home provider.

## Acknowledgements

The authors would like to thank the following individuals who without their support and hard work this Early Childhood Quality Study would not have been completed: Dr. Debbie Cryer, University of North Carolina at Chapel Hill, who did the reliability and overview training on the ECERS-R and FDCRS; Dr. David Johnson from Penn State's Survey Research Center, who developed the stratified sample that was used in this study and in the University of Pittsburgh, Office of Child Development Provider Survey; and to all the data collectors who spent untold hours criss-crossing the Commonwealth of Pennsylvania: Ali Smalstig, Kim Dile, Lisa Heintzelman, Rose Ball, Michele Black, Michele Bossers, Pam Schaeffer, Florence Schneider, Mary Scott Bowser, Molly Wilson, Kelly Kring, Kathy Stennett, Amy Zoellner, Patricia Carroll, Barb Willier, Mary Frances Bucher, Roxie Nestlerode, Linda Kern, Allison D'Amour, Lauren Mocadlo; and to the early childhood providers and teachers who allowed us to visit their programs.

# Contents

The Pennsylvania Early Childhood Quality Settings Study

# The Pennsylvania Early Childhood Quality Settings Study

November, 2002

Report prepared for the Governor's Task Force on Early Childhood Care and Education

# The Pennsylvania Early Childhood Quality Settings Study

## Executive Summary

The research goal of this study was to establish a baseline of early childhood program quality in Pennsylvania across all program types:

- Head Start,
- Preschool/Nursery Schools,
- Child Care Centers,
- Group Child Care Homes,
- Family Child Care Homes, and
- Legally Unregulated/Relative/Neighbor Care.

Three program quality tools were used: Early Childhood Environment Rating Scale – Revised (ECERS-R), Family Day Care Rating Scale (FDCRS), and the Caregiver Interaction Scale (CIS).

Data were collected from 50 Head Start programs, 48 preschools/nursery schools, 111 child care centers, 46 group child care homes, 109 family child care homes, and 8 legally unregulated/relative/neighbor care providers for a total of 372 sites. This study over-sampled Head Start programs, preschools, and group child care homes, compared to the number in Pennsylvania; this was necessary to have adequate sample sizes for analyses by type of provider. In addition, neighbor/relative care was under-sampled. It is important to note the significant difficulty encountered in obtaining this sample with the home-based providers. A major limitation of this study was the inability to observe the level of quality in legally unregulated/relative/neighbor care. Ninety-seven percent of relative/neighbor providers refused to participate in the study.

It should be noted that this study primarily focused on preschool age children and did not include observations of quality in infant-toddler settings; however, in home-based

care settings, infants, toddlers, and preschoolers were sometimes present. Also, in center-based programs only one randomly selected classroom was observed in each Head Start, preschool/ nursery school program, or child care center.

Major Findings:

- Head Start's quality was significantly higher than all other forms of early care and education.
- Home-based providers had lower quality scores than center-based providers.
- The majority of care was minimal or adequate at best with the exception of Head Start. Eighty percent of the programs scored at a minimal or adequate level.
- Providers/Teachers with a college degree provided higher quality care.
- Early childhood majors had higher quality ECERS-R scores than the teachers whose major was elementary education.
- Providers and teachers with graduate degrees are more open to different experiences for children and their individual needs.
- Curriculum use was related to higher quality scores.
- Using a curriculum in family child care homes showed a significant relationship to quality.
- Providers with more education and utilizing a curriculum provide a higher level of quality in their programs.
- The overall environmental quality of Pennsylvania child care centers and family/ group child care homes has decreased from the mid 1990's.
- A clear direction for additional training would be to improve overall staff qualifications as well as focus on the specific ECERS-R/FDCRS items that were at a minimal level.

  On the ECERS-R:
  - Room arrangement and child related displays,
  - Gross motor play and equipment,
  - Personal care routines, including meals/snacks, naps for children, safety practices, toileting/ diapering,
  - Learning activities, such as art, music and movement, blocks, sand/water activities, dramatic play, nature/science, math/number, use of television, and promoting acceptance of diversity,
  - Provisions for personal needs of staff.

  On the FDCRS:
  - Child related displays and active physical play,
  - Space for infants and toddlers to be alone,
  - Basic care routines such as diapering and toileting, meals and snacks, personal grooming,
  - Health and safety,
  - Learning activities, the following should be addressed: helping infants and toddlers understand language, helping children to reason, art, sand and water play, blocks, use of television, and cultural awareness.

It is interesting to note that when one looks at regulatory standards and programmatic standards, those providers who have the more stringent standards (Head Start for centers and group child care homes for homes) are scoring higher on the ECERS-R/FDCRS scales. Focusing on the needs of our existing providers and meeting their needs for targeted training will go a long way to improving the overall early care and education system.

## Introduction

The first five years of a child's life is a period of incredible cognitive, emotional and social growth. Experiences during these early years can set children on pathways that have lifelong emotional, social and academic consequences.

How can we invest in our children's early development to ensure subsequent academic, social and emotional success? This question has attracted widespread attention from Pennsylvania policy makers. Their goal: to develop a system of early care and education that will meet families' needs today and help prepare a sophisticated, educated workforce of the future.

Toward this goal, Pennsylvania's Governor Mark Schweiker signed Executive Order 2002-2 on April 17, 2002 to create the Early Childhood Care and Education Task Force. As part of the work accompanying the task force, the Governor commissioned a series of primary research efforts to be carried out by three major Pennsylvania Universities (Penn State University, University of

Pittsburgh, and Temple University) that have joined together to form the Universities Children's Policy Collaborative (UCPC).

As part of this collaborative effort and under commission from the Governor's Office, the Penn State University initiated the Pennsylvania Early Childhood Quality Settings Study, one designed to collect information from early care and education facilities across the state. This report provides the findings from this study and highlights the policy recommendations that stem from these findings. This report is one of a series of reports from UCPC.

The other reports include:

- *Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey*,
- *The State of Early Care and Education in Pennsylvania: The 2002 Higher Education Survey*,
- *From Science to Policy: Research on Issues, Programs and Policies in Early Care and Education*, and
- *A Baseline Report of Early Care and Education in Pennsylvania: The 2002 Early Care and Education Provider Survey*.

This evaluation report depicts the overall level of early care and education program quality in Pennsylvania. The purpose of the early childhood quality settings study was to determine the quality of care provided in child care centers, preschool/ nursery schools, Head Start, family child care homes, group child care homes, and legally unregulated/relative/neighbor care in Pennsylvania. This was accomplished by drawing a stratified random sample of 372 sites from across Pennsylvania. The reason for this study is to establish a baseline measure of the quality of early care and education. By establishing a baseline, the next governor can determine the impact that specific policy interventions have on the overall child care delivery system.

Several studies of quality of early care and education have been conducted at the national, state, and regional levels over the past 10-15 years. These studies (Burchinal, 1999; Cryer, 1999; Fiene, 2002; Frede, 1995; Galinsky, etal, 1994; Helburn & Howes, 1996; Iutcovich, Fiene, Koppel, Johnson, & Langan, 1997; Love, 1997; Love, etal, 1996; Melnick & Fiene, 1991; Schwienhart, etal, 1993; Jaeger, & Funk, 2001; Stifter, etal, 1993; Whitebook, etal, 1989) point to the need to monitor the overall quality of early care and education. The quality of early childhood services varies greatly from homes to centers and by form of sponsorship. The study described in this report is the most comprehensive of any of the studies completed in Pennsylvania to date because of its size and breadth.

This comprehensive study was led by the Capital Area Early Childhood Training Institute (CAECTI: a division of the Prevention Research Center) at the Pennsylvania State University. The CAECTI (**www.caecti.org**) is a training and research institute whose mission is to improve the quality of services to infants, toddlers and preschoolers regardless of setting. The institute has created and implemented innovative mentoring programs for infant and toddler caregivers, early childhood certificate programs for early care and education teachers and home based mentoring language/ communication intervention programs for parents.

## Setting the Stage

Why this research now? There are two central reasons. First, the Commonwealth of Pennsylvania is about to embark on several major policy initiatives that could have a tremendous impact on the quality of early childhood services. What has been lacking in many statewide interventions is a solid baseline of data from which to assess change. As Pennsylvania is in the process of implementing an innovative-tiered quality improvement system (Keystone Stars)* the current quality study can be instrumental in determining the degree of quality improvement that might result from this new system or other future policy initiatives. Second, it is important to determine the relative state of quality in early childhood services in Pennsylvania as compared to other national and state studies that have been completed.

## Research Goal

The research goal of this study was to establish a baseline of early childhood program quality in Pennsylvania across all program types:

- Head Start,
- Preschool/Nursery Schools,
- Child Care Centers,

*Keystone Stars is a voluntary quality improvement pilot program that recognizes child care providers who exceed state health and safety licensing requirements. Pennsylvania providers can be designated as Star One, Star Two, Star Three or Star Four based on achieving performance standards in three areas (Staff Education, the Learning Environment and Administration) that have been identified as making a difference in the quality of child care.

- Group Child Care Homes,
- Family Child Care Homes, and
- Legally Unregulated/Relative/Neighbor Care.

## What is Quality and How is it Measured?

It is important to delineate what is being measured by the observational rating scales used in the project. This section provides examples of what constitutes high and low quality by depicting the key indicators of several of the ECERS-R—Early Childhood Environment Rating Scale-Revised and FDCRS—Family Day Care Rating Scale items. The ECERS-R and FDCRS scales have been used in several major child care and early childhood studies over the past 20 years (Cryer, 1999; Galinsky, etal, 1994; Helburn & Howes, 1996; Iutcovich, Fiene, Koppel, Johnson, & Langan, 1996; Jaeger & Funk, 2001). The ECERS-R and FDCRS are some of the most reliable program quality instruments available.

**The Early Childhood Environment Rating Scale Revised (ECERS-R).** A minimal score (3.00-3.99 on the ECERS-R), for example, on the language-reasoning subscale under books and pictures translates into a setting that has some books accessible for children and has at least one staff-initiated receptive language activity time (example, reading books to children, storytelling, using flannel board stories). However, in moving to a good or excellent level (above a 5.00 on the ECERS-R) the following are present in the setting: a wide selection of books are accessible for a substantial portion of the day, books are organized in a reading center, staff read books to children informally (example, during free play, at naptime, as an extension of an activity), some books relate to current classroom activities or themes (example, books borrowed from library on seasonal theme), and books and language materials are rotated to maintain interest. As one can see from this example, having only obtained the minimal score on language-reasoning leaves a setting severely lacking in many areas.

A minimal score on the furnishings for relaxation item in the ECERS-R indicates some soft furnishings and toys are accessible to children. However, the following indicators would not be observed: cozy area accessible to children for a substantial portion of the day, cozy area is not used for active physical play, and most soft furnishings are clean and in good repair. A minimal score on child related display means that some children's work is displayed and there are appropriate materials for the predominant age group. However, the following indicators would not be observed: much of the display related closely to current activities and children in the group, most of the display is work done by the children, and many items are displayed on the child's eye level.

A minimal score on activity items (e.g., fine motor, art, music/movement, blocks, sand/water, dramatic play, nature/science, math/number) means that there were some developmentally appropriate materials accessible and they were in good repair, but the materials were not well organized, there were not materials available on different levels of difficulty for the children, materials were not rotated to maintain interest, there was not the opportunity to use materials for individual or creative expression, materials required staff direction only and were not child centered, and the materials were not accessible for a substantial portion of the day. If all these things were present this scale would be rated in the high quality (5.00+) area.

**The Family Day Care Rating Scale (FDCRS).** A minimal score (3.99 or less on the FDCRS) for the child related display means that no child related pictures, mobiles or children's artwork are put up for children to look at. A minimal score on the active physical play item means that for some homes there is little or no safe outdoor or indoor space used for active physical play, for example, no space for tricycle riding, ball playing, climbing or where infants can be taken outdoors.

A minimal score on the activity items, such as art, eye-hand coordination, sand/water play, and blocks, means that some materials were accessible but the materials were not organized to encourage self help, the caregiver did not help children develop skills, and the materials were not well organized for independent use. If all the positive end of these indicators were present, the home would score in the high quality range (5.00+) on the FDCRS. These examples are provided to give a flavor of what the various levels of quality on the ECERS-R and FDCRS contain.

**The Caregiver Interaction Scale (CIS).** A minimal score on the CIS for any of the positive items would be below a 3.00 on the 4.00 scale which means that the positive type of behavior being observed (such as: speaks warmly to the children; encourages

the children to try different experiences, talks to the children on a level they can understand) was occurring about 50% of the time. A high score on positive items would mean that the behavior being observed was occurring consistently (60-100% of the time). A minimal score on the CIS for any of the negative items would be above a 2.00 on the 4.00 scale which means that the negative type of behavior being observed (such as: places high value on obedience, seems emotionally distant, routine or mechanized teaching style, finds fault easily with children) was occurring greater than 30% of the time. A high score on negative items would mean that the behavior being observed was never occurring. See the Appendices for example score sheets for each of the above mentioned tools.

# Design and Method

## Sample

Data were collected from 111 child care centers, 109 family child care homes, 50 Head Start locations, 8 legally unregulated family providers, 48 nursery schools, and 46 group child care homes, for a total of 372 early childhood providers. Tables 1 and 2 depict these breakouts by the total sample of providers, by geographic location of the facility, and comparing the quality sample with the total number of facilities in Pennsylvania. These providers were located throughout Pennsylvania in 64 of the 67 counties. These counties provide over 97% of the child care services in the Commonwealth of Pennsylvania.

## Population

Sample selection included a two-stage process. In the first step a larger sample of 637 providers was selected for the University of Pittsburgh provider survey study – *A Baseline Report of Early Care and Education in Pennsylvania: The 2002 Early Care and Education Provider Survey* (**www.pitt.edu/~ocdweb/policy21.htm**). The current quality study then derived a subset of 372 sites from that study population.

Statisticians at the Pennsylvania State University obtained lists of all the registered providers in the Commonwealth from the registration and licensing databases of the Department of Education, the Department of Public Welfare (DPW), the Pennsylvania Head Start Association, and the Keystone University Research Corporation. These lists provided names to fill five categories of providers based on Department of Education, DPW, and Head Start registration guidelines, namely child care centers, preschools/nursery schools (preschools), Head Start centers, group child care homes, and family child care homes. To fill the remaining category of providers recognized by DPW (legally unregulated home providers or relative/neighbor care), Pennsylvania State University statisticians obtained lists of individuals who had contacted "The Better Kid Care Project" to obtain information about becoming home care providers. Because legally unregulated/relative/neighbor care providers are not required to be registered with the Commonwealth, researchers determined that this was the best way to identify the potential legally unregulated/relative/neighbor care providers. The final population consisted of 15,220 early care and education sites, including 5,067 potential legally unregulated/relative/neighbor care providers, representing a potentially exhaustive list of licensed and registered facilities within the classifications.

## Sampling for the Provider Survey

UCPC agreed that the unit of analysis would be the provider site, and that the goal was to obtain interviews from 600 representative provider sites. Statisticians at the Pennsylvania State University randomly selected sites to interview based on the distribution of types of providers in the Commonwealth and stratified by metro code (counties comprised of large cities and the most dense population called "Metropolitan," counties comprised of small cities called "Small Cities," and "Rural"). To ensure that enough provider types stratified by metro code were obtained, the statisticians developed an elaborate sample replacement strategy whereby an initial sample of 600 was chosen with three to five replacement sites identified for each site to be interviewed if the initial site refused.

Initially, the researchers at the University of Pittsburgh Office of Child Development (OCD) and the University Center for Social and Urban Research (UCSUR) employed the sampling strategy and mailed introductory letters to the first 600 providers to solicit their participation. However, due to the data collection time constraints, introductory letters were mailed to the entire sample of 3300 randomly selected sites (the number of replacements provided for each provider selected in the original sample of 600 varied from 3 to 5) after two weeks using the replacement strategy. UCSUR interviewers then completed interviews with providers that were

willing to complete the interviews until provider type cells were filled, regardless of whether they were in the initial sample of 600 or in a replacement sample.

Although the latter method improved survey completion rates among child care centers, preschools, group child care homes, and family child care home providers, interviewers were still unable to reach sufficient numbers of Head Start sites (because most Head Start sites are closed during the summer) and legally unregulated/ relative/neighbor care providers (due to low response rates). Thus, to reach Head Start sites, OCD staff consulted with Kathy Yorkievitz, Director of the Pennsylvania Head Start Association, and she sent an email message on July 1, 2002 requesting the help of the Head Start Education Coordinators across the Commonwealth. This methodology yielded a suitable sample of Head Start sites. To reach more legally unregulated/ relative/neighbor care providers, another database of 700 legally unregulated/relative/neighbor care providers were obtained, and introductory letters were mailed on July 1, 2002. Data collection ended on July 17, 2002.

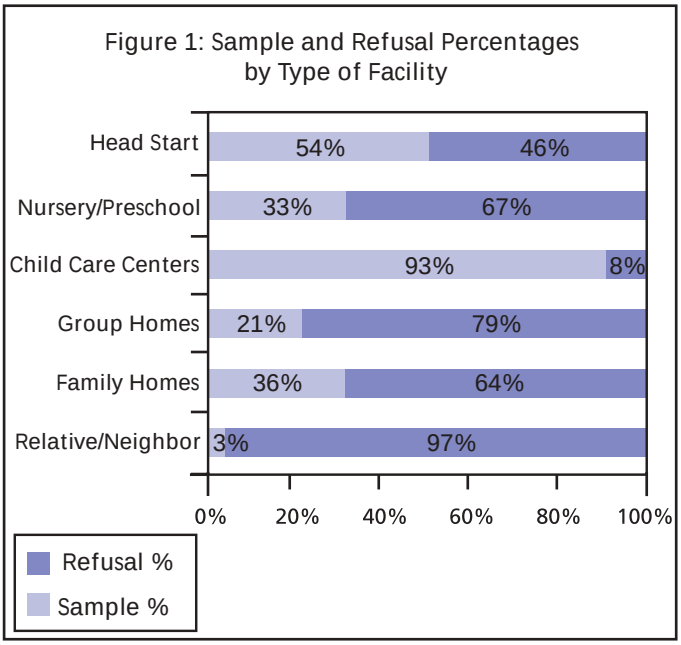
Due to deviations from the original sampling procedure necessitated by the condensed timeline for data collection, it is important to note that the final sample obtained does not reflect either the total number of sites or children in Pennsylvania. Instead, it is the total number of sites responding. Additionally, sites of different types serve different numbers of children, so the average for a site is not the average for all children in Pennsylvania.

## Sampling for the Current Quality Study

The Provider Survey obtained a full sample of 637 sites. It was from these 637 providers that the sites for this observational study were to be drawn. However, due to high refusal rate of the original 637 providers for the observational portion of this study, an additional 121 sites were contacted. The 372 providers selected for this study were from this total pool of 758 sites. In total, 31% of the early care and education programs contacted agreed to participate. A large percentage of the home based providers (80%) declined participation in the study.

**Sample refusal rate and representativeness.** Tables 1 and 2 give the sample characteristics of the 2002 Pennsylvania Early Care and Education facilities that were utilized in this study. As presented in Table 2, the current study over-sampled Head Start programs, preschools, and group child care homes, compared to the number in Pennsylvania; this was necessary to have adequate sample sizes for analyses by type of provider. In addition, neighbor/ relative care was under-sampled. It is important to note the significant difficulty encountered in obtaining this sample with the home-based providers. Figure 1 depicts the sample along with the number of refusals by provider type. A major limitation of this study was the inability to observe the level of quality in legally unregulated/relative/ neighbor care. Ninety-seven percent of relative/ neighbor providers refused to participate in the study. As a result, the sample size is too small for statistical analysis and only descriptive data are presented on this sample. Overall, the center-based programs (Head Start, preschool/nursery schools, and child care centers) had a much lower number of refusals than the homes (group child care homes, family child care homes, legally unregulated/relative/neighbor care), probably because they are more accustomed to having licensing staff visit and conduct annual inspections. Child care centers had a very low refusal rate.

Figure 1: Sample and Refusal Percentages by Type of Facility




While Table 2 presents the study sampling in proportion to the number of sites by type in Pennsylvania, it is equally important to look at the number of children served by each type of service. The following data gives a breakout of the number of children served by type of service: child care

centers—266,210 children; Head Start—28,894 children; Private Nursery/ Preschool— 32,000 children; group child care homes—8,555 children; family day care homes—24,894 children; relative/ neighbor—not available. However, the figures for child care centers and home-based child care cover children from birth through 8 and the Commonwealth of Pennsylvania does not have this information by age. Children in nursery/preschool and Head Start programs are predominantly ages 3 and 4. The information for child care centers and group and family homes is as of January 2001, Head Start for the 2001-2002 year, and nursery schools from 1999-2000. Of the 360,554 children in the 5 regulated types, 266,210 or almost 3/4ths of the children *in these 5 types* are in child care centers (Pennsylvania Partnerships for Children (2002). *From Building Blocks to Books:Learning from Birth through 8 in Pennsylvania*).

This current study is designed to measure the quality of care provided by each of five different types of providers. However, these results cannot be described as the average quality of care Pennsylvania children *receive*, because many more children are in some of the types of care, such as child care centers, than are in others. The sampling design was to observe an adequate number of each type to be able to benchmark quality **within** each provider type, and not to reflect the number of providers of each type nor the distribution of children across these types of care. Nevertheless, the term "statewide" average will be used for any simple average of all 372 providers in the sample, that is, any simple average across all provider types. Such statewide averages can be compared with one another because all are based on the same distribution of providers in this sample.

*The Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey* (see Table 4 of this report) found that 1 out of every 3 Pennsylvania children under 6 are in parental care only. The current quality study does not measure the quality of parental care. Likewise, many children are cared for informally by adults who are not registered or licensed by the state, because they take on three or fewer children who are not their own. The number of Pennsylvania children in non-parental, non-regulated care is not known.

*The Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey* Table 4 found that approximately one out of four (28%) Pennsylvania children under 6 were in "center/ program" care on either a part-time or full-time regular basis. These children are in settings, which correspond to this study's "centers," namely child care centers (licensed by the Pennsylvania Department of Public Welfare), nursery schools/ preschool (licensed by the Pennsylvania Department of Education), and Head Start (monitored by the U.S. Department of Health and Human Services).

It should be noted that this study primarily focused on preschool age children and did not include observations of quality in infant-toddler settings; however, in home-based care settings, infants, toddlers, and preschoolers were sometimes present. Also, in center-based programs only one randomly selected classroom was observed in each Head Start, preschool/nursery school program, or a child care center.

## Data Collection

Data on the ECERS-R, FDCRS and Caregiver Interaction Scale (CIS/Arnett) were collected by 21 data collectors who were chosen based on their extensive experience and expertise in the early childhood field. Debby Cryer, one of the authors of the ECERS-R (Early Childhood Environmental Rating Scale – Revised) and FDCRS (Family Day Care Rating Scale) provided on-site reliability testing on these tools, as well as on the Arnett Caregiver Interaction Scale with four senior data collectors who then served as group leaders for the remaining data collectors. A total of 4 weeks of extensive training was provided for the 21 data collectors in conducting observations and evaluations in child care programs. Five additional data collectors were hired at a later date and participated in two weeks of intensive training. The training included both classroom instruction and site observations at numerous child care centers and family day care homes across Pennsylvania. In all cases inter-rater reliability was established at .85 level or above. Data were collected during a 12-week period (July 1, through September 30). To ensure continued reliability and assess observer drift of observational data several sites were randomly selected and duplicate data were collected. The results of these two observations were compared and reliability between observers was confirmed.

## Instrumentation

The instruments used in this study were (a) the Early Childhood Environment Rating Scale, Revised Edition (ECERS-R)(Harms, Clifford, & Cryer, 1998) for all Head Start centers, nursery schools and child care centers, (b) the Family Day Care Rating Scale (FDCRS)(Harms & Clifford, 1989) for all legally unregulated/relative/neighbor care providers, group day care homes and family day care homes, and (c) the Arnett Caregiver Interaction Scale (CIS)(Arnett, 1989), for all caregivers in the sample as a measure of caregiver interactions with children.

**The Early Childhood Environment Rating Scale, Revised (ECERS-R).** The ECERS-R is a measure of program quality and consists of 43 items organized into 7 sub-scales: (1) Space and furnishings, (2) Personal care routines, (3) Language reasoning, (4) Activities, (5) Interactions, (6) Program structure, (7) Parents and staff. The descriptors cover the needs of children, ages 2 to 5 years of age. This instrument has been widely used in the early childhood field for many years for determining the quality of child care. The ECERS-R is a revision of the original ECERS-R; it is not a new scale. The ECERS-R retains the original scale's broad definition of environment, including those spatial, programmatic, and interpersonal features that directly affect the children and adults in an early childhood environment.

**The Family Day Care Rating Scale (FDCRS).** The FDCRS is a measure of program quality and is designed to assess the overall quality of family child care programs. The scale consists of 40 items, including 3 items with separate criteria for infant/toddlers and preschool age children, 8 supplementary items for programs serving children with disabilities. The descriptors cover the needs of a range of ages from infancy through kindergarten. The items are organized into 7 subscales: (1) Space and furnishings for care and learning, (2) Basic care, (3) Language and reasoning, (4) Learning activities, (5) Social development, (6) Adult needs, (7) Provisions for exceptional children. This instrument has also been widely used in the early childhood field.

The two scales cover comparable aspects of care with often similar subscales and numbers of items, so results on ECERS-R and FDCRS can be directly compared.

The following ratings were used with the ECERS-R and FDCRS: poor = 1; minimal = 3; good = 5; and excellent = 7. All scores are the averages of the scale. These average scores were used for analysis rather than the raw scores so that comparisons could be made between the ECERS-R and FDCRS scores.

**The Caregiver Interaction Scale (CIS/Arnett).** The CIS (Arnett, 1989) was completed for each caregiver observed. It is a measure of caregiver sensitivity and the items are divided into four sub-scales: permissive (P), harshness (H), detached (D) and harshness/sensitivity (S). The Arnett scoring includes: not at all/never (0%) = 1; few instances/somewhat (1-30%) = 2; many instances/quite a bit (about 50%) = 3; consistently/very much (60-100%) = 4. This instrument provides an observation of the behavior of caregivers in their interactions with children. Therefore, there is a balance between the rating scales and interaction scale so that both environment and caregiver's interactions are noted.

# Findings

## Type of Setting

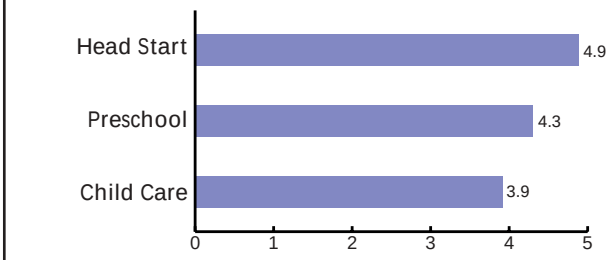
**Head Start's quality was significantly higher than all other forms of early care and education.**

**ECERS-R/FDCRS Findings.** A central goal of the study is to examine how observed quality may be related to type of setting. Results below indicate that the type of setting has an impact on the overall quality. Head Start and preschool/nursery school programs scored significantly higher on quality than did child care centers and homes. Within the home-based settings, group child care homes scored the highest, followed by family child care homes, and lastly by legally unregulated/relative/neighbor care.

Information on the ECERS-R and FDCRS, by setting, is presented in Table 3 and 4; Figure 2a for ECERS-R and Figure 2b (relative/neighbor care is not depicted because of the small number (n = 8)) for FDCRS present summary data in graphical form. The ECERS-R data are from only preschool classrooms while the FDCRS data included infants and toddlers in their observations of homes.

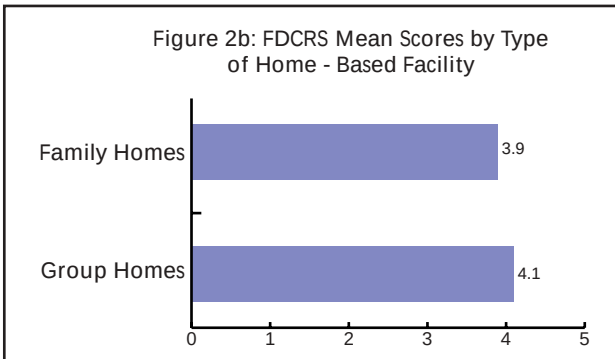
Results for the ECERS-R clearly indicates that **Head Start** programs showed higher quality than all other settings ($F = 27.3$, $p < .0001$). Preschool/nursery schools scored higher than child care centers ($t = 3.0$, $p < .003$) and family child care

Figure 2a: ECERS-R Mean Scores by Type Center - Based Facility




homes (t = 2.7, p < .008), but did not score significantly higher than group child care homes. There were very few differences between the two home-based settings: family child care homes and group child care homes.

Figure 2b: FDCRS Mean Scores by Type of Home - Based Facility




Head Start was the only program service type that scored 4.0 or above on all the subscales:

- Space and Furnishings (4.3),
- Personal Care Routines (4.8),
- Language-Reasoning (5.4),
- Activities (4.3),
- Interaction (5.7),
- Program Structure (5.7), and
- Parents/Staff (5.8).

Space and furnishings, and Activities subscales were the lowest scores and some of the individual items were of some concern, such as: music/ movement (3.0), nature/science (3.1), child related displays (3.8), safety practices (3.6), personal needs of staff (3.1), space for gross motor play (2.5), and gross motor equipment (2.7).

**Preschools/nursery schools** had the second highest scores ranging from 3.5 on Personal Care to 5.5 on Interactions. On four of the subscales, preschools were significantly lower than Head Start programs: Personal Care (t = 5.6, p < .0001); Activities (t = 3.3, p <. 001); Program Structure (t = 3.1, p < .002); and Parents and Staff (t = 6.4, p < .0001). There were several individual items of concern, such as furnishings for relaxation and comfort (3.6), child related display (3.9), space for gross motor play (2.8), meals/snacks (1.7), nap/rest (3.5), toileting/ diapering (3.3), health practices (3.8), safety practices (2.9), art (3.4), music/movement (3.2), blocks (3.4), sand/water (3.7), dramatic play (3.4), nature/science (3.5)(see Table 3 for all the item and subscale scores). Preschool/nursery school programs scored significantly higher on the overall ECERS-R than Child Care Centers (t = 3.0, p < .003).

All subscale scores for child care centers were significantly lower than were those of Head Start. As Table 3 presents, a substantial number of subscale scores and individual items were under 4.0. Five of the seven subscales were significantly lower than preschool programs: Space and Furnishings (t = 2.2, p < .04); Language and Reasoning (t = 4.3, p < .0001); Activities (t = 2.5, p < .02); Interaction (t = 4.0, p < .0001); and Program Structure (t = 2.1, p < .05). On the ECERS-R, child care centers had 23 individual items that were below a score of a 4.0, such as: furnishings for relaxation and comfort (3.4), space for privacy (3.9), child related displays (3.7), gross motor space (2.7), meals/snacks (2.2), nap/rest (3.3), toileting/ diapering (3.1), health practices (3.6), safety practices (2.7), language and reasoning (3.4), fine motor (3.8), art (3.2), music/movement (2.8), blocks (3.1), sand/water (3.1), dramatic play (3.5), nature/ science (2.5), math/number (3.3), use of television (2.8), diversity (3.1), schedule (3.9), personal needs of staff (2.9), and opportunities for professional growth (3.9) . In contrast, Head Start programs had only 7 individual items that scored below a 4.0.

**Home-based providers had lower quality scores than center-based providers.**

In turning to the home-based providers (group child care homes, family child care homes, and relative/neighbor care), on the average these providers scored significantly lower (3.9) than the three center-based provider types (4.2) ($t = 4.0$, $p < .005$). On the average, group (4.1) and family child care homes (3.9) scored similarly to child care centers (3.9) but significantly lower than Head Start (4.9)($t = 6.0$, $p < .0001$ for group child care homes and $t = 6.7$, $p < .0001$ for family child care homes) and preschools/nursery schools (4.3)($t = 2.7$, $p < .008$ for family child care homes). Relative/neighbor care scored the lowest (3.7).

**Group child care homes** results (see Table 4 for all the item and subscale scores) from the FDCRS ranged from a low of 3.1 on the Basic Care subscale to a high of 5.6 on the Adult Needs subscale with only two subscales below a 4.0. Fifteen of the individual items scored below a 4.0 score on the FDCRS such as: child related display (2.9), active physical play (2.9), space to be alone for infants (3.6), meals/snacks (2.3), nap/rest (3.8), diapering/toileting (2.2), personal grooming (2.7), health (2.9), safety (1.7), helping children to reason (3.7), art (3.8), sand/water (2.9), blocks (3.5), cultural awareness (2.4), and use of television (3.6).

Group child care homes had the highest mean score on the FDCRS in comparison to the family child care home providers and the legally unregulated/relative/neighbor providers. However, the differences between group child care homes and family child care homes were not statistically significant.

**Family child care homes** results from the FDCRS ranged from a low of 2.9 on the Basic Care subscale to a high of 5.3 on the Adult Needs subscale with four of the subscales below a 4.0 (see Table 4 for all the item and subscale scores). Eighteen of the individual items were below a 4.0 score on the FDCRS, such as: child related display (2.6), indoor space arrangement (3.8), active physical play (2.8), meals/snacks (2.1), diapering/toileting (1.8), personal grooming (2.1), health (2.4), safety (1.6), helping children to understand language (3.9), art (3.6), sand/water (2.6), blocks (3.5), cultural awareness (2.5), use of television (3.1), adaptations for special needs children (3.7), language and reasoning activities for special needs children (2.3), learning and play activities for special needs children (3.5), and caregiver preparation for special needs children (2.9).

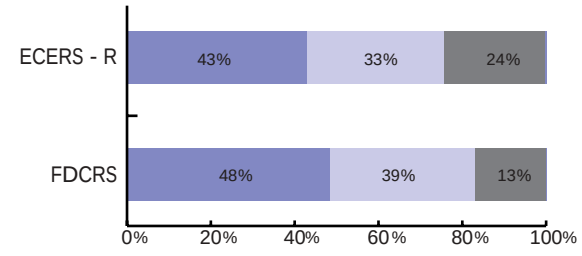
The last form of care, **legally unregulated/relative/neighbor care** providers, had the lowest scores on the FDCRS (see Table 4 for all the individual and subscale scores). The results from the FDCRS ranged from a low of 2.5 on the Basic Care subscale to a high of 5.3 on the Special Needs Children subscale with four subscales below a 4.0. Twenty of the individual items were below a 4.0 score on the FDCRS and several were below a score of 2.0 which puts them into the inadequate range, such as: furnishings for routine care and learning (3.1), child related display (1.4), indoor space arrangement (3.1), active physical play (2.8), meals/snacks (1.9), diapering/toileting (1.4), personal grooming (1.3), health (1.4), safety (1.1), helping children understand language for infants and toddlers (3.8), helping children understand language for 2 years and over (3.6), eye hand coordination activities (3.9), music/movement (3.6), sand/water play (1.8), dramatic play (3.5), blocks (2.9), use of television (3.5), supervision of play indoors and outdoors (3.8), cultural awareness (1.6), opportunities for professional growth (3.5).

**CIS Findings.** Information on the CIS/Arnett by setting is presented in Tables 5 and 6. When comparing the results from the **CIS** with the type of provider, Head Start (3.8) scored the highest on this scale also. ($F = 8.6$, $p < .001$). And again, preschool/nursery school (3.7) programs scored higher than child care centers (3.4) ($t = 3.3$, $p < .001$). However, Head Start did not score significantly higher than preschool/nursery schools on the CIS. The scores for family child care homes (3.73), and group child care homes (3.70) were not statistically different. Because the scoring for all program types was at a relatively high enough score on the CIS scale there were only two areas that appear as items of concern: over reliance on obedience and helping children to try new activities in child care centers. However, there were numerous individual CIS items that showed (see Tables 5 and 6) statistically significant differences between child care centers and all other types of care, with the centers scoring significantly lower, such as: places high value on obedience, mechanized teaching style, seems to prohibit many things the children want to do, seems unnecessary harsh when scolding or prohibiting, and seems emotionally distant.

## Quality Distribution

Figure 3 provides the relative quality distribution of ECERS-R and FDCRS scores for the total 2002 sample. The scoring distribution was very similar to other studies completed nationally (Galinsky, etal, 1994; Helburn & Howes, 1996). It is a major concern that less than 20% of providers were considered of good quality (5.0+) and that approximately 50% of providers were of minimal quality (less than a 4.0).

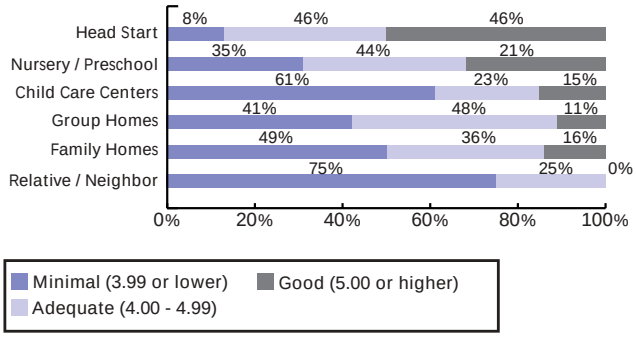
Figure 3: ECERS - R and FDCRS 2002 Sample Distribution




**The majority of care was minimal or adequate at best with the exception of Head Start.**

Figure 4 presents this information on level of quality by type of program. Well over a majority of child care center programs (61%) scored at the minimal (4.0 or below), and only 15% scored at a good level (5.0 or above). In contrast, only 8% of Head Start programs scored in the minimal range, and a large portion—close to half (46%)—of Head Start programs scored at the good level. Preschool/nursery schools scored in between, with 35% scoring below a 4.0 and 21% scoring at a good level.

Figure 4: Percentages of Facilities with Minimal, Adequate, and Good Scores on Environmental Quality



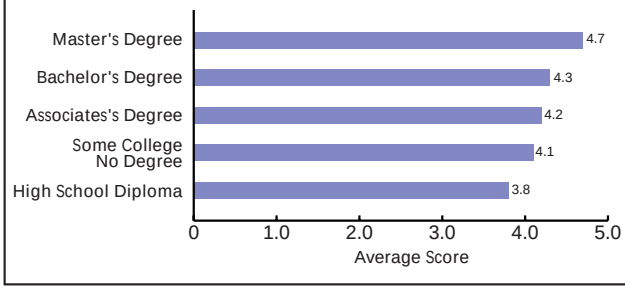

The majority of home-based care scored at the minimal level regardless of type: group child care homes had 41% scoring below a 4.0 and only 11% scoring at a good level; family child care homes had 49% scoring below a 4.0 and only 16% scoring at a good level; legally unregulated/relative/neighbor care had 75% scoring below a 4.0 and none scoring at a good level (see Figure 4).

## Education of Provider/Teacher

**Providers/Teachers with a college degree provided higher quality care.**

A significant relationship was found between the education of the provider and the observed quality of the program. As indicated in Figure 5, individuals having a graduate degree on the average had programs that scored higher on the ECERS-R/FDCRS (this difference is statistically significant: $F = 4.8$, $p < .001$). Those individuals who had a high school diploma (n = 87) did not score as well on the ECERS-R/FDCRS (see Figure 5 and Tables 7 & 8 for subscales and individual item scores). Those individuals with a Bachelor's degree (n = 112) scored significantly higher than those with a high school diploma ($t = 3.84$, $p < .001$). And those with an Associate's degree (n = 61) scored significantly higher than those with a high school diploma ($t = 2.46$, $p < .02$). Those with a Master's degree (n = 14) did not score significantly higher than those with a Bachelor's degree, but did score significantly higher than those with an Associate's degree ($t = 2.1$, $p < .05$).

Figure 5: ECERS-R / FDCRS and Education of the Provider



When these data are broken out by type of service provider, center-based (Head Start, nursery schools and child care center) or home-based (family child care home or group child care home) very few of the individual item differences amongst the various educational levels were statistically significant.

At a more aggregate level, as presented in Figures 5a and 5b, as education increases with all types of care so did quality with varying degrees of increase. However, with the center-based programs, there is a confounding of education with type because the Head Start programs are on the average at a much higher level of quality regardless of education. With the home-based providers, family child care home providers' education appeared to have the greatest impact on the mean FDCRS quality scores going from below a 4.0 at the High School (n = 41) level to just over 4.5 at the Associate's, Bachelor's and Master's (n = 26) level.

Figure 5a: ECERS-R by Education within the Three Center Types

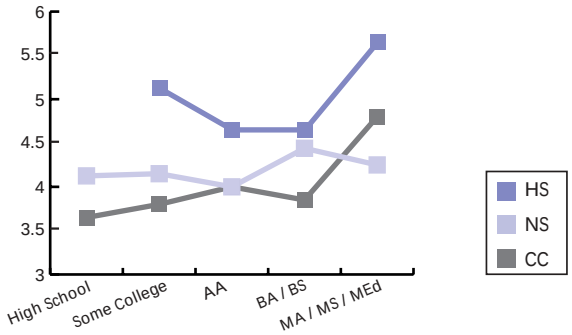
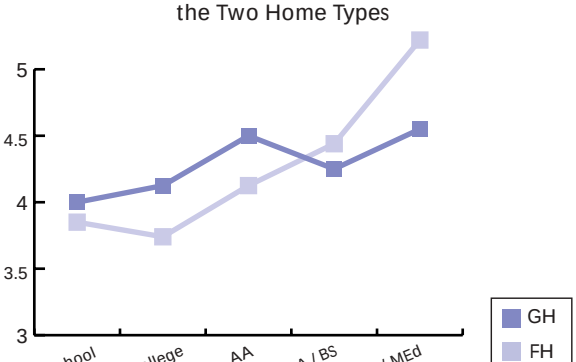



Figure 5b: FDCRS by Education within the Two Home Types




In comparing education level with the various ECERS-R and FDCRS subscales (see Tables 7 & 8 for the detailed results) for those individuals with a high school diploma the following subscales were below a 4.0 on the ECERS-R: Space and Furnishings, Personal Care Routines, Activities, and Program Structure; on the FDCRS: Space and Furnishings for Care and Learning, Basic Care, and Learning Activities. For those individuals with an Associate's degree the following subscales were below a 4.0 on the ECERS-R: Personal Care Routines and Activities; on the FDCRS: Space and Furnishings, and Basic Care. For those individuals with a Bachelor's degree the following subscales were below a 4.0 on the ECERS-R: Personal Care Routines and Activities; on the FDCRS: Basic Care. For those individuals with a Master's degree the only ECERS-R subscale below a 4.0 on the ECERS-R was Activities; on the FDCRS: Basic Care. Education had a greater impact on the quality of a home-based setting than on a center-based setting. The more education the provider had, the higher the quality of the home.

Some individual items that demonstrated statistically significant differences between the high school level and a college degree were the following: ECERS-R (Table 7)—room arrangement, using language to develop reasoning skills, art activities, promoting acceptance of diversity, group time, provisions for parents, and opportunities for professional growth; and on the FDCRS (Table 8)—safety practices, and opportunities for professional growth.

**Early childhood majors had higher quality ECERS-R scores than the teachers whose major was elementary education.**

Two out of three quality study sampled teachers with an Associate or higher degree (187 of the 372) majored in either elementary education (68 or 36% of the 187) or in early childhood education (50 or 27% of the 187). For both Head Start and child care centers, those teachers with a BA in early childhood education outscored teachers whose BA was in elementary education, and those with an AA but in early childhood education scored almost as well as those with a BA in elementary education. For the same degree level and same major, Head Start scores are consistently well above both nursery schools and child care centers, again indicating higher quality in the Head Start program.

**Providers and teachers with graduate degrees are more open to different experiences for children and their individual needs.**

When these data are analyzed by the individual CIS items, certain patterns appear. Staff with a high school diploma to a Bachelor's degree placed a good deal of emphasis on children's obedience and their teaching was more mechanized. It is only at the Master's degree level where these tendencies disappeared and where the teachers were more willing to try different experiences with the children, listen more attentively to children's needs, explain rules to children when they misbehave, encourage children to exhibit prosocial behaviors and speak to children at their eye level (see Tables 9 & 10). These results, however, did not reach statistical significance.

## Use of Curriculum

**Curriculum use was related to higher quality scores.**

The overall scores on the ECERS-R/FDCRS indicated that having a curriculum in place helped to improve the overall quality scores. Figure 6 shows the differences on the ECERS-R/FDCRS in utilizing a curriculum versus not having a curriculum (this difference is statistically significant: $F = 28.0$, $p < .0001$) (see Tables 11 & 12 for subscale scores and individual item scores). When the use of curriculum was compared with the educational level of the provider, no significant differences appeared with only one exception, in family child care homes, having a college degree—Associate, Bachelor or Master's degree—was significantly related to how the provider arranged indoor space ($F = 4.6$, $p < .006$), safety practices that were employed ($F = 7.1$, $p < .0001$), how television was used in the home with the children ($F = 3.3$, $p < .03$), how the provider stimulated language for children ($F = 3.1$, $p < .04$) and how often the provider engaged in professional development activities ($F = 5.3$, $p < .002$).

When these data (see Figure 6a and 6b for a graphical presentation) are compared to the type of setting that the curriculum may be used some significant relationships appear. In Head Start, 45 teachers used a curriculum and had a mean score on the ECERS-R of 4.8, while 5 teachers indicated that they did not use a curriculum and their mean score on the ECERS-R was 5.1. This difference was not statistically significant. In preschools, 27 teachers used a curriculum and had a mean score on the ECERS-R of 4.2, while 21 teachers indicated that they did not use a curriculum and their mean score on the ECERS-R was 4.5. This difference was not statistically significant. In child care centers, 55 teachers used a curriculum and have a mean score on the ECERS-R of 4.1, while 56 teachers indicated that they did not use a curriculum and their mean score on the ECERS-R was 3.7 ($t = -2.4$, $p < .02$). Child care center overall environmental quality appears to be related to the use of a curriculum in the following areas: room arrangement ($t = -2.2$, $p < .04$); space for privacy ($t = -3.1$, $p < .003$); books ($t = -2.6$, $p < .01$); art ($t = -3.1$, $p < .003$); math/number ($t = -3.6$, $p < .0001$); and use of discipline ($t = -2.5$, $p < .02$).

Figure 6: ECERS - R / FDCRS and Utilizing a Curriculum

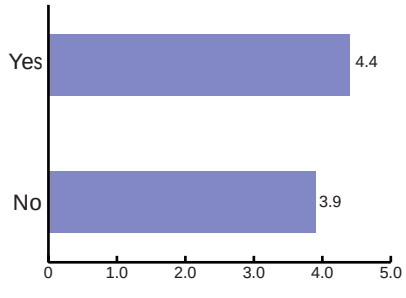
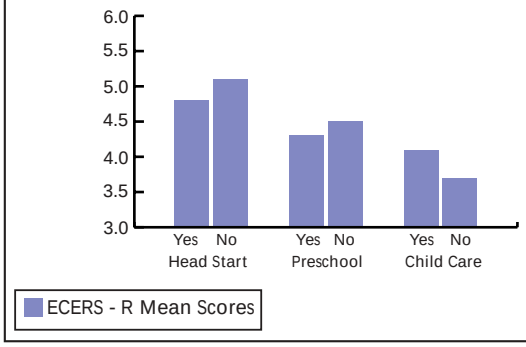



Figure 6a: FDCRS Scores by Type of Home Setting



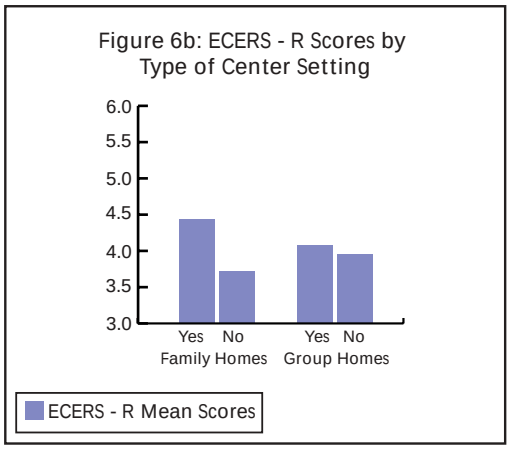

**Using a curriculum in family child care homes showed a significant relationship to quality.**

In comparing type of setting and curriculum use in home-based care (see Figure 6b for a graphical display) family child care homes with curriculum

showed higher quality. With family child care homes, 30 providers used a curriculum and had a mean score on the FDCRS of 4.4, while 79 providers indicated that they did not use a curriculum with a mean score on the FDCRS of 3.7 ($t = -3.5$, $p < .001$). Family child care homes overall environmental quality appeared to be related to the use of a curriculum by the providers in the following areas: furnishings for routine care ($t = -2.5$, $p < .02$); child related display ($t = -2.8$, $p < .006$); indoor space arrangement ($t = -2.5$, $p < .02$); informal use of language ($t = -3.5$, $p < .001$); helping children understand language ($t = -3.3$, $p < .002$); helping children to reason ($t = -3.5$, $p < .001$); schedule of daily activities ($t = -3.0$, $p < .003$); supervision of play ($t = -3.3$, $p < .001$); and taking advantage of opportunities for professional growth and development ($t = -2.7$; $p < .007$).

In contrast, in group child care homes, 16 providers use a curriculum and had a mean score on the FDCRS of 4.2, while 30 providers indicated that they did not use a curriculum with a mean score on the FDCRS of 4.1. This difference is not statistically significant. These findings indicate that utilizing a curriculum in child care centers and especially in family child care homes is positively related to the level of quality.

Figure 6b: ECERS - R Scores by Type of Center Setting




**Providers with more education and utilizing a curriculum provide a higher level of quality in their programs.**

Those individuals who utilize a curriculum (n = 174) appeared to be more inclined to have children try activities than individuals who did not utilize a curriculum (n = 198) ($t = -2.53$, $p < .02$); engage in more prosocial behaviors ( $t = -2.0$, $p < .05$); are more excited about teaching ($t = -2.5$, $p < .02$); and are less emotionally distant to the children ($t = 2.3$, $p < .03$).

Center-based individuals who utilize a curriculum (n = 127) scored below a 4.0 on the ECERS-R on the following subscales only: Personal Care Routines and Activities and home-based individuals on the FDCRS (n = 47): only on the Basic Care subscale. Center-based individuals who do not utilize a curriculum (n = 82) scored below a 4.00 on the ECERS-R on the following subscales: Space and Furnishings, Personal Care and Activities; and home-based individuals on the FDCRS (n = 116) on the following subscales: Space and Furnishings for Care and Learning, Basic Care, and Learning Activities (see Tables 11 and 12).

Some individual items that demonstrated statistically significant differences between utilizing a curriculum and not were the following: ECERS-R (Table 11)—furniture for care, play and learning, room arrangement, space for privacy, meals/snacks, toileting/diapering, using language to develop reasoning skills for children, fine motor activities, art activities, math/number activities, promoting acceptance of diversity, free play time, group time, provisions for children with disabilities, provisions for parents, staff interaction and cooperation, and opportunities for professional growth; on the FDCRS (Table 12)—furnishings for routine care and learning, child related display, safety practices, informal use of language with 2 years and older children, helping children understand language with 2 years and older children, helping children use language, helping children reason and use concepts, eye-hand coordination activities, art activities, the use of television, schedule of daily activities, supervision of play both indoors and outdoors, and opportunities for professional growth; and on the CIS—excited about teaching, encourages the children to try different experiences, encourages children to exhibit prosocial behaviors, seems interested in the children's activities, and when talking with the children, bends or sits at their level (see Tables 13 and 14).

## Comparisons to Previous Quality Studies in Pennsylvania

These results when compared to two similar statewide child care studies (Melnick and Fiene, 1990; Iutcovich, Fiene, Johnson, Koppel, & Langan, 1997) completed in 1990 and 1996 show interesting

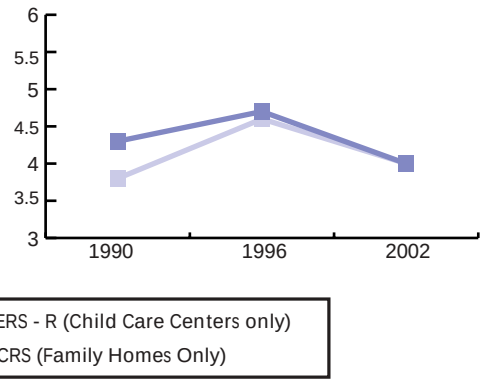
results. The Melnick and Fiene study examined 87 child care centers and 62 family child care homes throughout the state. The Iutcovich, etal study examined 60 child care centers and 59 family and group child care homes. Both previous studies are very similar to this present study utilizing statewide sampling with child care centers and family child care homes. The previous studies were not as comprehensive as they did not examine Head Start nor preschool/nursery school programs.

Figure 7 compares results for these time periods. The results indicate that the overall environmental quality of care in both center-based and home-based care has dropped after early improvements that had been made between 1990 and 1996. That is, **gains made in the six-year period from 1990-1996 have been reversed in the subsequent time period from 1996-2002**. Similar results from an infant child care study (Fiene, 2000) also support this drop off in child care quality. Corresponding to this drop in quality is a decrease in the overall qualifications in staff during 1996-2000. In the Fiene (2000) study, a relationship was found between quality of care and the educational level of the staff in the respective programs and the reduced number of individuals with a bachelor's degree when comparing data from the 2000 study (Fiene, 2000) with the 1996 study (Iutcovich, etal, 1997). In 1996, 25% of the infant toddler teachers had Bachelor's degrees, in 2000 the percent of infant toddler teachers with a Bachelor's degree dropped to 5%.

During 1996-2002, the number of child care centers had increased from 3242 to 3951, while the number of family child care homes increased from 3701 to 4135, and finally the number of group child care homes increased from 621 to 796. This drop in quality might be explained by the increased supply side dynamics of having so many additional centers and homes coming into the system that diluted the overall quality of care. But this doesn't seem like a plausible explanation because a similar increase occurred between 1990 and 1996 in child care centers going from 2425 to 3242. Group child care homes increased from 473 to 621. Only family child care homes decreased during this time period going from 5002 to 3701.

Also, a corresponding increase in the number of children served in Head Start programs occurred during the same time period (1990 = 20061 children served; 1996 = 25269 children served; 2002 = 28581 children serve). However, there are no comparative data available measuring quality from 1996 for Head Start programs.

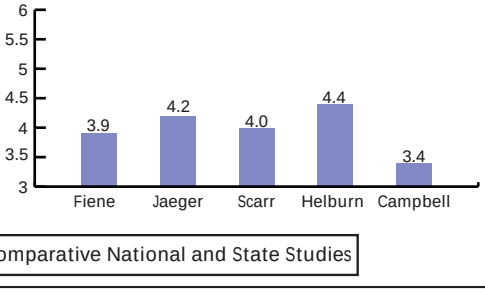
Figure 7: PA ECERS - R and FDCRS 1990 - 2002




## Comparisons to Other Quality Studies

It is important to always keep in perspective where the results of this study compare with other more recent national, state, and regional studies. How does the 3.9 obtained on the ECERS-R and the FDCRS compare with other studies completed? Figure 8a graphically compares this study with several national and state studies. All these studies, two very recent studies from Philadelphia, (Jaeger & Funk, 2002; (Campbell & Milbourne, 2001); one from the states of Georgia, Massachusetts, Virginia (Scarr, etal, 1994); and the Cost, Quality and Outcome Study from California, Colorado, Connecticut, North Carolina (Helburn, 1995), are significant national and state studies similar to this study (Fiene, etal) that are excellent reference points to put the current results into perspective.

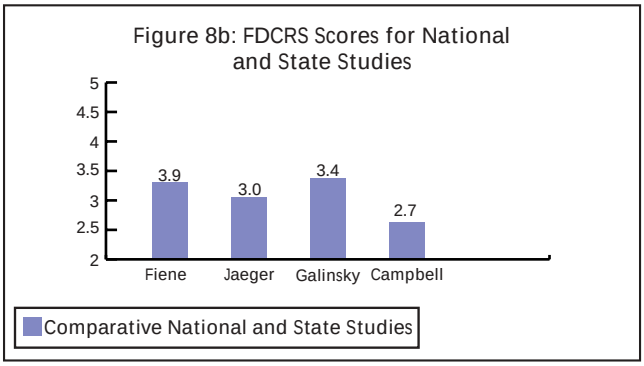
Figure 8a: ECERS - R Scores for National and State Studies



Results from the other studies utilizing the ECERS-R are the following: Philadelphia 2001 (Jaeger & Funk, 2002) = 4.2; Georgia, Massachusetts, Virginia (Scarr, Eisenberg, & Deater-Deckard, 1994) = 4.0; California, Colorado, Connecticut and North Carolina (Helburn, 1995) = 4.4; Philadelphia 1997-2000 (Campbell & Milbourne, 2001) = 3.4. The ECERS-R scores for this study (Fiene, etal) fall at the midpoint of the range of 3.4 to 4.4 for the other studies.

On the FDCRS, results from other national and state studies are the following: Philadelphia 2001 (Jaeger & Funk, 2002) = 3.0; California, North Carolina, Texas (Galinsky, 1994) = 3.4; and Philadelphia 1997-2000 (Campbell & Milbourne, 2001) = 2.7. The FDCRS scores for this study (Fiene, et al) are above the results from these regional and state studies. This should be considered a positive result, but a 3.9 is still a minimal score on the FDCRS. The goal for both the ECERS-R and the FDCRS is to obtain an average score of 5.0 that is within the good range on both scales. The fact that only the Head Start programs were at this level is consistent with other national studies (Zill, etal., 1998).

Figure 8b: FDCRS Scores for National and State Studies




In summary, the results from this study do not compare favorably with previous statewide Pennsylvania studies of child care quality. When compared to other more recent national, state, and regional studies completed measuring early childhood quality, the results from this study are somewhere in-between what other studies have found and with home-based studies the results are somewhat higher.

# Conclusions and Recommendations

- The overall scores of most early care and education programs were at a minimal or adequate level. Eighty percent of the programs scored at a minimal or adequate level.
- The findings show that Head Start and preschool/nursery school programs have the highest quality of care for young children in Pennsylvania. Forty-six percent of the Head Start programs and 21% of the preschool/nursery school programs scored at a good level. State policymaking should focus on utilizing Head Start as a statewide model, focusing on the key indicators that produce a quality program (a highly developed professional development system) and supporting existing programs through additional training and education of existing staff. It is notable that Head Start has clear performance standards for staffing, training, program design, health, etc. as well as ongoing quality monitoring.
- Because of the low quality scores in child care centers as well as in family child care, the state should focus on improving the quality of existing programs before considering further expansion of services in the Commonwealth.
- The current study only focused upon preschool aged children. There is the need for a statewide assessment of the quality in infant-toddler care as well.
- The overall environmental quality of Pennsylvania child care centers and family/group child care homes has decreased from the mid 1990's. Possible explanations include (1) increases in the number of child care centers and home base care settings during this time frame or (2) the decrease that has been observed in the Fiene (2000) study related to the number of B.A. trained individuals working in child care. A third possibility concerns the fact that the training system underwent tremendous growth from 1990-1996, and then stabilized from 1996-2002. It is possible that the current training system reached a threshold level in having an impact on quality considering the fact that the annual requirement for training is only 6 hours. There is support for this explanation based upon the tremendous amount of training that is supported in the Head Start programs. This issue needs additional research to determine the factors related to this drop in quality.

- A clear direction for additional training would be to improve overall staff qualifications as well as focus on the specific ECERS-R/FDCRS items that were below a 4.00 level.

  On the basis of the above criterion of having a score below 4.00, the following individual items should be addressed in the training system: on the ECERS-R:
  - Room arrangement and child related displays,
  - Gross motor play and equipment,
  - Personal care routines, including meals/snacks, naps for children, safety practices, toileting/ diapering,
  - Learning activities, such as art, music and movement, blocks, sand/water activities, dramatic play, nature/science, math/number, use of television, and promoting acceptance of diversity
  - Provisions for personal needs of staff.

  On the FDCRS the following items should be addressed in training for home based providers:
  - Child related displays and active physical play,
  - Space for infants and toddlers to be alone,
  - Basic care routines such as diapering and toileting, meals and snacks, personal grooming,
  - Health and safety,
  - Learning activities, the following should be addressed: helping infants and toddlers understand language, helping children to reason, art, sand and water play, blocks, use of television, and cultural awareness.

- Education level is related to observed quality. Individuals with a Master's, Bachelor's or Associate's degree were providing a much higher level of quality than those individuals with a high school diploma. There is a strong relationship between quality and higher education, especially if the provider is a family child care home provider - where having a college degree had a more significant impact on quality.

- Having and utilizing a curriculum has a demonstrated impact on improving the environmental level of quality. However, there does seem to be a differential impact in the use of a curriculum when coupled with the educational level of the provider; that is, curriculum use was most related to level of quality within family child care homes. Having a college degree impacted the quality of care in how the home-based provider arranged indoor space and interacted with the children. Also, there is a differential impact in the type of setting (child care centers and family child care homes) where utilizing a curriculum appears more effective in improving the quality in these two settings. This is a particularly important finding because child care centers and family child care homes scored only 3.9 on the ECERS-R and FDCRS respectively. Encouraging centers and homes to utilize quality curriculum and supplying effective training in its use could substantially improve the quality of care. However, it still remains that the type of setting has the greatest impact on the level of quality.

- It is recommended that the goal for quality on the ECERS-R and FDCRS is a 5.00, which is considered within the good range on both scales for all settings.

It is interesting to note that when one looks at regulatory standards and programmatic standards, those providers who have the more stringent standards (Head Start for centers and group child care homes for homes) are scoring higher on the ECERS-R/FDCRS scales. Focusing on the needs of our existing providers and meeting their needs for targeted training will go a long way to improving the overall early care and education system.

This study has demonstrated that, with the exception of Head Start, the overall care of the early care and education system in Pennsylvania is mediocre and in some cases at a minimal level. Without a concerted effort to focus on the clear needs of our existing providers of care, we will continue to do a major disservice to our Commonwealth's children.

## Limitations

A major problem encountered in the study was the problem of recruitment of relative/neighbor providers. The refusal rate was 97%; providers were not interested in inviting observers into their homes. Unfortunately, this fact invalidates the small amount of data collected, as it is not drawn from a representative sample of relative/neighbor providers as originally planned. Given the findings from other studies (Galinsky, etal 1994; Iutcovich, etal, 1996), it is likely that relative/neighbor care is of the lowest quality.

A second limitation is that data were collected from Head Start programs during the first weeks

of their start up in the fall. It is likely that the relative chaos of the first weeks with new children would lead to an underestimate of their quality scores. However, given this concern, the findings on Head Start were very positive; Head Start programs scored almost a full point higher on the ECERS-R than preschool and child care programs.

## Future Research

This study has provided valuable information to Pennsylvania on the current quality of its early care and education programs in the summer/fall of 2002. In addition, given the intentional overlap of the Pennsylvania Provider Survey and the current quality study, UCPC researchers will merge these two data sets and soon begin analyses to better understand the links between structural aspects of quality care and observed ratings of quality of care. In addition, there are four suggested directions for future research that derive from this study.

Periodic quality observation updates. First, it will be important to update this baseline periodically, probably every two years, to determine how quality has changed in all the various program types listed above. Such ongoing evaluation of quality will provide needed accountability regarding the effects of improvements in the training system.

Further understanding of home-based providers. A second important area for future research is to more clearly focus on the home-based providers, in particular the legally unregulated/relative/ neighbor care providers, in order to determine the level of quality of care.

Assessing the quality of infant and toddler programs. Third, future research should undertake a study to assess the level of quality in infant and toddler programs.

Utilizing knowledge from Head Start to improve center care. Fourth, given the high quality of Head Start programs, further research should focus on understanding how crucial characteristics and qualities can be transferred to the child care centers, which as a group scored the lowest of the center based programs.

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# Tables

**Table 1: Sample Characteristics of 2002 Pennsylvania Early Care and Education Facilities**

| Characteristics | Number of Facilities | Percent |
|---|---|---|
| **Total Sample** | **372** | **100%** |
| Head Start | 50 | 13% |
| Nursery Schools | 48 | 13% |
| Child Care Centers | 111 | 30% |
| Group Child Care Homes | 46 | 12% |
| Family Child Care Homes | 109 | 29% |
| Neighbor/Relative | 8 | 2% |
| **Geographic Location** | | |
| Metropolitan Area | 142 | 38% |
| Small Cities | 183 | 49% |
| Rural | 47 | 13% |

**Table 2: Population and Final Sample of Early Care and Education Providers Observed**

| **Facilities** | **Total** (Percent of Total Number of Providers) | **Final Sample** (Percent of Population of Provider Type) |
|---|---|---|
| Head Start | 689 (4.5%) | 50(13.4%) |
| Preschools | 625 (4.1%) | 48 (12.9%) |
| Child Care Centers | 3,938 (25.9%) | 111(29.8%) |
| Group Child Care Homes | 791 (5.2%) | 46(12.4%) |
| Family Child Care Homes | 4,110 (27.0%) | 109(29.3%) |
| Neighbor/Relative | 5,067 (33.3%) | 8 (2.2%) |
| **Total** | **N = 15,220** | **N = 372** |

**Table 3: Early Childhood Environment Ratings of Classrooms in Head Start, Preschool, & Child Care Centers**

| Item | Average Score *1=inadequate; 3=minimal 5=good; 7=excellent* | | | Difference in Scores * significant with 95% certainty ** with 99% or more certainty | | |
|---|---|---|---|---|---|---|
| | Head Start | Nursery/ Preschools | Child Care Centers | HS-NS | NS-CC | HS-CC |
| **ECERS-R AVERAGE** | **4.93** | **4.33** | **3.89** | **0.60 **** | **0.44 **** | **1.05 **** |
| **SPACE AND FURNISHINGS** | **4.32** | **4.28** | **3.95** | **0.04** | **0.33** | **0.37 *** |
| Indoor space | 4.16 | 4.29 | 4.05 | -0.13 | 0.25 | 0.11 |
| Furniture for care, play, and learning | 5.90 | 5.85 | 5.48 | 0.05 | 0.38 | 0.42 |
| Furnishings for relaxation | 4.20 | 3.58 | 3.42 | 0.62 | 0.16 | 0.78 * |
| Room arrangement | 6.08 | 4.81 | 4.12 | 1.27 ** | 0.70 * | 1.96 ** |
| Space for privacy | 5.20 | 4.63 | 3.96 | 0.58 | 0.66 | 1.24 ** |
| Child-related display | 3.76 | 3.96 | 3.73 | -0.20 | 0.23 | 0.03 |
| Space for gross motor | 2.48 | 2.81 | 2.68 | -0.33 | 0.13 | -0.20 |
| Gross motor equipment | 2.68 | 4.25 | 4.07 | -1.57 ** | 0.18 | -1.39 ** |
| **PERSONAL CARE ROUTINES** | **4.76** | **3.51** | **3.39** | **1.24 **** | **0.13** | **1.37 **** |
| Greeting/departing | 6.22 | 5.83 | 5.40 | 0.39 | 0.44 | 0.82 * |
| Meals/snacks | 4.20 | 1.74 | 2.16 | 2.46 ** | -0.42 | 2.04 ** |
| Nap/rest | 4.44 | 3.54 | 3.32 | 0.90 | 0.22 | 1.12 |
| Toileting/diapering | 4.56 | 3.25 | 3.14 | 1.31 * | 0.11 | 1.42 ** |
| Health practices | 5.30 | 3.83 | 3.56 | 1.47 ** | 0.27 | 1.74 ** |
| Safety practices | 3.56 | 2.96 | 2.72 | 0.60 | 0.24 | 0.84 |
| **LANGUAGE-REASONING** | **5.38** | **5.05** | **4.13** | **0.33** | **0.92 **** | **1.25 **** |
| Books and pictures | 4.96 | 4.42 | 4.06 | 0.54 | 0.35 | 0.90 ** |
| Encouraging children to communicate | 5.80 | 5.58 | 4.46 | 0.22 | 1.12 ** | 1.34 ** |
| Using language to develop reasoning skills | 5.00 | 4.69 | 3.36 | 0.31 | 1.33 ** | 1.64 ** |
| Informal use of language | 5.76 | 5.50 | 4.76 | 0.26 | 0.74 * | 1.00 ** |
| **ACTIVITIES** | **4.25** | **3.59** | **3.13** | **0.66 **** | **0.46 *** | **1.12 **** |
| Fine motor | 5.02 | 4.50 | 3.84 | 0.52 | 0.66 | 1.18 ** |
| Art | 4.66 | 3.40 | 3.15 | 1.26 ** | 0.24 | 1.51 ** |
| Music/movement | 3.00 | 3.17 | 2.79 | -0.17 | 0.37 | 0.21 |
| Blocks | 4.48 | 3.38 | 3.12 | 1.11 ** | 0.26 | 1.36 ** |
| Sand/water | 4.02 | 3.73 | 3.12 | 0.29 | 0.61 | 0.90 ** |
| Dramatic play | 4.18 | 3.35 | 3.45 | 0.83 ** | -0.10 | 0.73 ** |
| Nature/science | 3.14 | 3.54 | 2.50 | -0.40 | 1.05 ** | 0.64 |
| Math/number | 4.14 | 4.04 | 3.34 | 0.10 | 0.70 * | 0.80 ** |
| Use of TV, video and/or computer | 4.95 | 3.09 | 2.81 | 1.86 ** | 0.28 | 2.14 ** |
| Promoting acceptance of diversity | 5.02 | 3.48 | 3.11 | 1.54 ** | 0.37 | 1.91 ** |
| **INTERACTION** | **5.74** | **5.49** | **4.60** | **0.25** | **0.89 **** | **1.14 **** |
| Supervision of gross motor activities | 5.27 | 4.80 | 4.30 | 0.47 | 0.50 | 0.97 ** |
| General supervision of children | 6.00 | 5.29 | 4.30 | 0.71 | 0.99 ** | 1.70 ** |
| Discipline | 5.40 | 5.10 | 4.27 | 0.30 | 0.83 * | 1.13 ** |
| Staff-child interactions | 6.18 | 6.17 | 5.23 | 0.01 | 0.93 * | 0.95 * |
| Interactions among children | 5.82 | 5.98 | 4.90 | -0.16 | 1.08 ** | 0.92 ** |
| **PROGRAM STRUCTURE** | **5.67** | **4.77** | **4.20** | **0.90 *** | **0.57** | **1.47 **** |
| Schedule | 5.04 | 4.06 | 3.92 | 0.98 | 0.14 | 1.12 ** |
| Free play | 5.30 | 4.81 | 4.18 | 0.49 | 0.63 | 1.12 ** |
| Group time | 6.24 | 5.31 | 4.53 | 0.93 * | 0.78 * | 1.71 ** |
| Provisions for children with disabilities | 6.45 | 5.50 | 4.63 | 0.95 | 0.88 | 1.83 ** |
| **PARENTS AND STAFF** | **5.79** | **4.65** | **4.68** | **1.13 **** | **-0.03** | **1.10 **** |
| Provisions for parents | 6.68 | 5.44 | 5.31 | 1.24 ** | 0.13 | 1.37 ** |
| Provisions for personal needs of staff | 3.10 | 2.73 | 2.88 | 0.37 | -0.15 | 0.22 |
| Provisions for professional needs of staff | 5.56 | 5.08 | 5.04 | 0.48 | 0.05 | 0.52 |
| Staff interaction and cooperation | 6.54 | 5.80 | 5.45 | 0.74 * | 0.35 | 1.09 ** |
| Supervision and evaluation of staff | 6.56 | 4.92 | 5.64 | 1.64 ** | -0.72 * | 0.92 ** |
| Opportunities for professional growth | 6.22 | 4.25 | 3.98 | 1.97 ** | 0.27 | 2.24 ** |

**Table 4: Family Child Care Environment Ratings of Homes by Type of Facility**

| Item | Average Score (*1=inadequate; 3=minimal 5=good; 7=excellent*) | | Difference | |
|---|---|---|---|---|
| | Group Homes | Family Homes | GH-FH | |
| **FDCRS AVERAGE** | **4.12** | **3.93** | **0.2** | |
| **SPACE AND FURNISHINGS FOR CARE** | **3.92** | **3.70** | **0.2** | |
| Furnishings for routine care and learning | 5.20 | 4.09 | 1.1 | ** |
| Furnishings for relaxation and comfort | 4.07 | 4.64 | -0.6 | |
| Child-related display | 2.96 | 2.61 | 0.4 | |
| Indoor space arrangement | 4.41 | 3.83 | 0.6 | |
| Active physical play | 2.91 | 2.82 | 0.1 | |
| Space to be alone (infants/toddlers) | 3.58 | 4.03 | -0.4 | |
| Space to be alone (2 years and older) | 4.15 | 4.13 | 0.0 | |
| **BASIC CARE** | **3.10** | **2.89** | **0.2** | |
| Arriving/leaving | 6.09 | 6.25 | -0.2 | |
| Meals/snacks | 2.28 | 2.09 | 0.2 | |
| Nap/rest | 3.84 | 3.98 | -0.1 | |
| Diapering/toileting | 2.15 | 1.81 | 0.3 | |
| Personal grooming | 2.72 | 2.06 | 0.7 | |
| Health | 2.98 | 2.40 | 0.6 | |
| Safety | 1.70 | 1.58 | 0.1 | |
| **LANGUAGE AND REASONING** | **4.43** | **4.62** | **-0.2** | |
| Informal use of language (infants/toddlers) | 5.37 | 5.79 | -0.4 | |
| Informal use of language (2 years and older) | 4.83 | 5.28 | -0.5 | |
| Helping children understand language (infants/toddlers) | 4.07 | 3.95 | 0.1 | |
| Helping children understand language (2 years and older) | 4.54 | 4.14 | 0.4 | |
| Helping children use language | 4.30 | 4.79 | -0.5 | |
| Helping children reason (using concepts) | 3.67 | 4.03 | -0.4 | |
| **LEARNING ACTIVITIES** | **4.07** | **3.93** | **0.1** | |
| Eye-hand coordination | 4.24 | 4.04 | 0.2 | |
| Art | 3.78 | 3.57 | 0.2 | |
| Music and movement | 4.48 | 4.57 | -0.1 | |
| Sand and water play | 2.93 | 2.58 | 0.4 | |
| Dramatic play | 4.28 | 4.04 | 0.2 | |
| Blocks | 3.52 | 3.50 | 0.0 | |
| Use of TV | 3.57 | 3.09 | 0.5 | |
| Schedule of daily activities | 4.85 | 4.84 | 0.0 | |
| Supervision of play indoors and outdoors | 4.96 | 5.06 | -0.1 | |
| **SOCIAL DEVELOPMENT** | **4.32** | **4.47** | **-0.1** | |
| Tone | 5.67 | 5.73 | -0.1 | |
| Discipline | 4.93 | 5.26 | -0.3 | |
| Cultural awareness | 2.43 | 2.49 | -0.1 | |
| **ADULT NEEDS** | **5.61** | **5.32** | **0.3** | |
| Relationship with parents | 6.04 | 5.73 | 0.3 | |
| Balancing personal and caregiver responsibilities | 5.78 | 5.25 | 0.5 | |
| Opportunities for professional growth | 5.00 | 4.97 | 0.0 | |
| **PROVISIONS FOR EXCEPTIONAL CHILDREN** | **5.23** | **3.30** | **1.9** | |
| Adaptations for basic care (physically handicapped) | --- | --- | --- | |
| Adaptations for activities (physically handicapped) | --- | --- | --- | |
| Adaptations for special needs | 5.20 | 3.67 | 1.5 | |
| Communication (exceptional) | 4.50 | 5.00 | -0.5 | |
| Language/reasoning (exceptional) | 4.00 | 2.33 | 1.7 | |
| Learning and play activities (exceptional) | 4.50 | 3.50 | 1.0 | |
| Social development (exceptional) | 6.00 | 4.75 | 1.3 | |
| Caregiver preparation | 5.00 | 2.86 | 2.1 | |

** Averages for GH and FH are different with 99% or more centainty.

## Table 5: Caregiver Interactions with Children
## Positive Behaviors by Type of Facility

| Item | Average Score *1=never; 2=few instances 3=many instances; 4=consistently* | | | | | Difference in Scores * difference is significant with 95% certainty ** with 99% or more certainty | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **HS** | **NS** | **CC** | **GH** | **FH** | **HS-CC** | **NS-CC** | **GH-CC** | **FH-CC** |
| Speaks warmly to the children | 3.82 | 3.81 | 3.61 | 3.83 | 3.86 | 0.2 | 0.2 | 0.2 | 0.3 ** |
| Listens attentively when children speak | 3.80 | 3.69 | 3.43 | 3.71 | 3.69 | 0.4 * | 0.3 | 0.3 | 0.3 * |
| Excited about teaching | 3.72 | 3.67 | 3.38 | 3.59 | 3.55 | 0.3 | 0.3 | 0.2 | 0.2 |
| Seems to enjoy children | 3.86 | 3.75 | 3.47 | 3.72 | 3.83 | 0.4 ** | 0.3 | 0.2 | 0.4 ** |
| When children misbehave, explains reason for rule | 3.66 | 3.42 | 2.98 | 3.30 | 3.26 | 0.7 ** | 0.4 | 0.3 | 0.3 |
| Encourages children to try different experiences | 3.48 | 3.21 | 2.70 | 3.00 | 3.21 | 0.8 ** | 0.5 * | 0.3 | 0.5 ** |
| Seems enthusiastic about the children's activities | 3.70 | 3.67 | 3.31 | 3.57 | 3.58 | 0.4 * | 0.4 * | 0.3 | 0.3 |
| Pays positive attention to the children as individuals | 3.74 | 3.77 | 3.42 | 3.74 | 3.73 | 0.3 | 0.3 * | 0.3 | 0.3 ** |
| Appropriately reprimands children when they misbehave | 3.94 | 3.75 | 3.58 | 3.85 | 3.75 | 0.4 ** | 0.2 | 0.3 | 0.2 |
| Talks to children on a level they can understand | 3.88 | 3.83 | 3.64 | 3.76 | 3.83 | 0.2 | 0.2 | 0.1 | 0.2 |
| Exercises firmness when necessary | 3.96 | 3.92 | 3.76 | 3.87 | 3.88 | 0.2 * | 0.2 | 0.1 | 0.1 |
| Encourages children to exhibit prosocial behavior | 3.70 | 3.71 | 3.38 | 3.54 | 3.61 | 0.3 | 0.3 | 0.2 | 0.2 |
| Positive physical contact | 3.60 | 3.48 | 3.07 | 3.39 | 3.67 | 0.5 ** | 0.4 * | 0.3 | 0.6 ** |
| Seems interested in the children's activities | 3.78 | 3.50 | 3.19 | 3.52 | 3.52 | 0.6 ** | 0.3 | 0.3 | 0.3 ** |
| Sincere in tone of voice and manner | 3.98 | 3.88 | 3.67 | 3.83 | 3.93 | 0.3 ** | 0.2 | 0.2 | 0.3 ** |
| Supervises the children closely | 3.78 | 3.81 | 3.43 | 3.76 | 3.57 | 0.3 * | 0.4 * | 0.3 | 0.1 |
| Expects children to exercise self control | 3.92 | 3.81 | 3.51 | 3.76 | 3.90 | 0.4 ** | 0.3 * | 0.2 | 0.4 ** |
| When talking to the children, bends or sits at their level | 3.84 | 3.54 | 3.20 | 3.48 | 3.53 | 0.6 ** | 0.3 | 0.3 | 0.3 * |
| **Totals** | **3.79** | **3.67** | **3.38** | **3.62** | **3.67** | **0.4 ** ** | **0.3 ** ** | **0.2 * ** | **0.3 ** ** |

Note: The other six differences comparing types -- Head Start and nursery schools, group homes and family homes, Head Start and group or family homes, and nursery schools and group or family homes -- are not shown, because not one of these other differences reached significance at the .05 (or .01) level.

**HS=Head Start; NS=Nursery/Preschool; CC=Child Care Center; GH=Group Home: FH=Family Home**

## Table 6: Caregiver Interactions with Children
## Negative Behaviors by Type of Facility

| Item | Average Score *1=never; 2=few instances 3=many instances; 4=consistently* | | | | | Difference in Scores * difference is significant with 95% certainty ** with 99% or more certainty | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **HS** | **NS** | **CC** | **GH** | **FH** | **HS - CC** | **NS - CC** | **FH - NS** | **GH - CC** | **FH - CC** |
| Seems critical of the children | 1.08 | 1.17 | 1.35 | 1.15 | 1.20 | -0.3 * | -0.2 | 0.0 | -0.2 | -0.1 |
| Places high value on obedience | 1.46 | 1.53 | 2.07 | 1.43 | 1.43 | -0.6 ** | -0.5 * | -0.1 | -0.6 ** | -0.6 ** |
| Seems emotionally distant from the children | 1.16 | 1.21 | 1.47 | 1.20 | 1.17 | -0.3 * | -0.3 | 0.0 | -0.3 | -0.3 ** |
| Exercises little control over the children | 1.06 | 1.10 | 1.33 | 1.07 | 1.17 | -0.3 * | -0.2 | 0.1 | -0.3 * | -0.2 |
| Speaks with irritation or hostility to the children | 1.22 | 1.08 | 1.46 | 1.15 | 1.25 | -0.2 | -0.4 ** | 0.2 | -0.3 * | -0.2 |
| Threatens children in trying to control them | 1.12 | 1.19 | 1.45 | 1.26 | 1.18 | -0.3 ** | -0.3 | 0.0 | -0.2 | -0.3 ** |
| Spends considerable time in activity not involving children | 1.24 | 1.15 | 1.53 | 1.35 | 1.28 | -0.3 | -0.4 * | 0.1 | -0.2 | -0.2 |
| Negative physical contact | 1.00 | 1.04 | 1.06 | 1.04 | 1.08 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Routine or mechanized teaching style | 1.26 | 1.55 | 1.93 | 1.37 | 1.15 | -0.7 ** | -0.4 | -0.4 * | -0.6 ** | -0.8 ** |
| Punishes the children without explanation or redirection | 1.14 | 1.15 | 1.42 | 1.13 | 1.19 | -0.3 * | -0.3 | 0.0 | -0.3 * | -0.2 * |
| Finds fault easily with children | 1.08 | 1.15 | 1.29 | 1.09 | 1.16 | -0.2 | -0.1 | 0.0 | -0.2 | -0.1 |
| Seems to prohibit many of the things the children want to do | 1.26 | 1.50 | 1.87 | 1.24 | 1.31 | -0.6 ** | -0.4 | -0.2 | -0.6 ** | -0.6 ** |
| Seems unnecessarily harsh when scolding or prohibiting children | 1.12 | 1.04 | 1.29 | 1.04 | 1.11 | -0.2 | -0.2 * | 0.1 | -0.2 * | -0.2 * |
| **Totals** | **1.17** | **1.22** | **1.50** | **1.19** | **1.20** | **-0.3 ** ** | **-0.3 ** ** | **0.0** | **-0.3 ** ** | **-0.3 ** ** |

Note: The other five differences comparing types -- Head Start and nursery schools, group homes and family homes, Head Start and group or family homes, and nursery schools and group homes -- are not shown, because not one of these other differences reached significance at the .05 (or .01) level.

**HS=Head Start; NS=Nursery/Preschool; CC=Child Care Center; GH=Group Home: FH=Family Home**

**Table 7: Early Childhood Environment Ratings of Classrooms by Provider Education**

| Item | Average Score *1=inadequate; 3=minimal 5=good; 7=excellent* | | | | | Difference * with 95% certainty ** with 99% or more certainty | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | High School Diploma | Some College, No degree | Associate's Degree | Bachelor's Degree | Master's Degree | Some coll. - HS | AA -HS | BA - HS | MA - HS | MA - Some Coll. |
| **ECERS-R AVERAGE** | **3.74** | **4.42** | **4.22** | **4.29** | **4.68** | **0.7 *** | **0.5** | **0.6** | **0.9 *** | **0.3** |
| **SPACE AND FURNISHINGS** | **3.81** | **4.09** | **4.10** | **4.16** | **4.73** | **0.3** | **0.3** | **0.4** | **0.9 *** | **0.6** |
| Indoor space | 3.71 | 3.88 | 3.92 | 4.34 | 4.27 | 0.2 | 0.2 | 0.6 | 0.6 | 0.4 |
| Furniture for care, play, and learning | 5.42 | 5.82 | 5.31 | 5.78 | 6.36 | 0.4 | -0.1 | 0.4 | 0.9 | 0.5 |
| Furnishings for relaxation | 3.50 | 3.73 | 3.74 | 3.57 | 4.27 | 0.2 | 0.2 | 0.1 | 0.8 | 0.5 |
| Room arrangement | 3.79 | 4.88 | 5.15 | 4.69 | 5.36 | 1.1 | 1.4 * | 0.9 | 1.6 | 0.5 |
| Space for privacy | 3.71 | 4.45 | 4.67 | 4.55 | 4.45 | 0.7 | 1.0 | 0.8 | 0.7 | 0.0 |
| Child-related display | 3.88 | 3.33 | 3.79 | 3.80 | 4.73 | -0.5 | -0.1 | -0.1 | 0.9 | 1.4 |
| Space for gross motor | 2.54 | 2.82 | 2.49 | 2.70 | 3.45 | 0.3 | -0.1 | 0.2 | 0.9 | 0.6 |
| Gross motor equipment | 3.92 | 3.61 | 3.69 | 3.78 | 4.91 | -0.3 | -0.2 | -0.1 | 1.0 | 1.3 |
| **PERSONAL CARE ROUTINES** | **3.50** | **4.11** | **3.57** | **3.72** | **4.06** | **0.6** | **0.1** | **0.2** | **0.6** | **0.0** |
| Greeting/departing | 5.54 | 5.55 | 5.46 | 5.89 | 6.00 | 0.0 | -0.1 | 0.3 | 0.5 | 0.5 |
| Meals/snacks | 2.48 | 2.88 | 2.72 | 2.46 | 2.82 | 0.4 | 0.2 | 0.0 | 0.3 | -0.1 |
| Nap/rest | 3.41 | 3.32 | 3.39 | 3.47 | 4.00 | -0.1 | 0.0 | 0.1 | 0.6 | 0.7 |
| Toileting/diapering | 3.21 | 4.15 | 3.13 | 3.52 | 2.73 | 0.9 | -0.1 | 0.3 | -0.5 | -1.4 |
| Health practices | 3.25 | 4.76 | 4.10 | 3.79 | 5.00 | 1.5 | 0.9 | 0.5 | 1.8 | 0.2 |
| Safety practices | 3.08 | 3.30 | 2.36 | 2.98 | 4.09 | 0.2 | -0.7 | -0.1 | 1.0 | 0.8 |
| **LANGUAGE-REASONING** | **4.18** | **4.79** | **4.56** | **4.76** | **5.34** | **0.6** | **0.4** | **0.6** | **1.2** | **0.6** |
| Books and pictures | 4.04 | 4.58 | 4.44 | 4.38 | 4.73 | 0.5 | 0.4 | 0.3 | 0.7 | 0.2 |
| Encouraging children to communicate | 4.50 | 5.27 | 4.87 | 5.19 | 5.45 | 0.8 | 0.4 | 0.7 | 1.0 | 0.2 |
| Using language to develop reasoning skills | 3.38 | 4.27 | 4.00 | 4.18 | 5.27 | 0.9 | 0.6 | 0.8 | 1.9 * | 1.0 |
| Informal use of language | 4.79 | 5.27 | 4.95 | 5.31 | 5.91 | 0.5 | 0.2 | 0.5 | 1.1 | 0.6 |

Note: Typical item sample size is 203 -- 24 for high school, 33 for some college, 39 for AA, 96 for BA, 11 for MA. Individual items differ slightly.

Note: Only pairwise comparisons with at least one statistically significant difference are shown in the difference columns.

**Table 7: Early Childhood Environment Ratings of Classrooms by Provider Education (continued)**

| Item | Average Score | | | | | Difference | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | High School Diploma | Some College, No degree | Associate's Degree | Bachelor's Degree | Master's Degree | Some coll. - HS | AA -HS | BA - HS | MA - HS | MA - Some Coll. |
| **ACTIVITIES** | **2.89** | **3.73** | **3.65** | **3.55** | **3.62** | **0.8 *** | **0.8** | **0.7** | **0.7** | **-0.1** |
| Fine motor | 3.79 | 4.30 | 4.38 | 4.42 | 4.64 | 0.5 | 0.6 | 0.6 | 0.8 | 0.3 |
| Art | 2.63 | 3.85 | 3.54 | 3.71 | 4.00 | 1.2 | 0.9 | 1.1 * | 1.4 | 0.2 |
| Music/movement | 2.71 | 3.15 | 2.97 | 2.93 | 2.82 | 0.4 | 0.3 | 0.2 | 0.1 | -0.3 |
| Blocks | 2.96 | 3.52 | 3.85 | 3.60 | 3.18 | 0.6 | 0.9 | 0.6 | 0.2 | -0.3 |
| Sand/water | 2.83 | 3.76 | 3.44 | 3.52 | 3.73 | 0.9 | 0.6 | 0.7 | 0.9 | 0.0 |
| Dramatic play | 3.33 | 3.79 | 3.95 | 3.55 | 3.00 | 0.5 | 0.6 | 0.2 | -0.3 | -0.8 |
| Nature/science | 2.13 | 3.09 | 3.31 | 2.85 | 3.55 | 1.0 | 1.2 | 0.7 | 1.4 | 0.5 |
| Math/number | 3.21 | 3.91 | 4.00 | 3.70 | 3.82 | 0.7 | 0.8 | 0.5 | 0.6 | -0.1 |
| Use of TV, video and/or computer | 2.71 | 3.33 | 3.44 | 3.41 | 4.17 | 0.6 | 0.7 | 0.7 | 1.5 | 0.8 |
| Promoting acceptance of diversity | 2.75 | 3.88 | 3.69 | 3.85 | 3.64 | 1.1 | 0.9 | 1.1 * | 0.9 | -0.2 |
| **INTERACTION** | **4.63** | **5.14** | **5.02** | **5.17** | **5.89** | **0.5** | **0.4** | **0.5** | **1.3** | **0.8** |
| Supervision of gross motor activities | 4.42 | 4.91 | 4.61 | 4.73 | 4.73 | 0.5 | 0.2 | 0.3 | 0.3 | -0.2 |
| General supervision of children | 4.46 | 4.70 | 5.08 | 5.02 | 5.64 | 0.2 | 0.6 | 0.6 | 1.2 | 0.9 |
| Discipline | 4.21 | 4.85 | 4.67 | 4.79 | 5.82 | 0.6 | 0.5 | 0.6 | 1.6 | 1.0 |
| Staff-child interactions | 5.25 | 5.70 | 5.56 | 5.72 | 7.00 | 0.4 | 0.3 | 0.5 | 1.8 | 1.3 |
| Interacting among children | 4.83 | 5.48 | 5.15 | 5.53 | 6.27 | 0.7 | 0.3 | 0.7 | 1.4 | 0.8 |
| **PROGRAM STRUCTURE** | **3.77** | **5.10** | **4.53** | **4.86** | **4.85** | **1.3 *** | **0.8** | **1.1 *** | **1.1** | **-0.2** |
| Schedule | 3.58 | 4.61 | 4.08 | 4.36 | 3.55 | 1.0 | 0.5 | 0.8 | 0.0 | -1.1 |
| Free play | 3.75 | 4.67 | 4.62 | 4.76 | 4.91 | 0.9 | 0.9 | 1.0 | 1.2 | 0.2 |
| Group time | 4.08 | 5.30 | 4.82 | 5.44 | 6.00 | 1.2 | 0.7 | 1.4 * | 1.9 | 0.7 |
| Provisions for children with disabilities | 4.00 | 5.94 | 6.25 | 5.40 | 5.00 | 1.9 | 2.3 | 1.4 | 1.0 | -0.9 |
| **PARENTS AND STAFF** | **4.23** | **5.24** | **5.01** | **4.96** | **5.29** | **1.0 **** | **0.8 *** | **0.7 *** | **1.1 *** | **0.0** |
| Provisions for parents | 4.71 | 5.88 | 5.72 | 5.76 | 5.73 | 1.2 ** | 1.0 * | 1.1 ** | 1.0 | -0.2 |
| Provisions for personal needs of staff | 2.25 | 3.15 | 2.77 | 2.94 | 3.27 | 0.9 | 0.5 | 0.7 | 1.0 | 0.1 |
| Provisions for professional needs of staff | 4.63 | 5.39 | 5.44 | 5.17 | 5.27 | 0.8 | 0.8 | 0.5 | 0.6 | -0.1 |
| Staff interaction and cooperation | 5.23 | 6.10 | 5.46 | 6.01 | 6.30 | 0.9 | 0.2 | 0.8 | 1.1 | 0.2 |
| Supervision and evaluation of staff | 5.21 | 6.21 | 5.90 | 5.58 | 5.55 | 1.0 | 0.7 | 0.4 | 0.3 | -0.7 |
| Opportunities for professional growth | 3.54 | 4.88 | 4.72 | 4.50 | 5.82 | 1.3 | 1.2 | 1.0 | 2.3 ** | 0.9 |

## Table 8: Family Child Care Environment Ratings of Homes by Provider Education

| Item | Average Score *1=inadequate; 3=minimal 5=good; 7=excellent* | | | | | Difference * not zero with 95% certainty ** with 99% or more certainty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | High School Diploma | Some College, No degree | Associate's Degree | Bachelor's Degree | Master's Degree | AA - HS | BA - HS | MA - HS | BA - Some College | MA - Some College | MA - AA | MA - BA |
| **FDCRS AVERAGE** | **3.88** | **3.92** | **4.16** | **4.30** | **4.94** | **0.3** | **0.4** | **1.1** | **0.4** | **1.0** | **0.8** | **0.6** |
| **SPACE AND FURNISHINGS FOR CARE** | **3.70** | **3.58** | **3.94** | **4.23** | **4.53** | **0.2** | **0.5** | **0.8** | **0.6** | **0.9** | **0.6** | **0.3** |
| Furnishings for routine care and learning | 4.44 | 3.94 | 4.55 | 4.88 | 6.00 | 0.1 | 0.4 | 1.6 | 0.9 | 2.1 | 1.5 | 1.1 |
| Furnishings for relaxation and comfort | 4.33 | 4.38 | 4.73 | 5.06 | 3.67 | 0.4 | 0.7 | -0.7 | 0.7 | -0.7 | -1.1 | -1.4 |
| Child-related display | 2.54 | 2.74 | 2.50 | 2.81 | 4.00 | 0.0 | 0.3 | 1.5 | 0.1 | 1.3 | 1.5 | 1.2 |
| Indoor space arrangement | 3.84 | 3.79 | 4.50 | 4.19 | 5.33 | 0.7 | 0.3 | 1.5 | 0.4 | 1.5 | 0.8 | 1.1 |
| Active physical play | 2.73 | 2.74 | 3.36 | 2.81 | 4.00 | 0.6 | 0.1 | 1.3 | 0.1 | 1.3 | 0.6 | 1.2 |
| Space to be alone (infants/toddlers) | 4.10 | 3.73 | 4.21 | 4.40 | 4.33 | 0.1 | 0.3 | 0.2 | 0.7 | 0.6 | 0.1 | -0.1 |
| Space to be alone (2 years and older) | 4.24 | 3.79 | 4.00 | 5.50 | 4.33 | -0.2 | 1.3 | 0.1 | 1.7 ** | 0.5 | 0.3 | -1.2 |
| **BASIC CARE** | **2.97** | **2.86** | **3.16** | **2.77** | **3.47** | **0.2** | **-0.2** | **0.5** | **-0.1** | **0.6** | **0.3** | **0.7** |
| Arriving/leaving | 6.44 | 6.00 | 5.91 | 6.19 | 6.67 | -0.5 | -0.3 | 0.2 | 0.2 | 0.7 | 0.8 | 0.5 |
| Meals/snacks | 2.29 | 2.00 | 2.23 | 1.94 | 2.00 | -0.1 | -0.3 | -0.3 | -0.1 | 0.0 | -0.2 | 0.1 |
| Nap/rest | 4.10 | 3.70 | 4.36 | 4.27 | 3.33 | 0.3 | 0.2 | -0.8 | 0.6 | -0.4 | -1.0 | -0.9 |
| Diapering/toileting | 1.83 | 1.91 | 2.23 | 1.63 | 3.00 | 0.4 | -0.2 | 1.2 | -0.3 | 1.1 | 0.8 | 1.4 |
| Personal grooming | 2.10 | 2.47 | 2.32 | 2.00 | 1.67 | 0.2 | -0.1 | -0.4 | -0.5 | -0.8 | -0.7 | -0.3 |
| Health | 2.68 | 2.26 | 2.86 | 2.19 | 2.00 | 0.2 | -0.5 | -0.7 | -0.1 | -0.3 | -0.9 | -0.2 |
| Safety | 1.37 | 1.68 | 1.91 | 1.13 | 5.67 | 0.5 | -0.2 | 4.3 ** | -0.6 | 4.0 ** | 3.8 ** | 4.5 ** |
| **LANGUAGE AND REASONING** | **4.43** | **4.44** | **4.93** | **4.93** | **6.50** | **0.5** | **0.5** | **2.1** | **0.5** | **2.1** | **1.6** | **1.6** |
| Informal use of language (infants/toddlers) | 5.90 | 5.46 | 6.07 | 5.90 | 7.00 | 0.2 | 0.0 | 1.1 | 0.4 | 1.5 | 0.9 | 1.1 |
| Informal use of language (2 years and older) | 5.13 | 5.15 | 5.23 | 5.56 | 6.67 | 0.1 | 0.4 | 1.5 | 0.4 | 1.5 | 1.4 | 1.1 |
| Helping children understd language (inf/toddlers) | 4.33 | 3.63 | 3.71 | 4.30 | 6.67 | -0.6 | 0.0 | 2.3 | 0.7 | 3.0 | 3.0 | 2.4 |
| Helping children understd lang. (2 yrs & older) | 3.82 | 4.42 | 4.68 | 4.81 | 5.67 | 0.9 | 1.0 | 1.8 | 0.4 | 1.3 | 1.0 | 0.9 |
| Helping children use language | 4.54 | 4.49 | 5.18 | 4.88 | 7.00 | 0.6 | 0.3 | 2.5 | 0.4 | 2.5 | 1.8 | 2.1 |
| Helping children reason (using concepts) | 3.67 | 3.96 | 4.36 | 4.44 | 6.00 | 0.7 | 0.8 | 2.3 | 0.5 | 2.0 | 1.6 | 1.6 |

## Table 8: Family Child Care Environment Ratings of Homes by Provider Education (continued)

| Item | Average Score *1=inadequate; 3=minimal 5=good; 7=excellent* | | | | | Difference * not zero with 95% certainty ** with 99% or more certainty | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | High School Diploma | Some College, No degree | Associate's Degree | Bachelor's Degree | Master's Degree | AA - HS | BA - HS | MA - HS | BA - Some College | MA - Some College | MA - AA | MA - BA |
| **LEARNING ACTIVITIES** | **3.78** | **3.95** | **4.06** | **4.54** | **5.08** | **0.3** | **0.8** | **1.3** | **0.6** | **1.1** | **1.0** | **0.5** |
| Eye-hand coordination | 4.06 | 3.94 | 3.95 | 4.75 | 5.00 | -0.1 | 0.7 | 0.9 | 0.8 | 1.1 | 1.0 | 0.3 |
| Art | 3.48 | 3.75 | 3.91 | 4.00 | 4.33 | 0.4 | 0.5 | 0.9 | 0.2 | 0.6 | 0.4 | 0.3 |
| Music and movement | 4.48 | 4.40 | 4.59 | 4.56 | 6.33 | 0.1 | 0.1 | 1.9 | 0.2 | 1.9 | 1.7 | 1.8 |
| Sand and water play | 2.27 | 2.66 | 2.73 | 3.81 | 3.67 | 0.5 | 1.5 * | 1.4 | 1.2 | 1.0 | 0.9 | -0.1 |
| Dramatic play | 3.75 | 4.19 | 4.32 | 4.44 | 5.33 | 0.6 | 0.7 | 1.6 | 0.2 | 1.1 | 1.0 | 0.9 |
| Blocks | 3.29 | 3.57 | 3.41 | 3.69 | 4.00 | 0.1 | 0.4 | 0.7 | 0.1 | 0.4 | 0.6 | 0.3 |
| Use of TV | 2.86 | 3.38 | 3.32 | 4.44 | 3.00 | 0.5 | 1.6 | 0.1 | 1.1 | -0.4 | -0.3 | -1.4 |
| Schedule of daily activities | 4.65 | 4.91 | 5.18 | 5.13 | 7.00 | 0.5 | 0.5 | 2.3 | 0.2 | 2.1 | 1.8 | 1.9 |
| Supervision of play indoors and outdoors | 5.14 | 4.72 | 5.14 | 5.44 | 7.00 | 0.0 | 0.3 | 1.9 | 0.7 | 2.3 | 1.9 | 1.6 |
| **SOCIAL DEVELOPMENT** | **4.46** | **4.23** | **4.62** | **4.96** | **4.33** | **0.2** | **0.5** | **-0.1** | **0.7** | **0.1** | **-0.3** | **-0.6** |
| Tone | 5.92 | 5.49 | 5.64 | 6.13 | 6.00 | -0.3 | 0.2 | 0.1 | 0.6 | 0.5 | 0.4 | -0.1 |
| Discipline | 5.14 | 5.08 | 5.55 | 5.88 | 4.00 | 0.4 | 0.7 | -1.1 | 0.8 | -1.1 | -1.5 | -1.9 |
| Cultural awareness | 2.32 | 2.30 | 2.68 | 2.88 | 3.00 | 0.4 | 0.6 | 0.7 | 0.6 | 0.7 | 0.3 | 0.1 |
| **ADULT NEEDS** | **5.20** | **5.39** | **5.69** | **5.62** | **6.45** | **0.5** | **0.4** | **1.2** | **0.2** | **1.1** | **0.8** | **0.8** |
| Relationships with parents | 5.75 | 5.89 | 5.82 | 5.94 | 6.33 | 0.1 | 0.2 | 0.6 | 0.1 | 0.4 | 0.5 | 0.4 |
| Balancing personal & caregiver responsibilities | 5.44 | 5.23 | 5.68 | 5.44 | 7.00 | 0.2 | 0.0 | 1.6 | 0.2 | 1.8 | 1.3 | 1.6 |
| Opportunities for professional growth | 4.43 | 5.04 | 5.59 | 5.50 | 6.00 | 1.2 * | 1.1 | 1.6 | 0.5 | 1.0 | 0.4 | 0.5 |
| **PROVISIONS FOR EXCEPTIONAL CHILDREN** | **3.60** | **3.58** | **5.67** | **4.75** | **----** | **2.1** | **1.1** | **----** | **1.2** | **----** | **----** | **----** |
| Adaptations for basic care (phys. handicapped) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| Adaptations for activities (phys. handicapped) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| Adaptations for special needs | ---- | 3.50 | 6.50 | 5.00 | ---- | ---- | ---- | ---- | 1.5 | ---- | ---- | ---- |
| Communication (exceptional) | 6.00 | 3.67 | 5.00 | 4.50 | ---- | -1.0 | -1.5 | ---- | 0.8 | ---- | ---- | ---- |
| Language/reasoning (exceptional) | 1.00 | 3.00 | 5.00 | 3.00 | ---- | 4.0 | 2.0 | ---- | 0.0 | ---- | ---- | ---- |
| Learning and play activities (exceptional) | 2.00 | 3.33 | 4.00 | 5.50 | ---- | 2.0 | 3.5 | ---- | 2.2 | ---- | ---- | ---- |
| Social development (exceptional) | 5.00 | 5.00 | 4.00 | 5.00 | ---- | -1.0 | 0.0 | ---- | 0.0 | ---- | ---- | ---- |
| Caregiver preparation | 4.00 | 3.63 | 4.67 | 3.50 | ---- | 0.7 | -0.5 | ---- | -0.1 | ---- | ---- | ---- |

Note: Sample sizes for all education levels combined for Provision for Exceptional Children items are small, 15 at most.Typical sample sizes for other items are 157 -- 63 for high school, 53 for some college, no degree, 22 for AA, 16 for BA, and 2 for MA. Individual item sample sizes may be a very few providers higher.

Note: Only pairwise comparisons with at least one statistically significant difference are shown in the difference columns.

**Table 9: Caregiver Interactions with Children: Positive Behaviors by Provider Education**

| Item | Average Score 1=never; 2=few instances 3=many instances; 4=consistently | | | | |
|---|---|---|---|---|---|
| | **High School Diploma** | **Some College, No degree** | **Associate's Degree** | **Bachelor's Degree** | **Master's Degree** |
| Speaks warmly to the children | 3.83 | 3.80 | 3.74 | 3.72 | 3.86 |
| Listens attentively when children speak | 3.67 | 3.66 | 3.56 | 3.63 | 3.93 |
| Excited about teaching | 3.52 | 3.49 | 3.57 | 3.60 | 3.79 |
| Seems to enjoy children | 3.72 | 3.74 | 3.62 | 3.71 | 3.71 |
| When children misbehave, explains reason for rule | 3.16 | 3.22 | 3.25 | 3.38 | 3.71 |
| Encourages children to try different experiences | 2.86 | 3.20 | 3.15 | 3.13 | 3.21 |
| Seems enthusiastic about the children's activities | 3.53 | 3.56 | 3.39 | 3.57 | 3.71 |
| Pays positive attention to the children as individuals | 3.69 | 3.67 | 3.59 | 3.64 | 3.93 |
| Appropriately reprimands children when they misbehave | 3.74 | 3.80 | 3.72 | 3.75 | 3.86 |
| Talks to children on a level they can understand | 3.76 | 3.78 | 3.82 | 3.77 | 3.93 |
| Exercises firmness when necessary | 3.86 | 3.85 | 3.85 | 3.88 | 3.93 |
| Encourages children to exhibit prosocial behavior | 3.56 | 3.44 | 3.57 | 3.65 | 3.93 |
| Positive physical contact | 3.48 | 3.56 | 3.28 | 3.38 | 3.36 |
| Seems interested in the children's activities | 3.47 | 3.51 | 3.38 | 3.46 | 3.79 |
| Sincere in tone of voice and manner | 3.86 | 3.85 | 3.82 | 3.85 | 3.86 |
| Supervises the children closely | 3.57 | 3.67 | 3.57 | 3.64 | 3.86 |
| Expects children to exercise self control | 3.74 | 3.84 | 3.74 | 3.71 | 3.93 |
| When talking to the children, bends or sits at their level | 3.38 | 3.47 | 3.57 | 3.46 | 3.71 |
| Totals | 3.58 | 3.63 | 3.57 | 3.61 | 3.78 |

Note: The sample sizes for average of all positive itmes are 85 for high school, 84 for some college, no degree, 61 for AA, 109 for BA, and 14 for MA. Individual item sample sizes may be a very few providers higher

Note: None of the posssible score differences between education levels for on an item or the total was statistically significant.

**Table 10: Caregiver Interactions with Children: Negative Behaviors by Provider Education**

| Item | Average Score 1=never; 2=few instances 3=many instances; 4=consistently | | | | |
|---|---|---|---|---|---|
| | **High School Diploma** | **Some College, No degree** | **Associate's Degree** | **Bachelor's Degree** | **Master's Degree** |
| Seems critical of the children | 1.26 | 1.16 | 1.23 | 1.21 | 1.00 |
| Places high value on obedience | 1.61 | 1.59 | 1.70 | 1.69 | 1.14 |
| Seems emotionally distant from the children | 1.21 | 1.23 | 1.36 | 1.28 | 1.14 |
| Exercises little control over the children | 1.17 | 1.16 | 1.31 | 1.14 | 1.07 |
| Speaks with irritation or hostility to the children | 1.28 | 1.26 | 1.31 | 1.24 | 1.21 |
| Threatens children in trying to control them | 1.29 | 1.20 | 1.33 | 1.28 | 1.00 |
| Spends considerable time in activity not involving children | 1.29 | 1.31 | 1.56 | 1.24 | 1.21 |
| Negative physical contact | 1.07 | 1.07 | 1.07 | 1.03 | 1.00 |
| Routine or mechanized teaching style | 1.48 | 1.43 | 1.59 | 1.46 | 1.43 |
| Punishes the children without explanation or redirection | 1.20 | 1.26 | 1.28 | 1.22 | 1.07 |
| Finds fault easily with children | 1.21 | 1.13 | 1.13 | 1.19 | 1.00 |
| Seems to prohibit many of the things the children want to do | 1.51 | 1.36 | 1.46 | 1.54 | 1.29 |
| Seems unnecessarily harsh when scolding or prohibiting children | 1.16 | 1.10 | 1.15 | 1.17 | 1.07 |
| **Totals** | **1.29** | **1.25** | **1.34** | **1.28** | **1.13** |

Note: Of all the posssible score differences between education levels on an item or the total, only one reached statistical significance and at the 0.05 level, namely BA providers were less apt to spend time in activity not involving children than AA providers.

Note: The sample sizes for average of all negative items are 87 for high school, 83 for some college, no degree, 61 for AA, 110 for BA, and 14 for MA. Individual item sample sizes may be a very few providers higher.

**Table 11: Early Childhood Environment Ratings of Classrooms by Presence of Curriculum**

| Item | Average Score 1=inadequate; 3 minimal 5=good; 7=excellent | | Difference in Scores | Difference is real (significant) * with 95% certainty ** with 99% or more certainty |
|---|---|---|---|---|
| | **YES** | **NO** | | |
| **ECERS TOTAL SCORE** | **4.40** | **3.98** | **0.42** | ** |
| **SPACE AND FURNISHINGS** | **2.00** | **3.96** | **-1.96** | |
| Indoor space | 4.22 | 3.97 | 0.25 | |
| Furniture for care, play and learning | 5.85 | 5.36 | 0.49 | * |
| Furnishings for relaxation | 3.66 | 3.62 | 0.04 | |
| Room arrangement | 5.05 | 4.26 | 0.79 | ** |
| Space for privacy | 4.67 | 4.00 | 0.67 | ** |
| Child-related display | 3.77 | 3.81 | -0.04 | |
| Space for gross motor | 2.68 | 2.63 | 0.05 | |
| Gross motor equipment | 3.62 | 4.02 | -0.40 | |
| **PERSONAL CARE ROUTINES** | **3.96** | **3.40** | **0.56** | ** |
| Greeting/departing | 5.72 | 5.64 | 0.08 | |
| Meals/snacks | 2.91 | 2.01 | 0.90 | ** |
| Nap/rest | 3.58 | 3.25 | 0.33 | |
| Toileting/diapering | 3.77 | 3.07 | 0.70 | * |
| Health practices | 4.27 | 3.67 | 0.60 | |
| Safety practices | 3.13 | 2.73 | 0.40 | |
| **LANGUAGE-REASONING** | **4.82** | **4.36** | **0.46** | * |
| Books and pictures | 4.55 | 4.04 | 0.51 | |
| Encouraging children to communicate | 5.22 | 4.75 | 0.47 | |
| Using language to develop reasoning skills | 4.29 | 3.68 | 0.61 | * |
| Informal use of language | 5.28 | 4.98 | 0.30 | |

**Table 11: Early Childhood Environment Ratings of Classrooms by Presence of Curriculum (cont.)**

| Item | Average Score 1=inadequate; 3 minimal 5=good; 7=excellent | | Difference in Scores | Difference is real (significant) * with 95% certainty ** with 99% or more certainty |
|---|---|---|---|---|
| | **YES** | **NO** | | |
| **ACTIVITIES** | **3.69** | **3.20** | **0.49** | ** |
| Fine motor | 3.95 | 4.48 | -0.53 | * |
| Art | 3.87 | 3.09 | 0.78 | ** |
| Music/movement | 2.97 | 2.85 | 0.12 | |
| Blocks | 3.66 | 3.24 | 0.42 | |
| Sand/water | 3.62 | 3.24 | 0.38 | |
| Dramatic play | 3.66 | 3.50 | 0.16 | |
| Nature/science | 3.05 | 2.63 | 0.42 | |
| Math/number | 4.00 | 3.21 | 0.79 | ** |
| Use of TV, video and/or computer | 3.58 | 3.04 | 0.54 | |
| Promoting acceptance of diversity | 3.86 | 3.31 | 0.55 | * |
| **INTERACTION** | **5.23** | **4.85** | **0.38** | |
| Supervision of gross motor activities | 4.57 | 4.73 | -0.16 | |
| General supervision of children | 5.11 | 4.65 | 0.46 | |
| Discipline | 4.90 | 4.46 | 0.44 | |
| Staff-child interactions | 5.81 | 5.45 | 0.36 | |
| Interactions among children | 5.60 | 5.00 | 0.60 | * |
| **PROGRAM STRUCTURE** | **4.92** | **4.32** | **0.60** | * |
| Schedule | 4.31 | 4.07 | 0.24 | |
| Free play | 4.83 | 4.21 | 0.62 | * |
| Group time | 5.36 | 4.74 | 0.62 | * |
| Provisions for children with disabilities | 6.10 | 4.57 | 1.53 | ** |
| **PARENTS AND STAFF** | **5.10** | **4.69** | **0.41** | ** |
| Provisions for parents | 5.87 | 5.34 | 0.53 | ** |
| Provisions for personal needs of staff | 2.96 | 2.80 | 0.16 | |
| Provisions for professional needs of staff | 5.29 | 4.97 | 0.32 | |
| Staff interaction and cooperation | 6.04 | 5.46 | 0.58 | ** |
| Supervision and evaluation of staff | 5.80 | 5.52 | 0.28 | |
| Opportunities for professional growth | 4.87 | 4.12 | 0.75 | ** |

**Table 12: Family Child Care Environment Ratings of Homes by Presence of Curriculum**

| Item | Average Score 1=inadequate; 3 minimal 5=good; 7=excellent | | Difference in Scores | Difference is real (significant) * with 95% certainty ** with 99% or more certainty |
|---|---|---|---|---|
| | **YES** | **NO** | | |
| **FDCRS TOTAL SCORE** | **4.31** | **3.83** | **0.48** | ** |
| **SPACE AND FURNISHINGS FOR CARE** | **4.05** | **3.62** | 0.43 | ** |
| Furnishings for routine care and learning | 5.0213 | 4.0862 | 0.94 | ** |
| Furnishings for relaxation and comfort | 4.51 | 4.50 | 0.01 | |
| Child-related display | 3.06 | 2.47 | 0.59 | * |
| Indoor space arrangement | 4.34 | 3.81 | 0.53 | |
| Active physical play | 3.00 | 2.77 | 0.23 | |
| Space to be alone (infants/toddlers) | 3.82 | 3.94 | -0.12 | |
| Space to be alone (2 years and older) | 4.55 | 3.99 | 0.56 | |
| **BASIC CARE** | **3.09** | **2.86** | **0.23** | |
| Arriving/leaving | 6.12 | 6.22 | -0.10 | |
| Meals/snacks | 2.14 | 2.12 | -0.10 | |
| Nap/rest | 4.38 | 3.78 | 0.02 | |
| Diapering/toileting | 2.19 | 1.75 | 0.60 | |
| Personal grooming | 2.53 | 2.06 | 0.44 | |
| Health | 2.34 | 2,58 | 0.47 | |
| Safety | 1.91 | 1.45 | 0.46 | * |
| **LANGUAGE AND REASONING** | **5.19** | **4.27** | **0.92** | ** |
| Informal use of language (infants/toddlers) | 5.86 | 5.67 | 0.19 | |
| Informal use of language (2 years and older) | 5.74 | 4.91 | 0.83 | ** |
| Helping children understand language (infants/toddlers) | 4.27 | 3.86 | 0.41 | |
| Helping children understand language (2 years and older) | 4.85 | 3.97 | 0.88 | ** |
| Helping children use language | 5.19 | 4.42 | 0.77 | ** |
| Helping children reason (using concepts) | 4.83 | 3.57 | 1.26 | ** |

**Table 12: Family Child Care Environment Ratings of Homes by Presence of Curriculum (cont.)**

| Item | Average Score 1=inadequate; 3 minimal 5=good; 7=excellent | | Difference in Scores | Difference is real (significant) * with 95% certainty ** with 99% or more certainty |
|---|---|---|---|---|
| | **YES** | **NO** | | |
| **LEARNING ACTIVITIES** | **4.42** | **3.76** | **0.66** | ** |
| Eye-hand coordination | 4.80 | 3.79 | 1.01 | ** |
| Art | 4.02 | 3.51 | 0.51 | * |
| Music and movement | 4.74 | 4.39 | 0.35 | |
| Sand and water play | 2.85 | 2.55 | 0.30 | |
| Dramatic play | 4.42 | 3.93 | 0.49 | |
| Blocks | 3.80 | 3.33 | 0.47 | |
| Use of TV | 3.78 | 3.02 | 0.76 | * |
| Schedule of daily activities | 5.31 | 4.69 | 0.62 | * |
| Supervision of play indoors and outdoors | 5.68 | 4.68 | 1.00 | ** |
| **SOCIAL DEVELOPMENT** | **4.71** | **4.31** | **0.40** | * |
| Tone | 6.04 | 5.58 | 0.46 | |
| Discipline | 5.48 | 5.08 | 0.40 | |
| Cultural awareness | 2.57 | 2.37 | 0.20 | |
| **ADULT NEEDS** | **5.68** | **5.25** | **0.43** | * |
| Relationship with parents | 6.00 | 5.71 | 0.29 | |
| Balancing personal and caregiver responsibilities | 5.63 | 5.34 | 0.29 | |
| Opportunities for professional growth | 5.42 | 4.69 | 0.73 | ** |
| **PROVISIONS FOR EXCEPTIONAL CHILDREN** | **4.41** | **4.32** | **0.09** | |
| Adaptations for basic care (physically handicapped) | X | X | X | |
| Adaptations for activities (physically handicapped) | X | X | X | |
| Adaptations for special needs | 3.67 | 4.70 | -1.03 | |
| Communication (exceptional) | X | 5.40 | X | |
| Language/reasoning (exceptional) | X | 4.60 | X | |
| Learning and play activities (exceptional) | 3.33 | 5.40 | -2.07 | |
| Social development (exceptional) | 5.00 | 5.20 | -0.20 | |
| Caregiver preparation | 4.25 | 3.72 | 0.53 | |

**Table 13: Caregiver Interactions with Children: Positive Behaviors by Presence of Curriculum**

| Item | Average Score<br>1=never; 2=few instances<br>3=many instances; 4=consistently | | Difference in Scores<br>* difference is significant with 95% certainty<br>** with 99% or more certainty |
|---|---|---|---|
| | YES | NO | YES - NO |
| Speaks warmly to the children | 3.75 | 3.79 | 0.0 |
| Listens attentively when children speak | 3.66 | 3.60 | 0.1 |
| Excited about teaching | 3.63 | 3.46 | 0.2 * |
| Seems to enjoy children | 3.72 | 3.68 | 0.0 |
| When children misbehave, explains reason for rule | 3.35 | 3.18 | 0.2 |
| Encourages children to try different experiences | 3.20 | 2.95 | 0.2 * |
| Seems enthusiastic about the children's activities | 3.59 | 3.45 | 0.1 |
| Pays positive attention to the children as individuals | 3.70 | 3.60 | 0.1 |
| Appropriately reprimands children when they misbehave | 3.75 | 3.73 | 0.0 |
| Talks to children on a level they can understand | 3.81 | 3.74 | 0.1 |
| Exercises firmness when necessary | 3.83 | 3.88 | -0.1 |
| Encourages children to exhibit prosocial behavior | 3.64 | 3.49 | 0.1 * |
| Positive physical contact | 3.39 | 3.43 | 0.0 |
| Seems interested in the children's activities | 3.55 | 3.37 | 0.2 * |
| Sincere in tone of voice and manner | 3.87 | 3.81 | 0.1 |
| Supervises the children closely | 3.66 | 3.58 | 0.1 |
| Expects children to exercise self control | 3.76 | 3.74 | 0.0 |
| When talking to the children, bends or sits at their level | 3.56 | 3.37 | 0.2 * |
| **Totals** | **3.64** | **3.55** | **0.1** |

Note: Typical sample sizes for the positive items are 174 Yes and 198 No.

**Table 14: Caregiver Interactions with Children: Negative Behaviors by Presence of Curriculum**

| Item | Average Score<br>1=never; 2=few instances<br>3=many instances; 4=consistently | | Difference in Scores<br>* difference is significant with 95% certainty<br>** with 99% or more certainty |
|---|---|---|---|
| | YES | NO | NO - YES |
| Seems critical of the children | 1.17 | 1.26 | 0.09 |
| Places high value on obedience | 1.61 | 1.65 | 0.04 |
| Seems emotionally distant from the children | 1.18 | 1.33 | 0.15 * |
| Exercises little control over the children | 1.20 | 1.16 | -0.04 |
| Speaks with irritation or hostility to the children | 1.25 | 1.28 | 0.03 |
| Threatens children in trying to control them | 1.24 | 1.28 | 0.04 |
| Spends considerable time in activity not involving children | 1.26 | 1.40 | 0.13 |
| Negative physical contact | 1.04 | 1.07 | 0.03 |
| Routine or mechanized teaching style | 1.51 | 1.44 | -0.07 |
| Punishes the children without explanation or redirection | 1.19 | 1.29 | 0.10 |
| Finds fault easily with children | 1.11 | 1.23 | 0.12 * |
| Seems to prohibit many of the things the children want to do | 1.42 | 1.53 | 0.11 |
| Seems unnecessarily harsh when scolding or prohibiting children | 1.11 | 1.18 | 0.07 |
| **Totals** | **1.25** | **1.31** | **0.06** |

Notes: Lower scores on negative items represent higher quality interactions. Typical sample sizes are 198 Yes and 174 No.

# Appendices

Arnett Caregiver Observation Scale (Arnett/CIS)

Early Childhood Environment Rating Scale – Revised (ECERS-R)

Family Day Care Rating Scale (FDCRS)

**Count at end of observation:**
# of Teachers:_____ # of Children:_____

ID # _____Caregiver Name _____
Center Name _____
Data Collector Name _____ Date _____

| | | Not at all | Somewhat | Quite a bit | Very much |
|---|---|---|---|---|---|
| | | 0% | 1-30% | About 50% | 60-100% |
| | | Never | Few Instances | Many Instances | Consistently |
| + S | 1. Speaks warmly to the children (e.g., caring voice and body language) | 1 | 2 | 3 | 4 |
| _ H | 2. Seems critical of the children (e.g., puts children down, uses negative statements, uses sarcasm) | 1 | 2 | 3 | 4 |
| + S | 3. Listens attentively when children speak (e.g., looks at children, nods, rephrases their comments, engages in conversations) | 1 | 2 | 3 | 4 |
| _ H | 4. Places high value on obedience-Directive (e.g., expects children to follow adult agenda, fails to respond to daily events in a flexible way) | 1 | 2 | 3 | 4 |
| + S | 5. Excited about teaching. (e.g., smiles, intonation, happy demeanor, engages children in various activities) | 1 | 2 | 3 | 4 |
| _ D | 6. Seems emotionally distant or detached from the children(e.g., does not touch children, does not make conversation with children) | 1 | 2 | 3 | 4 |
| + S | 7. Seems to enjoy children (e.g., conveys happiness to children by conversing, smiling, touching children. | 1 | 2 | 3 | 4 |
| + S | 8. When children misbehave, explains the reason for the rule they are breaking (e.g., redirects behavior, discusses what to do instead, explains the rule they are breaking, discusses consequences) | 1 | 2 | 3 | 4 |
| + S | 9. Encourages the children to try different experiences (e.g., extending conversations with a child or providing children with unique experiences-play, imaginative activities.) | 1 | 2 | 3 | 4 |
| _ P | 10. Exercises little control over the children (e.g., allowing misbehaviors to go unaddressed, letting children do whatever they want to do) | 1 | 2 | 3 | 4 |
| _ H | 11. Speaks with irritation or hostility to the children (e.g., sharp tone, raises voice) | 1 | 2 | 3 | 4 |
| + S | 12. Seems enthusiastic about the children's activities and efforts( e.g., praises children, states appreciation for their efforts, shows interest by asking what they are doing) | 1 | 2 | 3 | 4 |
| _ H | 13. Threatens children in trying to control them (e.g., uses bribes and threats of punishments) | 1 | 2 | 3 | 4 |
| _ D | 14. Spends considerable time in activity not involving interaction with the children (e.g., does adult tasks during child activity periods without interacting with children) | 1 | 2 | 3 | 4 |

**ID # _____** 

| | | Not at all | Somewhat | Quite a bit | Very Much |
|---|---|---|---|---|---|
| | | 0% | 1-30% | About 50% | 60-100% |
| | | Never | Few Instances | Many Instances | Consistently |
| + S | 15. Pays positive attention to the children as individuals (e.g., one-on-one and ongoing interactions, speaks to individual children, uses their names, calls attention to prosocial behaviors, comments on their strengths) | 1 | 2 | 3 | 4 |
| _ H | 16. Negative physical contact (e.g., includes rough or abrupt handling) | 1 | 2 | 3 | 4 |
| + P | 17. Appropriately reprimands children when they misbehave (e.g., does the teacher address misbehaviors? this is not to be confused with harshness) | 1 | 2 | 3 | 4 |
| _ H | 18. Routine or mechanized teaching style (e.g., teacher Seems to follow a teacher's script-lack of flexibility in response to children's ideas/interests) | 1 | 2 | 3 | 4 |
| + S | 19. Talks to the children on a level they can understand ( e.g., uses terms familiar to children, checks for clarification) | 1 | 2 | 3 | 4 |
| _ H | 20. Punishes the children without explanation or uses punishment without trying redirection first | 1 | 2 | 3 | 4 |
| + P | 21. Exercises firmness when necessary (e.g., sets limits necessary to protect people and property, provides clear and direct directions) | 1 | 2 | 3 | 4 |
| + S | 22. Encourages children to exhibit prosocial behavior, (e.g., sharing, cooperating, taking turns, providing praise for prosocial behavior-teacher may model these behaviors) | 1 | 2 | 3 | 4 |
| -H | 23. Finds fault easily with the children | 1 | 2 | 3 | 4 |
| + S | 24. Positive physical contact (e.g., hug, pat, sit, child on lap) | 1 | 2 | 3 | 4 |
| + D | 25. Seems interested in the children's activities (e.g., is part of children's activities, talks to children and extends their conversations | 1 | 2 | 3 | 4 |
| _ H | 26. Seems to prohibit many of the things the children want to do (e.g., not sensitive to children's requests, adheres to rigid schedules or adult outcomes and agendas) | 1 | 2 | 3 | 4 |
| + S | 27. Sincere in tone of voice and manner. Language, intonation, and body language match | 1 | 2 | 3 | 4 |
| + D | 28. Supervises the children closely (e.g., foresees potential problems and effectively uses redirection) | 1 | 2 | 3 | 4 |
| + P | 29. Expects children to exercise self control (e.g., expectations are age appropriate) | 1 | 2 | 3 | 4 |
| + S | 30. When talking to the children, knees, bends, or sits at their level to establish better eye contact | 1 | 2 | 3 | 4 |
| _ H | 31. Seems unnecessarily harsh when scolding or prohibiting children (e.g., angry tone, shakes children, uses physical punishment, uses "time out" without explanation or for excessive length or time -> 1 minute per year of age) | 1 | 2 | 3 | 4 |

# SCORE SHEET
# Early Childhood Environment Rating Scale–Revised

Thelma Harms, Richard M. Clifford, and Debby Cryer

Observer: _____ Observer Code: ___ ___ ___

Center/School: _____ Center Code: ___ ___ ___

Room: _____ Room Code: ___ ___

Teacher(s): _____ Teacher Code: ___ ___

Number of staff present: ___ ___

Number of children enrolled in class: ___ ___

Highest number center allows in class at one time: ___ ___

Highest number of children present during observation: ___ ___

Date of Observation: __ __ / __ __ / __ __
(m m d d y y)

Number of children with identified disabilities: ___ ___

Check type(s) of disability: □ physical/sensory □ cognitive/language □ social/emotional □ other:_____

Birthdates of children enrolled: youngest __ __ / __ __ / __ __ (m m d d y y)

oldest __ __ / __ __ / __ __ (m m d d y y)

Time observation began: ___ ___ : ___ ___ □ AM □ PM

Time observation ended: ___ ___ : ___ ___ □ AM □ PM

## SPACE AND FURNISHINGS

### 1. Indoor space

1 2 3 4 5 6 7

**Notes:**

| Y | N | | Y | N | NA | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | | 3.1 □ | □ | | | 5.1 □ | □ | | 7.1 □ | □ |
| 1.2 □ | □ | | 3.2 □ | □ | | | 5.2 □ | □ | | 7.2 □ | □ |
| 1.3 □ | □ | | 3.3 □ | □ | | | 5.3 □ | □ | | | |
| 1.4 □ | □ | | 3.4 □ | □ | | | | | | | |
| | | | 3.5 □ | □ | □ | | | | | | |

### 2. Furniture for care, play, & learning

1 2 3 4 5 6 7

| Y | N | | Y | N | NA | | Y | N | NA | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | | 3.1 □ | □ | | | 5.1 □ | □ | | | 7.1 □ | □ |
| 1.2 □ | □ | | 3.2 □ | □ | | | 5.2 □ | □ | | | 7.2 □ | □ |
| | | | 3.3 □ | □ | □ | | 5.3 □ | □ | □ | | | |

### 3. Furnishings for relaxation

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | | 3.1 □ | □ | | 5.1 □ | □ | | 7.1 □ | □ |
| 1.2 □ | □ | | 3.2 □ | □ | | 5.2 □ | □ | | 7.2 □ | □ |
| | | | | | | 5.3 □ | □ | | | |

### 4. Room arrangement

1 2 3 4 5 6 7

**Notes:**

| Y | N | | Y | N | NA | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | | 3.1 □ | □ | | | 5.1 □ | □ | | 7.1 □ | □ |
| 1.2 □ | □ | | 3.2 □ | □ | | | 5.2 □ | □ | | 7.2 □ | □ |
| | | | 3.3 □ | □ | | | 5.3 □ | □ | | 7.3 □ | □ |
| | | | 3.4 □ | □ | □ | | | | | | |

### 5. Space for privacy

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | | 3.1 □ | □ | | 5.1 □ | □ | | 7.1 □ | □ |
| | | | 3.2 □ | □ | | 5.2 □ | □ | | 7.2 □ | □ |

### 6. Child-related display

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | | 3.1 □ | □ | | 5.1 □ | □ | | 7.1 □ | □ |
| 1.2 □ | □ | | 3.2 □ | □ | | 5.2 □ | □ | | 7.2 □ | □ |
| | | | | | | 5.3 □ | □ | | | |

**7. Space for gross motor** 1 2 3 4 5 6 7 **Notes:**

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | | 5.3 □ □ | 7.3 □ □ |

**8. Gross motor equipment** 1 2 3 4 5 6 7

| Y N | Y N | Y N NA | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ □ | |

A. Subscale (Items 1 - 8) Score __ __

B. Number of items scored __ __

**SPACE AND FURNISHINGS Average Score (A ÷ B) __.__ __**

## PERSONAL CARE ROUTINES

**9. Greeting/departing** 1 2 3 4 5 6 7 **Notes:**

| Y N | Y N | Y N NA | Y N NA |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ □ | 7.3 □ □ □ |

**10. Meals/snacks** 1 2 3 4 5 6 7

| Y N NA | Y N NA | Y N NA | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ | 7.3 □ □ |
| 1.4 □ □ | 3.4 □ □ | 5.4 □ □ □ | |
| 1.5 □ □ □ | 3.5 □ □ □ | | |
| | 3.6 □ □ □ | | |

**11. Nap/rest** 1 2 3 4 5 6 7 NA **Notes:**

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ | |
| | 3.4 □ □ | | |

**12. Toileting/diapering** 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ | |
| 1.4 □ □ | 3.4 □ □ | | |
| | 3.5 □ □ | | |

**13. Health practices** 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N NA |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ □ |
| | 3.3 □ □ | 5.3 □ □ | |
| | 3.4 □ □ | | |

**14. Safety practices** 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | | |

A. Subscale (Items 9 - 14) Score __ __

B. Number of items scored __ __

**PERSONAL CARE ROUTINES Average Score (A ÷B) __.__ __**

## LANGUAGE-REASONING

### 15. Books & pictures

1 2 3 4 5 6 7

Notes:

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| | | | | 5.3 □ | □ | | |
| | | | | 5.4 □ | □ | | |
| | | | | 5.5 □ | □ | | |

### 16. Encouraging children to communicate

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| | | 3.3 □ | □ | | |

### 17. Using language to develop reasoning skills

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |

### 18. Informal use of language

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| 1.3 □ | □ | | | 5.3 □ | □ | | |
| | | | | 5.4 □ | □ | | |

A. Subscale (Items 15 - 18) Score __ __

B. Number of items scored __ __

**LANGUAGE-REASONING Average Score (A ÷B) __.__ __**

## ACTIVITIES

### 19. Fine Motor

1 2 3 4 5 6 7

Notes:

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| | | | | 5.3 □ | □ | | |

### 20. Art

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ | |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ | |
| | | | | | | 7.3 □ | □ | □ |

### 21. Music/movement

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| | | 3.3 □ | □ | | | 7.3 □ | □ |

### 22. Blocks

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| | | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| | | 3.3 □ | □ | 5.3 □ | □ | 7.3 □ | □ |
| | | | | 5.4 □ | □ | | |

### 23. Sand/water

1 2 3 4 5 6 7

| Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 □ | □ | 3.1 □ | □ | 5.1 □ | □ | 7.1 □ | □ |
| 1.2 □ | □ | 3.2 □ | □ | 5.2 □ | □ | 7.2 □ | □ |
| | | | | 5.3 □ | □ | | |

**24. Dramatic play** 1 2 3 4 5 6 7 **Notes:**

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | 7.3 □ □ |
| | | 5.4 □ □ | 7.4 □ □ |

**25. Nature/science** 1 2 3 4 5 6 7

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | |
| | | 5.4 □ □ | |

**26. Math/number** 1 2 3 4 5 6 7

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | | 5.3 □ □ | |
| | | 5.4 □ □ | |

**27. Use of TV, video, and/or computers** 1 2 3 4 5 6 7 NA

| | | | |
|---|---|---|---|
| Y N | Y N | Y N NA | Y N NA |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | |
| | | 5.4 □ □ | |

**28. Promoting acceptance of diversity** 1 2 3 4 5 6 7

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | | |

A. Subscale (Items 19 - 28) Score __ __

B. Number of items scored __ __

**ACTIVITIES Average Score (A ÷ B) __.__ __**

## INTERACTION

**29. Supervision of gross motor activities** 1 2 3 4 5 6 7 **Notes:**

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | | 5.3 □ □ | 7.3 □ □ |

**30. General supervision of children** 1 2 3 4 5 6 7

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | |
| | | 5.4 □ □ | |

**31. Discipline** 1 2 3 4 5 6 7

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ | 7.3 □ □ |

**32. Staff-child interactions** 1 2 3 4 5 6 7

| | | | |
|---|---|---|---|
| Y N | Y N | Y N | Y N |
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | | 5.3 □ □ | |

**33. Interactions among children** | 1 2 3 4 5 6 7 | **Notes:**

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | | |

A. Subscale (Items 29 - 33) Score __ __

B. Number of items scored __ __

**INTERACTION Average Score (A ÷ B) __.__ __**

**37. Provisions for children with disabilities** | 1 2 3 4 5 6 7 NA | **Notes:**

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ | 7.3 □ □ |
| 1.4 □ □ | 3.4 □ □ | | |

A. Subscale (Items 34 - 37) Score __ __

B. Number of items scored __ __

**PROGRAM STRUCTURE Average Score (A ÷ B) __.__ __**

## PROGRAM STRUCTURE

**34. Schedule** | 1 2 3 4 5 6 7 | **Notes:**

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | |
| | 3.4 □ □ | 5.4 □ □ | |

**35. Free play** | 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | |

**36. Group time** | 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | | 5.3 □ □ | 7.3 □ □ |

## PARENTS AND STAFF

**38. Provisions for parents** | 1 2 3 4 5 6 7 | **Notes:**

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | 7.3 □ □ |
| | 3.4 □ □ | 5.4 □ □ | |

**39. Provisions for personal needs of staff** | 1 2 3 4 5 6 7

| Y N | Y N NA | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| | 3.3 □ □ | 5.3 □ □ | 7.3 □ □ |
| | 3.4 □ □ | 5.4 □ □ | |
| | 3.5 □ □ □ | | |

**40. Provisions for professional needs of staff** | 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 □ □ | 3.1 □ □ | 5.1 □ □ | 7.1 □ □ |
| 1.2 □ □ | 3.2 □ □ | 5.2 □ □ | 7.2 □ □ |
| 1.3 □ □ | 3.3 □ □ | 5.3 □ □ | |

**41. Staff interaction and cooperation** | 1 2 3 4 5 6 7 NA | **Notes:**

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | □ | □ | 3.1 | □ | □ | 5.1 | □ | □ | 7.1 | □ | □ |
| 1.2 | □ | □ | 3.2 | □ | □ | 5.2 | □ | □ | 7.2 | □ | □ |
| 1.3 | □ | □ | 3.3 | □ | □ | 5.3 | □ | □ | 7.3 | □ | □ |

**42. Supervision and evaluation of staff** | 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | NA | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | □ | □ | 3.1 | □ | □ | 5.1 | □ | □ | | 7.1 | □ | □ |
| 1.2 | □ | □ | 3.2 | □ | □ | 5.2 | □ | □ | | 7.2 | □ | □ |
| | | | | | | 5.3 | □ | □ | | 7.3 | □ | □ |
| | | | | | | 5.4 | □ | □ | □ | | | |

**43. Opportunities for professional growth** | 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | □ | □ | 3.1 | □ | □ | 5.1 | □ | □ | 7.1 | □ | □ | |
| 1.2 | □ | □ | 3.2 | □ | □ | 5.2 | □ | □ | 7.2 | □ | □ | |
| | | | 3.3 | □ | □ | 5.3 | □ | □ | 7.3 | □ | □ | □ |
| | | | | | | 5.4 | □ | □ | | | | |

A. Subscale (Items 38 - 43) Score __ __

B. Number of items scored __ __

**PARENTS AND STAFF Average Score (A ÷ B) __.__ __**

**Total and Average Score**

| | Score | # of Items Scored | Average Score |
|---|---|---|---|
| Space and Furnishings | _____ | _____ | _____ |
| Personal Care | _____ | _____ | _____ |
| Language-Reasoning | _____ | _____ | _____ |
| Activities | _____ | _____ | _____ |
| Interaction | _____ | _____ | _____ |
| Program Structure | _____ | _____ | _____ |
| Parents and Staff | _____ | _____ | _____ |
| **TOTAL** | _____ | _____ | _____ |

**Comments and Plans:**

# Family Day Care Rating Scale Score Sheet

Thelma Harms & Richard M. Clifford (1989)

Observer: _____ Observer Code: ___ ___ ___
Home: _____ Home Code: ___ ___ ___
Provider Name: _____Provider Code: ___ ___ ___
Number of staff present: ___ ___
Number of children enrolled in class: ___ ___ Number of children present: ___ ___
Birthdates of children enrolled: Youngest __ __/__ __/__ __
Oldest __ __/__ __/__ __

Date of Observation: __ __/__ __/__ __
m m d d y y
Time observation began: __ __:__ __ ☐ am ☐ pm
Time observation ended: __ __: __ __☐ am ☐ pm

Number of children with identified disabilities ___ ___
Check type(s) of disability: ☐ physical/sensory ☐ cognitive/language
☐ social/emotional ☐ other: _____

## Space and Furnishings for Care and Learning

**1. Furnishings for routine care and learning** 1 2 3 4 5 6 7 Notes

| | Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | |
| 1.3 | ☐ | ☐ | 3.3 | ☐ | ☐ | | | | 7.3 | ☐ | ☐ | ☐ |
| | | | 3.4 | ☐ | ☐ | | | | | | | |

**2. Furnishings for relaxation and comfort** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | NA | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | | | | |
| | | | | | | 5.3 | ☐ | ☐ | ☐ | | | |

**3. Child-related display** 1 2 3 4 5 6 7

| | Y | N | | Y | N | NA | | Y | N | NA | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | ☐ | 5.1 | ☐ | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | | 5.2 | ☐ | ☐ | ☐ | 7.2 | ☐ | ☐ |

**4. Indoor space arrangement** 1 2 3 4 5 6 7

| | Y | N | NA | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| 1.3 | ☐ | ☐ | | 3.3 | ☐ | ☐ | 5.3 | ☐ | ☐ | | | |
| | | | | | | | 5.4 | ☐ | ☐ | | | |

**5. Active physical play** 1 2 3 4 5 6 7 Notes

| | Y | N | NA | | Y | N | NA | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | | 3.1 | ☐ | ☐ | | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | |
| 1.2 | ☐ | ☐ | ☐ | 3.2 | ☐ | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | ☐ |
| 1.3 | ☐ | ☐ | | 3.3 | ☐ | ☐ | | 5.3 | ☐ | ☐ | 7.3 | ☐ | ☐ | |

**6a. Space to be alone (infants/toddlers)** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | NA | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | ☐ | | | | 7.2 | ☐ | ☐ |
| | | | 3.3 | ☐ | ☐ | | | | | | | |

**6b. Space to be alone (2 years & older)** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | | | | | | | 7.2 | ☐ | ☐ |

**A. Subscale (Items 1 -6) Score:** ___ ___

**B. Number of items scored:** ____

**SPACE & FURNISHINGS Average Score (A ÷ B):** ___.___ ___

## Basic Care

**7. Arriving / leaving** 1 2 3 4 5 6 7 Notes

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | 3.3 | ☐ | ☐ | 5.3 | ☐ | ☐ | | | |

*Note: 3.2 must be scored "No" to score 5 or higher.*

**8. Meals / snacks** 1 2 3 4 5 6 7

| | Y | N | NA | | Y | N | NA | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | | 3.1 | ☐ | ☐ | | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | ☐ |
| 1.2 | ☐ | ☐ | | 3.2 | ☐ | ☐ | | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | |
| 1.3 | ☐ | ☐ | ☐ | 3.3 | ☐ | ☐ | | 5.3 | ☐ | ☐ | 7.3 | ☐ | ☐ | |
| 1.4 | ☐ | ☐ | ☐ | 3.4 | ☐ | ☐ | ☐ | | | | | | | |
| 1.5 | ☐ | ☐ | | 3.5 | ☐ | ☐ | ☐ | | | | | | | |
| | | | | 3.6 | ☐ | ☐ | ☐ | | | | | | | |

**9. Nap / rest** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | 3.3 | ☐ | ☐ | | | | | | |
| | | | 3.4 | ☐ | ☐ | | | | | | |

**10. Diapering / toileting** 1 2 3 4 5 6 7

| | Y | N | | Y | N | NA | | Y | N | NA | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | | 5.1 | ☐ | ☐ | | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | | 5.2 | ☐ | ☐ | ☐ | 7.2 | ☐ | ☐ |
| 1.3 | ☐ | ☐ | 3.3 | ☐ | ☐ | ☐ | 5.3 | ☐ | ☐ | ☐ | | | |
| | | | 3.4 | ☐ | ☐ | | 5.4 | ☐ | ☐ | | | | |
| | | | 3.5 | ☐ | ☐ | | | | | | | | |

**11. Personal grooming** 1 2 3 4 5 6 7 Notes

| | Y | N | | Y | N | | Y | N | NA | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | ☐ | 7.1 | ☐ | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | ☐ | 7.2 | ☐ | ☐ | |
| 1.3 | ☐ | ☐ | 3.3 | ☐ | ☐ | 5.3 | ☐ | ☐ | | | | | |
| | | | 3.4 | ☐ | ☐ | | | | | | | | |

**12. Health** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| 1.3 | ☐ | ☐ | 3.3 | ☐ | ☐ | 5.3 | ☐ | ☐ | 7.3 | ☐ | ☐ |
| | | | 3.4 | ☐ | ☐ | 5.4 | ☐ | ☐ | 7.4 | ☐ | ☐ |
| | | | | | | 5.5 | ☐ | ☐ | 7.5 | ☐ | ☐ |

**13. Safety** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | NA | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | ☐ | 7.2 | ☐ | ☐ |
| 1.3 | ☐ | ☐ | 3.3 | ☐ | ☐ | 5.3 | ☐ | ☐ | | 7.3 | ☐ | ☐ |
| | | | 3.4 | ☐ | ☐ | 5.4 | ☐ | ☐ | | | | |
| | | | 3.5 | ☐ | ☐ | | | | | | | |
| | | | 3.6 | ☐ | ☐ | | | | | | | |
| | | | 3.7 | ☐ | ☐ | | | | | | | |

**C. Subscale (Items 7-13) Score:** ___ ___

**D. Number of items scored:** ____

**BASIC CARE Average Score (A ÷ B):** ___.___ ___

## Language and Reasoning

**14a. Informal use of language (infants/toddlers)** 1 2 3 4 5 6 7 NA

Notes

| | Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | ☐ |
| | | | | | | | | | 7.3 | ☐ | ☐ | ☐ |

*Note: 3.1 must be scored "No" to score 5 or higher.*

**14b. Informal use of language (2 years & older)** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | 7.3 | ☐ | ☐ | |
| | | | | | | 5.4 | ☐ | ☐ | | | | |
| | | | | | | 5.5 | ☐ | ☐ | | | | |

**15a. Helping children understand language (infants/toddlers)** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | 3.3 | ☐ | ☐ | | | | | | |

**15b. Helping children understand language (2 years & older)** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |

**16. Helping children use language** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | | | |

*Note: 3.1 must be scored "No" to score 5 or higher.*

**17. Helping children reason (using concepts)** 1 2 3 4 5 6 7

Notes

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |

**E. Subscale (Items 14-17) Score:** ___ ___

**F. Number of items scored:** ____

**LANGUAGE & REASONING Average Score (A ÷ B):** ___.___ ___

## Learning Activities

**18. Eye-hand coordination** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | 7.3 | ☐ | ☐ |

**19. Art** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | ☐ |
| | | | | | | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | |
| | | | | | | 5.3 | ☐ | ☐ | | | | |

**20. Music and movement** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | | | | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |

**21. Sand and water play** 1 2 3 4 5 6 7 NA Notes

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | | | | 5.2 | ☐ | ☐ | | | |

**22. Dramatic play** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |

**23. Blocks** 1 2 3 4 5 6 7 NA

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | | | | 5.2 | ☐ | ☐ | | | |

**24. Use of T.V.** 1 2 3 4 5 6 7

| | Y | N | NA | | Y | N | NA | | Y | N | NA | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | ☐ | 3.1 | ☐ | ☐ | ☐ | 5.1 | ☐ | ☐ | ☐ | 7.1 | ☐ | ☐ | ☐ |
| 1.2 | ☐ | ☐ | ☐ | 3.2 | ☐ | ☐ | ☐ | 5.2 | ☐ | ☐ | ☐ | 7.2 | ☐ | ☐ | ☐ |
| | | | | 3.3 | ☐ | ☐ | ☐ | | | | | 7.3 | ☐ | ☐ | ☐ |
| | | | | | | | | | | | | 7.4 | ☐ | ☐ | ☐ |

*Note: 3.1 and 3.3 must be scored "No" or "NA" to score 5 or higher.*

**25. Schedule of daily activities** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |
| | | | | | | 5.4 | ☐ | ☐ | | | |

**26. Supervision of play indoors & outdoors** 1 2 3 4 5 6 7 Notes

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| 1.3 | ☐ | ☐ | 3.3 | ☐ | ☐ | 5.3 | ☐ | ☐ | | | |

**A. Subscale (Items 18 - 26) Score:** ___ ___

**B. Number of items scored:** ____

**LEARNING ACTIVITIES** ___.___ ___
**Average Score (A ÷ B):**

## Social Development

**27. Tone** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | 3.3 | ☐ | ☐ | | | | | | |

*Note: All of 3 must be scored "No" to score 5 or higher.*

**28. Discipline** 1 2 3 4 5 6 7

| | Y | N | | Y | N | | Y | N | | Y | N | NA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ | |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ | |
| | | | | | | 5.3 | ☐ | ☐ | 7.3 | ☐ | ☐ | ☐ |
| | | | | | | 5.4 | ☐ | ☐ | | | | |
| | | | | | | 5.5 | ☐ | ☐ | | | | |

**29. Cultural Awareness** 1 2 3 4 5 6 7 Notes

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | | | |
| 1.3 | ☐ | ☐ | | | | 5.3 | ☐ | ☐ | | | |
| | | | | | | 5.4 | ☐ | ☐ | | | |

**G. Subscale (Items 27-29) Score:** ___ ___

**H. Number of items scored:** ____

**SOCIAL DEVELOPMENT** ___.___ ___
**Average Score (A ÷ B):**

## Adult Needs

**30. Relationship with parents** 1 2 3 4 5 6 7 Notes

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| 1.2 ☐ ☐ | 3.2 ☐ ☐ | 5.2 ☐ ☐ | 7.2 ☐ ☐ |
| | | 5.3 ☐ ☐ | |

**31. Balancing personal & caregiver responsibilities** 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| 1.2 ☐ ☐ | 3.2 ☐ ☐ | 5.2 ☐ ☐ | 7.2 ☐ ☐ |
| | 3.3 ☐ ☐ | 5.3 ☐ ☐ | |

*Note: 3.1 must be scored "No" to score 5 or higher.*

**32. Opportunities for professional growth** 1 2 3 4 5 6 7

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| | | 5.2 ☐ ☐ | 7.2 ☐ ☐ |

**A. Subscale (Items 30 - 32) Score:** ___ ___

**B. Number of items scored:** ____

**ADULT NEEDS** ___.___ ___
**Average Score (A ÷ B):**

## Supplementary Items: Provisions for Exceptional Children

**33. Adaptations for basic care (physically handicapped)** 1 2 3 4 5 6 7 NA Notes

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| 1.2 ☐ ☐ | 3.2 ☐ ☐ | 5.2 ☐ ☐ | 7.2 ☐ ☐ |
| 1.3 ☐ ☐ | | | |

**34. Adaptations for activities (physically handicapped)** 1 2 3 4 5 6 7 NA

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| 1.2 ☐ ☐ | 3.2 ☐ ☐ | 5.2 ☐ ☐ | 7.2 ☐ ☐ |
| | 3.3 ☐ ☐ | | 7.3 ☐ ☐ |

**35. Adaptations for special needs** 1 2 3 4 5 6 7 NA

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| | | | 7.2 ☐ ☐ |

**36. Communication (exceptional)** 1 2 3 4 5 6 7 NA

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| 1.2 ☐ ☐ | 3.2 ☐ ☐ | 5.2 ☐ ☐ | 7.2 ☐ ☐ |
| 1.3 ☐ ☐ | 3.3 ☐ ☐ | 5.3 ☐ ☐ | 7.3 ☐ ☐ |
| | | 5.4 ☐ ☐ | |
| | | 5.5 ☐ ☐ | |

**37. Language/reasoning (exceptional)** 1 2 3 4 5 6 7 NA

| Y N | Y N | Y N | Y N |
|---|---|---|---|
| 1.1 ☐ ☐ | 3.1 ☐ ☐ | 5.1 ☐ ☐ | 7.1 ☐ ☐ |
| | | 5.2 ☐ ☐ | 7.2 ☐ ☐ |

**38. Learning and play activiies (exceptional)**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---|---|---|---|---|---|---|---|

Notes

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |
| | | | | | | 5.4 | ☐ | ☐ | | | |
| | | | | | | 5.5 | ☐ | ☐ | | | |

**39. Social development (exceptional)**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---|---|---|---|---|---|---|---|

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| | | | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| | | | | | | 5.3 | ☐ | ☐ | | | |
| | | | | | | 5.4 | ☐ | ☐ | | | |

**40. Caregiver preparation**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---|---|---|---|---|---|---|---|

| | Y | N | | Y | N | | Y | N | | Y | N |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.1 | ☐ | ☐ | 3.1 | ☐ | ☐ | 5.1 | ☐ | ☐ | 7.1 | ☐ | ☐ |
| 1.2 | ☐ | ☐ | 3.2 | ☐ | ☐ | 5.2 | ☐ | ☐ | 7.2 | ☐ | ☐ |
| 1.3 | ☐ | ☐ | | | | | | | | | |

**I. Subscale (Items 33-40) Score:** ___ ___

**J. Number of items scored:** ____

**PROVISIONS FOR**

**EXCEPTIONAL CHILDREN** ___.___ ___

**Average Score (A ÷ B):**

| | Total Score | # of Items Scored | Average Score |
|---|---|---|---|
| Space & Furnishings | | | |
| Basic Care | | | |
| Language & Reasoning | | | |
| Learning Activities | | | |
| Social Development | | | |
| Supplementary Items | | | |
| Adult Needs | | | |
| TOTAL | | | |
| TOTAL (w/o Adult Needs) | | | |

# Attachment One

## Executive Order

# *Commonwealth of Pennsylvania*
# *GOVERNOR'S OFFICE*

# *EXECUTIVE ORDER*

| Subject: | | Number: |
|---|---|---|
| **Governor's Task Force on Early Childhood Care and Education** | | **2002-2** |
| Date: | Distribution: | By Direction Of: |
| **April 17, 2002—Amended: July 15, 2002** | **B** | Mark S. Schweiker<br>**Mark S. Schweiker, Governor** |

WHEREAS, all infants are born ready to learn; and

WHEREAS, the majority of a child's brain development occurs in the first five years of a child's life, building the foundation for future learning and success; and

WHEREAS, the Commonwealth has a duty to assess every setting where our children spend their days, whether under the care of their parents, a relative, neighbor, or a center-based setting; and

WHEREAS, early identification of developmental delay and other risk factors is crucial to improving a child's individual linguistic, cognitive, social, and emotional development and thus, school readiness; and

WHEREAS, involved, informed parents, caregivers, and educators are critical to ensure the early identification of developmental delay; and

WHEREAS, school readiness is a critical workforce issue, with early skill building leading to greater academic achievement and graduates with the knowledge necessary to allow Pennsylvania to compete in the 21st Century economy; and

WHEREAS, it is the duty of the Commonwealth to invest resources on research-based, cost-effective programs or models with a documented record of success.

NOW, THEREFORE, I, Mark S. Schweiker, Governor of the Commonwealth of Pennsylvania, by virtue of the authority vested in me by the Constitution of the Commonwealth of Pennsylvania and other laws, do hereby establish the **Governor's Task Force on Early Childhood Care and Education** (hereinafter referred to as "Task Force") as hereinafter set forth:

**1. Mission.** The Task Force shall be charged with examining the full range of proven, evidence-based school readiness strategies available for early childhood care and education targeted at children age 0-8 and the existing Commonwealth services targeted to that age group. The Task Force must provide implementation cost estimates of each strategy based on experience in Pennsylvania or other states.

**2. Functions.** The Task Force shall have the following powers and duties:

**a.** To serve in an advisory capacity.

**b.** To assess the current menu of early care and education programs and services offered or funded by the Commonwealth for children and their families.

**c.** To develop a model for the identification of programs that have a sufficient basis in science and a demonstrated record of effectiveness for discussion by the Task Force.

**d.** To develop a comprehensive listing of programs meeting the effectiveness standards developed above.

**e.** To provide per participant cost estimates for each program included in the list of effective programs.

**f.** To identify innovative financing sources and models for early care and education based on existing initiatives in Pennsylvania and nationally.

**3. Composition and Appointments.**

**a.** The Task Force shall consist of certain designated public officials and other individuals appointed by the Governor. The membership shall include the heads of agencies of this Commonwealth that have responsibilities in the development, funding, or regulation of early care and education programming, as well as various early care and education stakeholders. The Task Force shall consist of the following members:

**(1)** The Secretary of Education.

**(2)** The Secretary of Public Welfare.

**(3)** The Secretary of Health.

**(4)** The Physician General.

**(5)** Representatives from each of the following stakeholder groups:

**(a)** Child advocacy community.

**(b)** Business community.

**(c)** Faith community.

**(d)** School administrator.

**(e)** Civic, not-for-profit organization.

**(f)** Statewide professional childcare organization.

**(g)** Local Community Partnerships.

**(h)** Public Health/Medical community.

**(i)** Head Start Provider.

**(j)** Child Care Provider.

**(k)** Family Literacy community.

**(l)** Clinical Practitioner (Psychologist, Psychiatrist).

**(m)** Family-based Programs.

**(n)** K-3 Educator.

**(o)** Philanthropic Organization.

**(p)** Public Outreach and Education Professional.

**b.** The Governor will designate a member or members to serve as the Task Force Chair(s).

**c.** The Governor's Community Partnership for Safe Children, or its successor entity, shall provide administrative support to the Task Force.

**d.** The Governor will designate an individual or individuals to provide project direction and advice to the Chair(s)

**e.** A Task Force member may designate an alternate to attend Task Force meetings, if required.

**4. Terms of Membership.**

**a.** Members of the Task Force shall serve at the pleasure of the Governor.

**b.** Should a vacancy occur on the Task Force due to resignation, disability, or death of a member, the Governor should appoint a successor as expeditiously as possible.

**5. Compensation.** Members of the Task Force shall receive no compensation for their services, except that such members may be reimbursed for actual travel and related expenses in accordance with Commonwealth travel and subsistence policies.

**6. Reports.** The Task Force shall present an initial report to the Governor no later than September 30, 2002. The Task Force shall present a comprehensive assessment of Child Care Quality, across all settings, in Pennsylvania no later than November 15, 2002.

**7. Annual Report.** The Task Force shall provide a brief update of the Reports to the Governor no later than September 30, 2003, and each subsequent year. The annual update shall include additional programming, practices, and funding allocated during the previous year as well as outcomes related to existing programming and practices.

**8. Executive Agencies.** All agencies under the Governor's jurisdiction shall provide assistance to the Task Force as requested by the Chair(s).

**9. Effective Date.** This Executive Order shall be effective immediately.

**10. Termination Date.** This Executive Order shall continue in force until rescinded or superseded by order of the Governor.

# Attachment Two

## Executive Summaries of the Universities Children's Policy Collaborative Research Reports/Findings

# Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey

## Executive Summary

Report Prepared for the Governor's Task Force on Early Childhood Care and Education

**September 2002**

**Written by**

Marsha Weinraub, Anita T Kochanoff & Anne Shlay, Center for Public Policy, Temple University and the Universities Children's Policy Collaborative (UCPC)

Universities Children's Policy Collaborative is dedicated to contributing to the health and welfare of children, youth, and families by providing nonpartisan information on public policy issues.

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University of Pittsburgh
Office of Child Development
University Center for Social and Urban Research
Christina J. Groark and Robert B. McCall, Co-Directors

# Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey

## Executive Summary

Report Prepared for the Governor's Task Force On Early Childhood Care and Education[1]

**September 2002**

**by**

Marsha Weinraub, Anita Kochanoff & Anne Shlay, Temple University and the Universities Children's Policy Collaborative (UCPC)

## Introduction

The first five years of a child's life is a period of incredible cognitive, emotional and social growth. Experiences during these early years can set children on pathways that have lifelong emotional, social and academic consequences.

How can we invest in our children's early development to ensure subsequent academic, social and emotional success? This question has attracted widespread attention from Pennsylvania policy makers. Their goal: to develop a system of early care and education that will meet family's needs today and help prepare a sophisticated, educated workforce of the future.

Toward this goal, Pennsylvania's Governor Mark Schweiker signed Executive Order 2002-2 on April 17, 2002 to create the Early Childhood Care and Education Task Force. As part of the work accompanying the task force, the Governor commissioned a series of primary research efforts to be carried out by three major Pennsylvania Universities (Penn State University, University of Pittsburgh, and Temple University) that have joined together to form the Universities Children's Policy Collaborative (UCPC).

As part of this collaborative effort and under commission from the Governor's Office, the Temple University Center for Public Policy initiated the 2002 Pennsylvania Family Survey, one designed to collect information from families about their experiences and

concerns regarding child care and early education. This executive summary summarizes the findings from the larger report on the survey and highlights the policy recommendations that stem from these findings. This executive summary is one of a series that summarizes reports from UCPC. The other reports include **A Baseline Report of Early Care and Education in Pennsylvania: The 2002 Early Care and Education Provider Survey, The State of Early Care and Education in Pennsylvania: The 2002 Higher Education Survey**, and **From Science To Policy: Research on Issues, Programs and Policies in Early Care and Education.**

## Research Questions Guiding the 2002 Pennsylvania Family Survey

The 2002 Pennsylvania Family Survey was designed to provide answers to a number of important questions:

- What is the extent of usage of child care and early education in Pennsylvania?
- Does use of child care and educational programs differ geographically across the state?
- What is the quality and what are the costs of these services, according to parents and children's full-time caregivers?
- Are low-income and middle-income families using similar types of child care and early education programs?
- What problems do families face in accessing child care and early education?
- What services and supports do parents think would enable them to better prepare their children for school?
- Are families with special needs young children and children with behavior problems being adequately served?

## Design and Methods

The design of this study was a baseline survey of 1005 Pennsylvania families. This survey was administered by telephone to adult respondents living in the home with responsibility for decision-making for children under 6 years of age. Most of the respondents were mothers (73%); there were also fathers (17%), grandmothers (6%) and other legal guardians (4%).

Households were selected using a list-assisted Random Digit Dialing (RDD) sampling procedure. The response rate was 78%. Trained, reliable interviewers using computer-assisted telephone interviewing techniques (CATI) conducted the interviews from May through July 2002. The interview lasted about 25 minutes and was conducted in either English or Spanish.

The survey included detailed questions about child care and early education experiences for a randomly selected target child less than six years of age living in the home. For families whose summer experiences differed from those in the academic year, child care and educational services during the month of April were examined. All other families were asked about the child's current experiences. For children in more than one type of care or education arrangement, detailed questions were asked about the arrangement in which the child spent the most time.[2]

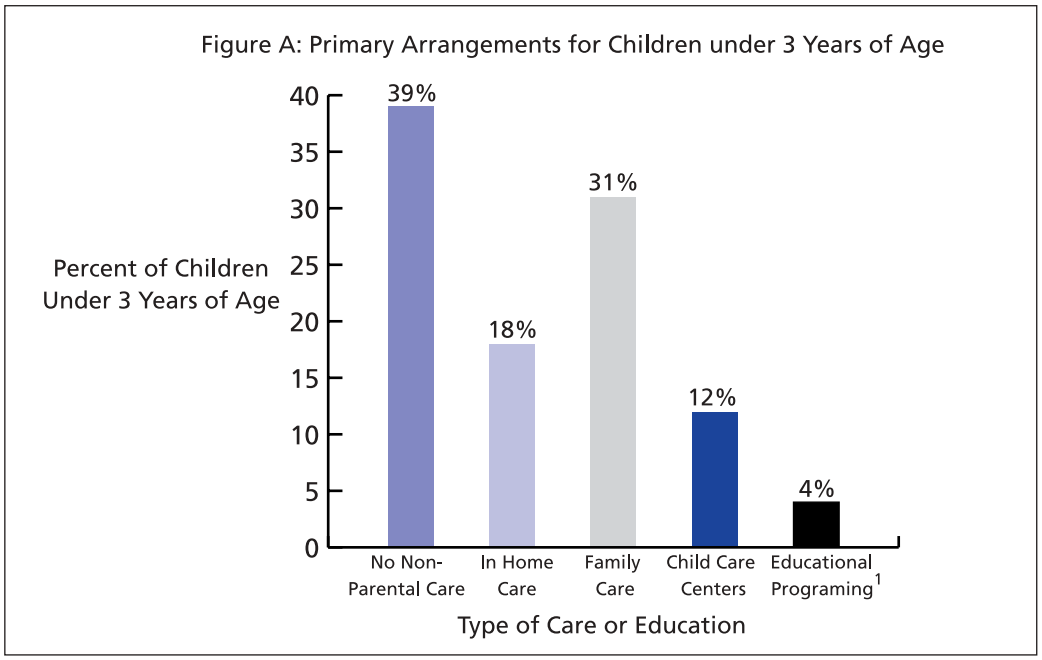
The survey sample was varied, mirroring the rich diversity of Pennsylvania families. About three-fourths of the sample was two-parent (or two-partner) households, with an average family size of four. With 40% of the sample earning dual incomes, the average yearly salary of the sample was about $59,000. The highest level of education achieved by most respondents was a high school degree (31%); 26% of respondents had some college, and 23% had a 4-year college degree. Ten percent of the respondents did not have a high school degree or equivalent. Thirteen percent of the sample reported incomes lower than the federal poverty level, while 7% reported incomes over 100,000. The distribution of families across geographic location, child's age, family size, poverty, and ethnicity appeared very similar to the distribution in the State.

## Findings

### Use of Early Childhood Care and Educational Arrangements for All Children Under 6 Years of Age

- **The majority of Pennsylvania children under the age of six years were in some type of regular child care or educational program.**

Sixty-four percent of the families surveyed used some type of child care or educational program in which the parent was not present on a regular




Note: [1]Educational Programming includes preschool/nursery school, pre-kindergarten, Head Start or Early Head Start

weekly basis. Even for children younger than three years of age, the majority (61%) experienced regular weekly nonparental care. (See Figure A.)

- **Some children were in more than one type of child care arrangement or educational setting on a weekly basis.**

Twenty-four percent of the children in the sample were in more than one type of child care or educational arrangement on a weekly basis. This is a slight increase from the 20% of PA families who reported supplemental arrangements in a similar survey conducted in 1989.

- **Many children were in care or education arrangements at least half-time.**

Forty three percent of all Pennsylvania children were in a nonparental arrangement or educational program at least part half time (20 hours/week), and 26% of the sample were in an arrangement full-time (35 hours or more each week). The average amount of time per week these children spent in their arrangement was 27 hours. There were no age differences in the hours per week children spent in their nonparental care arrangements.

- **Most care arrangements had been relatively stable over the last year.**

Few changes in children's education arrangements had occurred over the last year. Only 7% of families using nonparental arrangements reported making any changes.

- **A quarter of all children were cared for by a relative who was not their parent.**

Twenty four percent of children were cared for regularly at least four hours per week by a relative when their parent was not available. Care by a relative was most frequent in small cities (29%) and least frequent in metropolitan areas (21%). Relative care was more commonly used by families with lower incomes (31% vs. 19%), fewer children (36% vs. 20%), and lower levels of education (35% vs. 15%). Latino families had relatives caring for their children more than any other ethnic group in the sample (48% vs. 22-28%). Children up to the age of three were equally likely to be cared for by a relative as a non-relative caregiver. Older children, however, were much less likely to be in relative care.

- **Families varied in the types of care and educational arrangements in which they enrolled their children.**

Child Age. Fewer than half (46%) of the children under one year of age were cared for at home with their parents exclusively. Center-based care as the

primary form of nonparental care increased with children's age: 9% of children younger than one year of age spent the majority of time away from their parents in Programs/Centers; 17% of 2-year-olds were in Programs/Centers; 37% of 3- and 4-year-olds were in Programs/Centers; and at age five, 51% of children were in a Program or Center for the majority of time they spent away from their parents. As children got older, families were increasingly likely to use some kind of group or center care, and more likely to have their children in some type of educational program, even for part of the time they spent away from their families.

Geographic Location. Families in small towns and rural areas were more likely to use Family Care settings (29% and 31%) over center based care or educational programs (18%). Families using care in metropolitan areas were more likely to have their children in center-based care or educational programs (34%) than families in small cities (23%) or rural areas (23%).

Income Level. Poor families were *less* likely to have their children in Programs/Centers than families who were not poor (23% for poor families and 30% for families who were not poor). This is despite the fact that families in this income range (200% of federal poverty level) are often eligible for child care subsidies if they meet other family requirements.

The wealthiest families (over $100,000 annual salary) were more likely to use Program/Center Care than other families (45% vs. 20-37%). Thirteen percent of the wealthiest families used In-Home Care ("nanny care"); these families were least likely to use out-of-home Family Care (15% vs. 23-27%) compared to families of lower annual income levels.

Partner and Employment Status. Two-parent, single-earner families were most likely (54%) to have their child at home with a parent, using no nonparental care or educational arrangements. Dual-earner families were more likely to use center-based care or educational programs (33%) than were two-parent, one-earner families (20%). Single-parent earners were most likely to use center-based care arrangements or educational programs (40%) for their children than were two-parent dual-earner families (20%) and two-parent single-earner families (33%). Non-employed parents were most likely to have their children at home with them on a full-time basis.

Respondent Education Level. Parents with higher levels of education were most likely to have their children in centers or educational programs outside the home (36-38%) than less educated parents (18-22%), who were more likely to have their children staying at home with them full-time (36-38% vs. 18-22%).

- **Child care centers were used far more often than preschools, Head Start programs, pre-kindergarten and kindergarten.**

Child care centers were used by a greater percentage of families than other types of Programs/Centers for children of all ages, in all geographic locations, from families of all income levels, education levels, and ethnicities, and by both single- and two-parent families. Only in the case of two-parent, single-earner families were preschools used more than child care centers (48% vs. 5-11%).

## Preschool Children in Educational Arrangements

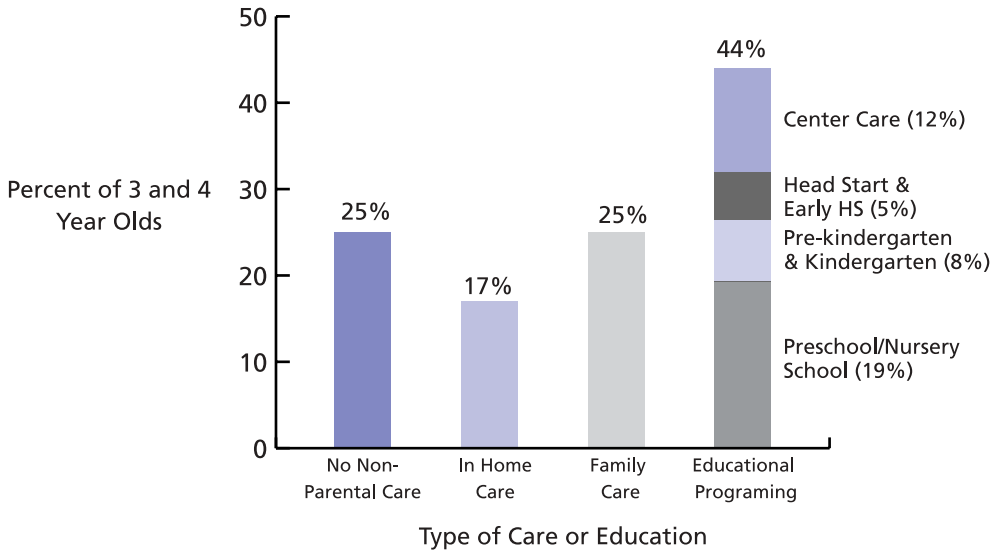
- **Fewer than half (44%) of PA preschool children were enrolled in an educational preschool program.**

Although 75% of 3 and 4 year-old children were in some type of regular non-parental arrangement, fewer than half (44%) spent regular time each week in a program with educational curricular programming. (See Figure B.) Twelve percent of children between 3 and 4 years of age were enrolled in child care centers, 19% were in preschools, 5% were in Head Start programs, and 8% were in pre-kindergarten or kindergarten programs. Twenty- five percent of 3 and 4 year-olds were in the exclusive care of their parents. –Forty-two percent were in a neighbor's home, a relative's home, or in a family day care arrangement when their parent was not available.

- **Poor and minority 3- and 4-year-olds were less likely to be in center-based or educational settings than other children.**

Attendance in educational programs for 3-and 4-year-olds was lower for children from lower income families than children from upper income families (32-56% for the three groups of lower income families and 73% for the most upper income families), for two parent families (42%) than single-

Figure B: Percent of 3 and 4 Year Olds in Different Educational Programs




parent families (49%) , and for less educated families (21% and 27% for the two lowest educated groups of families) than more educated families (45% and 63% for the two highest educated groups of families).

- **Many five-year-old children are not enrolled in educational programming outside the home.**

Although 81% of 5 year-old children were in some type of regular non-parental arrangement, only 51% spent regular time each week in a child care program, a Head Start program, a preschool, a pre-kindergarten, or a kindergarten. Twelve percent of 5 year-old children were enrolled in child care centers, 23% were in preschools, 5% were in Head Start programs, and 21% were in pre-kindergarten or kindergarten programs.

Because many of the 5-year-old children in the survey were not yet eligible for kindergarten in their districts, according to their birth dates, it is difficult to compute what percent of eligible children were enrolled in kindergarten. Full day public kindergarten is not available in all school districts in Pennsylvania, and kindergarten attendance is not required.[3]

## Quality of Care and Education

- **Parents are not aware of whether or not their programs are licensed or accredited. Nearly half of the parents believed that their child's Program/Center was accredited.**

Although all Centers and Programs and many family day care programs are required to be licensed by law, parents' perception was such that only 79% of respondents using child care programs said their child's arrangement was licensed. Forty-three percent of parents reported that the Programs/Centers they used were accredited. Yet, as of 2002, only 6% of centers in Pennsylvania were accredited, suggesting that parents may have difficulty understanding the meaning of the terms "licensed" and "accredited".

- **A majority of parents rated their child's care/education provider as "excellent" in enhancing social and cognitive development. Few rated their child's provider "not very good" or as "very bad".**

More than two-thirds of families (62-89%) rated their provider or educational setting as excellent, and few PA parents rated their child's arrangement as "not very good" (1-6%) or "very bad" (1-5%). While this may be remarkable and a very

encouraging sign, many researchers have reported that most parents overestimate the quality of their child care or early educational setting. When observers from the National Institute of Health and Human Development Study of Early Child Care Study (NICHD SECC) sent trained observers into nearly 1000 child care settings around the U.S.[4], they found that the majority of settings (53%) were only "fair" in quality according to a number of quality indicators; no more than 39% were rated as either "good" or "excellent". The NICHD SECC researchers also reported that fewer than 80% of settings conformed to experts' recommendations regarding the training of child care educators, and only 56% conformed with recommended child–staff ratios.

Thus, it appears that PA parents may be greatly overestimating the quality of their children's care in their absence. This overestimation may reflect parent's lack of knowledge about what represents quality care; it may also reflect parents' difficulties acknowledging to themselves or others the imperfections in the daily care they choose for their children during the parents' absence.

At the same time, a third of PA parents rated their child's care arrangement or educational program as "reasonably good" as opposed to "excellent". Given the tendency of parents to overestimate their child's care, these results suggest that nearly a third or PA parents may have some doubts about the quality of their child's care.

- **Parents with children in kindergarten and other types of programs/centers gave higher quality ratings to their children's cognitive and social programming than did parents with children in other types of programs.**

Parents with children in all types of Programs/Centers were more likely to rate their child's program high in the quality of cognitive programming than parents with children in In-Home Care and Family-based Care (65-89% for all types of Programs/Centers vs. 52 for In-Home and 69% for Family-based Care). Parents of children in kindergarten or pre-kindergarten were most likely to rate their program high in cognitive development (89%). The parents of children in preschools and pre-kindergarten/kindergarten were most likely to rate these arrangements high in social development (73%).

The striking difference reported for kindergarten programs compared to the others suggests an important line of future research. Since parents perceive kindergarten programs to have the best quality when it comes to enhancing both social and cognitive development, future research should investigate how kindergarten programs are operated (i.e., privately, publicly, or otherwise) and how elements of quality are implemented so that these techniques may be shared with other early care and education providers.

These findings also suggest that making kindergarten more widely available to children would provide higher quality care, at least as seen through the eyes of parents.

- **Parents with children in Programs/Centers were most likely to strongly recommend their arrangement to a friend than parents in the other care/education arrangement types.**

When parents were asked whether they would recommend their current arrangement to a friend, 63% said they would strongly recommend their current arrangement; 12% said they had doubts or would not. Almost three-fourths of parents of children in Programs/Centers strongly recommended their type of arrangement. Parents using In-Home Care and parents using Family-based Care were least likely to recommend their type of arrangement to other parents.

- **Parents thought child care should have more curricular activities, especially in the area of cognitive development.**

Parents using Programs/Centers were more satisfied with the educational activities occurring in their child's arrangements (58-67% for all types of Programs/Centers) than were parents using In-Home (31%) or Family-based settings (42%). About two-thirds of parents using Programs/Centers thought children's activities such as looking at or reading picture books, singing songs or playing games, reading books in groups, playing games with letters of the alphabets, and encouraging toy sharing and getting along with others were occurring at an appropriate level. In contrast, two-thirds of parents whose children were in settings other than Program/Center types of arrangements thought these kinds of activities should happen more often. These findings match that of a comparable question in the 1989 Survey,

to which parents of children in center-based arrangements were the most satisfied with how often these types of educational activities were occurring. These data suggest that, while many parents would like to see more educational curricula - both cognitive and social - in their children's early years, parents using In-Home and Family-based Care wanted these activities more often.

- **Providers and teachers administered medicine and provided health information.**

According to parent reports, most child care providers and teachers were trained in administering medication, and they administered this medicine relatively infrequently. Programs/Centers had more trained personnel (88% for Programs/Centers vs. 59% for Family Care providers), but Family Care providers administered medications more often (24% vs. 14%). Parents reported that fewer than a quarter of providers offered health care information (23% for Program/Center care providers and 15% for Family Care providers) or health insurance information (19% for Program/Center Care providers and 11% for Family Care providers). As these parental reports indicate, Program/Center providers were more likely to provide health information than Family Care providers.

## Cost and Affordability of Early Care and Education

- **Of those who paid for child care or educational programs, the mean fee paid per month was $336; however there was great variability.**

For those who paid for care, the average monthly expenditure for the child's main arrangement (i.e., only the one in which the child spent the most time) was $336 ($84/week and $3.11/hour at the average of 27 hours/week). Considering the cost per hour across different types of care, In-Home Care by a relative appeared to be the least costly type of arrangement ($2.46/hour). In-Home Care by an unrelated person (generally "nanny care") was most costly ($5.79 per hour), and Program/Center Care the next most costly $3.40/hour).

- **Families in metropolitan areas pay more per month for child care and educational services than families in small cities and rural areas.**

Across all types of services, families in metropolitan areas are paying twice as much for child care and educational services as families in rural areas ($404 vs. $221). However, children in metropolitan areas spent more time in all types of arrangements than children in other geographic areas. Families in metropolitan areas or small cities used Program/Center Care more than those in rural areas (28 hours for metropolitan families, 24 hours for small city families, and 17 hours for rural families, on average per week). When looked at on a cost per hour basis, families in metropolitan areas paid more per hour ($3.61) than families in rural areas ($2.30). Families in small cities paid $2.54 per hour, midway between families in metropolitan and rural areas.

- **Families with higher incomes paid more for their arrangements.**

Those families with incomes higher than $50,000 paid more per hour and more per week for all types of care *except for In-Home Care*. Interestingly, the greatest disparity between families was in the area of non-parental In-Home care by relatives and non-relatives. Families earning less than $25,000 paid more for relative care ($2.35/hour) and less for non-relative care ($1.09), while families earning between $25,000 and $50,000 (and those at all higher levels of income) paid more for non-relative In-Home care than relative In-Home care.

- **Families with lower incomes devoted a larger proportion of their annual household income to child care costs.**

Across all types of families, parents who paid for care or educational arrangements devoted, on average depending on the type of care, between 7% and 10% of their annual income to these expenses. The average proportion of a family's annual income did not differ by geographic location. However, low-income families (below $25,000) devoted between 5% and 18% of their incomes to child care and education related expenses. High-income families (higher than $100,000) devoted between 1% and 5% of their annual income.

## Subsidies for Early Care and Education for Low-income Families

- **Only 14% of families reported receiving some form of assistance in paying for early care and education costs.**

Of the 14% of families receiving assistance in paying child care/education costs (including those with a child in Head Start), 45% of these parents received assistance from governmental programs. Relatives and friends helped 17% of these families pay for services. Sixteen percent of unspecified types of assistance were also used, suggesting further study is warranted of how families find help paying for the care and early education of their children.

- **About half of the families who were eligible for subsidies were receiving them.**

Eligibility for early childhood services subsidies is based on several criteria[5]; we estimate that about half of those families eligible for subsidies and with children in Family Care or Program/Center Care were receiving a subsidy. Eligible single-parent families were more likely to be receiving a subsidy (59%) than eligible two-parent families (38%).

## Transportation Issues

- **Transportation was not a problem for most families.**

Only a small percentage of those asked whether transportation was a problem said that it was either somewhat of a problem (8%) or a very big problem (2%). Distance and hassles were the leading reasons for those who reported problems. Transportation problems did not appear to be related to geographical area.

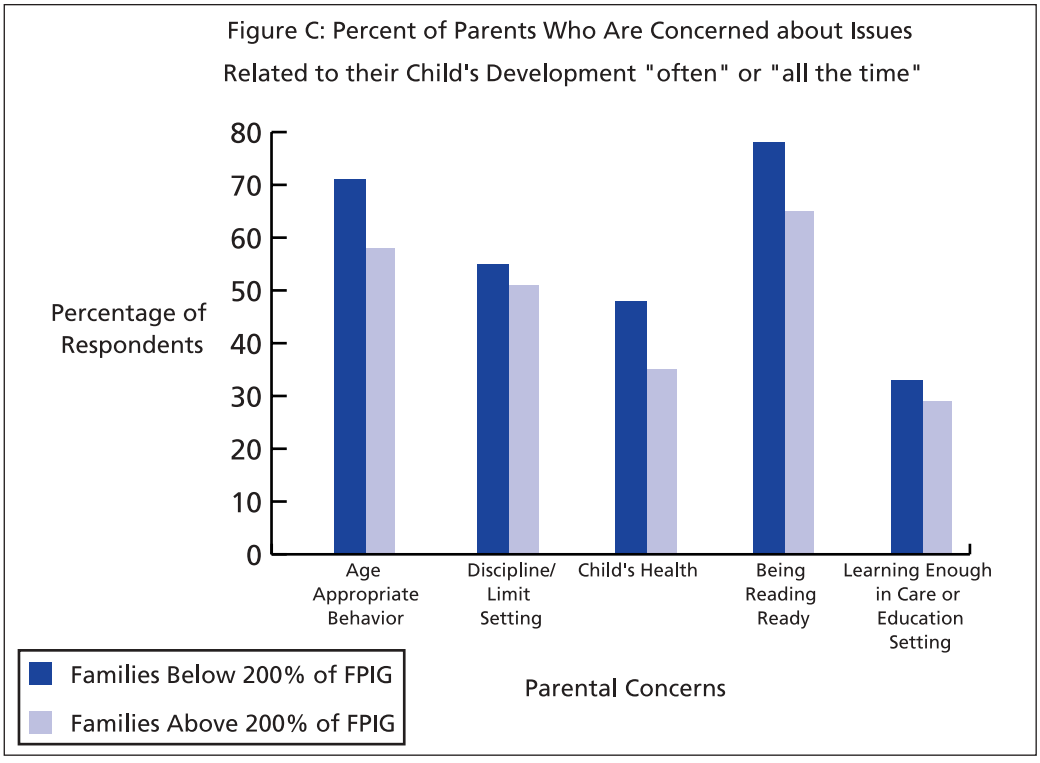
Almost half of PA families said that it took them up to five minutes to get their children to their child care or educational arrangement. Twenty-three percent of families reported commuting between 6 and 10 minutes. Eighty percent of families drove their car to take their children to their care or education facility. The next most utilized methods of transportation were the bus (7%), and walking (6%).

For families who spent more time traveling, transportation was more of a problem (*r =.34*). Also, the more troublesome transportation was, the less likely that the parent was to recommend their arrangement to a friend *(r = .11)*.[6]

## Support for Families to Prepare Their Children for School

- **Parents wanted help with issues concerning their child's development.**

Parents were asked how often they found themselves needing help with knowing what is age appropriate behavior, knowing how to set limits



or discipline their child, wanting information about how to help their child be ready to learn to read when he/she gets to first grade, and worrying about their child not learning enough in their care or education arrangement. Over a third of respondents reported being concerned about these five issues either *often* or *all of the time* (Range of 24-72%; See Figure C.)

- **Low-income and less educated parents reported needing more help than other families.**

Although the amount of concern about child development issues did not differ based on geographical distribution or child's age, it did vary by family income, ethnicity and parental education. Especially for low-income families, concern about age-appropriate behavior (74% vs. 51-62% for families from the other three income groups), setting limits/discipline (61% vs. 45-54%), health care (50% vs. 16-41%), and reading readiness (77% vs. 64-69%) occurred frequently. The respondents in the highest income level group (over $100,000) were those least often concerned with whether their children were learning enough in their care or education settings (8% vs. 22-37% for all other groups).

Parents with lower levels of education were concerned about child development issues more often than parents with higher levels of education. For example, while 40% of the parents with the lowest educational level reported being concerned about their children not learning enough in their child care or educational program, only 7% of parents with the highest educational level were concerned about their children learning enough in their child care or educational program. These data suggest that low-income and less educated parents are most in need of better child care programs and child development information.

- **Latino parents were most interested in getting help around parenting and child development issues.**

Latino families, compared to other ethnic groups, were the most concerned about all issues. They were particular concerned about helping their child to be reading ready (85% vs. 64-78%) and about setting limits/disciplining their child (73% vs. 52-62%). Caucasian families were the group least often concerned with health issues (32% for Caucasian families vs. 49-52% for all other groups) or whether or not their child was learning enough in his or her care/education arrangement (22% vs. 29-57%). These findings suggest that different groups of parents might want different types of services.

- **Parents sought support from a variety of sources.**

Parents looking for support in their parenting were most likely to use books or magazines, family members, health care professionals, and their care or educational program provider. Least likely to be used were parent support groups. When asked if the respondent would go to a place where parents can meet with other parents and can find training, resources or services at a minimal cost, 60% of parents said they would.

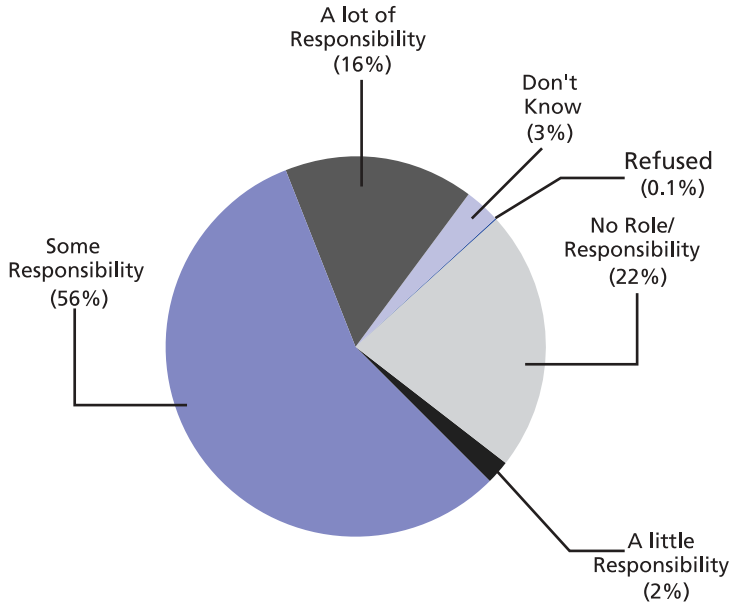
- **Many parents are receptive to parenting education.**

Forty percent of parents said they would be interested in a home visit from someone trained to talk about parenting and help them understand their child's development. More lower- income (53% and 41%) than upper-income families (37% and 32%) said they would welcome such a home visit. Dual-earner and two-parent single-earner families were least likely to welcome such a home visit (36% and 38% respectively), while employed single-parent families and unemployed parent families were more frequently interested in such a home visit (47% and 54% respectively).

- **Low income parents were less likely than other parents to engage in activities likely to prepare their children for school on a daily basis.**

Most parents reported reading to their child, telling stories with the child, and singing songs or playing music nearly once a day. Low-income parents and less educated parents tended to engage in such activities less frequently than higher income parents. At least once a month, most families engaged in community educational activities such as visiting a library, going to a play, concert or other live show; visiting a zoo, aquarium, or children's museum; or talking about family history or ethnic heritage. Parents with higher education levels and households with higher incomes participated in these activities more than other types of families (1.8 vs. 1.4 times on average per month).

Figure D: How Much of a Role Should Government Play in Helping Children Become Reading Ready?




- **Most parents thought government should have at least some responsibility in helping children become reading ready.**

A majority (56%) of the sample said government should have some responsibility; and 16% said that government should take a lot of responsibility in helping children become reading ready. (See Figure D.) This opinion did not vary by geographic location, family income, or respondents' levels of education.

Eighty-eight percent of the sample supported the spending of tax dollars on early care and education facilities and programs. Ranging from 83% to 95%, there were no differences in the support of tax dollars by geographic location or family characteristics.

## Child Care, Early Childhood Education, and the Labor Market

- **Families differed in the types and amount of care they used based on their earning status.**

Two-parent families with dual earners used Family Care (32% vs. 3-12%) and Program/Center Care (33% vs. 3-17%) more than other types of families and arrangements. Two-parent families with one earner were least likely to use any kind of nonparental care. Presumably one parent is available to care for the young child. Families with a single employed parent were most likely to use Program/Center Care (40% vs. 3-30%) and used Center-based care for longer amounts of time than other types of families (40% vs. 20% and 33%). Children of two employed parents (29%) and children of an employed single parent (43%) spent the most time in a child care or educational arrangement. Children of single working parents were most often in more than a traditional full-time amount (over 50 hours a week) of care or educational programming (16% vs. 3-10% for all other groups).

The amount of time children spent in non-parental care did not seem to differ by family income levels, except for the highest income category. More children from families making over $100,000 spent between 35 to 49 hours in some type of care arrangement (28% vs. 4-17% for all other groups). It may be that families with high incomes were frequently also dual-earner families, creating the need for more hours of care in their absence.

- **Nearly a quarter of parents lost time from work for reasons linked to child care usage.**

Losing between 1 and 4 days of work because of care issues occurred for 24% of the working respondents during the past year. Thirteen percent of employed respondents had lost between 5 and 10 working days in the past year.

- **Employers offered benefits to parents. Most parents who had access to benefits used them.**

Respondents were asked about three benefits that might have been provided by their employer. Employers offered flexible work hours to over half (57%) of the respondents. The ability to take one's child to work was offered less frequently, to 20% of respondents; and referral services for care and education were offered to about 15% of the respondents. Upper-income workers were more likely to be offered each of these benefits than lower-income workers.

Ninety percent of respondents whose employers offered flexible hours used this benefit. All respondents who had the benefit of taking their child to work had done so. Less than 5% used the referral services offered by their employer.

## Services to Special Needs Children and Their Families

- **Nearly a fifth of Pennsylvania parents reported that their children had some kind of special need.**

Eighteen percent of PA families reported that their children had some kind of special need relating to a health or physical disability. The most common special needs were asthma (8%), visual problems (8%), and allergies (5%).

- **Fewer than 3% of parents of children under 6 years of age reported that their children had behavioral problems.**

The 3% rate that parents reported is about half that which would be expected in a sample of this nature using professional observation and diagnosis. Parents may be underreporting behavioral problems, either because they do not observe them until their child enters situations with other children or because parents have difficulty recognizing their child's behavioral problems. These data suggest that parents may benefit from early screening efforts and early intervention problems. When parents did report a behavioral problem, they were most likely to seek help from a physician (36%), religious counselor (32%), or a psychologist/psychotherapist (24%). Just over a third of the children with behavioral problems received early intervention from the State, and 20% of the children with behavioral problems had an Individual Family Service Plan (IFSP) or Individual Education Program (IEP). Care for children with behavioral problems was most often provided in the child care or educational setting by the child's provider or teacher (48%, or by someone brought into the care or educational setting (36%). Half of parents reporting that their children had behavioral problems also reported that their children had made some or a lot of improvements.

## Conclusions and Recommendations

- **Child care and early childhood education are important issues to a majority of Pennsylvania families.**

More than two-thirds of Pennsylvania families had their young children in a child care arrangement or educational program on a regular basis. Forty-three percent of children under the age of 6 years were in a care or educational program at least 20 hours a week, and a quarter of children were in care or an educational program at least 35 hours per week. The similarities across metropolitan, small cities, and rural areas suggest that child care and educational concerns are pervasive across the state.

- **State leadership on child care and early childhood education would be beneficial to parents.**

A majority of parents believed that state government should be active in helping prepare children for formal schooling. Eighty-eight percent of parents supported the spending of tax dollars on early care and education programs.

- **Mechanisms are needed to enable parents to assess the quality of child care and educational settings.**

Parents across the nation, not just in Pennsylvania, tend to overestimate the quality of child care and educational programs that they use. Parents may need more help in identifying the features of high quality care and educational programs.

- **Increased information about preschool and kindergarten opportunities for Pennsylvania children is needed.**

More than half of Pennsylvania's 3- and 4-year-old children receive no regular educational programming outside the home that would prepare them for school entry. In addition, low-income families and less educated parents were *less* likely to use such programs than other families. Further study is needed on whether the lack of participation in kindergarten seen in the study is due to the lack of availability, affected by state mandated school-age cutoffs, parental choice, or some combination of these factors.

At the same time, parents across the state, especially those in low-income families and those with lower levels of education, are concerned about preparing their children to become reading ready. Since parents with children in kindergarten appear most satisfied with their children's opportunities for cognitive and social development, increasing kindergarten opportunities might address many of these parents' concerns.

- **The availability of full-day kindergarten should be increased.**

Families may find it difficult to use part-day kindergarten because they have to make supplemental child care arrangements to provide child care during the time the parents are employed out of the home. Increasing the availability of full-time kindergarten programs may ensure that more children are in kindergarten.

- **The quality of educational content (social and cognitive) in children's early education programming should be made more consistent across the continuum of providers.**

Approximately a third of families reported that there was room for improvement in their child's care or educational arrangement, and low-income families and families with less educated parents were concerned about whether their children were learning enough in their education settings. By developing and funding training opportunities for child care providers and early education teachers, the educational content (social and cognitive) of children's programs should increase.

- **The costs of child care and education are high and often unaffordable for Pennsylvania's lowest-income families.**

Low-income families paid at least twice as much of their annual incomes for child care and education as did upper-income families, suggesting that child care is more of a burden to these families than to other families.

- **Families need more help in learning about and accessing child care subsidies.**

We estimate that only about half of Pennsylvania families with children in Family Care or Program/Center Care were receiving the subsidies for which they were eligible. Two-parent eligible families were less likely to receive subsidies than single-parent eligible families. Heightened awareness of subsidy eligibility and efforts to eliminate regulatory barriers to subsidy use may result in more families receiving the subsidies they need.

- **Transportation for early childhood programming may not be as much of a problem in Pennsylvania as has been thought.**

Only 10% of Pennsylvania parents, regardless of where they lived, said transportation was a problem; most parents traveled less than 10 minutes to take their children to their care or educational arrangement. Nevertheless, the State should seek to monitor transportation issues, identify problems where they exist, and offer solutions to ensure access to kindergarten and quality educational programming.

- **Increased parenting supports are needed for parents and families, especially for low- income, less educated parents.**

About a third of parents throughout the State were concerned about child development issues nearly all the time. Low-income parents, less educated parents, and Latino parents were most concerned about raising their children well, and said they could use more help in the form of more resources, increased parent training programs, and home visits.

- **Child care is an important employment issue, and the State can encourage employers to invest in child care and education for children and offer child care benefits to parents at all income levels.**

Investing in child care and education is likely to improve worker productivity. Nearly a quarter of parents lost time from work for child care-related reasons, such as illness and the high cost of child care. Employers can be encouraged to extend benefits to low-income as well as upper-income working parents. Further investigation of the effectiveness of employer benefits for helping employed parents meet their children's needs is warranted.

- **Adequate caregiver training for special needs children needs to be assured.**

Special needs children and children with behavioral problems are most often treated within the context of the child care or educational setting. Child care providers and early childhood educators need to be appropriately trained to deliver care for children with special needs and behavioral problems.

- **Behavioral screening and intervention tools and benchmark services should be made available for all parents.**

Survey parents may be under-reporting behavioral problems. Since early intervention services are available and effective, the State needs to play a role in ensuring that behavioral problems are detected as early as possible. Providing parents more information about age appropriate behavior and easily accessible evaluation programs may be help ensure that parents seek help when they need it.

## Future Research Issues

The Governor's Task Force examination of care and educational programming for young children highlights the steps Pennsylvania can take to put in place a quality care and educational system for young children. With this report comes the recognition that this will take time, requiring that educational investments be accompanied by research that monitors Pennsylvania's progress as it goes down this path. This research has identified a number of important issues that will require continual investigation. We recommend that research on Pennsylvania families continue along the following lines.

**Periodic survey updates.** Using the data in this report as benchmarks, periodic surveys of Pennsylvania families can review changes in the needs of Pennsylvania families and review the State's progress as it seeks to provide increasingly valuable services to families. We need to continually monitor what families are doing to manage work and family with the goal of ensuring that children are in appropriate facilities that will benefit them over the short- and long-term. While programs will be evaluated to see whether state expenditures are meeting their goals, periodic family surveys will establish whether the goals are still valid. Cooperative survey planning among researchers, applied specialists and policymakers will ensure that researchers ask timely and relevant questions of families.

**Are families with special needs children being adequately served?** More information is needed from parents of special needs children to see what kinds of child programming they are using and whether it is meeting the needs of the entire family.

**Effects of geographic area and family characteristics.** The findings of this report suggest that geographic, income and ethnic differences exist in child care and educational usage patterns, parental needs, parental concerns, child care usage, and subsidy uptake rates. Educational programming is more frequently used by wealthier, more educated parents. To see whether the State's increased early care and education efforts are meeting the needs of all Pennsylvania families, both focus groups and large surveys of families from a variety of backgrounds and ethnic groups are necessary. Are there differences among families of different backgrounds in the kinds of early childhood services that they require? Why are not more families using kindergarten services provided by their school districts? As kindergarten and parenting support services become increasingly available to families, are all families equally benefiting? Are increased parental support systems meeting the greater need among low-income and less educated families? Why are Pennsylvania's low-income families not accessing the subsidies to which they are entitled? Are there transportation, structural and informational barriers that can be reduced to ensure that all Pennsylvania children have access to high quality educational services? These questions, and many others, can be addressed with high quality research so that programs may be developed that can most efficiently and fairly service families with young children.

[1] The authors wish to acknowledge the support and advice from members of the Governor's Task Force on Early Care and Education, the Governor's Policy Office, and at Temple University, the Institute for Survey Research, The Center for Public Policy, and the Personality and Social Development Research Laboratory in the Psychology Department. Michelle Harmon gave advice and helped edit the survey instrument; Louise Hanson refined the survey questions and directed the survey data collection. Irene Kan performed portions of the data analysis and created the tables and figures. Nancy Nunez typed numerous drafts of the report. This survey could not have been done without the cooperation and input from more than 1000 Pennsylvania families. To these many people, the authors are very grateful.

[2] Terms used to describe early childhood settings: 1) No Non-parental Care - child not regularly cared for by anyone other than the parents; 2) In-Home Care - someone regularly comes into the home to care for the child; 3) Family Care - child is cared for in another home with or without other children: 4) Program/Center Care - children attend a facility with a group of other children (Child care centers, preschool, Head Start, Early Head Start, pre-kindergarten, and kindergarten); and 5) Parent as Family Care Provider - child is cared for by parent in the home while the parent also cares for other non-related children. These terms were selected for the survey because they are terms that were meaningful to parents in describing their child's daily nonparental care and educational arrangements.

[3] Because of the difficulty in establishing who is eligible for kindergarten and because of the discrepancy across school districts, further analyses of the kindergarten data is not included in this report. More information about kindergarten attendance in Pennsylvania can be obtained from the From Building Blocks to Books report released by the Pennsylvania Partnerships for Children in June 2002 (www.papartnerships.org). According to the Pa Partnerships for Children Report, only 121,000 children in PA are enrolled in kindergarten in the state's 500 public school districts, and only 29% of these are enrolled in full-day programs. There are 156,000 children who are 5 years old and a similar number who are 6 years old in PA.

[4] NICHD Early Child Care Research Network (2000). Characteristics and Quality of Child Care for Toddlers and Pre-schoolers. Journal of Applied Developmental Science, 4, 116-135.

[5] Only families at 200% of the Federal Poverty Income Guideline with parents who were working 25 hours or more and whose children were in either Family Care or Program/Center Care were considered eligible in this sample.

[6] Given the relatively high parent ratings for quality, the short traveling time on average, and the relationships between time traveling to care and the likelihood of recommending the arrangement to a friend, it is likely that parental selection of arrangements is constrained by distance. Thus, it will be important to examine the distribution of the quality of child care throughout the State of Pennsylvania in the study that is being completed this November for the Governor's Task Force.

# The State of Early Care and Education in Pennsylvania: The 2002 Higher Education Survey

## Executive Summary

Report Prepared for the Governor's Task Force on Early Childhood Care and Education

**September 2002**


### Written by

Kelly E. Mehaffie, Robert B. McCall, Christina J. Groark, Wendy A. Etheridge, and Robert Nelkin, Office of Child Development, University of Pittsburgh and the Universities Children's Policy Collaborative (UCPC)


Universities Children's Policy Collaborative is dedicated to contributing to the health and welfare of children, youth, and families by providing nonpartisan information on public policy issues.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# The State of Early Care and Education in Pennsylvania: The 2002 Higher Education Survey

## Executive Summary

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## Introduction

The first five years of a child's life is a period of incredible cognitive, emotional and social growth. Experiences during these early years can set children on pathways that have lifelong emotional, social, and academic consequences.

How can we invest in our children's early development to ensure subsequent academic, social and emotional success? This question has attracted widespread attention from Pennsylvania policy makers. Their goal: to develop a system of early care and education that will meet family's needs today and help prepare a sophisticated, educated workforce of the future.

Toward this goal, Pennsylvania's Governor Mark Schweiker signed Executive Order 2002-2 on April 17, 2002 to create the Early Childhood Care and Education Task Force. As part of the work accompanying the task force, the Governor commissioned a series of primary research efforts to be carried out by three major Pennsylvania Universities (Penn State University, University of Pittsburgh, and Temple University) that have joined together to form the Universities Children's Policy Collaborative (UCPC).

As part of this collaborative effort and under commission from the Governor's Office, the University of Pittsburgh Office of Child Development initiated the 2002 Higher

Education Survey, one designed to collect information from early childhood higher education programs regarding training of professionals in child care and early education. This executive summary encapsulates the findings from the larger report on the survey and highlights the policy recommendations that stem from these findings. This executive summary is one of a series that summarizes reports from UCPC. The other reports include the **Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey**, **A Baseline Report of Early Care and Education in Pennsylvania: The 2002 Early Care and Education Provider Survey**, and **>From Science to Policy: Research on Issues, Programs, and Policies in Early Care and Education.**

## Research Questions Guiding the Higher Education Survey

The Early Care and Education Higher Education Study assessed the availability and content of higher education programs and their success in producing qualified professionals to work in this field. Questions that were addressed included:

- What are the level, accessibility, and affordability of education for students?
- What are the demographics of students as well as the ethnicity, training, and academic backgrounds of their faculty?
- What kinds of positions do students take when they graduate and do they take these positions in Pennsylvania?
- What is the cost of higher education preparation of early care and education professionals?
- What is the content of training in early childhood education programs?

## Design and Methods

The survey instrument was developed to capture information at the educational program level and the degree level. Part 1 of the survey contained program level information (e.g., Early Childhood Education Program, Elementary Education Program), including number, ethnicity, and education of faculty; student, faculty, institution, and community-related issues; and opinions on changes to higher education programs at the State level. Part 2 of the survey contained degree level information (e.g., Associates, Bachelors, etc.), and the questions in Part 2 were repeated for each degree offered in the program. The questions addressed issues such as the content of the curriculum in relation to early childhood education, the cost of obtaining a degree, and job placements of new graduates.

The target population was all higher education programs in the State of Pennsylvania that prepare students to work in the field of early childhood (children birth to eight years of age). The 2002 College Blue Book[2] and a list of Child Development Associate (CDA) programs were used to identify programs in Early Childhood Education, Child Development, Elementary Education, and related fields and the degrees offered by those programs. Ninety-seven schools were contacted, and 46% (45 schools) responded. Surveys were sent to 169 programs in those 97 schools and 40% (67 programs) responded.

## Program Level Survey Findings

The survey results were based on a total of 67 programs, 42 (63%) were Early Childhood Education programs and 25 (37%) were Elementary Education programs. For comparison purposes, programs were categorized into two different types of early childhood education programs: Early Childhood Education (ECE) and Elementary Education (ElEd).

### Education level and discipline of faculty

- **There were almost twice as many Full-Time Equivalent (FTE) faculty in the Elementary Education programs as there were in the Early Childhood Education programs.** The Elementary Education programs had slightly more faculty with Doctoral degrees (60%) than Early Childhood Education (50%) programs.
- **Early Childhood Education and Elementary Education programs differed in the backgrounds of their faculty.** Of those faculty in Early Childhood Education programs, 54% had backgrounds in an early childhood field and 25% had traditional elementary education backgrounds, whereas of those faculty in Elementary Education programs, 13% of faculty had backgrounds in an early childhood field and 69% had backgrounds in elementary education.

### Racial-ethnic distribution of students and faculty

- **African-American, Asian, and Hispanic future early childhood educators and faculty are underrepresented in comparison to the diversity of children in care.** While 16% of African-American children in early care and education programs (finding from the *Early Care and Education Provider Survey)*, only 9% of teachers in training and 6% of their faculty were African-American. In general, there was little ethnic diversity of faculty and future teachers (students) but more diversity among children in care (see *Provider Survey*).

### Does THE program gain or lose money for THE school?

- **Few programs loose money, and more than one-third of ECE programs and two-thirds of the ElEd programs gain money for the school.**

### Participation in TEACH

- **Almost one-third of the Early Childhood Education programs offer courses for the Teacher Education and Compensation Helps (T.E.A.C.H.) program, while only 4% of the Elementary Education programs do.**

### Issues

- **In general ECE programs seemed to face more significant issues than ElEd programs, but the same issues predominated for both programs.** Program chairs and faculty reported that major issues for programs are attracting and retaining ethnically diverse faculty, attracting and retaining students because of poor working conditions and wages, limited scholarships, and competing with work or family responsibilities.

### Support for Change at the State Level

- **The majority of programs felt that more scholarships were needed to attract and retain students and current staff in early childhood education programs.** Eighty percent of the Early Childhood Education programs and 58% of the Elementary Education programs felt that there was a need to make changes in Early Childhood Higher Education at the State level.

- **The Provider Survey indicates that staff salaries and benefits are low, and results from this survey demonstrate that students often have difficulty paying back their student loans.** The requested action most generated by faculty for the State government surrounds the area of salaries and benefits (30%) for people working in the field of early childhood education. Other actions that were requested concerned changing the credentialing requirements and certification structure for early childhood educators (21%), making changes to the structure or regulations in early childhood programming in higher education and in the field (17%), increasing resources and funding to higher education programs or early childhood centers (17%), or other actions (e.g., increase T.E.A.C.H, more faculty support, etc.; 15%).

## Results Specific to Degree of Program

Due to the low response rate in the certificate/certification and associates degree category, these two degree programs were recoded into a *Less Than Bachelors Degree* category. *Bachelors Degree* programs had sufficient information to stand alone as a category; however *Masters* and *Doctoral* programs were combined for data analysis purposes. In addition, so few Certificate/Associates and Masters/Doctorate programs in ElEd responded, that many of the comparisons could only be made between Bachelors programs in ECE and ElEd.

### Accrediting Agency

- **Nearly all the degree programs in both disciplines were accredited, but only three-fourths of the Certificate programs and two-thirds of the graduate programs in Early Childhood Education were accredited.** The disciplines differed in which organization conferred the accreditation. All of the degree programs in ElEd were accredited or certified by the Pennsylvania Department of Education, whereas only 40% of the Certificate/Certification Programs, 79% of the Bachelors programs, and 60% of the Masters/Doctoral programs in ECE were accredited by the Pennsylvania Department of Education. However, a third of the ECE Bachelors degree programs were accredited by NAEYC, whereas only 15% of the ElEd Bachelors degree programs were accredited by NAEYC. These findings demonstrate that ECE programs are less likely to seek Department of Education accreditation. Conversely, it is more appropriate for ECE programs than ElEd

programs to seek NAEYC accreditation because of their greater emphasis on the early childhood years.

## Required Practicum and Hours

- **Nearly all (96%) Early Childhood Education programs regardless of degree required a practicum, but only 60% of Bachelors programs in Elementary Education did so.** Moreover, the average number of practicum hours required to complete the degree is higher for ECE (278 for Certificate/Associates degree programs and 246 for Bachelors degree programs) than in ElEd programs (219 and 211, respectively). At the Bachelors level, a higher percentage of ECE students are required to have an out-of-class practicum and for more hours than are students in ElEd.

## Student Employment

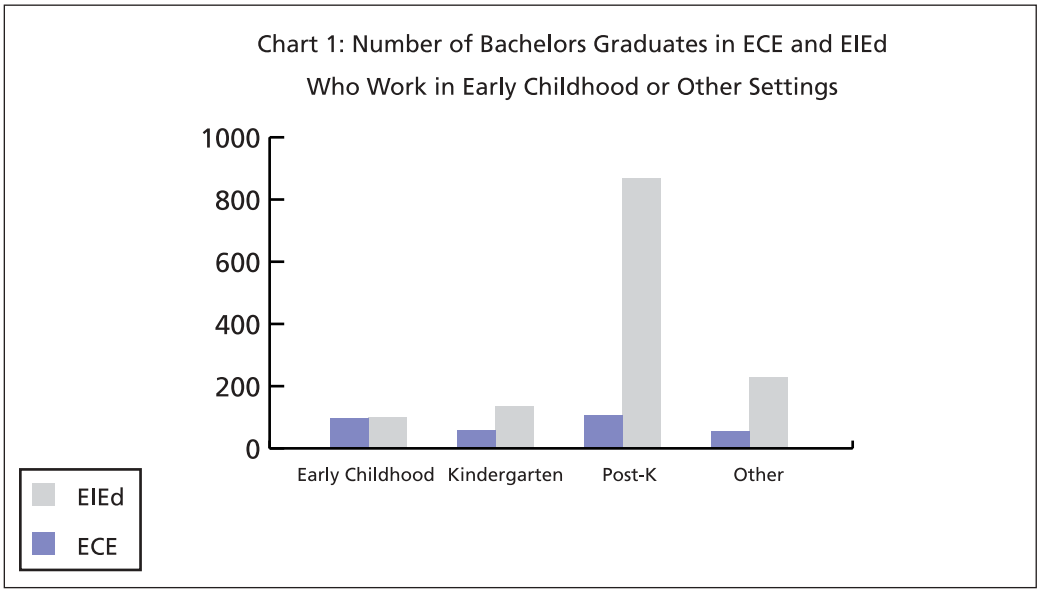
- **It is difficult for students who are employed full-time to obtain a Bachelors degree in either discipline.** A relatively small percentage (18%) of programs believed students who were employed full-time could complete a Bachelors degree program (compared to a certificate [89%] or a Masters/Doctoral program [86%]), and they estimated that only 31% of students in Bachelors' programs were employed full-time. Thus, the current structure and scheduling of Bachelors programs and courses make it difficult for employed individuals to complete the program.

## Content of Training

- **The content and intensity of training in Early Childhood Education programs was more focused on the care and education of children birth to five years than in Elementary Education programs, which prepare students to teach K-3rd or K-8th grade.** ECE programs gave more curriculum emphasis to very early childhood care and education (ages birth through 5), education and care of young children with disabilities, early number skills, early literacy, early language skills, developmental domains, transitions, and program administration than did ElEd programs. Note that although Certificate/Associates programs in ECE required only half the credit hours as ECE Bachelors programs, they covered nearly the same early childhood curricula (although slightly less emphasis on skill development and administration).
- **Only 35% of the Bachelors ElEd programs and 58% of ECE programs require one or more entire courses on education and care of children with disabilities; yet nearly all early childhood centers have children with disabilities.** In addition, a quarter or fewer of the programs in both disciplines require one or more courses in behavior management or social-emotional development of children. The *Early Care and Education Provider Survey* indicated that early childhood education and care providers need more training and preparation in working with children with disabilities and children with behavior problems or under-developed social-emotional skills. These needs are mirrored in this survey of higher education programs.
- **ECE students receive more coursework and practical experience working with children ages birth to five.** Bachelors programs in Early Childhood Education are much more likely than are Elementary Education programs to require practica in education and care of infants and toddlers (71% vs. 42% in ElEd), education and care of children 3 to 5 years old (91% vs. 64% in ElEd), and education and care of children with disabilities (62% vs. 25% in ElEd).

## Students

- **The graduation rate indicates that slightly less than half of the students enrolling in either program are not graduating from these programs.** The graduation rate for Bachelor's programs in Early Childhood Education and Elementary Education is about the same (61% and 54%, respectively).
- **It takes approximately the same number of months (49 months) to complete a Bachelor's degree in Early Childhood Education as it does in Elementary Education,** and a little more than half this time (27 months) to complete a Certificate/Associates program.
- **Graduates of all programs and degrees** (with the exception of the Early Childhood Education Certificate/Associates degree) **are more likely to work in public or private post-kindergarten environments than any other** according to program chair/faculty estimates (see Chart 1). More than half of the numbers of new Bachelors graduates going into the early childhood field (birth to five) and nearly two-thirds of those who teach kindergarten come from Elementary Education programs, despite the fact that Early




Childhood Education programs provide more direct training in early childhood care and education. Program chairs/faculty report that slightly more than half (51%) of the 198 Bachelors degree graduates who work in early childhood birth to five years settings came from ElEd programs, rather than from ECE programs. More than half (60%) of the 393 Bachelors graduates who went into early childhood and kindergarten settings came from ElEd programs, rather than from ECE programs.

- **Not all graduates who work with children birth to five years remain in Pennsylvania.** According to program chair/faculty estimates, almost all of the graduates in ECE Certificate/Associates and graduate programs who go on to work with children birth to five years stay in Pennsylvania (95% in both degree programs). But almost a quarter of the ECE Bachelors graduates and one-third of the ElEd Bachelors level graduates who go on to work with children birth-to-five-years leave PA to find jobs. Since only 32% of the ECE Bachelors graduates go on to work in birth to five year settings and only 72% of those take jobs in Pennsylvania, then less than a quarter of the most comprehensively trained early childhood graduates take early childhood (birth to five years) jobs in Pennsylvania. Additionally, 50% of child care center providers (from *Early Care and Education Provider Survey*) stated that it is a big challenge finding qualified people.

## Finances

- **The cost of obtaining a Bachelor's degree in Early Childhood Education is nearly $10,000 more than the cost of obtaining the same degree in Elementary Education.**
- **A full tuition waiver with or without some living expenses is very rarely available for students in either discipline at any level of degree;** however, some programs do offer a partial tuition reduction in the form of a scholarship or fellowship but there are still many who do not receive any scholarships or fellowships at all.
- **Many Bachelors students in Early Childhood Education have difficulty paying back student loans (43%)** according to program chair/faculty estimates. There were not enough data to compare this finding with ElEd programs.

# Conclusions and Recommendations

The following conclusions and recommendations can be drawn from the data presented.

- **Standards of training specifically for those entering the field of early childhood care and education, including kindergarten should be reviewed.** Programs in Early Childhood Education (ECE) provide more comprehensive training in early childhood development and services than do programs in Elementary Education (ElEd). Yet more than half of new Bachelors graduates going into the early

childhood field (birth to 5 years) and two-thirds of those who will teach kindergarten come from Elementary Education programs rather than Early Childhood Education programs. Specifically, ECE Bachelors programs a) have more faculty with backgrounds in early education areas; b) are twice as likely to be accredited by NAEYC; c) are more likely to require a practicum in early childhood for 3-5-year-olds (vs. only 64% in Elementary Education); and d) place more curricular emphasis on early childhood education topics (i.e., early number, literacy, and language skills, developmental domains, disabilities, and early childhood program administration). In contrast, ElEd programs train students to teach K-3rd grade or K-8th grades, with less emphasis on early childhood development. Consequently, standards and "certification," specifically to teach early childhood and kindergarten, should be reviewed for both types of programs.

- **Personnel need training and preparation to work with children with disabilities, especially in providing inclusive settings for children with disabilities**. The provider survey shows that 96% of centers, preschools, and Head Start have at least one child with a disability enrolled, and providers said they needed more training on children with disabilities. But only 58% of the ECE and 35% of the ElEd Bachelors programs require an entire course or more focused on working with children with disabilities. *Every* teacher needs more substantial training in caring for and educating young children with the entire range of disabling conditions.

- **More training is needed in handling children's social-emotional development and behavioral problems.** In the survey of providers, 71% of centers and preschools expelled or threatened to expel a child for aggressive behavior in the last two years, and two-thirds requested more training in behavior management. However, less than 25% of Bachelors level ECE and ElEd programs required an entire course or more in either social-emotional development or behavior management.

- **More scholarships and loan forgiveness programs are needed for students seeking a Bachelors degree in early childhood care and education.** More than 82% of ECE and ElEd programs said they need more student scholarships. Specifically, programs estimated that 39% of Early Childhood Education Bachelors students get no financial help at all, and 44% of them had difficulty paying back student loans.

- **Bachelors degree classes should be offered at times students who are employed full-time can take them.** Only 21% of ECE programs and 15% of ElEd programs are structured so that students could obtain a Bachelors degree while working full-time.

- **Salaries and working conditions in early childhood services need to be improved to attract students and graduates into this field.** Programs estimated that nearly half of those graduating from ECE programs do not take jobs in the early childhood field (specifically, with children in kindergarten or younger), and more than half of the early childhood providers said low salaries or benefits were a big challenge to hiring staff. Further, faculty report that it is difficult to attract and retain students in the early childhood field because of the prospect of low salaries and poor working conditions upon graduation. Although scholarships would help, it will be difficult to attain the National Academy of Science's recommendation of having a Bachelors degree teacher in every early childhood care and education group setting unless the salaries are sufficient to encourage graduates to adopt early childhood as a career.

- **Colleges and universities need to train and hire more faculty in early childhood care and education, especially more ethnically diverse faculty**. Forty-two percent of programs said enrollments were increasing, 63% said they needed more funding to increase the number of faculty, but only half of the programs said they were profitable. In addition, there are more African-American students (9%) than faculty (6%), and there are even more African-American children (16%) estimated by providers to be in early childhood programs. Forty-three percent of higher education programs said that attracting and retaining ethnically-diverse faculty was a large problem.

## Future Research and Administrative Practice Recommendations

There were many areas of higher education programming that the research team would have liked to explore; however, given the timeframe of

the Task Force, many items were not included in this study. Therefore, this section presents research on professional development that would be worthy of future exploration.

- **There is a need to utilize a survey model every two years to assess change and guide future improvements in early childhood higher education.** The data from this survey provide a baseline of professional preparation for Early Childhood Education and Elementary Education programs. For example, some changes were identified between this survey and a similar study on higher education completed in 1989.[3] The current study, however, could be more deliberately used as a baseline to measure future improvements and identify new challenges in the field. More thorough comparisons would help describe growth and challenges in this system.

- **There is a need to study higher education and in-service curricula and curricula changes.** One way that this could be accomplished is through the coordination of a professional preparation consortium to examine pre-service and in-service training models and develop resource and referral information for students and early childhood providers. Examination of the content of higher education programs and in-service training is needed to identify general and specific content training programs. A coordinated system for resource and referral would identify where there might be duplication in training programs and where replication across the State should exist. For example, Pennsylvania State University has a training program on infant development that could be introduced in Western Pennsylvania. In addition, in-service training program models could collaborate with various higher education institutions in their areas of expertise (e.g., University of Pittsburgh for early intervention, Penn State University for infant development, etc.) and vice versa. This kind of collaboration would improve training in needed areas like infant mental health, behavioral health, etc. Further, the needs and challenges of providers for areas of further training should be recognized and implemented into both pre-service and in-service training programs. Anecdotally, when deans and chairs of departments in higher education institutions were contacted, many were passionate about the changes that need to be made to adequately prepare students for a career in the field and to develop a clear and integrated system of preparation and in-service training opportunities.

- **There is a need to study what happens to graduates in early childhood education programs.** The challenges in professional development in the field of early childhood education have been well-documented in this survey from the perspective of higher education programs. However, there has been no study that follows prospective teachers after they complete their education to examine what factors influence their professional choices over the first few years of their career. Based on the results of the current UCPC surveys, there is strong professional consensus that too few teachers remain in the field. It would be particularly important to understand how wages, benefits, working conditions, and other factors influence early childhood teacher retention in Pennsylvania.

## References

[1] The authors thank numerous experts who were consulted during the survey development process including (in alphabetical order): Joan Benso, Sherry Cleary, Louise Kaczmarek, Roberta Schomburg, Emie Tittnich, Karen VanderVen, the Governor's Policy Office, the Secretaries of State, and the UCPC team. Thanks are also extended to the University Center for Social and Urban Research (UCSUR) Survey Research Department for their assistance in data collection and analysis as well as to Mary Wolfson.

[2] The College Blue Book. (29th ed.) (2002). New York: Macmillian Reference USA.

[3] McCall, R.B., Groark, C., Isler, M., Manners, S.D., Scott-Jones, R., Shair, El., Smith, B.J., Tittnich, E. (1989). The State of Early Childhood Services in Pennsylvania: A Report to The State Board of Education of The Commonwealth of Pennsylvania. University of Pittsburgh Office of Child Development: Pittsburgh, PA.

# A Baseline Report of Early Care and Education in Pennsylvania: The 2002 Early Care and Education Provider Survey

## Executive Summary

Report Prepared for the Governor's Task Force on Early Childhood Care and Education

**September 2002**

**Written by**
Wendy A. Etheridge, Robert B. McCall, Christina J. Groark, Kelly E. Mehaffie, and Robert Nelkin, University of Pittsburgh Office of Child Development and the Universities Children's Policy Collaborative (UCPC)

Universities Children's Policy Collaborative is dedicated to contributing to the health and welfare of children, youth, and families by providing nonpartisan information on public policy issues.

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# A Baseline Report of Early Care and Education in Pennsylvania: The 2002 Early Care and Education Provider Survey

## Executive Summary

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## Introduction

The first five years of a child's life is a period of incredible cognitive, emotional and social growth. Experiences during these early years can set children on pathways that have lifelong emotional, social and academic consequences.

How can we invest in our children's early development to ensure subsequent academic, social and emotional success? This question has attracted widespread attention from Pennsylvania policy makers. Their goal: to develop a system of early care and education that will meet family's needs today and help prepare a sophisticated, educated workforce of the future.

Toward this goal, Pennsylvania's Governor Mark Schweiker signed Executive Order 2002-2 on April 17, 2002 to create the Early Childhood Care and Education Task Force. As part of the work accompanying the task force, the Governor commissioned a series of primary research efforts to be carried out by three major Pennsylvania Universities (Penn State University, University of Pittsburgh, and Temple University) that have joined together to form the Universities Children's Policy Collaborative (UCPC).

As part of this collaborative effort and under commission from the Governor's Office, the University of Pittsburgh initiated the 2002 Early Care and Education Provider Survey,

designed to collect information from 637 child care centers, Head Start centers, preschools and nursery schools, group home child care providers, family home child care providers, and legally unregulated home providers (categories defined according to State regulations[2]) regarding child care and early education. This executive summary encapsulates the findings from the larger report on the survey and highlights the policy recommendations that stem from these findings. This executive summary is one of a series that summarizes reports from UCPC. The other reports include **Benchmarking Early Care and Education in Pennsylvania: The 2002 Family Survey**, **The State of Early Care and Education in Pennsylvania: The 2002 Higher Education Survey**, and **From Science to Policy: Research on Issues, Programs and Policies in Early Care and Education.**

## Research Questions Guiding the 2002 Pennsylvania Early Care and Education Provider Survey

The 2002 Pennsylvania Early Care and Education Provider Survey was designed to provide answers to a number of important questions:

- Do the types of early care and education providers differ geographically across the state?
- What is the quality and the full fees charged for these services, according to providers?
- What are the characteristics of these programs (e.g., accreditation status, location, administrative oversight, etc.)?
- What are the characteristics (e.g., racial background, educational level, experience) of the staff in these programs, and do the characteristics differ by the type of program?
- What are the training needs of these programs?
- What are some of the challenges that these programs face in meeting operating expenses, hiring staff, and retaining staff?
- What types of children and families are served, and are the programs adequately supported to be able to serve all children, including children with special needs?
- What are the types of programs that are provided to participants, and do these vary by the type of program?

## Design and Methods

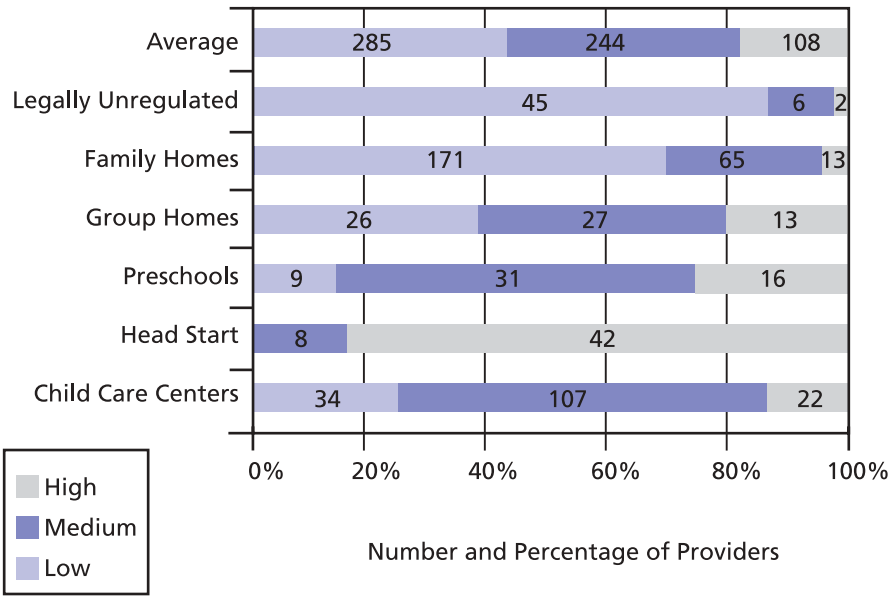
The researchers obtained exhaustive lists of all the registered providers in the Commonwealth from the registration databases of the Department of Education, the Department of Public Welfare (DPW), the Pennsylvania Head Start Association, and the Keystone University Research Corporation. The goal was to obtain interviews from 600 representative provider sites (stratified by the six categories of providers and stratified by three categories of the population density of the county in which the site was located). Data collection began May 28, 2002 and ended July 17, 2002. Due to the low initial contact rates for certain types of providers, the original data collection scheme had to be revised to maintain a representative sample. Response rates ranged from 3.3% of legally unregulated homes to 32.2% of group homes; however, this calculation included all attempts to contact sites regardless of whether a successful contact was made. Refusal rates were low across all types of providers, ranging from 13.5% of preschools to only 2.0% of Head Start sites. For the purposes of this study, we classified child care centers, Head Start, and preschools as "center-based" types of providers and group homes, family homes, and legally unregulated providers as "home-based" types of providers according to the primary type of location in which care is provided.

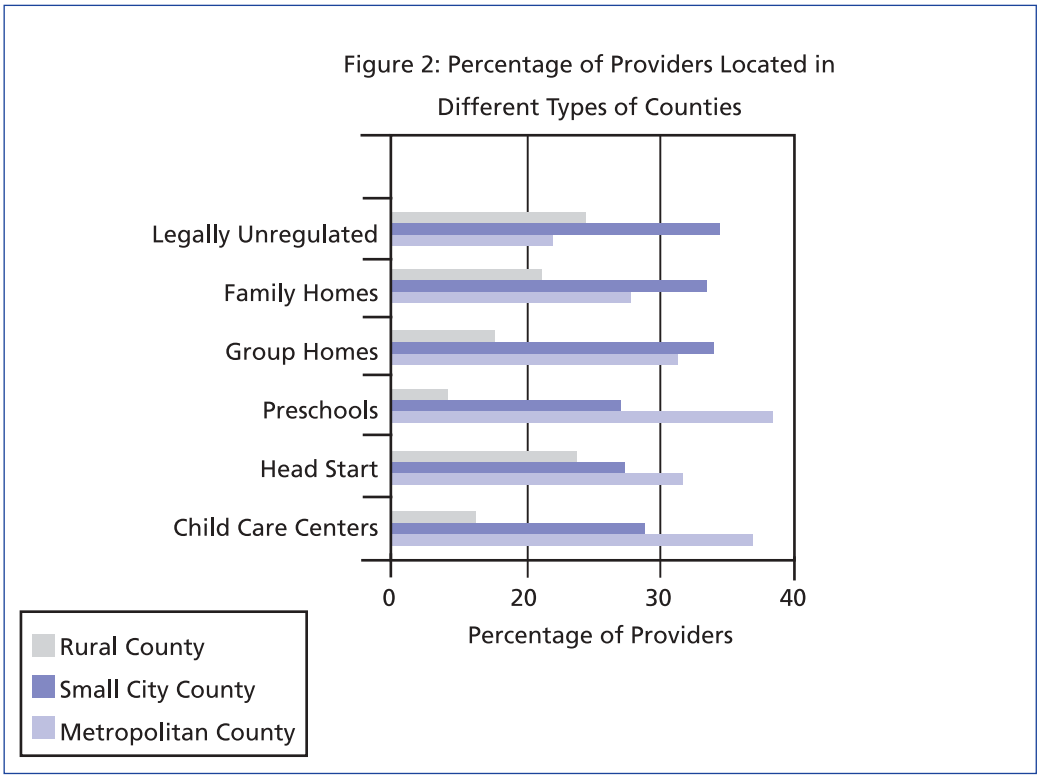
To provide a rough assessment of quality in the sites, the research team developed an index of quality based on structural characteristics of quality programs as defined in research. This Structural Quality Index was measured with 5-16 indices, depending on the type of provider and ages of children served, that reflected the education and training of directors and staff, group size, staff-child ratio, staff turnover, parent involvement, transition practices, planned curriculum, structured assessments, and accreditation. Cut points defining pass/fail on each index were determinedby the literature on the relation between each index and the quality of classroom interactions, but the Quality Scale itself does not reflect staff-child interactions, personal and pedagogical dynamics, or social-emotional supports, provided children by caregivers, which will be represented in a later observational study of quality. That is to say, the index of quality used in this report focuses on "structural" quality rather than "process" quality.

## Findings

- **Head Start demonstrated the best quality on multiple structural dimensions.** Head Start sites had the highest overall structural quality rating, and no Head Start site was rated as low quality (see Figure 1). Head Start staff were the most highly educated and engaged in the most on-going professional development training. Head Start programs also showed high rates of providing the best practices for transitioning children to school, using developmental assessments to measure children's progress, and encouraging parent involvement. Additionally, Head Start was the best geographically distributed of the center-based types of providers, with over a quarter of sites being located in rural counties.
- **Most center-based early care and education programs were non-profit entities, and non-profit programs tended to have lower fees for families yet offered higher quality and were more often accredited.** Non-Profit sites received higher quality ratings primarily because their directors were more highly educated and both directors and staff obtained more in-service training on an annual basis.
- **Rural counties lacked access to center-based programs and accredited facilities.** The relatively few non-Head Start center-based programs available in rural counties were high quality; however, rural counties had fewer accredited sites, sites managed by religious organizations, or sites serving high-income families. Generally, there was a lack of quality early care and education programs in rural counties because of the greater reliance on home-based forms of care (see Figure 2). Additionally, rural staff earned less than staff in other counties.
- **High-income families appeared to choose higher quality center programs but lower quality homes.** In this sample, fewer center-based sites served predominately high-income families than expected; however, those that did serve high-income families tended to be of high quality, had more highly educated staff, and were accredited. Conversely, home-based sites serving predominately high-income families tended to have staff with lower educational backgrounds and to be of lower quality than were sites serving low- to middle-income families. Thus, it was not clear what criteria higher income families used to choose home-based services for their children, but it did not appear to be based primarily on the educational background of staff.

Figure 1: Percentage of Providers of Low, Medium, and High Quality






- **Center-based early care and education providers tended to be of higher structural quality and charged higher full fees than did home-based programs.** Child care centers and preschools charged higher full fees than did home-based care, and full fees were higher for higher quality and accredited programs. To offset the cost of quality, high-quality sites offered more direct financial assistance to families than did low-quality sites. Also, staff tended to earn more in center-based sites than in home-based settings. Interestingly, although center-based staff had more education than home-based providers, both staffs generally had equal amounts of experience working with children.

- **Center-based programs provided more planned curricular experiences and programs for preschoolers that relate to improved school readiness than did home-based programs.** While over 90% of child care centers, Head Start sites, preschools, and group homes reported that they used a written manual, program guide, curriculum, parts of a curriculum, or written lesson plans to plan what they do with preschoolers, only about half of family homes and legally unregulated providers used written sources to plan activities. Moreover, few providers, except for Head Start, worked with public schools regarding transition issues; more center-based providers engaged in these kinds of activities than did home-based providers. Finally, more center-based providers used developmental assessments to measure their participants' progress than did the home-based providers.

- **In child care centers and preschools, accreditation related to increased structural quality.** Accredited child care centers and preschools scored higher on the Structural Quality Index than sites working toward accreditation and sites that were not accredited (see Figure 3).

- **Although the subsidy rate approached the full-fees charged to parents, full-fee charges and subsidy payments did not meet all expenses associated with operating early childhood care and education programs.** Full fee charges accounted for only 69% of the operating budgets for sites, and the other 31% of the budgets came from subsidies and government/private grants (see Figure 4). The subsidy rate approximated full-fees for 10-hour days.

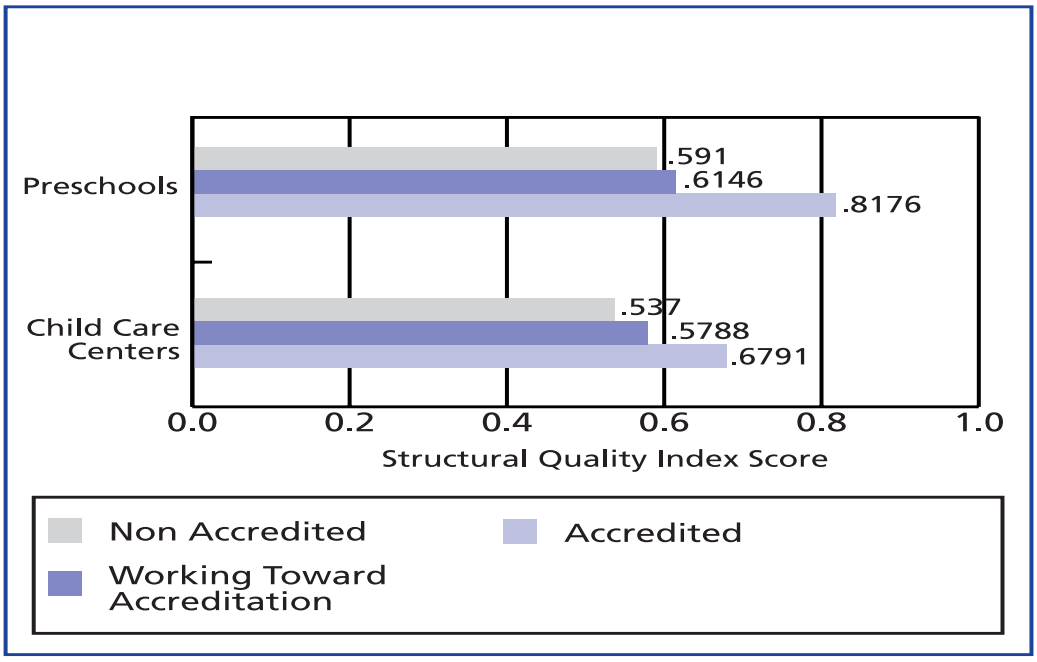
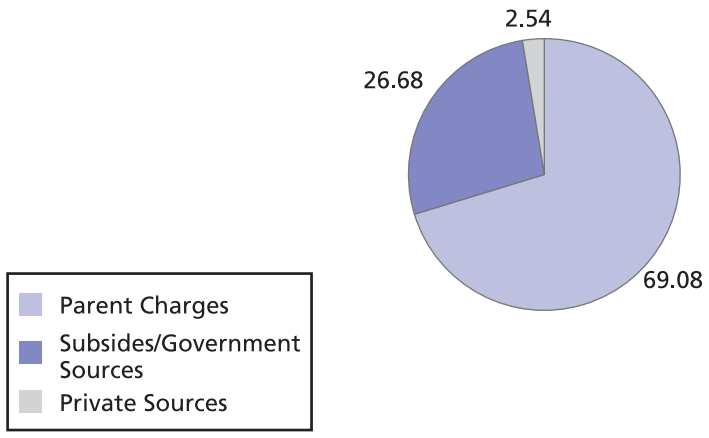



Figure 4: Percentage of Budget from Parent Charges, Subsidies/Government Sources, and Private Sources




- **When sites had higher fees, they reported less difficulty meeting operating expenses.** Sites serving predominately high-income families charged more, paid their staff more, and reported less difficulty making ends meet. More low- to medium-quality sites indicated difficulty making ends meet. Child care centers reported the most difficulty meeting operating expenses.
- **Salaries were fairly low for all early care and education staff, and benefits were few, particularly in homes.** In fact, the biggest issues that sites cited in attracting new staff were low pay for center-based programs and inadequate benefits for home-based programs.
- **Staff turnover in early care and education programs varied with quality and the income of the families served.** While the average turnover was 19%, it neared 33% in low quality sites and 21% in sites serving predominately low-income families (as opposed to an average of 12% in sites serving predominately high-income families).

- **Center-based staff indicated more training needs, actually received more training, and were more highly connected with the Pennsylvania child care training system than home-based staff; however, most providers reported several barriers to attending and benefiting from training.** Over half of center-based providers received training through the Pennsylvania child care training system, and they rated the state training system as the second most helpful source of training for them (behind on-site training). However, over half of all providers indicated that lack of funding and inability to afford training were significant barriers to attending training. Home-based providers generally participated in less in-service training and reported less need for training than center-based staff, and it was not clear who provided training to home-based providers who had reported receiving it.

- **Sites needed more training in behavior management and working with children with disabilities; however, there were concerns that training was too elementary.** On average, 75% of sites indicated that they needed more training in the discipline of children, and in fact, 71% of child care centers and preschools excluded or threatened to exclude a child for aggressive behavior in the past two years. Additionally, over half of sites reported that they sought assistance to deal with aggressive behavior problems. Over 96% of center-based programs and 56% of home-based programs reported caring for a child with disabilities, and 68% of providers said they wanted more training in caring for children with disabilities. However, 63% of providers reported concerns that the training they had received was too elementary, which must be considered when developing training to address their needs.

## Conclusions and Recommendations

- **To improve quality for low-income children, the Commonwealth should consider expanding Head Start** so it and its collaborating organizations can operate full-day, full-year, and for more eligible children. In Pennsylvania, Head Start showed the highest structural quality, has the best educated directors and staff, serves more children with disabilities than other types of programs, is geographically well distributed especially in rural areas, has an established administrative infrastructure, and has national standards and a monitoring system. Yet Head Start is primarily a part-day (3-6 hours per day) part-year (does not operate in the summer) program, and only half of the income- and age-eligible children in Pennsylvania are enrolled. Therefore, in its current configuration, Head Start is insufficient to meet the needs of many low-income families who must be engaged in employment or related activities full-time all year given current federal proposals.

- **A public information campaign on the nature and importance of quality in early childhood services should be considered as a way to improve quality of and access to early care and education programs**. Parents would more likely pick quality if it were available, accessible, and affordable to each family.

- **Both parents and providers of early childhood services need additional financial support**. Early childhood services have always represented an exception to market forces, because they cost too much for parents to pay and they pay too little for providers to earn. The average full-fee for centers and preschools in Pennsylvania is $5,950 for preschoolers, $6,825 for toddlers, and $7,425 for infants a year per child, and the average first-year teacher wage is $17,250. While state subsidies are approximately at these full-fee levels, only 69% of a provider's budget comes from parent fees, the remainder from subsidies and government/private grants. In fact, a study by the Keystone Research Center (2001) recommended that Pennsylvania phase in a new approach to setting child care subsidies that is based on the actual cost of delivering quality care in each county. Clearly, support is needed for both parents and providers.

- **Early childhood providers operated by religious organizations that receive government subsidies should be held to the same standards of quality as providers managed by non-religious organizations**. The data show that centers operated by religious institutions are no better and sometimes of lower structural quality than those not operated by a religious institution. Religious institutions that receive government subsidies should be expected to provide the same quality of care as other providers.

- **The quality of family, group home, and legally unregulated care that receives government**

**subsidies should be improved**. Family, group homes, and legally unregulated care is approximately 20-25% less expensive than centers and preschools, but they are also lower in quality. Caregivers in homes have the lowest levels of education (88% do not have Bachelors degrees) and training (i.e., more than half of home-based providers profess not to need in-service training). Although parents should be able to choose whomever they wish to care for their young children, the State should require and provide training and financial incentives for homes that receive public subsidies to achieve a reasonable quality of care.

- **A rating system, such as Keystone Stars, could encourage and recognize quality and financially reward its attainment**. The data show that centers and preschools that are accredited by professional organizations (principally NAEYC) are of better structural quality than those seeking but not yet attaining accreditation and those that are not seeking accreditation. Thus, becoming accredited does not simply reward an already high-quality site with a certificate but actually encourages improvement in the quality of that site in the process. This finding supports the rationale for Pennsylvania's Keystone Stars, which should provide a recognizable "certification" to sites that they can advertise, and reward sites financially according to their level of quality.

- **In-service training should be made more relevant to providers' needs and more financially affordable.**

- Providers report they need training in a variety of topics, especially behavior management (e.g., of aggressive children) and caring for children with disabilities.

- Providers need more training on helping children make the transition to school.

- In-service training needs to be appropriate and affordable.

- **Pennsylvania should work toward the National Academy of Science recommendation that every group of children in care should be led by a "teacher" who has a Bachelors degree in early childhood development, care, and education**. Currently in Pennsylvania, approximately 78% of center, 61% of Head Start, and 42% of preschool teachers and 82% of home-based staff do not have a Bachelors degree in any field. The general education of the classroom teacher is one of the single strongest correlates of beneficial child outcomes, especially when coupled with specific training in early childhood development, care, and education. The State should consider ways to financially encourage an educated and well-trained staff, both by supporting individuals to obtain such education and by supporting providers to employ them.

## Future Research

There were important areas regarding early care and education providers that the research team would have liked to explore; however, given the short timeframe of the Task Force research, it was not feasible. Additionally, further questions became apparent after conducting the analyses reflected in this executive summary and in the full report. The following suggestions reflect issues to explore in future research.

- **Develop and maintain a periodic monitoring system that would document and guide continuous improvements in the varied types of early care and education providers.** The data from this survey provided a baseline of the characteristics of early care and education providers in Pennsylvania and could be used to measure the impact of future initiatives and policy decisions and to identify new challenges confronting providers.

- **Evaluate provider needs and ability to adequately educate and care for young children with disabilities and behavioral health challenges.** Compared to findings in a 1989 assessment of providers, far more providers have children with special needs and/or behavioral health challenges in their care. A more thorough examination of the nature of the children's needs and how providers strive to address these needs is justified.

- **Examine the relationship between structural quality, as measured in this study, and classroom dynamics, as will be measured in the Penn State Quality Study.** It will be important to identify how the structural variables impact classroom dynamics to determine those aspects of quality that can or should be amended by legislative or regulatory changes to improve the overall quality of programs.

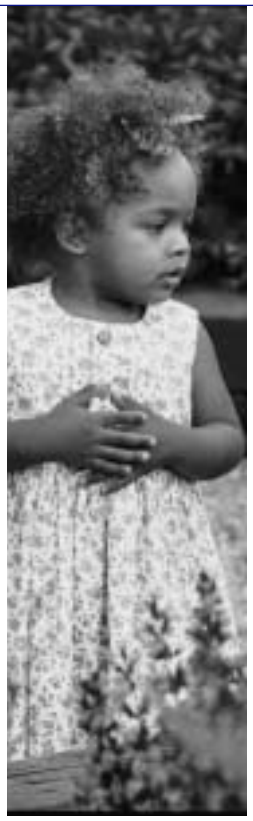
- **Evaluate the use of incentives and their impact on quality and staff turnover.** Incentives can be

geared to programs to improve quality (e.g., Keystone Stars) or to individuals (e.g., TEACH or loan forgiveness programs). As these methods are used to strengthen early childhood care and education programs, they should be evaluated to measure their effectiveness.

- **Periodically measure children's developmental status to identify the impact of participation in different types of early care and education programs and of program changes.** Although this study (coupled with the Quality Study to be completed) will provide information about the quality of programs, it is necessary to measure the children's progress to identify the critical variables associated with quality and how they impact child outcomes.

[1] This survey was developed, in alphabetical order, by Wendy Etheridge, Anne Farber, Christina Groark, Robert McCall, Kelly Mehaffie, and Robert Nelkin. The authors thank numerous experts who were consulted during the survey development process including Joan Benso, Linda Ehrlich, Louise Kaczmarek, Emie Tittnich, the Governor's Policy Office, the Secretaries of State, the UCPC team, and other members of the Governor's Early Childhood Task Force for their input. Thanks are also extended to the University Center for Social and Urban Research (UCSUR) Survey Research Department for their assistance in data collection and analysis.

[2] The Department of Education and DPW identify five categories of providers. Preschools/nursery schools are registered with the Department of Education and meet their regulation requirements. Child care centers serve 13 or more children. Group home providers serve between 7 – 12 unrelated children. Family home providers serve 4 – 6 unrelated children. Legally unregulated providers serve between 1 – 3 unrelated children.



# From Science to Policy: Research on Issues, Programs and Policies in Early Care and Education

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**Written by**

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> *From pre-schools to Head Starts to home-based care, this new Task Force will determine how to help improve the places where our children are getting their educational start. The Task Force's findings will help us ensure that Pennsylvania's children are healthy, safe, and ready for their first day of school. No time is more important in the development of children than the years before they ever set foot in a school. And that's why this Task Force will evaluate how Pennsylvania should expand its already strong commitment to school readiness.*
>
> *Governor Mark Schweiker (April 17, 2002)*

## Introduction

The young child's experiences in the first five years of life can have a dramatic, long-term effect on their lifelong functioning. These experiences not only affect the child's readiness for school, but can also influence the quality of their relationships with others and their ability to grow up to be effective citizens.[1] Thus, the early childhood years have implications not only for the children and their families, but are of central concern to the social and economic health of Pennsylvania.

### Why Now?

During the past few decades a number of forces have created greater interest in the needs of young children and their families. First, developmental scientists have made

major advances in understanding the developing child as well as what factors influence the child's development. These findings not only provide dramatic new information on the child's brain and its growth, but more importantly have demonstrated that the quality of the child's relationships and the degree of cognitive stimulation have a profound impact on the child's cognitive, emotional, and social growth. Sensitive, responsive care and quality education can establish an important foundation on which later academic achievement and success develops. The ability of early stimulating contexts to alter subsequent developmental outcomes suggests that tremendous opportunities to influence children's development exist during the first few years of life.

A second factor influencing public interest and concern includes the dramatic changes in family life over the past three decades and the related social and economic changes in the U.S. (and Pennsylvania) that influence family life. These changes include dramatic shifts in 1) the number of two-wage-earner families – an almost 100% increase in the number of mothers of young children who are employed; 2) a continuing rise in the number of children living in single-parent homes 3) the persistence of poverty for many young children and the growing gap between the poor and wealthy; 4) significant gaps in developmental outcomes among children who are poor as well as continuing ethnic and racial disparities in access to quality health and educational services; and 5) further devolution of funding and responsibilities to state and local governments to develop policies, programs, and services for young children and their families. These changes have come at the same time that employability has been more strongly linked to education, and citizens and policymakers have shown greater attention to improving the quality of our nation's educational systems. As a result, many families are struggling with the tension of balancing work and family responsibilities. A consequence of these changes is that someone other than their parents cares for many of Pennsylvania's children during much of the day. Early care and education enrollments of children from birth to five have grown dramatically.

Starting school "ready to learn" gives children substantial advantages, greatly improving their chances of enjoying success in the classroom and later in life. Entering school behind, however, places many children at risk of staying behind, doing poorly, eventually dropping out, and enduring other troublesome outcomes.

How can we invest in our children's early development to ensure subsequent academic, social and emotional success? This question has attracted widespread attention from Pennsylvania policymakers. **Their goal: to develop a system of early care and education that will meet families' needs today and help prepare a sophisticated, educated work force in the future.**

Toward this goal, Pennsylvania's Governor Mark Schweiker signed Executive Order 2002-2 on April 17, 2002 to create the Early Childhood Care and Education Task Force. By November 2002, the Task Force will prepare a comprehensive menu of evidence-based, cost effective strategies that will lay the foundation for the future of Pennsylvania's early care and education delivery system. The report will be passed to the incoming gubernatorial administration so that planning for Pennsylvania's children and families can begin immediately in the new administration.

## Goals of this Report

As part of this overall report of the Task Force, this document provides a "Review of Science-Based Best Practices across Domains of Early Childhood." The primary goal of this report is to provide a comprehensive literature review of a broad array of early care and education programs that have research evidence of effective practices. As such, this report identifies programs that have demonstrated records of effectiveness, reviews characteristics of evidence-based programs and services that have positively affected children's social and cognitive outcomes, reviews practices of related services (e.g., family services, transition practices, non-school hour programs) that enhance early care and education, and when possible provides estimated costs of implementation. In addition, this document reviews needs in the domain of professional preparation and development that produce a well-prepared workforce of early childhood educators. Finally, it examines state policies and provides recommendations for programs, services, and policies that facilitate the implementation of effective early services.

### Use of Evidence-Based information

As directed by the Executive Order of the Governor, the Task Force should examine "the full-range of evidence-based school readiness strategies available for early childhood care and education." To do so, this literature review adopted the public health model, which utilizes the concepts of risk and protective factors in understanding how the child's experiences may influence his or her cognitive and social development in the early years. Risk- and protective-factor models provide a broad framework for understanding how to reduce such outcomes as heart failure, cancer, delinquency, and academic and social problems in childhood. Many of the effective programs and practices reviewed in this report are intended to reduce the impact of risk factors and promote protective factors that strengthen the child's school and interpersonal success.

## Risk Factors and Their Operation

During the past decades, a number of factors have been identified that are associated with increased risk for school failure and social-emotional problems. In the period of birth until school entry, major risk factors are:

- **Perinatal and genetic risks:** poor prenatal environment (including maternal substance abuse), low birth weight, premature birth, organic and sensory disabilities;
- **Skill development delays:** low intelligence, attention difficulties, emotional dysregulation;
- **Family circumstances:** low income and low social class, mental illness in the family, maternal depression, child abuse, stressful life events, family disorganization, family conflict, and insecure attachments to parents;
- **Ecological risks:** neighborhood disorganization, extreme poverty, racial injustice, and unemployment.

Research supports a number of observations about the operation of risk factors. First, development is complex and it is unlikely that there is a single cause or risk factor for later difficulties. Second, there are multiple pathways to later difficulties; different combinations of risk factors may lead to the same outcome. Third, risk factors occur not only at individual level, but also within neighborhood, schools, and communities. However, not all children who experience such risks develop later problems, some are resilient. Finally, culture influences many aspects of child development and is reflected in child rearing beliefs and practices; this is an area that is understudied and less well understood.[2]

Most of the risk factors related to school readiness are also predictive of later academic and social problems, such as delinquency and school drop-out. Efforts in early childhood to reduce the effects of risk should focus on risk reduction of multiple, interacting risk factors that may have direct effects on multiple outcomes (both academic and social).

## Protective Factors and Their Operation

Protective factors are variables that reduce the likelihood of troublesome outcomes. Protective factors include:

- **Characteristics of the individual**, such as temperamental characteristics, cognitive skills, and social skills.
- **Quality of the child's interactions with others**, including secure attachment to parents and other adults.
- **Characteristics of communities**, including quality early education and care, quality schools, and comprehensive supports for families in need.

## Self-Regulation and Relationships

A central concept in child development is the growth of self-regulatory skills. The young child's ability to increasingly regulate their physiology (sleep, heart rate, self-calming) as well as their behavior (maintaining attention, controlling impulses and aggression) influences both social and cognitive growth. Repeated exposures to highly stressful conditions can result in significant delays or disorders, whereas the gradual experience of minor challenges promotes healthy regulation. The ability to maintain attention while being read to and coping with the stress of regular, brief separations from parents are two of the developing regulatory capacities that allow children to develop healthy independence.

The child's growing self-regulation abilities are largely the result of healthy, enduring human relationships. Close, secure, caring relationships are fundamental to our adaptation throughout life –

and especially so for young children. As stated in The National Academy of Science's Neurons to Neighborhoods, "The essential features of healthy, growth-promoting relationships in early childhood are best embodied in the concepts of contingency and reciprocity ... when young children and their caregivers are tuned in to each other, and when caregivers can read the child's emotional cues and respond appropriately to his or her needs in a timely fashion, their interactions tend to be successful and the relationship is likely to support healthy development in multiple domains, including cognition, social-emotional competence, and moral understanding."[3]

## Levels of Evidence Regarding Programs and Best Practices

This review covers a wide scope of programs, practices, and policies for children ages birth to eight. It includes programs and practices for all children, as well as for those in need of more intensive intervention because of significant risk factors or early identification of specific disabilities. It covers programs that involve home visiting, comprehensive family services, parent education, family and center-based early care and education, follow-on programs for children ages six to eight years, non-school hour (after-school) programs, and the transition to kindergarten.

Given the wide variety and types of programs and practices that were reviewed, there is great variability in the evidence base. Following from the Executive Order, this review has examined levels of evidence with an emphasis on the quality of the research evidence.

Higher levels of evidence were given greater attention in the review. A brief review of different levels of evidence is contained in the Addendum to this Executive Summary. Briefly, randomized clinical trials provide the strongest evidence of program effectiveness and programs that show effects under such conditions are most likely to be effective in similar conditions. Programs that have only shown effects in quasi-experimental designs may be designated as "promising" but still require further evidence of effectiveness. Caution needs to be exercised with programs or policies that have not been subject to experimental study. However, it should be remembered that some topics in early childhood cannot easily be studied with experimental designs and thus rely on less rigorous forms of analysis. The literature reviews rely on the highest levels of evidence available in early childhood or a particular sub-field and there is considerable variability in the levels of evidence depending upon the specific topic.

## Limitation of the Report

Due to the brief time period between the Governor's Executive Order and the completion of this extensive literature review it is important to state a disclaimer. Due to the massive amount of literature and the large array of topics covered in this report, some strategic decisions were required. Not all topics in early childhood are covered and the literature presented is illustrative, not exhaustive; it summarizes the most important programs, practices, and policies given the current state of the research.

## Summary Conclusions

The chapters of this report review a wide array of programs, practices, and policies in early care and education. Each chapter has contained information on effective programs and best practices based on varying degrees of scientific evidence. Here we provide an integrated overview of broad policy-related conclusions that emerge across these chapters. They are organized under the topics of Programs/Services for Children and Families, Effectively Supporting Families, Improving Workforce Quality, Evaluation and Monitoring, Public Awareness and Engagement, and Effective Governance.

### Programs, Practices, and Services for Children and Families

Recommendations below for programs and services for children are divided into three categories – those for all children and families, those for at-risk children and families, and those for families with young children with identified disabilities.

### Early Care and Education for All Children and Families

- **It is critical to improve the quality of early care and education (birth to age 6) for all children. Research clearly indicates that the quality of early care and education programs provide short- and long-term benefits to the participants and to society.**

While no single curriculum or pedagogical model can be identified as "best," the National Academy of Sciences has enumerated the defining characteristics of quality early childhood care and education (see box below). The cost of quality programming is estimated to be 10%-30% more than poor quality—that is the cost of mediocre custodial care (Cost, Quality, and Child Outcomes Study, 1993). Such an investment might be used to recruit better educated staff, provide smaller group sizes, lower child: staff ratios, etc.

### Quality Characteristics of Early Care and Education Services

- Well-educated staff specifically trained in the child development area and related fields.
- Consistency of staff over time, often promoted by adequate salaries and benefits, reasonable workloads, and pleasant and supportive working conditions.
- Low child: staff ratios and small group sizes are necessary for staff to effectively interact with individual children, develop relationships, and provide the "teachable moment" that defines developmentally appropriate practices.
- Comprehensive educational and social services available or by referral that are directed specifically at each individual (e.g., parent, child) and domains of desired improvement (e.g., child cognitive, social-emotional, parenting skills, drug and alcohol problems).
- Sufficient extent (e.g., hours per day, weeks per year, years in program) and program intensity (e.g., time on task, direct instruction on learning tasks, etc.) are necessary to produce benefits.
- Supportive and regular supervision of staff by knowledgeable administrators. The benefits of training staff are often achieved only if there is supportive supervision.
- Plans for developing rapport with, mutual respect, support, and involvement of parents, both fathers (custodial and non-custodial) and mothers in the program and ensure that staff and curriculum are culturally competent.
- Programs need systematic monitoring and evaluation to continuously improve programs and benchmark progress.

These characteristics should be used as criteria for selecting programs to be funded and for establishing standards of excellence, regulations, licensing, and incentives.

- **Given the finding that infant and toddler care is of critical importance and usually of lower quality both in PA4 and other states,5 there is a particular need to focus efforts on defining quality in the Commonwealth, then improving the quality of care and education in family care, group care, and center care for infants and toddlers.** All childcare providers (home-based and center-based) should utilize standards aligned with the developmental needs of young children.
- **It has been shown that attending kindergarten is of significant benefit to all children.** Science tells us that children from diverse backgrounds can learn from each other,[6] and that there can be greater public support for quality programs if they are provided for all who wish to enroll. Research suggests children can have better outcomes if provided quality early programs such as kindergartens that are longer in hours.[7]
- **Literature tells us that quality non-school programs during the early elementary years benefit children.** Self-care ("latch-key") is associated with behavioral problems, poorer academic performance, and lower social competence.[8] Although there have been few careful research studies of effectiveness, after-school programs of high quality can improve school performance and behavior among low-income children.[9] Funds for the 21st Century Schools Program, for example, can be directed toward programs that engage low-income children in daily programs meeting high quality standards.

## Intensive Enriched Environments for Children Already At-Risk

- **Intensive enriched environments can significantly improve the life outcomes of at-risk children and their families.** Research indicates that for children from low-income families, high-quality early care and education programs can lead to higher scores on achievement tests,[10] reductions in school failure and dropout,[11,12] lower rates of special education placement,[13] reduced criminality, and improved family functioning and economic self-

sufficiency.[14] These efforts include intensive home-visiting programs and comprehensive family services during the infant and toddler period, as well as high-quality preschool programs with well-trained personnel. Cost-benefit analyses have demonstrated substantial long-term benefits for every dollar invested in such programs, suggesting that additional investment in them is warranted.

- **Further support and expand the Head Start model so it and its collaborating organizations can operate for more hours and for more eligible children.** Although Head Start has clearly shown benefits for children,[15] research indicates that children from low-income families have better outcomes with more intense and longer lasting quality programs, so the more hours of programming per day and the more months per year such services are provided, the greater the benefits for parents and children.[16,17] Head Start has a proven track record of maintaining high quality comprehensive services through its use of clear performance standards and routine monitoring.

- **Low-income children especially benefit from full day kindergarten.** Families with the most risk factors are likely to have children who are more academically challenged and who may perform poorly without early education services such as kindergarten.[18] Research also tells us that more time spent in programming can improve school performance.[19]

- **It is critical to support quality comprehensive family services for families with children ages birth through eight.** Comprehensive services aimed at low-income families link community services and refer families to those services (see box below). These include home visiting, parent education services, and center-based services for children. Examples of effective programs include Nurse Family Partnership[20] and Early Head Start.[21] Data and other resources suggest that they are worthy of support because they can reduce the poor outcomes associated with low income, and they can produce benefits for both parents and children.[22] Additional evaluations and monitoring of programs are necessary to learn more about their potential benefits.

**Major Components of Quality Comprehensive Family Services**

- Case management services to identify family strengths, help the family identify needs, and coordinate referrals.
- Home visiting as an approach to delivering services should be supported primarily as part of a comprehensive family service program. By itself, home visiting is expensive, although it can be cost effective if delivered by professionals or trained non-professionals who visit frequently and remain on task during their visits. Its primary purpose is to engage a family in services, come to understand the family's needs and individual circumstances, promote beneficial parenting practices in the family context, encourage positive parent-child relationships, and prevent child abuse and neglect.
- Parenting education, which is also aimed at reducing abuse and neglect and helping parents to be more effective, can improve parenting attitudes and behavior, involve parents in services, and produce some benefits in children. By itself, parenting education has shown some, but limited benefits for children, but only if it is intense, extensive, and gives parents concrete information on parenting tactics. It is most effective when coupled with comprehensive family services and direct services to children (e.g., early care and education).
- Service procedures and techniques that are intensive, appropriate, culturally sensitive, and have demonstrated effectiveness for the target participants.
- Centers that provide direct care in a quality fashion for infants, toddlers, and preschoolers are also a vital component of comprehensive family services. Research shows that the combination of home visiting and parent education plus center services for children produce the best results, as long as all services are of high quality.

- **Public schools can provide effective supplementary programs ("follow-on" programs) for at-risk children six to eight years of age.** Research clearly demonstrates that the length of time in special programming during the early years of life is a major contributor to

benefits for children. Sometimes one to three years of early care and education, while positive, may not be sufficient for some children to reap full potential benefits. Additional time in special programs can be accomplished by extending the early childhood services into the first three years of public schooling,[23] which should also smooth the transition of children to the public schools.

## Effective Support for Young Children with Disabilities

- **It is important to provide the full range of supports (financial, qualified personnel, access, training, technical assistance, physical equipment, transportation) to ensure quality individualized early childhood programming for children with disabilities.** Research indicates that the entire range of supports (social, parent-child, etc.) is necessary and can have positive effects on children with disabilities and their families.[24] In addition, research demonstrates that children with disabilities educated in inclusive environments display more cognitively mature play and social interaction.

- **Quality behavioral health interventions, such as the consultant model,25 are necessary in diverse settings including Head Start, childcare programs, and into the early school years.** Children's emotional development has a major influence on their school readiness and success. Those who experience early serious emotional problems are at risk of school failure. Research suggests that emotional and behavioral problems are costly, but since many can be identified early and are amenable to change, their undesirable consequences can be reduced with early identification and intervention.

## Effectively Supporting Families

- **Many parents could benefit from both information and skill development regarding parenting, which can have a long-term impact on their child's development.** The quality of the parent-child relationship is the most important single predictor of the child's later functioning. Parenting is a stressful role in American life and depression is shown at extremely high rates in parents of young children. Research indicates that parents of young children are actively searching for information to improve their parenting, reduce stress, and support their child's development. Unfortunately, with the exception of comprehensive services for at-risk families, there has been little research demonstrating the effectiveness of general parent education. Nevertheless, providing parents with appropriate information, skills, and social support in combination with other services for parents and direct services for children is an important component of comprehensive services that produce positive outcomes for children and families.

- **Parents can benefit from enhanced outreach and access to subsidy information.** Currently, only a minority of families eligible for childcare subsidies are using these funds to defray costs. Research in other states has shown that the rate of subsidy utilization can be increased and the financial burden to families can be reduced by improving outreach and accessibility of subsidy information, consideration of regulatory changes, and increase of subsidy rates. Parents of young children spend a disproportionate amount of their total income on early care and education. This burden is proportionately greater for lower income families.

- **When developing new services or programs to improve the early care and education of young children, it is important to include parental input in the process of designing and delivering programs.**

## Improving WorkForce Quality in Early Child Care and Education

There is a workforce crisis in early care and education. There are few individuals fully trained to provide effective education and care for young children. Further, low salaries, lack of benefits, and less than optimal working conditions lead to considerable turnover with many qualified individuals leaving the field. If recommendations above are considered, there will be even further demands for quality staff.

- **Individuals working in early education birth to eight years need early childhood knowledge and skills. One method to ensure that these skills are developed is to require credentials for individuals through licensing, certification, permits, etc.** A study conducted by the Institute for Leadership and Career Initiatives at Wheelock College[26] recommends that all professionals seek further knowledge and higher degrees rather than setting a single level of higher education as the terminal qualification. For instance, quality in centers is partly dependent upon the competency of the

director and a director credential would ensure demonstration of necessary competencies. In addition to updating knowledge through coursework, credentials would require some practicum experience which professionals agree is essential when working in early childhood.

- **It is important for higher education institutions to offer in-service course work in early childhood education, including training in Director capabilities (organization psychology, financial management, etc.), and to develop additional teaching skills of higher education faculty through faculty institutes targeted at new information in the field of early childhood.** These pre- and in-service courses for staff should emphasize program characteristics of successful programs (quality programming). The field of early care and education calls for innovative approaches to adult learning and a coverage of relevant research in new areas, such as brain research,[27] working in community settings, and cultural understanding. In addition, there is a need for greater attention to course work covering the infant and toddler period (birth to three), which are critical to later learning.
- Research in other states indicates that workforce quality can be improved by:
  - Fully implementing a rating system such as Keystone Stars.[28] Pennsylvania has just initiated this rating system.
  - Implementing a scholarship, incentive, and quality in-service program such as T.E.A.C.H. Pennsylvania has provided $1.75 million in support this year.
  - Increasing the rates paid to providers for quality childcare programs for subsidized childcare. Pennsylvania has increased the rates biannually up to the 75th percentile.
  - Increase scholarships and loan forgiveness programs for students working on degrees and also working in ECE programs. Pennsylvania has discontinued support for this program this budget year.

## Evaluation and Monitoring

To assess the impact of changes in Pennsylvania's programs/services and policies, it is necessary to develop monitoring systems to provide accountability as well as feedback for program improvement. A number of recommendations concern the issues of evaluation and monitoring.

- **It is important to adopt a statewide definition of school readiness to move forward in implementing a plan for making sure that children are ready for school and schools are ready for children.** States that have adopted a statewide definition of school readiness (e.g., North Carolina, Minnesota) are better able to move forward in implementing and assess the efficacy of school readiness initiatives. The National Educational Goals Panel definition of school readiness is the one that we would recommend is used to begin Pennsylvania's dialogue on school readiness.
- **An ongoing plan for evaluating the school readiness of children in Pennsylvania is necessary to assess the effectiveness of newly implemented programs and policies on child development.**[29] By monitoring the school readiness of a random sample of children on a regular basis (biannually), it will be possible to assess the effectiveness of newly implemented programs and policies on child development.
- **Science recommends the use of an assessment system to identify strengths and weaknesses of children for individualized education in the early years and to monitor child development from preschool to elementary school.** Best practice suggests that information learned about children's development in preschool and shared with elementary school teachers can be used to guide each child's individual educational needs and capabilities in school.

## Public Awareness and Engagement

The development of public awareness regarding the importance of early childhood development and the need for quality programs and services is essential for both engaging public support and building the knowledge base of parents and other concerned citizens who desire effective programs and services. Steps to heighten public awareness include:

- **Design and implement a public education campaign to inform parents and communities as to what constitutes quality early care and education experiences and what benefits can be expected.** A public information campaign regarding what constitutes quality services would provide parents with the knowledge necessary to select appropriate services. It would also provide knowledge to the general community.[30] Considerable research on the use of media campaigns is available and tells us that such campaigns can be effective in modifying

behaviors of the public and behaviors of individual parents.[31]

- **Employers should be informed about work/life initiatives and the changing needs of the workforce.**
- *Work/life benefits can decrease absenteeism, increase employee satisfaction and generate goodwill towards the organization, help with recruitment and retention, and reduce stress that employees feel.[32] Work/life benefits (e.g., flex time, parental leave, child care on premises) are a key component of creating a culture that is sensitive to employee's needs and can lead to a greater commitment to the organization and increased productivity.[33]*

## Effective Governance of Early Childhood

Research in Pennsylvania, as well as in other states, makes it clear that early care and education programs, services, and policies are fragmented. There is no unified governance and as a result there is a patchwork of uncoordinated services and policies that often leads to confusion among parents, agencies, and local governments. States that have moved forward to implement some of the research-based programs and services described above have also focused on the creation of a single state agency that is responsible for the array of services and policies that impact early care and education (e.g., Minnesota, North Carolina).

- **Coordinate the professional development programs currently provided and integrate them with future supplemental programs.** There are a variety of in-service programs provided through higher education institutions (e.g., Keystone University Research Corporation, Pennsylvania State University, and the University of Pittsburgh); and other initiatives (e.g., PA Pathways, Educational Policy and Issues Center, and Early Intervention Technical Assistance). The recent establishment of regional planning groups represents an opportunity to integrate these important initiatives. Such integration is key to establishing a system.
- **Continue the development of a unified data system that provides information on all providers, their level and amount of services, and ages and types of children served throughout the state. This system should be linked to other initiatives in the Commonwealth, including Keystone Stars.** The current research studies conducted by UCPC were hampered by not being able to access a coordinated state data system of all early childhood sites, to determine the number of children that are served by these sites at different ages, to determine the ages of children receiving subsidies for care, etc. Such a mechanism is usually provided by a state-wide coordination office of resource and referral for early child care and education.

### Addendum to the Executive Summary

# Levels of Evidence Regarding Programs and Best Practices

The literature review covers a wide scope of programs, practices, and policies for children ages birth to eight years. It includes programs and practices for all children, as well as for those in need of more intensive intervention because of significant risk factors or early identification of specific disabilities. It covers programs that involve home visiting, comprehensive family services, parent education, family and center-based early care and education, follow-on programs for children ages six to eight years, non-school hour (after-school) programs, and the transition to kindergarten.

Given the wide variety and types of programs and practices that were reviewed, there is great variability in the evidence-base. Following the Executive Order, this review has examined levels of evidence with an emphasis on examining the quality of the research evidence.

For many questions regarding the effectiveness of early childhood programs and practices, experimental designs are especially useful. By comparing groups that have different experiences, experimental designs increase our confidence that outcomes are the result of a specific program or innovation and not the result of other variables or events. For example, experimental designs help us to answer such questions as: Would adopting a new model of home visiting or an innovative preschool education model lead to improvements in children's later school success? How is the state's professional development program influencing teacher's retention and satisfaction? Among the different types of experimental design, there are two general categories that provide different levels of evidence.

## Randomized Clinical Trials

True experimental designs compare people who have received an intervention (treatment group) to an equivalent group who did not receive the intervention (control group). Most, importantly, participants are randomly assigned to either the treatment or control groups. The true experiment, with its random assignment, allows evaluators to state with relatively more confidence that the intervention, and not some other factor, is responsible for the results. This is the principal method that researchers use to specify cause-and-effect relation.[34] But, a single randomized trial showing evidence of program effectiveness only provides evidence of program impact for the settings and circumstances in which it was conducted. Additional trials in other settings that replicate the effects greatly increase confidence in the program's effectiveness. Replication also can establish whether the program is effective with different racial or ethnic groups, in both urban and rural settings, with persons of different levels of education, and in different types of communities.

## Quasi-Experimental Studies

When a true experimental design is not available for various reasons (e.g., in educational settings where intact groups are already formed, when intervention or treatment cannot be withheld from a group, or when no appropriate control or comparison groups are available), a quasi-experimental design may be used. Quasi-experiments involve comparing a group that receives a particular program or model to a group that does not. Although there is no randomization, if done with care, one can establish a comparison group that has similar characteristics as the treatment group. A good example of a quasi-experimental study is the Chicago Child-Parent Preschool Project.[35] Quasi-experimental studies can be effective, and we can learn a great deal from them. However, they do require careful statistical controls to match comparison groups with participants. Unfortunately, in most studies that use quasi-experimental designs it is impossible to know if the intervention program has led to significant differences or whether pre-existing group differences might account for program effects; that is, people who voluntarily chose to be involved with the intervention were different in ways from those in the comparison group.

The lowest level of experimental rigor is the pre-post test design without an adequate control group. Without the use of any control groups (only pre- and post-test design) it is often very difficult to know if program effects are due to normal growth and development, other programs and services received, or events such as changing economic conditions.

## Non-Experimental Research

In some cases experimental designs are not possible. For example, if one wanted to answer the question of whether one state's policy was more effective than another state's policy, it would not be possible to randomize states to certain policies. In addition, as one cannot assign children to low quality education for ethical reasons, researchers examine naturally occurring context in which quality of care varies and how this variation is related to later outcomes. Two important longitudinal, correlational studies in early childhood are the Cost, Quality and Outcomes Study, and the NICHD Study of Early Child Care.

Finally, in some important areas of early care and education, there is little research data on which to rely. Here the research community needs to gather a "rich set of clues" to develop tentative recommendations regarding programs and policies.[36] There is a real danger, however, in using "best ideas" in the absence of effective research evidence. Although many "best ideas" indeed are effective, some that logically seemed to address a need ultimately have been shown to have minimal or no effects on child development.

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