



Family Child Care in North Carolina

SMART START: Family Child Care in North Carolina
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EXECUTIVE SUMMARY

We designed this study to learn more about the quality of care in family child care homes in North Carolina and the relationship between quality of care and involvement in Smart Start quality improvement efforts. We addressed three primary questions in this study:

- ◆ What is the quality of family child care in North Carolina?
- ◆ What effect is Smart Start having on the quality of family child care?
- ◆ What factors are related to the quality of care?

A total of 151 family child care homes from eight Smart Start partnerships in rounds 2 and 3 were visited in the spring and summer of 1998 to gather observational information about daily routines, activities, and materials in the child care home, and interactions between the provider and the children. We also interviewed the family child care providers about program services, their background characteristics, and enrollment characteristics of the child care home.

Overall, the observations of these family child care homes indicate that the average quality of child care practices is in the medium range, suggesting that while some family child care homes are providing good care for children, many need improvement to meet the standards for developmentally appropriate care for young children. Based on our observations, some areas to especially target for quality improvement efforts are basic care (e.g., sanitary practices) and safety practices. In contrast, the interactions of the child care providers with the children are of somewhat higher quality than the child care practices in these homes. In general, the quality of practices is somewhat lower in family child care than in child care centers in North Carolina.

One of the key factors related to better quality of the family child care homes was greater levels of participation in Smart Start activities. Family child care homes that were more involved in Smart Start were of higher quality than those that were less involved. Better family child care quality was also related to professional characteristics of providers, namely higher levels of formal education, having a CDA credential, participation in professional development programs, and membership in professional associations. Caregiver-child ratios were not related to quality of care, unlike what is typically found in center-based child care, most likely due to licensing regulations which allow fewer children to be served in family child care homes compared to child care center classrooms.

Because family child care is typically provided by a single caregiver, family child care homes face some issues around the stability of the care provided that are less often faced by child care centers with multiple staff and more options for providing substitute care. The majority of family child care homes offered a variety of program services, including school-age child care, part-time care, drop-in care, and care during nontraditional hours. While these options may meet parents' needs for care, they have implications for the experiences of the young children in child care. Further, family child care providers are faced with issues around cost and quality, much the same as other sectors of the child care market, with better quality related to higher costs.

Family Child Care in North Carolina

INTRODUCTION

North Carolina's Early Childhood Initiative, Smart Start, was created in 1993 as a partnership between state government and local leaders, service providers, and families to better serve children under six and their families. The state distributes funds to county partnerships, non-profit corporations established specifically for the purpose of administering Smart Start activities. The primary goal of Smart Start is to ensure that all children enter school healthy and prepared to succeed. One of the ways in which local partnerships are working to achieve this goal is by improving the quality of and accessibility to care provided in family child care homes.

We designed this study to learn more about the quality of care in family child care homes in North Carolina and the relationship between quality of care and involvement in Smart Start quality improvement efforts. While previous reports have examined the effects of Smart Start on child care centers (FPG UNC-CH Smart Start Evaluation Team 1996, 1997a, 1997b), this report focuses exclusively on family child care homes. We addressed three primary questions in this study:

- ◆ What is the quality of family child care in North Carolina?
- ◆ What effect is Smart Start having on the quality of family child care?
- ◆ What factors are related to the quality of care?

In 1998-99, almost one-half of the 82 partnerships were funding activities that specifically addressed needs in family child care homes. Such efforts included child care provider education programs; technical assistance for family child care homes; support to achieve national accreditation; quality enhancement grants to purchase materials or equipment or for other improvements in the child care environment; registration of existing family child care homes; and increasing the family child care workforce, including recruiting potential child care providers, providing training, and providing supporting funds for opening new family child care homes.

Recent estimates suggest that about 28% of child care for children under age six in the US is provided in family child care homes (West, Wright & Hausken, 1995), making this an important segment of the child care market. While there are many studies of child care centers, few research studies have examined family child care homes. One large-scale study of the quality of family child care included a sample of 112 licensed child care homes in three states, North Carolina, Texas, and California, during 1991-92 (Kontos, Howes, Shinn & Galinsky, 1995). The quality of care in these family child care homes was found to be in the medium range, using a widely accepted observational measure of quality, the Family Day Care Rating Scale (Harms & Clifford, 1989). Such care is defined as custodial in nature or likely to meet children's basic care needs, but not likely to provide good opportunities for enhancing children's growth and development. Further, the quality of child care was related to children's development, so that children in higher quality care were more competent socially and cognitively. Similar findings have been demonstrated for child care centers both in the short-term and the long-term (e.g., NICHD Early Child Care Research Network, in press; Peisner-Feinberg & Burchinal, 1997; Peisner-Feinberg et al., 1999; Whitebook, Howes & Phillips, 1989), indicating that the quality of out-of-home child care experiences is an important factor in children's development during their preschool years and continues to influence their development into the early elementary school years.

The present study provided the opportunity to gather information about the quality of family child care in North Carolina using a more recent sample, and to examine the relation between child care quality and Smart Start quality improvement activities in those counties.

STUDY DESCRIPTION

Participants

During the planning phase of this study in early spring of 1998, we convened a meeting of executive directors and key staff involved with family child care efforts from nine partnerships, two local family child care providers, two representatives from the NC Division of Child Development, a representative from the NC Partnership for Children, and potential data collectors. They provided detailed descriptions of Smart Start quality improvement efforts for family child care homes, suggested research questions of interest, and gave advice on logistical and procedural issues, in order to assist us with refining the final study design.

We selected eight partnerships representing nine counties for participation in this study. Criteria for including a partnership in the study were high levels of funding for quality improvement activities for family child care homes, large numbers of registered family child care homes, and diversity in region of the state and county size. The sample was chosen proportionally based on the total number of child care homes per county.

The sample of family child care homes was selected using two sampling techniques: nomination and random selection. The nominated portion of the sample represented family child care homes that were nominated by local partnership Executive Directors as participating in most of the Smart Start activities for family child care. The random portion of the sample represented all other registered family child care homes in the county, and was randomly selected using the most current registration lists from the NC Division of Child Development. We employed this sampling strategy to insure that we had variation in the level of involvement in Smart Start activities and to enable us to test whether involvement was related to child care quality.

Of the 572 child care homes we attempted to recruit, 17% were found to be out of business and 19% could not be reached by mail or telephone. A total of 163 (45%) of the remaining 365 providers agreed to participate, but we were unable to accommodate the scheduling needs of 12. Table 1 shows the sample distribution of family child care homes by partnership.

A total of 151 family child care homes (64 nominated, 87 random) were visited in the spring and summer of 1998 to gather observational information about the facilities, daily routines, activities and materials in the child care home, and interactions between the provider and the children. We also interviewed the family child care providers about their background characteristics and participation in Smart Start quality improvement activities, and about program characteristics, including enrollment, program services, staffing patterns, and fees.

Table 1. Sample Distribution

County	Number of Family Child Care Homes
Round 2	
Down East	20
Durham	30
Forsyth	21
Person	13
Round 3	
Buncombe	14
New Hanover	20
Stokes	4
Wake	29

Measures

At each family child care home visited, data collectors completed two observational measures, the Family Day Care Rating Scale, FDCRS, (Harms & Clifford, 1989) and the Caregiver Interaction Scale, CIS, (Arnett, 1989). The FDCRS is a well-established global measure of child care quality in family child care homes. It includes 32 items covering six general areas: space and furnishings for care and learning; basic care routines; language and reasoning; learning activities; social development; and adult needs. We created a summary score, obtained by averaging all items except adult needs, as a global measure of the developmental appropriateness or quality of the setting. Scores on the FDCRS can range from 1 (low) to 7 (high), with a total score from 1 to less than 3 considered poor; scores from 3 to less than 5 considered medium; and scores of 5 to 7 considered good.

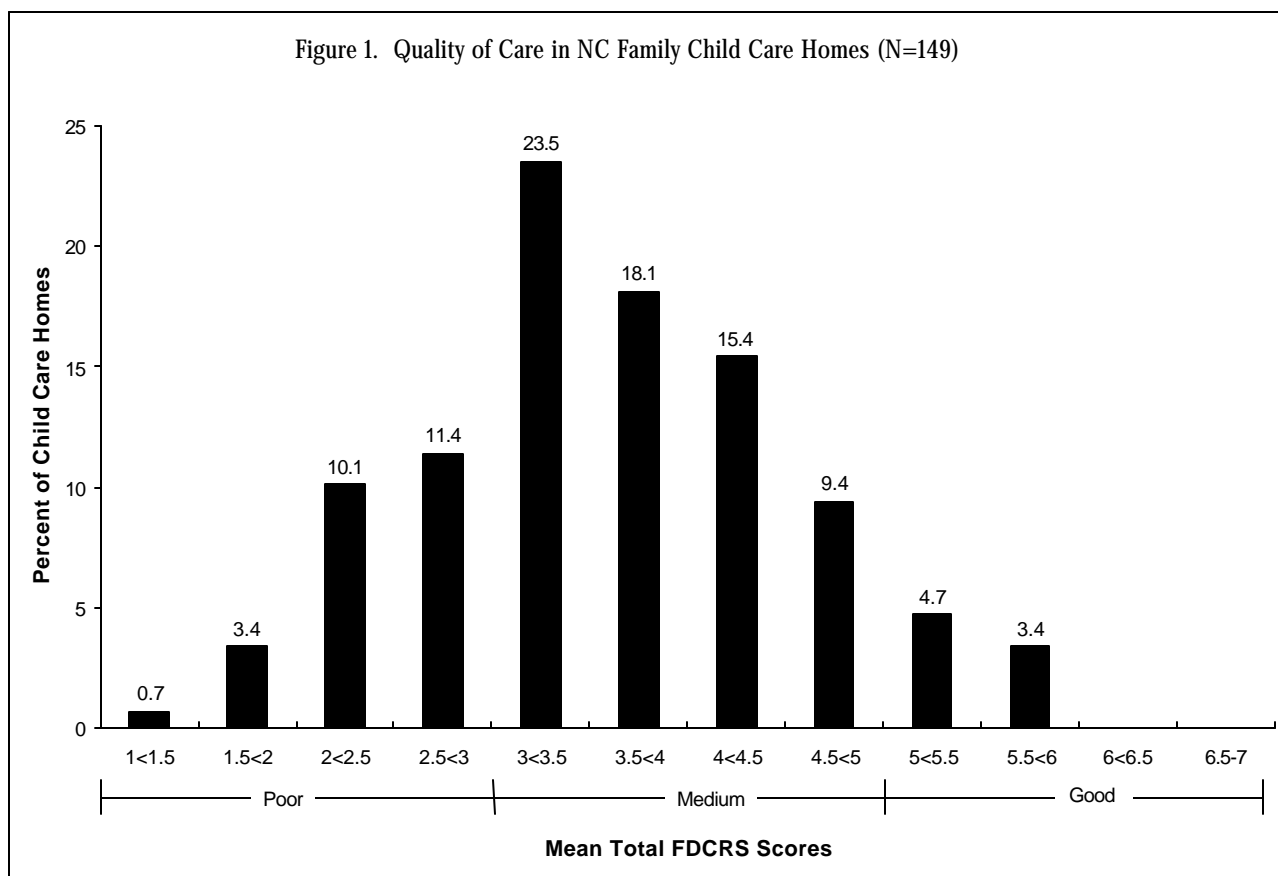
The CIS measures the quality of child care providers' interactions with children on a 1 (low) to 4 (high) scale. The CIS consists of four subscales: sensitivity (warm, attentive, engaged), harshness (critical, threatens children, punitive), detachment (low levels of interaction, interest, and supervision), and permissiveness (ignores misbehavior, lax supervision).

Data collectors also gathered information about the number of children and caregivers present on the day of the visit. Following the observational visit, data collectors interviewed the family child care providers to obtain information about program characteristics (enrollment, program services, staffing patterns, and fees), their background characteristics, and participation in Smart Start quality improvement activities during the past year, using a checklist of 20 potential activities.

DESCRIPTION OF FAMILY CHILD CARE

We looked at the observational data about the child care environments and at the program and provider characteristics for these family child care homes in order to address the first research question: What is the quality of family child care in North Carolina?

Figure 1. Quality of Care in NC Family Child Care Homes (N=149)



Observed Quality

The observations of the family child care homes tell us about the quality of practices and the nature of interactions between caregivers and children. In general, the quality of practices in the family child care homes was in the medium range, with an average FDCRS score of 3.61 (see Table 2). While the majority of the homes were of medium quality, there was a range of quality from poor to good. Approximately one-quarter (25.6%) of the homes were in the poor quality range, about two-thirds (66.4%) were in the medium range, and less than one-tenth (8.1%) were in the good range, with none of the scores in the very upper range of quality (see Figure 1).

There was a similar pattern for the subscale scores, with average scores in the medium range for five of the six subscales—space/furnishings, basic care, social development, learning activities, and language/reasoning (see Table 2). These low scores suggest that the child care homes are not doing an adequate job of providing for children’s basic care needs or providing learning opportunities. Further, the average scores were in the poor quality range for several of the items on these subscales related to basic care routines, safety, and recognition of children’s individuality: safety, personal grooming, child-related display, diapering/toileting, and cultural awareness. In contrast, only two items had average scores in the good quality range, both of which were related to making children and families feel welcome: arriving/leaving and relationships with parents.

Table 2. Quality of Family Child Home Practices
 Mean Scores on the Family Day Care Rating Scale (FDCRS)
 N=148-150

FDCRS Item	Mean	SD	Range
FDCRS Total Score*	3.61	0.96	1.41-5.93
Space/Furnishings Subscale	3.28	0.99	1.33-6.08
Routine care and learning furnishings	3.55	2.03	1-7
Relaxation and comfort furnishings	4.03	1.58	1-7
Child-related display	2.44	1.24	1-7
Indoor space arrangement	3.26	1.61	1-7
Active physical play	3.31	1.51	1-6
Space to be alone	3.10	1.54	1-7
Basic Care Subscale	3.30	1.11	1.43-5.86
Arriving/leaving	5.48	1.42	1-7
Meals/snacks	3.24	1.99	1-7
Nap/rest	4.30	2.24	1-7
Diapering/toileting	2.53	1.85	1-7
Personal grooming	2.29	1.44	1-7
Health	3.21	1.88	1-7
Safety	2.07	1.60	1-7
Language/Reasoning Subscale	3.94	1.27	1.38-6.75
Informal language	4.47	1.49	1-7
Understanding language	3.51	1.65	1-7
Using language	4.18	1.56	1-7
Reasoning	3.61	1.51	1-7
Learning Activities Subscale	3.85	1.13	1.33-6.78
Eye-hand coordination	3.91	1.61	1-7
Art	3.61	1.61	1-7
Music and movement	4.21	1.42	1-7
Sand and water play	3.21	2.20	1-7
Dramatic play	3.91	1.67	1-7
Blocks	3.48	1.43	1-7
Use of TV	4.15	1.94	1-7
Schedule of daily activities	4.04	1.74	1-7
Supervision of play	4.10	1.65	1-7
Social Development Subscale	3.81	1.18	1.00-7.00
Tone	4.67	1.73	1-7
Discipline	4.18	1.56	1-7
Cultural awareness	2.61	1.39	1-7
Adult Needs Subscale	5.01	1.02	2.67-7.00
Relationships with parents	5.36	1.26	1-7
Balancing personal and caregiving responsibilities	4.77	1.12	1-7
Opportunities for professional growth	4.89	1.88	1-7

*Note: Adult needs items were not included in calculated total.

In general, the family child care providers were moderately sensitive in their interactions with children, with a mean interaction score on the CIS of 3.22 (see Table 3). The subscale scores indicated that caregivers were rated somewhat positive in sensitivity, somewhat low in permissiveness, and fairly low in harshness and detachment. A moderate correlation between the FDCRS total score and the CIS total score ($r=.61$, $p<.0001$) suggests that while the quality of practices and the sensitivity of interactions are substantially related, they still reflect somewhat different dimensions of children's experiences in family child care homes.

Table 3. Quality of Caregiver Interactions with Children
Mean Scores on the Caregiver Interaction Scale (CIS)

N=147-150

CIS Item	Mean	SD	Range
Sensitivity Subscale	2.90	0.64	1.30-4.00
Harshness Subscale	1.50	0.46	1.00-3.11
Detachment Subscale	1.45	0.49	1.00-3.00
Permissiveness Subscale	1.96	0.51	1.00-3.67
Total CIS Score	3.22	0.43	2.08-3.92

Program Characteristics

Enrollment

A variety of age groups were being served by these family child care homes: 54% of the child care homes enrolled infants, 90% enrolled toddlers, 85% enrolled preschoolers, and 62% enrolled school-age children. These family child care homes served an average of 7 children, with ranges from 2 to 16 children total. On average, there were 5 children birth to 5 years old and 2 school-age children per home. Homes that served school-age children enrolled more children on average (mean=8) than homes not serving school-age children (mean=5).

Children typically received full-time care from these family child care homes, with 75% attending for 30 or more hours per week, although there was a great deal of variation across individuals in the total number of hours attended. Children attended for an average of 37 hours/week, although the range for individual children was from 2 to 96 hours/week. Further, 94% of the homes served at least one child for 40 hours/week or more, indicating that there are families who utilize full-time care in most of these homes.

During our visits, the average observed caregiver-child ratio was about 1:3, or 1 adult for every 3 children (0.32), with ranges from 1:10 to 1:1. However, more children are typically enrolled than attend on any given day. The average enrolled caregiver-child ratio for all children was about 1 adult for every 5 children (0.19), with ranges from 1:13 to 1:2. Both the observed and the enrolled ratios tended to be lower (worse) for homes that also served school-age children (observed=0.31, enrolled=0.16) than for homes that did not (observed=0.35, enrolled=0.24).

Program Services

The child care homes operated for an average of 10 hours/day, with ranges from 5.5 to 15.5 hours. The services offered varied considerably across the different child care homes. Most of them provided meals (96%), and more than half offered various care options, including before and/or after-school care (68%), part-time care (65%), drop-in care (59%), and nontraditional hours (52%), including evening, overnight, weekend and/or 24-hour care. About one-third (34%) of the programs also provided transportation services. The majority of the homes (90%) participated in the child care food program. More than half (58%) served children for whom they received government subsidies, while few (20%) served children with special needs.

Staffing Patterns

Information about the staffing patterns indicates that the majority of providers (61%) do not have any form of additional help. About one-third (32%) have regular assistance from family members, either paid or unpaid, for an average of about 6.1 hours/week. Fewer (13%) have regular assistance from paid non-family members, for an average of about 2.5 hours/week.

At times, care is still provided for the children when the provider is sick, either through provision of substitute care (41%) or caring for children anyway when they are sick (8%). Further, nearly one-quarter (23%) of the providers indicated that they never get sick. However, in a substantial number of cases (42%), families are required to make their own arrangements for care at least some of the time. In addition, provider vacations interrupt child care in most cases. While the majority of providers (80%) indicated that families need to make their own arrangements for care during provider vacations, some indicated that they provide substitute caregivers at times (15%), while others never take vacations (12%).

Fees

Information about fees was available from 101 family child care homes. The average parent fee charged by providers was \$2.22/hour per child, based on the full tuition amount (i.e., non-subsidized), up to a maximum of \$8.00/hour. Using the average attendance of 37 hours/week, this represents an average weekly fee of \$82.14 and an average yearly amount of \$4271. In addition, 21% of the providers charged parents extra fees for special provisions (food, transportation, art supplies, field trips, and overnight care). Most providers (94%) also required parents to supply some types of materials, such as diapers, baby wipes, and food.

Provider Characteristics

Education and Experience

Most of the providers (93%) had at least a high school education, and almost two-thirds (66%) of the providers had some college courses or degrees (see Figure 2). The amount of child care experience the providers had was slightly greater, on average, than the amount of time the particular family child care homes had been in operation, suggesting that there is some movement in and out of the field of family child care. About half of the providers (52%) had five years or fewer of experience in family child care, although one-fifth (21%) had more than 10 years experience (see Figure 3). In comparison, about two-thirds (66%) of the family child care homes had been in operation for five years or fewer (see Figure 4).

Figure 2. Provider Education in Family Child Care Homes (N=151)

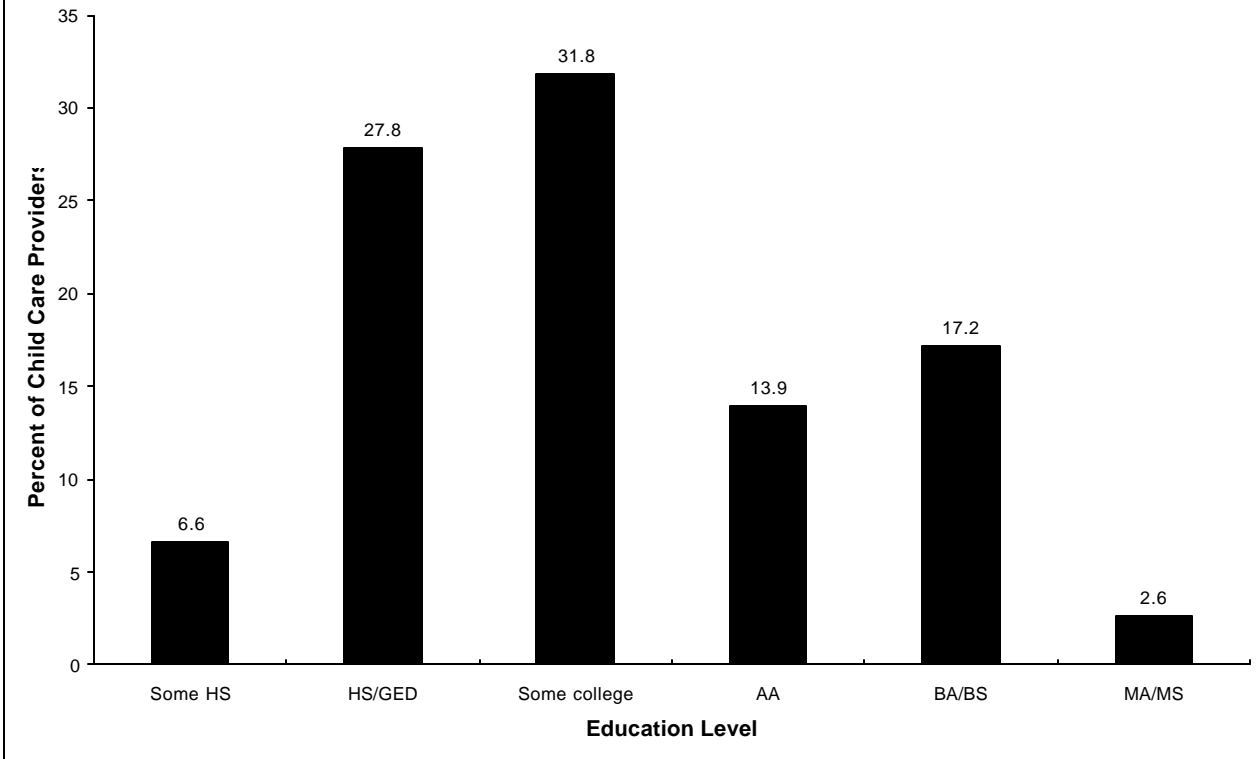


Figure 3. Provider Experience for Family Child Care Homes (N=150)

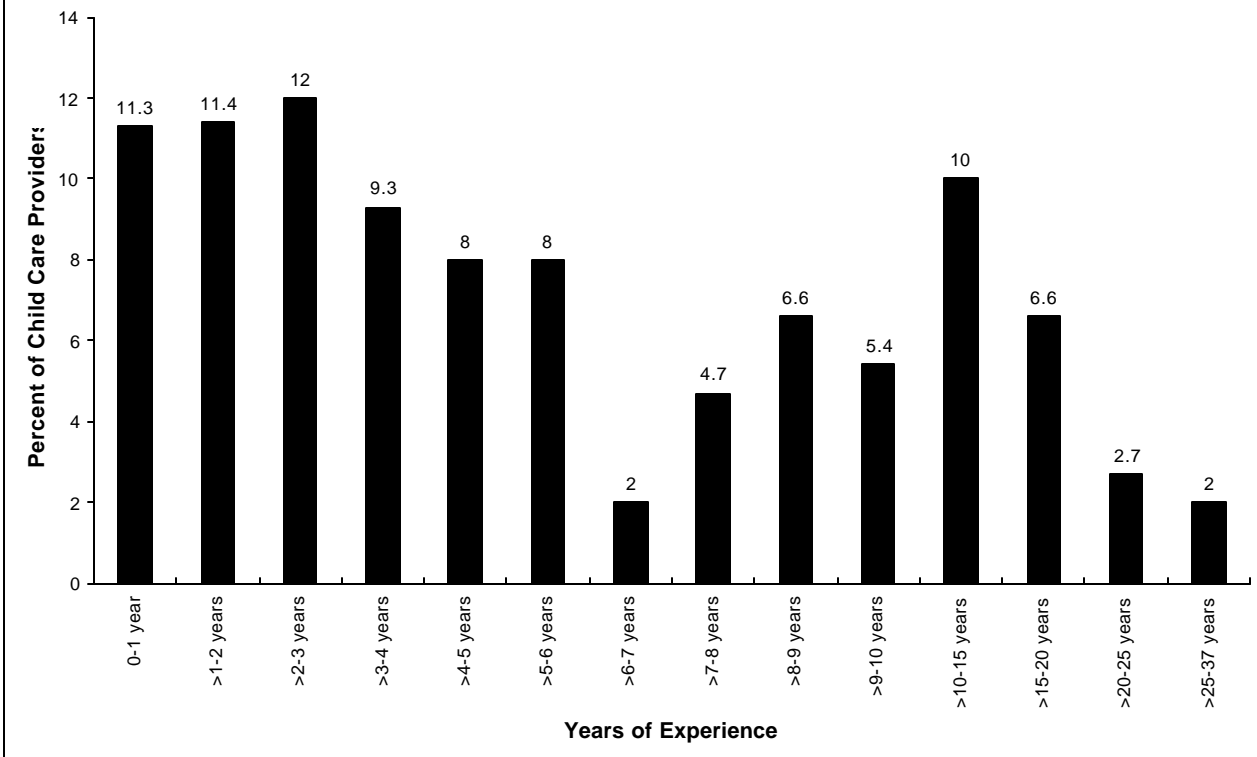
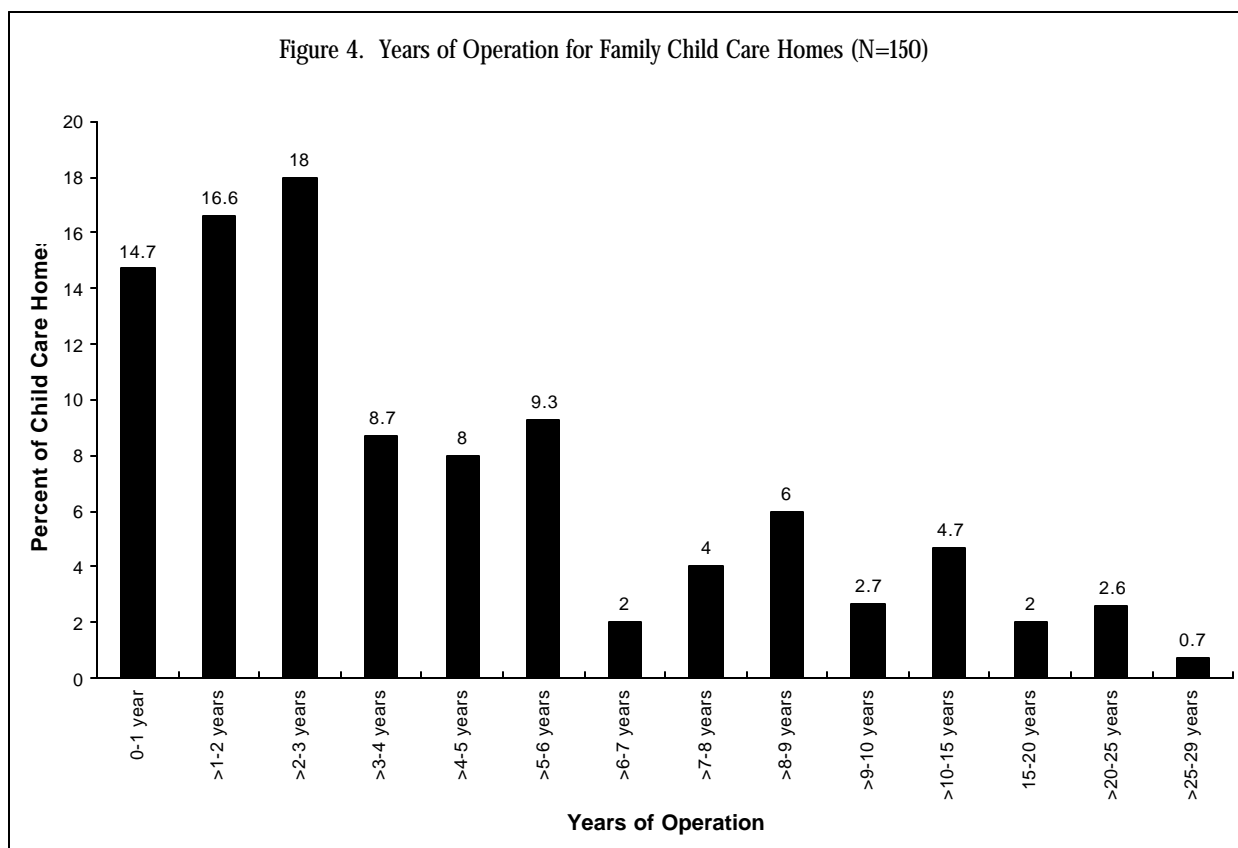


Figure 4. Years of Operation for Family Child Care Homes (N=150)



Professional Characteristics

In general, providers view themselves as professionals based on a number of characteristics. The vast majority (94%) reported that they expected to still be in operation in one year, suggesting that they are committed to remaining in the field and potentially more likely to view this position as a career. In addition, relatively few (18%) of the providers reported that they have another paid job in addition to providing family child care, suggesting that most view this as their primary profession. More than half (60%) belonged to at least one professional association. Fewer than half, however, engaged in other formal professional development activities, including participation in a professional development or quality improvement program (36%), completion of a CDA credential (28%), or obtaining accreditation from the National Association of Family Child Care (NAFCC) (13%).

Participation in Smart Start Activities

On average, providers participated in 5 of the 20 potential Smart Start quality improvement activities, with a range from 0 to 14 (see Figure 5). The frequency of participation varied by the type of Smart Start activity (see Figure 6). Summarizing across activity types, most (89%) of the providers participated in training workshops offered by Smart Start or received funding to attend other workshops. A majority of providers also utilized resources funded by Smart Start, including lending libraries or resource rooms (66%) and enrichment activities inside and/or outside the home (62%). A substantial number of providers received assistance with quality improvement from Smart Start in the form of on-site consultation (42%) and new equipment and/or materials (44%). About one-quarter (26%) received some type of child care subsidy funded by Smart Start, either increased subsidy amounts for attending school or meeting higher quality standards or some other type of child care

Figure 5. Smart Start Participation for Family Child Care Homes (N=151)

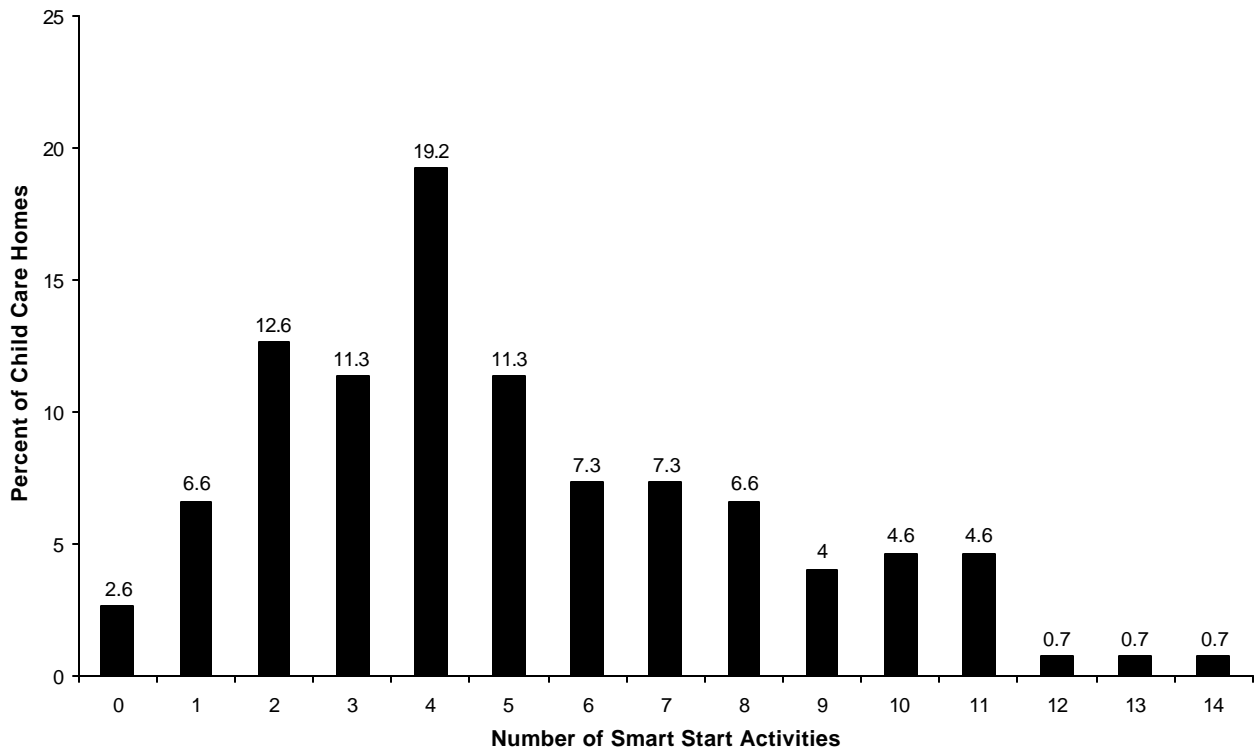
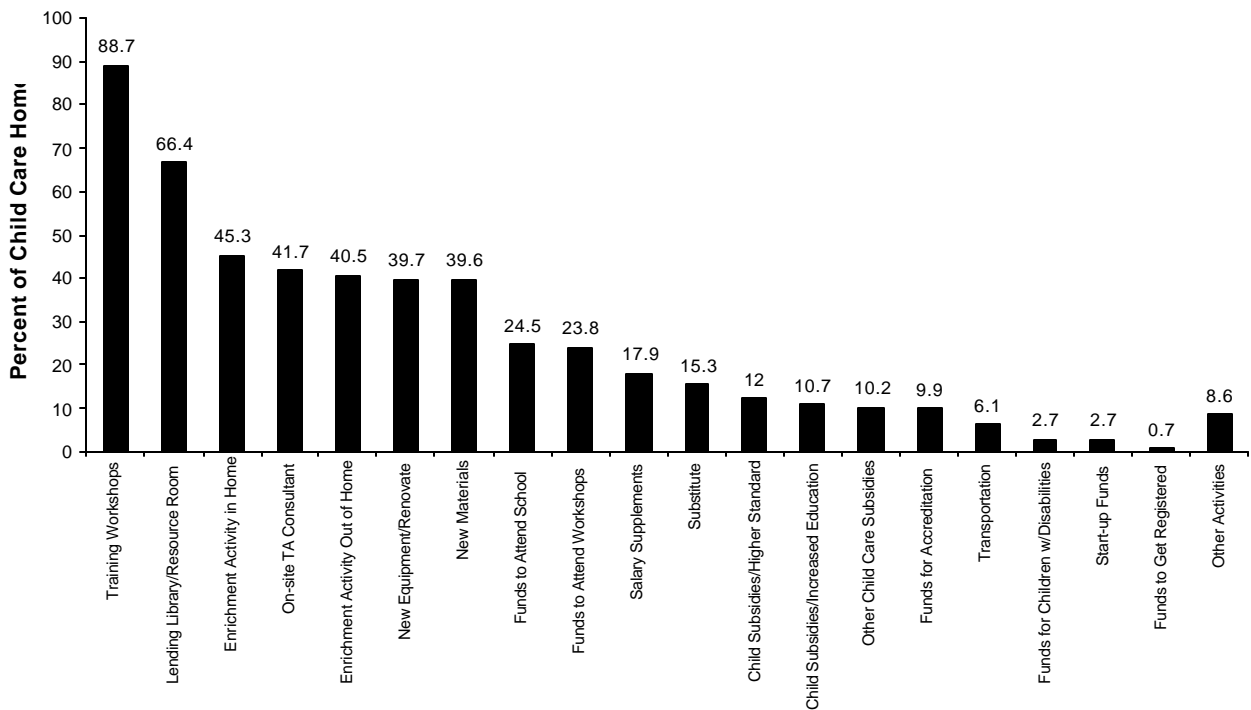


Figure 6. Types of Smart Start Participation for Family Child Care Homes (N=151)



subsidy. About one-quarter (25%) also received funding for attending school. Less than 20% of the providers participated in the remaining activities, including salary supplements, substitute providers, funds to help with obtaining NAFCC accreditation, provision of transportation, funds to improve services for children with disabilities, funds to start a family child care home, funds to become registered as a family child care home, and other miscellaneous activities.

FACTORS RELATED TO FAMILY CHILD CARE QUALITY

We conducted a series of analyses to examine the factors which related to the level of quality in the family child care homes in order to address the second and third research questions: What effect is Smart Start having on the quality of family child care? and What factors are related to the quality of care? Knowing the factors that are associated with child care quality helps inform quality improvement efforts so that they can be directed toward activities that are likely to be more effective. Three sets of factors were related to measures of the quality of child care practices (FDCRS total scores) and interactions (CIS total scores) in separate analyses: 1) the level of participation in Smart Start activities; 2) provider background characteristics; and 3) program characteristics, including enrollment and fees.

Smart Start Involvement

Greater Smart Start participation was associated with higher quality practices in the family child care homes ($r=.39$, $p<.0001$). Providers who participated in a greater number of different Smart Start activities had child care homes with higher FDCRS scores (see Figure 7).

Provider Characteristics

A number of professional characteristics of the child care providers were related to the level of child care quality. Family child care providers with more formal education tended to have child care homes with higher quality practices ($r=.24$, $p<.004$) and interactions ($r=.18$, $p<.04$). Similarly, providers who belonged to one or more professional associations had homes with higher quality child care practices compared to those who did not belong to any [see Figure 8; $t(147)=3.05$, $p<.003$]. The quality of family child care practices was also higher when providers participated in some type of professional development program than when they did not [see Figure 8; $t(147)=2.60$, $p<.02$]. Providers who had a CDA credential also had higher quality practices than those who did not have a credential [see Figure 8; $t(147)=1.96$, $p<.06$]. Family child care quality was not significantly related to whether the home had NAFCC accreditation, although the difference between the two groups was similar to that found for other characteristics (see Figure 8). Only 14% of the providers were accredited, and the small number in this group may have made actual differences more difficult to detect statistically.

No relation was found between the provider's level of experience and the quality of practices or interactions in the family child care home. Neither the provider's years of experience in the early childhood field nor the years the family child care home had been in operation were related to the quality of care provided.

Figure 7. Smart Start Participation and Quality of Care in Family Child Care Homes (N=149)

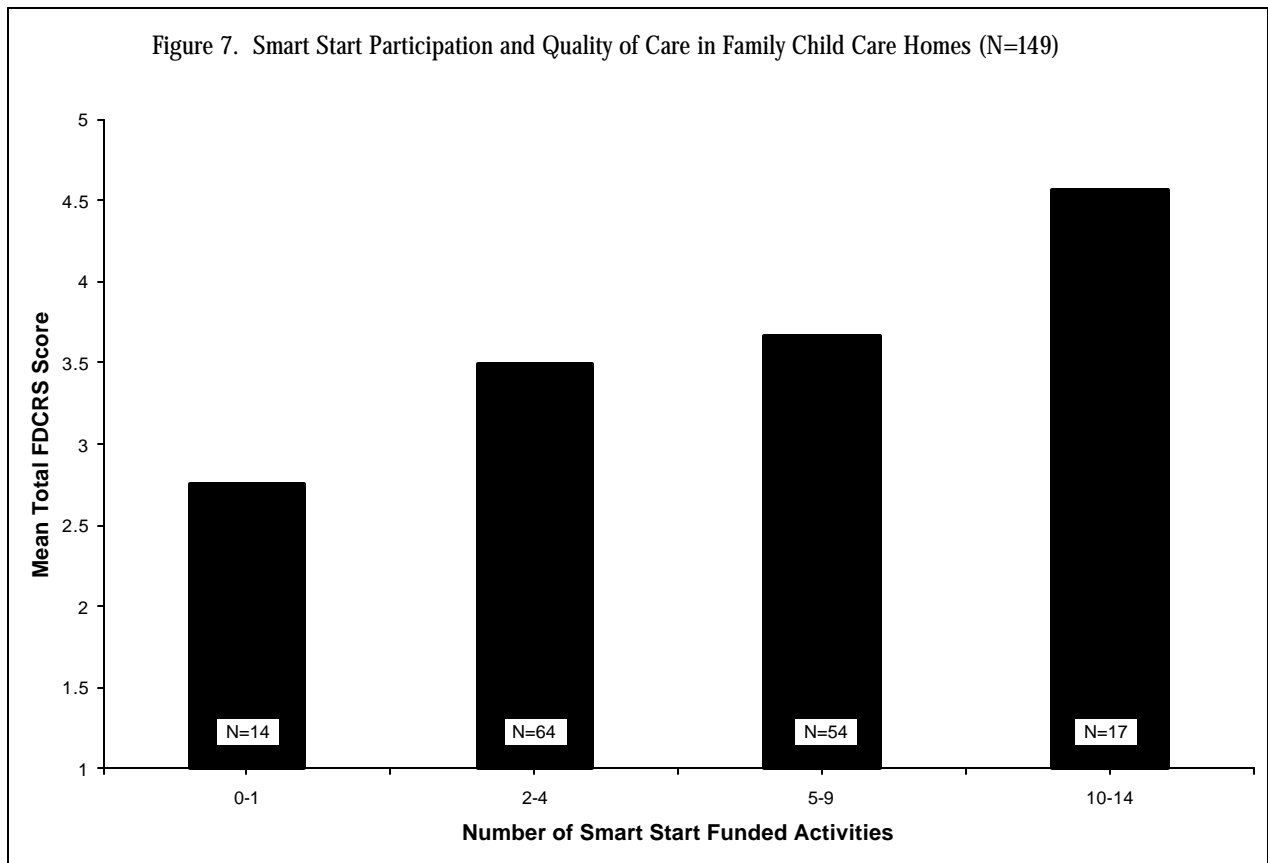
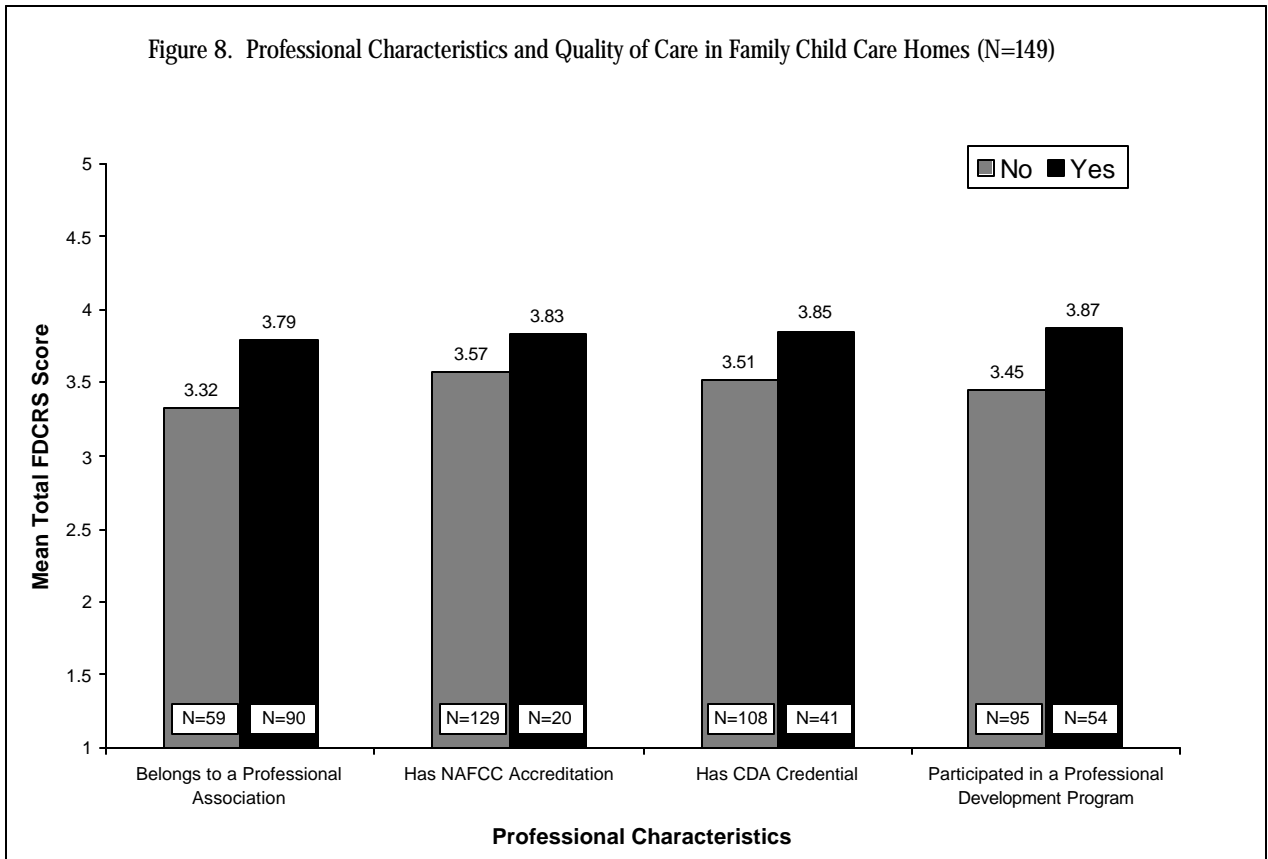


Figure 8. Professional Characteristics and Quality of Care in Family Child Care Homes (N=149)



Enrollment Characteristics

There was a significant relation between the quality of child care practices (FDCRS scores) and whether school-age children were served, indicating higher quality for homes not serving school-age children (mean=3.81) than for homes serving school-age children (mean=3.47) [$t(147)=2.15$, $p<.04$]. There was no relation between the quality of care and whether infants were served. There was also no relation between child care quality and the number of children enrolled or the caregiver-child ratio.

Fees

There was a positive relation between parent fees and the quality of child care practices ($r=.26$, $p<.0001$) and interactions ($r=.19$, $p<.0001$). Child care quality tended to be higher in homes where providers charged higher fees. Further, higher provider household income was significantly related to better quality child care practices ($r=.33$, $p<.0001$) and interactions ($r=.36$, $p<.0001$), suggesting that access to greater financial resources may be related to providing higher quality care, although we do not know from our data whether these additional resources were actually used in support of the child care business.

DISCUSSION

Overall, the observations of these family child care homes indicate that the average quality of child care practices is in the medium range, suggesting that while some family child care homes are providing good care for children, many need improvement to meet the standards for developmentally appropriate care for young children. While little research has examined family child care, the average quality in our North Carolina sample is similar to the quality found in one other large-scale study of family child care which sampled other parts of the US (Kontos et al., 1995). This similarity suggests that family child care is a universally important area for training and improvement.

Based on our observations, some areas to especially target for quality improvement efforts are basic care and safety practices. In general, the care provided in these areas was of poor quality, potentially placing children at risk by compromising their basic health and safety. For example, there were often obvious safety hazards in reach of the children indoors, such as uncovered outlets, loose electrical cords, stove controls, and small toys or objects that could be swallowed, as well as outdoors, such as sharp gardening tools and broken play equipment. Also, basic sanitary practices were often not met, such as using unclean facilities and inadequate handwashing by both caregivers and children after diapering and toileting and before meals. Such practices result in greater spread of germs and illnesses, making these children in care vulnerable to potentially serious diseases for young children. However, the significant relations between child care practices and professional development activities, including participation in both training activities and educational programs, suggests that these are fruitful methods for improving quality.

The interactions of the child care providers with the children are of somewhat higher quality than the child care practices in these homes. The importance of close relationships with caregivers for children's socioemotional and cognitive development has been well established (e.g., Peisner-Feinberg et al., 1999; Whitebook et al., 1989), and good quality interactions are clearly a necessary component of such relationships. Based on our observations, providers typically interacted with children positively and in an age-appropriate manner and made children and families feel welcome,

while in other aspects of child care practices they were typically providing only minimally adequate care for children. The moderate correlation between the two observational measures indicates that interactions and practices are related but somewhat different dimensions, so that a child care home with better quality practices won't always have better quality interactions, and vice versa. Further, some of the same factors (e.g., formal education, fees) related to both practices and interactions, although there were additional related factors (e.g., professional development programs, CDA credential) in the case of practices, which were of lower quality on average. These findings suggest that while quality improvement efforts need to focus on both dimensions, special emphasis should be placed on improving practices.

The quality of practices is somewhat lower in family child care than in child care centers in North Carolina. These differences are found in comparisons to our previous reports of child care center quality in Smart Start counties (see FPG-UNC Smart Start Evaluation Team, 1996, 1997a, 1997b), as well as in other studies of family child care in the US (Kontos et al., 1995), indicating that this is not unique to our state. Such findings suggest that it is important to focus training efforts specifically on family child care providers, who may have different training needs and different issues around accessibility to training than child care center staff. For example, substitute caregivers were utilized by less than half the providers, suggesting that it may not be feasible for providers to attend training during the normal operating hours of their homes.

One of the key factors related to the quality of the family child care homes was the level of participation in Smart Start activities. These findings mirror the results for the studies of child care centers, which also found an association between Smart Start participation and child care quality (FPG-UNC Smart Start Evaluation Team, 1996, 1997a), suggesting that there may be a similar underlying cause. One explanation for this finding is that Smart Start quality improvement efforts are having a beneficial effect on quality. Alternatively, these results could indicate that the family child care homes that are more highly involved in Smart Start activities were already higher quality to begin with. A longitudinal study is needed to know for certain what is causing this relation. However, in studies of North Carolina child care centers that have been followed over time, there has been both a consistent association between the level of Smart Start participation and center quality and a consistent trend toward higher quality over time (FPG-UNC Smart Start Evaluation Team, 1997a, 1997b). The parallel findings for both child care centers and family child care homes provide stronger evidence for the positive effects of Smart Start.

Family child care quality was also related to professional characteristics of providers, namely level of formal education, having a CDA credential, participation in professional development programs, and membership in professional associations. Similar relations have also been found in studies of child care centers, indicating that higher quality is related to greater levels of formal education and early childhood training on the part of caregivers (e.g., Cost, Quality & Child Outcomes Study Team, 1995). These findings suggest that Smart Start efforts to increase the level of early childhood education and training for family child care providers are likely to be effective strategies for improving quality.

Caregiver-child ratios were not related to quality of care, unlike what is typically found in center-based child care, most likely due to licensing regulations which allow fewer children to be served in family child care homes compared to child care center classrooms. In contrast to the findings in most center-based settings (e.g., Cost, Quality & Child Outcomes Study Team, 1995), the average ratio in the family child care homes was fairly good, with an observed ratio of about 1

adult per 3 children and an enrolled ratio of about 1 to 5. Given the licensing regulations, the average size of a family child care home is typically small compared to a child care center classroom. Therefore, this lack of relation between ratios and quality is most likely due to the much more restricted range of ratios found in family child care than in child care centers. While very poor caregiver-child ratios could still have negative effects, the ranges found within the licensing regulations do not seem large enough to affect quality. Also in contrast to the findings for child care centers (e.g., Cost, Quality & Child Outcomes Study Team, 1995), we did not find a relation between accreditation and quality, although this finding is most likely due to the small number of accredited family child care providers in the sample. However, similar to the findings for child care centers (e.g., Cost, Quality & Child Outcomes Study Team, 1995), we did find that provision of care for school-age children was associated with lower quality on average.

Because family child care is typically provided by a single caregiver, family child care homes face some issues around the stability of the care provided that are less often faced by child care centers with multiple staff and more options for providing substitute care. Family child care is inherently different from center-based care, in ways that may make it both more appealing to families but also less stable. While the more personal nature of family child care is often attractive to parents (Divine-Hawkins, 1981), it can create some difficulties. Only about one-third of the providers interviewed in our study reported that they have regular assistance from other family members and few have regular assistance from non-family members. As a result, providers reported that in many cases, families must make their own arrangements for child care when the provider is sick or receive care from a sick provider who remains open, and most required families to make their own care arrangements during provider vacations.

Further, the discrepancies between the length of time the homes were in operation and the number of years of experience of the providers suggest that there is a significant turnover rate among providers. Other studies have found annual turnover rates in the range of 40% or greater among family child care providers (Kontos et al., 1995). While the majority of the providers interviewed in our study indicated that they expected to be in operation in a year, about half had been in operation for three years or fewer and about two-thirds for five years or fewer, suggesting that this is not typically a long-term business. Accordingly, when recruiting family child care homes for this study using the most current licensing lists, we found that 17% of the homes were out of business.

The majority of family child care homes offered a variety of program services, including school-age child care, part-time care, drop-in care, and care during nontraditional hours. While these options may meet parents' needs for care, they have implications for the experiences of the young children in child care. These services were generally offered at a higher frequency compared to center-based care (see FPG-UNC Smart Start Evaluation Team, 1996). While these child care homes are clearly filling a need in the child care market on the part of the consumers (the families utilizing care), they may not always meet the best interests of the children. For example, younger children may be mixed with older school-age children during some parts of the day, potentially resulting in less adequate supervision and exposure to age-inappropriate activities, materials, and equipment. Children also may be exposed to unfamiliar caregivers and children in the case of drop-in care, which impedes the establishment of close caregiver-child and peer relations. Young children may be placed in care for long hours in the case of extended care options such as overnight or 24-hour care. Further, we found that quality was lower and the number of children enrolled was higher in homes serving school-age children, suggesting that the younger children in these homes may not be receiving the care that they need.

Family child care providers are faced with issues around cost and quality, much the same as other sectors of the child care market. These findings have implications for the financial operations of family child care from the perspective of the providers, or the supply side of the market. For example, providers may need to offer a variety of services, such as multiple care options, in order to earn enough from their child care business. The vast majority of these providers participated in the child care food program, more than half served children receiving government subsidies, and most required parents to provide some materials and/or pay extra fees for special provisions, suggesting that they are utilizing available reimbursement options to support their operations financially.

Further, the findings that higher fees and higher provider household income were related to better quality care suggest that access to greater financial resources allows for higher quality. While we don't know whether these resources were spent on the child care home, other studies have found similar results in the case of child care centers (Cost, Quality & Child Outcomes Study Team, 1995). This four-state study which included North Carolina found that centers with access to greater financial resources, such as publicly funded centers and worksite centers, were of higher quality than those without access to such resources. Further, staff wages were a strong predictor of child care quality, yet the compensation rates for child care providers are typically much lower than in other fields with similar educational and background requirements.

These findings speak to an even larger issue in the early childhood field of the relation between the costs of care and the quality of care. Moreover, higher quality child care has been shown to relate to better development for children throughout the preschool years and into the elementary school years (e.g., Peisner-Feinberg et al., 1999). These issues of cost, quality, and compensation are clearly intertwined, and are at the forefront of current policy and professional efforts in the early childhood field. While good quality child care costs more, the findings of the long-term effects of child care quality suggest that this is a vital investment to make.

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OTHER REPORTS AND PUBLICATIONS
FROM THE UNC SMART START EVALUATION TEAM

Frank Porter Graham Child Development Center
at University of North Carolina – Chapel Hill

Child Care Quality

- Center-based Child Care in the Pioneer Smart Start Partnerships of North Carolina (May 1996). This brief report summarizes the key findings from the 1994-95 data on child care quality.
- Effects of Smart Start on Young Children with Disabilities and their Families (December 1996). This report summarizes a study of the impact of Smart Start on children with disabilities.
- The Effects of Smart Start on the Quality of Child Care (April 1997). This report presents the results of a 2-year study of the quality of child care in the 12 pioneer partnerships.
- Child Care in the Pioneer Partnerships 1994 and 1996 (December 1997). This report presents more detailed information about child care centers that were included in The Effects of Smart Start on the Quality of Child Care (April 1997).
- Effect of a Smart Start Playground Improvement Grant on Child Care Playground Hazards (August 1998). This report presents results from a comparison of the playground safety of child care playgrounds in a county that used Smart Start funds for playground improvement compared to a non-Smart Start county.
- Effects of a Community Initiative on the Quality of Child Care (1999). Bryant, D., & Maxwell, K. Early Childhood Research Quarterly, 14, 449-464. Article published in a peer-reviewed journal. Based on The Effects of Smart Start on the Quality of Child Care (April 1997).
- Quality of Early Childhood Programs in Inclusive and Noninclusive Settings (1999). Buysse, V., Wesley, P. W., Bryant, D., & Gardner, D. Exceptional Children, 65, 301-314. Article published in a peer review journal. Based on Effects of Smart Start on Young Children with Disabilities and their Families (December 1996).

Kindergartners' Skills

- Kindergartners' Skills in Smart Start Counties in 1995: A Baseline From Which to Measure Change (July 1997). This report presents baseline findings of kindergartners' skills in the 43 Smart Start counties.
- The Effects of Smart Start Child Care on Kindergarten Entry Skills (June 1998). This report presents results from a pilot study of kindergartners in one county who attended Smart Start-funded child care centers compared to a random group of kindergartners who attended a broad range of child care or no child care.
- A Six-County Study of the Effects of Smart Start Child Care on Kindergarten Entry Skills (September 1999). This report presents results from kindergartners in six counties who attended Smart Start-funded child care centers compared to a random group of kindergartners who attended a broad range of child care.

Collaboration

- Bringing the Community into the Process: Issues and Promising Practices for Involving Parents and Business in Local Smart Start Partnerships (April 1997)
This report describes findings from interviews and case studies about the involvement of parents and business leaders in the Smart Start decision-making process.

Smart Start and Local Inter-Organizational Collaboration (August 1998)

This report presents data about the effectiveness of the Smart Start initiative on improving collaborative relationships. Qualitative and quantitative data were obtained from 269 respondents in 10 local Partnerships.

Smart Start Collaboration Network Analysis Report (June 2000)

This report extends earlier research on collaboration using a methodology called network analysis. This new technique aids in greater understanding of how Smart Start collaboration may influence service delivery for young children. In addition, challenges faced in the collaboration process are discussed.

Understanding the Smart Start Process

Emerging Themes and Lessons Learned: The First Year of Smart Start (August 1994)

This report describes the first-year planning process of the pioneer partnerships and makes some recommendations for improving the process.

Keeping the Vision in Front of You: Results from Smart Start Key Participant Interviews (May 1995)

This report documents the process as pioneer partnerships completed their planning year and moved into implementation.

Reinventing Government? Perspectives on the Smart Start Implementation Process (November 1995)

This report documents pioneer partnership members' perspectives on 2 major process goals of Smart Start: non-bureaucratic decision making and broad-based participation.

Building Community-Owned Public-Private Partnerships (June 2000). This study examined more closely what the public-private partnership aspect of Smart Start has meant to stakeholders, their perceptions of what got in the way of and what facilitated successful public-private partnerships, and their strategies for obtaining and sustaining meaningful private sector involvement.

Annual Reports

Smart Start Evaluation Plan (September 1994). This report describes our comprehensive evaluation plan at the onset of the evaluation, designed to capture the breadth of programs implemented across the Smart Start partnerships and the extent of possible changes that might result from Smart Start efforts.

North Carolina's Smart Start Initiative: 1994-95 Annual Evaluation Report (June 1995). This report summarizes the evaluation findings to date from both quantitative and qualitative data sources.

North Carolina's Smart Start Initiative: 1996-97 Annual Evaluation Report (April 1997). This report summarizes evaluation findings related to each of the four major Smart Start goals.

North Carolina's Smart Start Initiative: 1998 Annual Evaluation Report (January 1999). This report summarizes evaluation findings related to each of the four major Smart Start goals.

Smart Start Services and Successes: 1999-2000 Annual Evaluation Report (June 2000). Progress in the provision and quality of services are tied to the longer-range goal of increased preparedness for school.

Other

Families & the North Carolina Smart Start Initiative (December 1997). This report presents findings from family interviews of families who participated in Smart Start in the pioneer counties. The interviews included questions about child care, health services, family activities with children, and community services and involvement.

Smart Start Client Information System Feasibility Study (September 1998). This report presents findings from a study of the feasibility of creating a system to count uniquely all children and families served by Smart Start.

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