

Contract No.: HHS- 100-95-002 1, Delivery Order # 18  
MPR Reference No.: 8457-600

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**Sustaining Employment  
Among Low-Income  
Parents: The Role of  
Quality in Child Care**

**A Research Review**

**Final**

**December 31, 1998**

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Submitted to:

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## ACKNOWLEDGEMENTS

This paper benefited from the careful reading and helpful comments of Richard Jakopic, who was ACF project officer, **Gilda** Morelli, Howard Rolston, Helen Howerton, Martha Moorehouse, Jody McCoy, Julie **Isaacs**, **Pia** Divine, Ann Witte, Sandra Hofferth, John Love, and **Stuart** Kerachsky. The author alone is responsible for any remaining errors.

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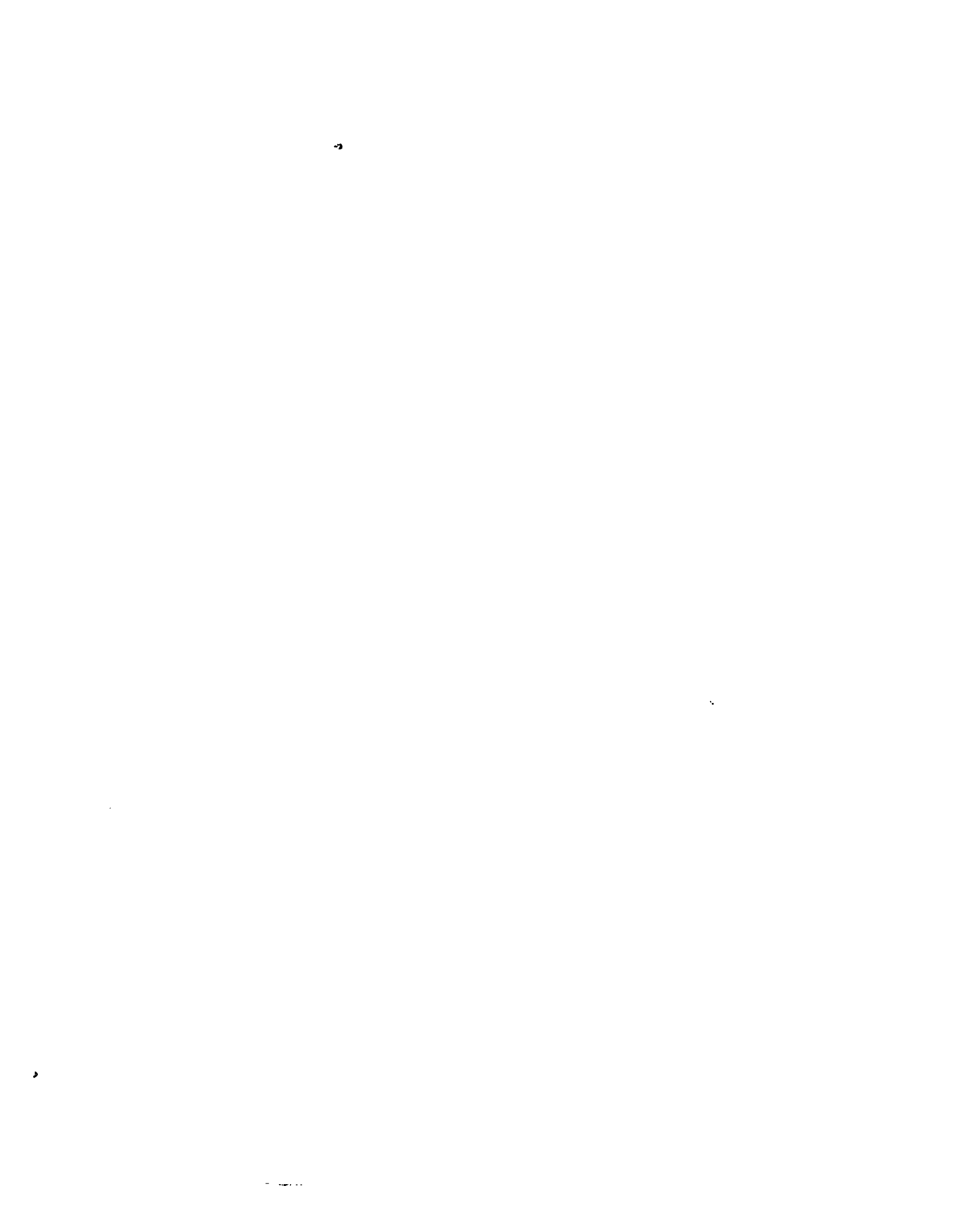
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## I. INTRODUCTION

When parents select a child care setting, one of the issues they are concerned about is the quality of the experience for their children. Parents say they are looking for a safe environment, a “warm and loving” provider, and activities that will interest the child and prepare him or her for school (Cryer and Burchinal 1995; Emlen 1998; Galinsky et al. 1994; Hofferth et al. 1991). Child development professionals are also concerned about the quality of children’s experiences in child care and have developed good-practice standards to help child care providers improve the quality of their services (Bredekamp 1997; *Federal Register*, November 5, 1996; Ferrar 1996; Ferrar, Harms, and Cryer 1996; and Lally et al. 1995). Child care settings can be, at worst, unsafe and boring. At best, preschool child care settings can better prepare children for school, promote good physical and mental health, and teach children to get along well with their peers and with adults. Child care settings;for school-age children can provide necessary supervision along with safe, constructive activities to reinforce or supplement what children are learning in school.

In child care policy, there is a fundamental tension between the goals of child development , which require an investment in quality child care, and the goals of employment, which require that child care be made affordable for more families. Pursuing child development goals would require spending more resources on fewer children in order to ensure a particular level of quality in child care that is funded by the public. Pursuing employment goal would require spending fewer resources on more children so that the cost of child care would be lower for more families. Policymakers who view parental employment as the major objective tend to view affordability as the cornerstone of a viable policy strategy because of the importance of child care costs to the



employment decisions parents make. In connection with this view, the policy debate has assumed that the goals of employment and those of child development are entirely competing, so that additional funds spent on the latter come at the expense of supporting a parent who needs help paying for child care in order to work. However, if the quality of child care affects parents' employment decisions, then to some extent, the goals of employment and child development are consistent, so some investment in child care quality would promote employment **as well as** children's well-being.

The quality of child care can vary widely, and it is easy to imagine how changes at both the low and the high ends of the quality spectrum could affect employment in important ways. For example, changing from an unsafe and unstimulating child care setting to a safe and interesting setting could lead to improvements in employment among low-income mothers. That is, if parents are able to avoid child care settings that fall below a particular threshold for quality, they may be able to more successfully pursue their employment activities. Similarly, a shift from a mediocre child care setting to a very high-quality setting could also improve employment outcomes by leading to greater improvements in parents' effectiveness as employees.

If the quality of child care affects parents' employment decisions, then policymakers may need to invest in quality to some extent as they allocate child care **funds** across families. Investments in quality have traditionally been made because of their expected benefits for children. In this paper, we explore whether or not the quality of child care also has an impact on parents' employment decisions. If so, then quality of care issues need to be considered along with the cost of child care as policymakers seek ways to support employment for low-income parents.

In order to understand the relationship between the quality of child care and employment, we must first understand how quality in child care is defined, both by professionals and by parents. In the second chapter of this **paper**, we describe what quality child care means from both perspectives.

We also conclude that parents and professionals mean the same thing, for the most part, when they talk about quality, but they tend to disagree in their evaluation of the quality of a particular child care setting. We discuss the possible reasons for this discrepancy.

In Chapter III, we discuss- the fundamental issue for the paper: how child care quality and employment might be linked, and what we h o w empirically about the relationship between the two.

We argue that parents' evaluations of child care settings are an important factor in their employment decisions, but we h o w little about how parents form these evaluations about a child care setting over time, and if their opinions were to change, how close they might come to professional evaluations. We review the empirical evidence on the relationship between child care quality and employment, and conclude that a very limited amount of evidence suggests that there is a link between the two. But we lack broad and convincing evidence on the importance of the quality of child care across different settings and in the current policy **environment-of** stronger work requirements and time-limited welfare.

If quality child care is judged to be an important goal of child care policy, then the issue of how to link parents with appropriate-quality child care must be addressed, which we do in Chapter IV.

Supply-side issues may have to be addressed, since the child care market is currently offering the quality and features of child care that parent fees and other available resources can support. We discuss what quality child care costs on an ongoing basis and what it might cost to develop a supply of such care. We also discuss policy initiatives designed to improve the quality of child care for low-

income families. On the demand side, we address the question of whether low-income parents would want to use quality child care were it made available. Alternatively, if parents were given more resources to pay for child care, would this exert market pressure on child care providers to improve the quality of care? To address these questions, we examine parents' preferences and choices with respect to quality child care. Parents already make complicated decisions about care settings for their children. Increasing the emphasis on quality would require that parents receive more information about the importance of quality child care and about how to identify a quality child care setting. We discuss models of parent information to identify promising methods of linking parents with good-quality child care.

The purpose of this paper is to provide the basis for a research agenda that would inform the design of child care policy to support families leaving welfare for work and low-income working families in general. The final chapter summarizes what we know about quality child care and its relationship to employment decisions of low-income parents and proposes an agenda for future research. One companion paper reviews research on the links between employment and the cost of child care. Another companion paper reviews research on the flexibility of jobs, child care, and family situations as they affect the ability of parents to remain employed over time.

## II. THE QUALITY OF CHILD CARE

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Quality in child care refers to children's experiences in the child care environment and to features in this environment that are believed to affect children's development. In this chapter, we discuss how quality child care is defined so that we can identify ways in which the quality of child care might affect parents' employment. We consider both the professional and research definitions of quality and parents' views-of quality. Parents' views of child care quality are similar to professional and research perspectives in many ways, but their evaluations of the quality of a particular setting are often different. We explore the possible reasons for the different perspectives on quality but note that there is much we still do not know about the relationship between professionals' and parents' evaluations of quality. This gap challenges us to learn more about the relationship between child care quality and employment, as we will see more clearly in Chapter III.

### A. HOW PROFESSIONALS DEFINE AND MEASURE QUALITY IN CHILD CARE

Professionals use a combination of research and good-practice standards to define and measure quality child care. Good-practice standards currently exist for a range of child care settings and age groups. For instance, the National Association for the Education of Young Children (NAEYC) has described "developmentally appropriate practice" for programs seeking to improve the quality of center-based care for children from birth to age 8 (Bredekamp 1997); Zero to Three has published guidelines for caregivers of infants and toddlers in groups (Lally et al. 1995); the Head Start Bureau has published performance standards to guide Head Start and Early Head Start programs toward quality (*Federal Register*, November 5, 1996); the National Institute on Out-of-School Time (1998) has developed a national improvement and accreditation system for formal school-age child care programs; and the National Association for Family Child Care (1995) has published quality criteria

for home-based child care. Research linking, “quality” features of formal child care settings with desirable outcomes for **children** is well-developed for the birth-to-age-5 group (see Love et al. 1996 for a summary of the research literature linking child care features and children’s outcomes).

However, our conceptualization of the features of quality child care for school-age children is much less developed than those for younger children. The good practice standards for child care for school-age children pertain to formal settings for children (Bredekamp 1997; National Institute on Out-of-School Time 1998), which are not widely used after age 9. Some researchers have recently begun to identify the features of child care settings that might be important for school-age children, but to date, there is no consensus on the features of quality care for school-age children outside the formal care settings. Nor have the features of quality care for school-age children that cut across settings and age groups been examined in relationship to measures of children’s development (Seppanen et al. 1993; **Vandell** and Posner, in press).

Moreover, much more work is needed to define and measure quality for young children in informal, home-based child care settings, and for care at nonstandard hours. There is also more work needed to define and measure quality child care in ways that allow comparisons across the full range of settings. Some promising work that could address these gaps is currently underway as part of the National Study of Child Care for Low-Income Families’ and the Early Head Start Local/National evaluation.’

## **1. Defining Quality Child Care for Young Children**

Definitions of child care quality for infants, toddlers, and preschool-age children emphasize the importance of classroom interactions, or the behavior of caregivers toward children. For instance, in a good-quality program, caregivers frequently smile at children, touch and hold them, and speak

to them at their own eye level. Caregivers in a good-quality program also respond promptly to children's questions, extend children's actions and verbalizations with more complex ideas or materials, use positive guidance techniques, and encourage appropriate independence. These features of the child care environment, often called, "process quality," are generally considered to be the essence of a quality program. Since they pertain to the behavior of adults toward children, they can apply to home-based as well as institutional settings.

Much of the research on child care quality has focused on institutional settings, so the evidence we have on what contributes to quality of care pertains to features of formal settings. Many child development researchers emphasize the importance of structural features of the classroom, such as group size and age range, caregiver-child ratio, and size, organization, and safety features of the classroom. While the relationship between structural features and process quality of the setting has not been consistently demonstrated (Blau 1997, Love et al. 1992), the former are believed to provide a supportive environment, which in turn, facilitates process quality (Love et al. 1996). But to more firmly establish this relationship, we need more statistically sound research that uses a variety of data sets.

Caregiving in formal settings takes place within the larger context of administrative practices, parent participation, and program support services that can affect the quality of children's experiences. Administrative practices include auspice, caregiver qualifications and compensation, staff turnover and experience, and continuity of care--all of which can affect the quality, stability, and dedication of caregivers (Whitebook et al. 1989). Parent involvement can provide an important resource for child care programs and, by fostering communication between parent and provider, improve the quality of care both at home and in the child care setting. Supportive services for families include physical and mental health services, nutrition, and social services, which may affect

the child's ability to regularly attend and benefit from chdd care. Research defining and measuring quality in informal care settings, including care provided by relatives, is sparse. Notions of quality developed for formal settings, where larger groups of unrelated children are cared for, have been applied to home-based child care, but the fit has not been good. Informal and "relative care settings" may include only one or two related children, so some of the formal practices necessary to keep a larger group of children organized and well-cared-for may be unnecessary in a smaller setting where the child and family are more familiar to the caregiver. **Moreover**, a person caring for one or two related children may not need specialized training in order to respond appropriately to the children's needs and to provide appropriate- emotional support.

Some of the more promising work in conceptualizing quality of child care in ways that can extend across the range of institutional and home-based settings uses observational measures of process quality (Boller and Sprachman 1998; Howes and Stewart 1987; NICHD Early Child Care Research Network 1996). These measures focus on what the child is doing, what emotion he or she is displaying (if any), and what the caregiver is doing at specified intervals (for example, one minute) within defined windows of time (for example, 5 to 10 minutes every half-hour); From these **time-**sample ratings, researchers can code such variables as the percentage of time the child watches television, the percentage of time the child is wandering or unoccupied, the percentage of time the caregiver speaks positively to children, and the child-centeredness of care.

The Low-Income Child Care Study has built on these directions in measuring child care quality. Researchers developing this study are conceptualizing quality in terms of four aspects of child care: (1) the extent to which caregivers interact with children in ways that are expected to enhance development; (2) how well children play with peers and with objects; (3) the safety, space, noise, and other basic features of the environment; and (4) the parent-caregiverrelationship. Thus, process

quality, or the caregiver's behavior toward children and the child's **experience in the** care setting, is given strong emphasis in **this** concept of quality. This concept is taken from the literature on good parenting practices, which emphasizes responsiveness to children, but it would likely apply well to other child care settings outside the home.

## **2. Measuring the Quality of Child Care for Young Children**

Caregiver-child interactions, the feature of a child care setting seen by researchers and practitioners as most fundamental to quality, are also the most difficult to measure. A short interview with either the parent or the caregiver will not suffice. Instead, reliably measuring classroom dynamics and caregiver behavior requires a relatively long period of observation (from two hours to several days in the child care setting) by an individual who has been trained to make consistent judgements about a range of child care settings (Abbott-Shim and Sibley 1987 and 1989, Amett 1990, Boller and Sprachman 1998, Harms and Clifford 1989 and 1998, Harms et al. 1990, NICHD Early Child Care Research Network 1996, Sibley and Abbott-Shim 1987). Some of the recently developed measures of quality classroom interactions focus on the behavior of caregivers toward children, including the amount of smiling, positive verbal exchanges, negative disciplinary practices, and similar types of behavior that take place within a specified time period (Amett 1990, Boller and Sprachman 1998, NICHD Early Child Care Research Network 1996). Other standard measures of child care quality are considered to be "global" because they rate several areas in addition to caregiver behavior, including equipment and materials, activities, health and safety, and the adult work environment (Abbott-Shim and Sibley 1987 and 1989, Harms and Clifford 1989 and 1998, Harms et al. 1990, Sibley and Abbott-Shim 1987).

The fact that reliably measuring the most central aspects of the quality of a child care setting is both costly and difficult means that we have less information about child care quality and important



correlates of child care quality than we need in order to fully address the issues discussed in this paper. This fact partly **explains** why there is also very little research on the relationship between child care quality and parents' employment.

Good substitutes for observational measures of the quality of a child care setting do not exist. Data on the structural features of the child care setting, such as staff-child ratio, group size, and provider education and training, can be easily obtained from an interview with the provider, although observed group sizes and ratios are often better than reported group sizes and ratios because the former reflect absences. However, while many studies have found that structural features of the child care setting are positively correlated with quality of care and with children's development, the correlation is not especially strong, and some studies have not found the relationship between structure and quality to be consistent (Blau 1997; Galinsky et al. 1994; Love et al. 1996). Therefore, structural features cannot be considered a good proxy for measures of caregiver-child interactions. Moreover, directors' reports about group size and staff-child ratios are often different from observed levels because of absences (Phillips et al. 1994; Love et al. 1992), and parent reports may be even more inaccurate when parents are likely not to know how many children are enrolled in the class or the day care home. The NCCS concluded that parents did not very reliably report on child-staff ratios, although they were reasonably reliable in reporting group size and whether the provider had specific child-related education or training (Hofferth et al. 1991). Nevertheless, reports by parents on group size or ratio may be the lowest-cost measurement strategy if we are also collecting employment **data**, and they may be important **as** quality measures if they correlate well with the parent's perception of quality, a point we discuss in the next chapter. In fact, it may be more accurate to think of parents' reports of group sizes and ratios as indicators of their perceptions of quality, rather than as measures of actual group sizes and ratios.

### 3. Conceptualizing and Measuring the Quality of Child Care for School-Age Children

Conceptualizing and measuring the quality of care for school-age children has lagged considerably behind developments in this area for younger children because there has been far less research in this area (Vandell and Posner, in press). The salient research issues regarding the links between features of child care settings and children's developmental outcomes are different for school-age children because these children are older, and because they are in school for much of the day, they spend much less time in nonparental child care than do preschool children. A wider variety of arrangements are appropriate for school-age children than for preschool-age children, including self-care, lessons or clubs, and formal programs, and these arrangements may vary over the course of a day or week. The appropriate type of arrangement may vary as the child ages, with younger children needing more formal programs and direct adult supervision, and older children managing well in self-care with parent monitoring by telephone (Todd, Albrecht, and Coleman 1990).

Some of the literature on school-age child care has related the type of primary setting — for example, self-care compared with other forms of care — to children's outcomes (Steinberg 1986, Vandell and Ramanan 1991, Rodman et al. 1995). More recently, researchers have obtained time-use reports from children or observers about who the child is with, where the child is, and what the child is doing at short intervals between the end of school and 6 p.m. over the course of a week, and these times have been related to children's outcomes (Miller et al. 1996, Posner and Vandell 1994, Vandell and Posner 1995). However, these researchers note that the time-use measures of school-age child care omit many of the most important aspects of quality.

Measures of quality in formal school-age child care programs expand on the ideas about quality care for preschool-age children in centers. The School-Age Care Environment Rating Scale (Harms et al. 1995) extends the approach developed for the ECERS by measuring the quality of space and

furnishings, health and safety, activities, interactions, program structure, and staff development. However, a different instrument would be needed to measure quality across the full range of school-age child care settings.

**Vandell** and Posner (in press) suggest that children's after-school environments be conceptualized using an ecological system approach that flows from the work of Bronfenbrenner (1979) and considers the contexts in which the after-school arrangements take place: the neighborhood, the family, and the individual child. Within this framework, they suggest that the following features of these environments should be measured:

- The quality of children's interactions with parents, siblings, other adults, and peers
- Specific activities, which may be either growth-enhancing or detrimental to development
- Children's and parents' perceptions of these experiences

The first two features listed above are also considered to be fundamental to quality in child care for preschoolers, although they may be defined somewhat differently in measures of quality for the two different age groups. Nevertheless, this approach moves in the direction **of other** instruments developed to measure quality across the full range of preschool-age child care settings by emphasizing process quality, or the quality of the child's activities and relationships in the care setting. However, no research has yet related the *quality* of school-age child care to children's development (**Vandell** and Posner, in press).

Stability or consistency of after-school care has not been prominent in research on school-age child care as it has in research on preschool-age child care. Some variation in after-school arrangements and activities may be developmentally appropriate for school-age children in that it balances structured activities with free time, allowing these older children to experience different

levels of adult supervision, to broaden their social networks, and to give them opportunities to try different activities (Vandell and Posner in press). Nevertheless, too much variation in the after-school setting may be chaotic, leading Vandell and Posner (in press) to suggest the possibility of nonlinear effects between children's development and the number and types of activities and settings. To date, no research has **addressed** the issue of what is an appropriate amount of stability in **after-school care** (Vandell and Posner, in press).

## **B. PARENT PERSPECTIVES ON THE QUALITY OF CHILD CARE**

Many of the characteristics parents value in a child care setting are aspects of quality **as** it is defined by child care researchers and professionals. In this section, we discuss parents' understanding of quality care and how this relates to quality as it would be measured by early childhood professionals. We then discuss the extent and possible sources of divergence between parents' and professionals' evaluations of the quality of a particular child care setting.

### **1. Aspects of Care Valued by Parents**

Several studies indicate that one of the most important qualities low-income parents seek in a child care arrangement is a safe environment in which the caregiver can be trusted (Lamer and Phillips 1994, Phillips 1995, and Siegal and Loman 1991). Many families in these studies lived in communities **with** high rates of crime and drug use, which heightened parents' concerns for their children's safety. Concerns about safety and trust lead some parents to prefer relatives, such as their own mothers, to care for their children (Kisker and Silverberg 1991). In fact, low-income parents responding to the *National Child Care Survey* 1990 cited care by relatives **as** the top reason for choosing their current arrangements (Brayfield et al. 1991). Concerns about safety and trust also lead some families to seek the public setting of a child care center rather than the more private

setting of a caregiver's home if the caregiver is not a relative (Phillips 1995). Child care provided by an unrelated adult in his or her home appears to be the least desirable option for low-income mothers (Porter 1991, Siegai and Loman 1991, and Sonenstein and Wolf 1991).

In many studies about parental preferences, quality child care arrangements have been defined by low-income parents as a nurturing environment that also provides educational opportunities (Lamer and Phillips 1994, Phillips 1995, and Siegal and Loman 1991). Low-income parents tend to define quality differently, depending on the age of their child (Lamer and Phillips 1994; Sonenstein and Wolf 1991).

For instance, parents of infants seek child care that they believe will provide a nurturing environment and that will be similar to parental care (Lamer and Phillips 1994). Consequently, parents of infants are more likely to prefer informal care provided by relatives or friends in a home setting (Hofferth 1995). In fact, focus group participants from New Jersey's REACH program felt that if infants could not be cared for by their mothers, another relative was the most appropriate substitute caregiver (Porter 1991). Indeed, infant care was the only situation in which these mothers found relative care preferable to other types of care.

Parents of preschool and school-age children tend to value learning opportunities over nurturing in the child care setting (Lamer and Phillips 1994; Miller et al. 1996). Studies of low-income parents uniformly suggest that they prefer center-based care for their older preschool children because they believe that centers provide more opportunities than an in-home setting to learn (Hofferth 1991). Even when children spend their infancy in in-home child care settings with relatives or other providers, parents desire to switch to center-based providers when their children reach age 3 (Lamer and Phillips 1994). Focus group participants from New Jersey's REACH

program wanted to move their children to center-based programs when they began talking and preferred not to use relative care for their older preschoolers (Porter 1991).

Sonenstein and Wolf (1991) reached similar conclusions about how parents define quality in their study of mothers receiving Aid to Families with Dependent Children (AFDC). While all mothers in their study emphasized concerns about the quality of adult supervision in the child care setting, other quality-related concerns differed according to the age of the child. Mothers of infants were most focused on child-caregiver ratios, indicating a concern for the level of individual attention and nurturing their children received. In contrast, mothers of preschoolers expressed more concern about the learning opportunities available to children in their child care arrangement.

For some low-income parents, cultural continuity between the child care setting and the home is also an important consideration. For example, African-American parents tend to prefer African-American providers (Mitchell et al. 1992). Parents may want their children to eat the same foods at child care as they eat at home (Porter 1991). Likewise, parents who do not speak English at home may seek child care providers who speak their language. Relatives or friends often meet these requirements for cultural and linguistic continuity.

Very little has been written about what parents want for their school-age children. In a study of low-income school-age child care, Miller et al. (1996) found that parents wanted their children to be in a learning environment after school but could not afford formal programs or lessons. Anecdotal evidence indicates that parents who live in dangerous neighborhoods want their children, even beyond age 12, to have constructive, supervised activities after school when eligibility for child care subsidies ends.

## 2. Relationship Between Parents' and Early Childhood Professionals' Views of Quality

Many of the features <sup>2</sup>that low-income parents seek in a child care setting are closely related to the features that early childhood professionals associate with quality child care. Like parents, early childhood professionals view the safety of the environment as a **key structural** feature of quality child care settings (Love et al. 1996). A related priority for parents is finding caregivers whom they can trust to keep their children safe and to provide appropriate care. Early childhood professionals seek similar qualities in caregivers. While parents may choose relatives or friends in seeking a caregiver they can trust, early childhood professionals measure the ability to provide appropriate care according to a caregiver's level of education, training, experience, and commitment to child care as a profession. The definitions of quality most frequently cited by parents, a warm and nurturing environment for infants and a learning environment for older preschoolers, are generally consistent with how early childhood professionals define quality. Early childhood professionals include these characteristics of care in the category of quality measures associated with classroom dynamics and caregiver-child interactions, the "heart" of quality according to child care researchers (Love et al. 1996). To assess whether infants are cared for in a warm and loving environment, early childhood professionals would focus on such variables as caregiver behaviors and responsiveness, and the security of the caregiver-child relationship. To assess whether the child care setting provides a good learning environment, early childhood professionals have examined such aspects of care as the caregiver's verbal interaction with children, the use of age-appropriate activities and materials, and the types of activities in which children and caregivers are engaged.

There are some differences in perspective and emphasis between parents' and professionals' views about learning environments, however. Many parents seeking a learning environment for their preschool-age children may be unintentionally looking for developmentally inappropriate methods

of learning. For example, they may expect their children to sit for long periods memorizing the alphabet or their numbers, **rather** than learning through extending the children's present interests and activities (Fuller et al. 1996). Moreover, early childhood professionals would not view warmth and learning as different goals, with warmth appropriate for younger children and learning appropriate for older children. Instead, they would view a learning environment as important for infants **as** well as for preschoolers, and they would say that, for children of both ages, learning should take place in the context of a warm and loving environment.

Parents' emphasis on cultural continuity may also be related to the quality of caregiver-child relationships. While few studies of child care quality have included cultural continuity between child care setting and home as a variable, one could argue that such continuity would support the development of secure and positive relationships between caregivers and children. **A** child whose caregiver speaks the same language, understands the child's cultural background, serves foods familiar to the child, and employs a similar approach to child rearing as the child's parents is most likely to feel secure in child care and attached to the caregiver. In the Early Head **Start** Local/National Evaluation and the Low-Income Child Care Study, researchers **are** beginning to explore the role of cultural continuity in creating a quality child care setting.

Emlen (1998) conducted several focus groups of parents to identify aspects of child care quality that were meaningful to parents. He used the information from these focus group discussions to develop quality of care scales that can be used to measure the following features of the caregiver and the child care arrangement using parent report, rather than direct observation:

- Warmth and interest in my child
- Rich activities and environment
- Skilled caregiver



- Talk **and** share information
- Caregiver **accepting** and supportive
- Child feels safe and secure
- Child getting along well socially
- High-risk care

These scales measure aspects of classroom dynamics and caregiver behavior that are similar to those developed by child care researchers and practitioners, but they were developed with the understanding that parents and a trained observer do not observe the child care setting under the same circumstances. This theme is important as we consider differences between parents' and professionals' evaluations of child care quality.

### **3. Divergence in Parents' and Professionals' Evaluations of Child Care Quality**

While parents agree with child care practitioners and researchers about most of the important features of a quality child care arrangement, they do not always evaluate their child's care setting as a trained observer would (Cryer and Burchinal 1995, and **Emlen** 1998). For example, most children do not receive high-quality child care, yet most parents report high levels of satisfaction with their child care arrangements (Cryer and Burchinal 1997, Hofferth et al. 1991). In a national survey of parents, Hofferth et al. (1991) found that 96 percent reported that they were either "very satisfied" or "satisfied" with the primary care arrangements for their youngest child.

Yet, satisfaction with child care arrangements may not necessarily reflect a high opinion of child care arrangements. For instance, in the same national survey of parents that showed such high levels of satisfaction with child care arrangements, 26 percent of the parents answered yes when

they were asked whether they would choose a different child care arrangement if all arrangements were available to them (Hofferth et al. 1991).

Emlen (1998) has extensively studied parents' views of the quality of child care and suggests that part of the reason for very high rates of satisfaction with care that is typically rated mediocre to poor has to do with parents' awareness of feasible options. Satisfaction does not mean that quality is high - it simply means that parents view it as the best they can get. Emlen has developed several parent-report measures of features of child care (not limited to quality) that more closely gauge parents' assessments of quality. On a global rating of quality, 93 percent of parents rated their child care quality as perfect, excellent, or good. However, when asked whether they would choose **this** care again if they had to choose again, 84 percent said yes, and, Emlen (1998) notes, "68 percent said *the care I have is just what my child needs*, which is 32 percent who couldn't say that and didn't." He concludes that parents can distinguish between their child's needs and what may be their best option under their particular circumstances of family income, their own employment requirements, and their knowledge of the available supply of child care.

Another explanation for parents' apparent satisfaction with mediocre or low-quality child care is that they do not have enough information to adequately assess the quality of child care settings. Parents and trained observers rate the quality of child care in very different ways. Parents may observe the child care arrangement for a few minutes at the beginning and end of each day and form general impressions that are not written down from day to day, while observers watch and record details of events over several hours. To test this hypothesis, researchers in the Cost, Quality and Child Outcomes in Child Care Centers Study asked parents to rate the importance of various aspects of child care quality, and then to rate the quality of care their children received in each area. The parents' ratings were then compared with ratings given by trained observers (Cryer and Burchinal

1997). Parents rated virtually all aspects of quality as very important, indicating general agreement between parents and early-childhood professionals about the importance of quality child care. Parents, however, consistently rated the care their children received as significantly higher than did the trained observers. Compared with the parents' ratings of items that were easier for them to observe, ratings of items that were particularly difficult for parents to observe were much less congruent with observer ratings. This finding supports the idea that, unlike professionals and researchers, parents do not have adequate information for fully assessing the quality of care their children receive. Studies of low-income parents have found that many choose a child care arrangement without first visiting and inspecting the home or classroom, and many others sign up for the first child care arrangement they find with an opening, without evaluating others (Kisker et al. 1989). This practice may lead parents to choose poor-quality arrangements and reduce their awareness of better alternatives. In addition, the difficulty of changing child care arrangements because of inflexible jobs may make parents less inclined to seek more information about available options.

Emlen also notes that part of the discrepancy between parents' and observers' ratings of quality may be attributed to differences in conceptualizing quality and to different standards and criteria for quality. Trained observers have the benefit of the tremendous progress made over the past few decades in defining and measuring quality in child care, ideas that are only slowly being disseminated to parents and the general public (Emlen 1998). At the same time, many parents have never seen high-quality, group child care, making it more difficult to evaluate the quality of an arrangement in a short visit made while searching for a child care arrangement.

Despite the many hypotheses about the reasons for a discrepancy between parents' and trained observers' ratings of the same child care setting, none has been sufficiently tested in a way that

would support conclusions about which factors are most important. We do not yet know how parents' perceptions of ~~the~~ quality of a child care arrangement are formed, what role outside information might play in forming these perceptions, and how parents' perceptions may change over time in response to daily events in chdd care and to the child's behavior and development while in that child care setting. As we discuss in the next chapter, while the quality of child care as measured by professionals and researchers may be a more reliable evaluation of the quality of the child care arrangement, parents' perceptions of quality may be more important than "professionally defined" quality as an influence on their employment decisions. For this reason, we need more information about the relationship between professional evaluations and parents' perceptions of quality.

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<sup>1</sup> The National Study of Child Care for Low-Income Families is a five-year project that will examine the supply and demand for child care and the effects of child care and welfare policy on child care markets in 25 low-income communities within 17 states. In 5 of the study communities, researchers will also conduct a parent survey on employment and child care choices and measure aspects of the children's experiences in home-based care arrangements. The study is being sponsored by the Administration for Children and Families, DHHS, and is being conducted by Abt Associates, Inc., and the National Center for Children in Poverty, Columbia University.

<sup>2</sup> The Early Head Start Local/National evaluation is an evaluation of ~~the~~ impact of Early Head **Start** on children and families in 17 communities. The study is being sponsored by the Administration for Children, Youth and Families, DHHS, and is being conducted by **Mathematica** Policy Research, Inc. and Columbia University.

### III. THE RELATIONSHIP BETWEEN CHILD CARE QUALITY AND EMPLOYMENT

The quality of child care can affect parents' decisions about whether to work or how much to work. The possibility of a relationship between child care and employment decisions is easiest to see through examples of very poor-quality or very high-quality child care. A very poor-quality child care setting might be unsafe or unhealthy, making injury or illness common. A poor-quality child care setting may also have very high turnover so parents and even children cannot establish a relationship with the provider. Or providers may be harsh with children. These dramatic problems in a child care setting may lead parents to remove the child immediately. Depending on how quickly an alternative arrangement can be found, the parent may miss several hours or days of work. If the parent's employer cannot accommodate the child care emergency, the parent could end up leaving the job altogether. Alternatively, very high-quality child care may make the parent feel more comfortable about working because the child is well cared-for. Children will be safe and healthy in these environments, and parents will develop relationships with a stable group of providers. Parents will notice over time that their children are learning new things in child care; and are developing good social skills and appropriate ways of behaving when they are excited or angry. Because parents believe that their children are safe and are gaining positive benefits from child care, they will be more able to focus on their jobs while at work and will be less likely to experience the disruption of changing child care arrangements.

Improving the quality of child care beyond a very low level might make a difference for parents' employment outcomes, but we have little research from which to conclude how much change in quality is needed to yield better employment outcomes. In fact, we cannot answer many important

questions with the available research. For instance, are there particular features of child care settings that, if improved above a certain level, have a particularly large payoff in terms of employment outcomes? Can we define a cost-effective threshold for quality that yields employment benefits that outweigh the increased cost? Or can the employment benefits of high-quality child care relative to the existing quality of care for low-income families justify the cost of increasing child care quality to that point?

In addition to these general gaps in our knowledge about the effects of quality child care on employment, we know very little about the quality of school-age child care in particular in the U.S. School-age children of low-income working parents are less likely to be in lessons or formal child care programs of any quality, and parent or relative care is common (Hofferth et al. 1991, Miller et al. 1996, Seppanen et al. 1993). To date, some studies have linked the type of school-age care with children's outcomes but have not looked at how the types or features of school-age care might affect parental employment. We would expect that the type of school-age care and features of care that might matter for employment would vary depending on the age of the child, the parent's work schedule, and neighborhood characteristics. However, much more conceptual, and empirical work is required to define quality in school-age child care before we can begin to examine the effect of quality in school-age child care on parents' employment. Recent debates about funding school-age child care programs seem to be about having a program for children after school compared with no supervision at all. For this reason, we would distinguish type of program (formal care versus **self-care**) from the quality of the program and suggest that future research instead examine the effects of both types of school-age care on employment.

## A. FRAMEWORK FOR RELATING CHILD CARE QUALITY AND EMPLOYMENT

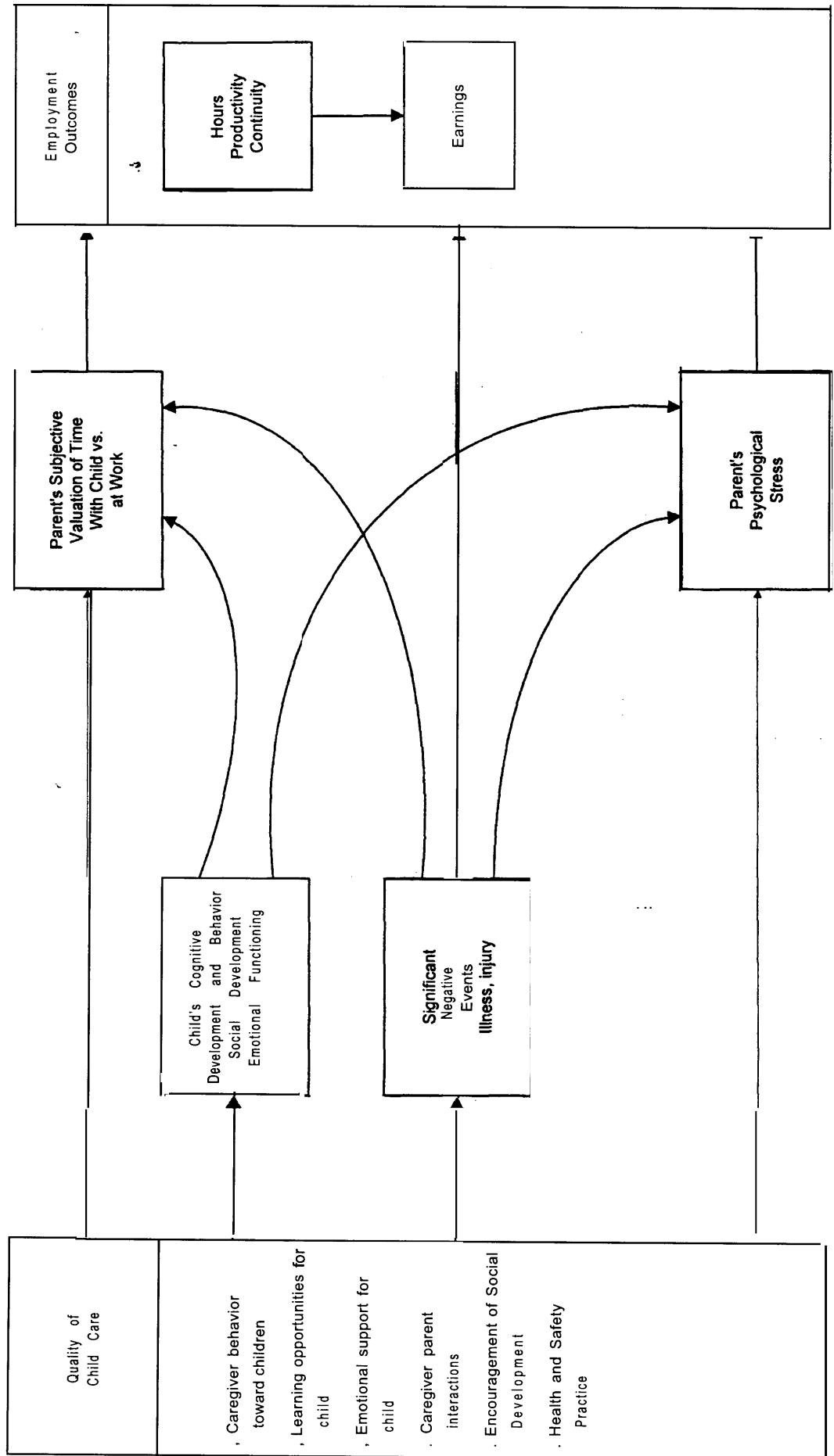
We have identified several ways in which the quality of child care may affect employment. Figure 11.1 illustrates this relationship. In this framework, child care quality represents not just high-quality child care, but any level of quality in any child care setting that parents could choose.

As discussed in Chapter 11, we define quality of care in terms of features that may affect children's development and that can be found in any type of child care setting for children of any age. The figure shows the four most important features that define the quality of a child care setting: caregiver behavior toward children, learning opportunities, emotional support, caregiver-parent interactions, encouragement of social development, and health and safety. To the extent that cultural continuity and the familial relationship between the parent and caregiver improve the quality of child care for children, these two aspects of care will be manifest through the quality of caregiver-parent interactions and the emotional support and learning opportunities provided to the child.

On the right side of Figure III. 1, we highlight four major employment outcomes that may be affected by quality child care. First, a parent's decision about whether to work and the number of hours to work may be affected by the quality of care. Second, child care may disrupt a parent's work schedule if the quality of care is poor, since parents will need to miss hours or days of work to tend to an ill child or find a new child care arrangement. Continuity of employment over time may be affected either by the parent's decision to continue working in the face of a child care crisis or by the employer's response to any disruptions in work hours or loss of productivity that are attributable to poor-quality child care. **Third**, productivity on the job is an important outcome of child care quality, since parents who are distracted by child care concerns may be less productive at work. Together,

FIGURE III.1

PATHWAYS THROUGH WHICH QUALITY OF CHILD CARE COULD AFFECT PARENTS' EMPLOYMENT OUTCOMES





the parent's hours of work, productivity, and continuity of employment will lead to changes in earnings over time, which is the fourth important employment outcome.

In the discussion that follows, we address these pathways through which child care quality may affect parents' employment outcomes. We frame our discussion in terms of the mother, since we are using a model of individual choice to highlight the most important ideas, and most parents leaving welfare for employment are single mothers. However, the discussion is equally applicable to single fathers and to two-parent families, although the decision-making process for two-parent families is more complex.

The essential idea relating child care quality to employment outcomes is that the quality of child care that a parent can find may lead her to change her ideas about how valuable her time is at home compared to time at work. The quality of child care may also affect the child's cognitive and behavioral development, which could confirm or modify the parent's evaluation of the relative value of the caregiver's time with the child, further changing the parent's evaluation of the relative value of her time at home versus time at work. The quality of child care may also be related to the frequency of significant negative events, for example, injury to the child or caregiver absences, and these events would affect the parent's evaluation of the relative value of her time at home or at work. Finally, the quality of child care can affect the level of stress the parent feels about balancing her work and family roles. In turn, this level of stress (high or low) could be enhanced by the effects of child care on child development or on the incidence of serious negative events in child care.

## **1. Cognitive and Behavioral Development in Child Care**

A large body of literature has examined the relationship between the quality of child care and children's cognitive and behavioral development. We do not summarize that literature here but refer

to the able review by Love et al. (1996), which concludes, on the basis of many studies that have used a variety of child **outcome** measures and a variety of quality indicators, that there is a positive relationship between child care quality and child well-being.

Love et al. also point out that the estimates of the effect of quality on children's outcomes in these studies tend to be biased because they **do not** control for family background factors that may affect both the choice of child care and children's outcomes. Important progress would be made in **this** area if a study could be designed to control for family factors, either through random assignment or longitudinal designs, so that the effect of child care on development could be estimated more accurately.

The effects of child care quality on cognitive and behavioral development over time will affect the mother's evaluation of the quality of the child care setting and the value of her time at home compared to at work (discussed below). Effects of child care on children's development will also affect the level of work-family stress the parent feels. If the child is developing significant behavioral problems that manifest themselves at home, or if the child is not reaching expected developmental milestones, the mother may feel more stress about the time she is spending at work. Conversely, if the child is developing favorably, the mother may feel less stress **as** she tries to balance her time and energies both at work and as a parent.

## **2. Serious Negative Events in Child Care**

In addition to what the parent learns about the child care setting through daily observations of the provider and her child's development, significant negative events--for example, an injury to the child--may also occur. Because these events require an immediate response, they directly affect a parent's work schedule. Other examples of significant negative events include repeated unanticipated

absences by the provider, unhealthy conditions in the child care setting that cause the child to become ill frequently, or harshness or neglect on the part of the provider. Any of these events could temporarily take the parent away from his or her job and cause a further loss of time from work if the parent decides to change child care arrangements. Because these events are so extreme, they can significantly affect the parent's perception of the quality of the child care setting and the level of stress caused by the need to balance work and family roles.

### **3. Relative Value of the Mother's Time at Home Compared to Work**

Parents choose to work and to work for a certain number of hours based on the earnings they expect to receive (net of child care costs) and the value they attach to their time at home. The effect of child care costs on employment, which is to reduce the returns to working' has been extensively studied (see Council of Economic Advisers 1997). However, the effect of child care quality on employment has received very limited attention by economists. As mentioned, child care quality can affect employment decisions by changing the relative value of the mother's time at home relative to time at work.

An extensive body of literature discusses fertility decisions and parental investments in children, and is based on the common-sense notion that parents care about their children and therefore will spend time and money in ways that will improve their children's well-being and life chances (Becker 1981). Becker defines child quality as either the income and wealth of children as adults or children's utility at adulthood. When children are young, the time of adult caregivers--parents and other caregivers --are important inputs into the development of child quality.

The value of the mother's time at home depends partly on her assessment of the value of her contribution to her children's development and well-being, compared to the contribution of another

caregiver, during the hours she could be working at a job outside the home. The relative value of a mother's contribution **versus** another caregiver's contribution to the child's development and well-being may vary depending on the child's age and the hours being considered. It does not imply that the parent must feel that she is less skilled than the other caregiver. For example, many mothers enroll their children in a preschool for three hours each day even when they are not working outside the home because they believe their children will be better off by spending time in preschool than at home for a few hours per day. A parent who is considering employment has a slightly more complicated decision to make because she must consider the relative skill of the substitute caregiver **as well as** the income she might earn from employment. An employed parent will search for a caregiver who will promote her child's development while she is working, so that the child is better off, with this caregiver and the income the mother can earn from working, than if the mother cared for the child herself and did not contribute that income from work outside the home. These ideas were developed by Connelly (1988), who builds on Becker's framework and theorizes that parental and nonparental care are substitutable for one another, but not perfectly; **as** a result, the mother's employment decision is based on the negative effect on child quality that ensues from each hour she is working and away from her child, and the positive effect on child quality of every hour of purchased child care.

Another way of looking at this issue is to assume that the mother's utility depends on child quality, C, consumption goods, X, and hours spent with the child, H,:

$$U = u(X, C, H)$$

Here, all of the mother's time is spent either working or caring for the child. We define  $H_N$  as the hours the nonparental caregiver is with the child, who must always be in the presence of the parent or a nonparental caregiver.

Child quality is a function of the mother's time with the child and the value of that time in producing child quality, the nonparental caregiver's time with the child and the value of that time in producing child quality,  $V(H_N)$ , and consumption goods,  $Z$ , which must be purchased to improve child quality:

$$C = C(H_M, H_N * V(H_N, Q), Z)$$

To simplify, we have normalized the value of the mother's time in producing child quality to 1 so that we can consider the value of the nonparental caregiver's time in relation to the value of the mother's time. The value of the nonparental caregiver's time relative to the mother's time with the child changes over the hours of the day. Over some number of hours, the value of the nonparental caregiver's time could be greater than the value of the mother's time. For example, a mother may believe that a half-day preschool program will contribute more to the child's cognitive and behavioral development than would her own time at home with the child during those hours. Over some other number of hours, the value of the nonparental caregiver's time could drop below that of the mother. At this point, the mother might still choose to work if the value of the additional earnings from that hour of work in purchasing other goods,  $Z$ , that also improve child quality, and other general consumption goods,  $X$ , that the mother values exceeds the value she would place on that hour spent with her child and on the loss in child quality that would result from another hour in child care that is less beneficial than maternal care.

We have specified the value of the nonparental caregiver's time in producing child quality as dependent on both the number of hours the nonparental caregiver is with the child and the quality of the child care arrangement. It is noteworthy that the value of the mother's time and the substitute caregiver's time in producing child quality are subjective measures based on the mother's perception of the quality of the child care arrangement and the quality of her own care. Her assessment of the quality of the child care arrangement will be based on her observations of the caregiver, on the child's cognitive and behavioral progress while in that person's care, and on the incidence of serious negative events in child care. Therefore, to the extent that improvements in the quality of child care as measured by developmental psychologists go unnoticed by the parent, we would not expect to observe a corresponding improvement in employment outcomes. However, if the mother were given information about the quality of the child care arrangement, if there were noticeable differences in the quality of care, and if the child's cognitive ability and emotional behavior improved beyond the mother's expectations while the child was in the child care setting, then we would expect her to change her valuation of the care provided by the nonparental caregiver, which in turn may improve employment outcomes.

This discussion has assumed that the increase in the quality of child care takes place without an increase in the hourly cost of that care. Any increase in child care costs that might accompany an improvement in quality would diminish the positive effect of better quality on employment because higher child care costs decrease the financial benefits of work that accrue to the mother. The assumption of no cost increase is unrealistic, but if child care quality is improved as a matter of public policy, the nation could also decide to publicly fund quality improvement so that the cost to families is very low.

#### 4. Psychological Stress

Psychological stress has received perhaps the most attention in the literature relating quality of child care to employment outcomes. Arguments for increasing employer support for child care have focused on psychological stress as the mechanism by which quality, reliable child care might affect employment (Galinsky and Johnson 1998). The quality of child care can affect the level of stress the parent feels about leaving children to go to work. If child care is of very poor quality, the parent may worry about children's safety or general emotional well-being. This distraction will reduce productivity at work, leading to poorer performance, slower growth of earnings, and possibly, loss of the job. The stress experienced by a working parent may make her less able to cope with everyday pressures in general, leading her to quit her job. Negative events in the child care arrangement may increase stress to the point at which the parent decides to change arrangements, causing her to miss days of work.

Psychological stress is considered separately from the value of a parent's time spent with a child as an influence on employment because stress itself may lead to changes in productivity or decisions to change child care arrangements that may independently affect employment. For example, the mother who is using a poor-quality child care arrangement may choose some number of hours to work that make her as well-off as possible with respect to income and time with her child, but which still leave her feeling psychologically stressed because she is not entirely satisfied with the child's care arrangement. This stress may lead to lower productivity, which in turn, may lead her to lose her job or earn less than she otherwise would.

Changes in the child's cognitive and behavioral development that are associated with the quality of the child care arrangement may reinforce the parent's level of stress. For example, if child care

is of relatively high quality, i.e., the child is learning more and behaving well, the mother may feel even more certain that her job has many benefits and few costs. This positive feeling may further reduce the stress related to dividing time between work and family, and in turn, increase productivity. Alternatively, if child care is of poor quality evidenced by behavioral problems and a failure to reach expected developmental milestones, the parent may become concerned that the costs of employment exceed its benefits, increasing the level of stress.

## **B. EVIDENCE ON THE RELATIONSHIP BETWEEN CHILD CARE QUALITY AND EMPLOYMENT**

There is very little empirical data on the relationship between child care quality and employment. This is partly a result of the fact that different disciplines connected with child care/employment have different orientations. Economists analyze child care as a cost of maternal employment, and developmental psychologists analyze child care in terms of the impacts of this environment on children's development. Moreover, since it is expensive to measure child care quality, efforts to do so have not, until recently, been included in large-scale studies that measure parental employment. Ideally, a study of the effects of child care quality on the employment of low-income parents would be based on longitudinal data from a large sample of low-income families. This would allow researchers to control for the effects of family selection. An ideal study would also include measures of a range of employment outcomes (hours, months of employment, job changes, and earnings) and an assessment of the quality of child care over time, as measured by parent report and by conventional observational methods. Low-income parents would need to have access to the full range of child care arrangements so that employment outcomes could be measured for parents using child care of different levels of quality. Random assignment to different levels of



quality would also help to estimate the effects of quality on employment independent of family factors affecting **selection of** child care arrangements.

We searched three types of literature for empirical evidence on the effect of child care quality on the employment of low-income parents. Several national-level surveys of families with children include measures of parental employment and child care, but in most of these data sets, the measures of the quality of child care are inadequate, the information on parental employment is insufficient, and the samples of low-income-families are too small. Many studies of the effects of welfare reform and employment initiatives have measured employment outcomes for low-income families with young children, but most of these studies did not measure the quality of child care used by families in welfare-to-work and related employment activities. Finally, the literature on early childhood interventions reports on the effects of what is essentially high-quality child care for low-income families. But because many of the studies in this area did not measure maternal employment or the quality of care from the parent's perspective, the effects of the high-quality child care on employment could not be measured. We discuss each of these strands of the literature below.

## **1. National Studies of Families and Children**

The data from several major national studies have the potential to help us establish and explore the link between parental employment and child care quality, but critical information on this relationship is missing. In some instances, this gap could be filled by adding the critical information to an ongoing data collection activity. In one case, the NICHD Study of Early Child Care, the necessary data are available and ready to be analyzed.

The National Child Care Study 1990 (NCCS) was based on interviews with a national sample of parents of children under age 13. The survey collected information on parental employment over

time but obtained only limited information about parents' perceptions of the quality of care, focusing mainly on structural features of the child care setting. This focus omits many aspects of quality that parents may be able to comment on. The information on the quality of child care in the NCCS is thus too thin to support a study linking quality of child care with employment (Hofferth and Collins 1996, Hofferth et al. 1991).

The National Longitudinal Study of Youth 79 (NLSY79) is a large sample of individuals ages 14 to 21 in 1979 who were surveyed annually until 1996 about employment, education, and other outcomes. From 1982 through 1985, respondents were asked about the type of care, number of hours of care, and weekly cost of care used for the youngest child. In 1986, a Child Supplement was added to learn about child care arrangements in the first three years of life and about the current development of children born to sample members. The child supplements have continued every other year through 1996. Again, the information on child care quality included only structural variables obtained by parent report, thus providing too narrow a perspective on the quality of the child care settings.

In both the NCCS and the NLSY, the parent reports about structural features were included in the hope that parents could provide reasonably accurate data that is correlated with the quality of the child care setting. However, as we noted in Chapter 11, parents' perceptions of the quality of child care settings, though useful in their own right, do not act as a proxy for a professional's assessment of quality. The first half of this chapter suggests that parents' perceptions about quality contribute to their decisions about employment. Thus, a broader measurement of parents' perceptions of quality would be useful in studies that also ask parents about their labor force participation. A first round of interviews has just been completed with a new NLSY cohort of 10,000 children ages 12 to 16

years, the NLSY97. When this cohort reaches childbearing age, it would be useful to expand the range of child care features they are asked about.

The recently completed studies of the quality of center-based and home-based child care contain measures of the structure and process quality of a large number of child care settings. Although the measures are based on ratings by trained observers, they do not measure parental employment (or parent perspectives on quality) over time (Cost, Quality, and Child Outcomes Study Team 1995; Galinsky et al. 1994). Therefore, we cannot use these data sources to determine how child care quality affects employment outcomes for parents.

The NICHD Study of Early Child Care includes measures of parental employment and the quality of child care over time. These measures are based on ratings by trained observers, but the study sample of low-income families is relatively small, and we are unlikely to find the families distributed across the full range of quality child care settings. Nevertheless, an analysis of these data might provide some information about the effects of very low-quality child care on employment.

Analyses of these data have not yet focused on the relationship between quality of child care and maternal employment.

....

Several ongoing studies will collect data on parental employment and child care quality for low-income families (based on observer ratings), and analyses of these data in the coming years may provide more information about the relationship between the two. The Early Head Start (EHS) National Evaluation is collecting such data from parents who were randomly assigned to receive EHS services for their young children. EHS families are predominantly low-income and, through the EHS programs, may have access to high-quality, center-based child care. The Early Childhood Longitudinal Study--Birth Cohort Study (ECLS-B) will collect information on parental employment

and child care quality from the time of the child's birth. This national study will include a sample of low-income families but may share the NICHD Study's problem of having too few of these families that use high-quality child care.

The simplest way to obtain more information about the relationship between quality of care and parental employment would be to analyze existing and forthcoming data that include measures of both: the NICHD data could be analyzed most quickly, and the EHS and ECLS-B data will be available soon. To ensure that ongoing research questions can be addressed, however, we would also need to make information on a representative sample available over time. The best way to do this may be to add selected measures to the NLSY data sets, as the data already include measures of parental employment, child development, and some basic child care data.

## **2. Welfare Studies**

We examined the literature on major evaluations of recent welfare reform initiatives that focus on employment outcomes for low-income parents, including the National Evaluation of **Welfare-to-Work** Strategies (the JOBS evaluation) (Hamilton et al. 1997); California's Greater Avenues to Independence (GAIN) program (Friedlander et al. 1993, Gilbert et al. 1992); the Teenage Parent Demonstration (TPD) (Kisker et al. 1998, Maynard 3 993); welfare waiver demonstrations in Indiana (Fein et al. 1997), Minnesota?Florida (Bloom et al. 1998), and Iowa (Fraker et al. 1997); and earlier state-based welfare-to-work studies, including the Massachusetts Employment and Training (ET) Choices program (Nightingale et al. 1990); San Diego's Saturation Work Initiative Model (SWIM) (Hamilton and Friedlander 1989 and Gueron and Pauly 1991); and Baltimore's Employment Initiative (Hamilton 1988 and Friedlander et al. 1985). Most of these studies considered the effects of child care on employment only by constructing subgroups based on the age of the youngest child

in the household (Fein et al. 1997, Fraker et al. 1997, Hamilton and Friedlander 1989, Hamilton et al. 1997). A few studies—the *GAIN*, TPD, and ET evaluations—measured the extent to which employment was interrupted because of child care problems (Gilbert et al. 1992, Maynard 1993 and Nightingale et al. 1990). One study, the TPD evaluation, measured participants' satisfaction and problems with child care arrangements (Maynard 1993, Kisker and Silverberg 1991). Only the *GAIN* evaluation attempted to measure the quality of child care using parent ratings and to relate that to parents' employment outcomes (Meyers 1993).

More specifically, Meyers examined how mothers' perceptions of the quality of their child care arrangements and the convenience of those arrangements affected their progress in *JOBS* activities. The sample included women participating in California's *GAIN* program who needed child care. Most of these women were voluntary participants. The study found that a mother's assessment of the safety of the child care arrangement and of the trustworthiness of the provider were important predictors of whether she was still active in job preparation activities or employment one year later. In addition, parents who reported using child care in which the child-staff ratio exceeded professional standards were more than twice as likely as those who used care in which the ratio did meet the standards to drop out of *GAIN* activities. The parent's assessment of the learning and social opportunities in child care were not significantly associated with the parent's job-related progress one year later. This study did not measure the quality of child care using assessments by trained observers, so we do not know how these might relate to parents' perceptions or to employment outcomes.

Related information on the effect of child care quality on a mother's ability to continue employment or job-related activities appears in the evaluation of the TPD program. In this program,

mothers who were first-time teenage welfare recipients in Newark and Camden, New Jersey, and in South Chicago were randomly assigned to a participant or control group. Members of the participant group were required to be involved in education, job training, or actual employment, and they received support services and case management. The control group received AFDC but did not have to meet any immediate work or schooling requirement. Kisker and Silverberg (1991) describe the results of a survey of these mothers four months after enrollment. More participants were active in employment or job-related activities at this point (49.8 percent of participants compared to 31.3 percent of control group members). About 20 percent of the active mothers in both groups reported having child care problems that led them to stop work, change activities, or change hours of the activity. When asked what child care problem affected their activities, participants were much less likely to cite the cost of child care (24.6 percent compared with 52.1 percent of control group members) or its availability (37.5 percent compared with 47.9 percent of control group members), reflecting the assistance they received arranging care. However, participants were much more likely to say that the quality of child care presented a problem that led them to stop working or change their activities or hours (29.1 percent compared with none of the control group members).

This finding suggests that mothers who are required to work as a condition of receiving welfare benefits may try to manage with lower-quality child care than they would in the absence of such a requirement, but that this low-quality care may be the reason that mothers interrupt their employment activities. While the TPD evaluation did not specify the types of quality-related problems that led mothers to interrupt their work, the *GAIN* study identified perceived safety, trustworthiness of the provider, and child-staff ratios as problems that contributed to different degrees to women's decisions to end their voluntary *GAIN* activities. Further research on the

relationship of child care to employment outcomes in the context of welfare reform is needed. This research would combine parent perceptions of quality, professional observations of the quality of the child care arrangement, and employment outcomes in the current environment of work requirements and welfare time limits. An important policy question concerns the quality of child care used by women required to work as part of welfare reform, and whether (or to what extent) the quality of or the types of problems associated with that child care leads them to curtail their work activities. Another question is how the parent's assessment of quality changes over time in relation to a professional assessment of quality.

### **3. Early Intervention Studies**

The literature on early intervention provides an additional perspective on the extent to which the quality of child care might affect maternal employment. Early intervention programs provide virtually the only opportunity for low-income families to access high-quality care, and therefore, these programs offer researchers their best opportunity to measure the effects of high-quality child care on low-income families. A drawback of these studies is that the "child care" that is the focus of study is usually a carefully implemented program that would be very difficult to replicate in low-income, community-based settings. Moreover, parents in the studies are never asked about their assessment of the quality of these settings.

In a review of how mothers benefitted from eleven center-based early childhood intervention programs for children from birth to three years, Benasich et al. (1992) found that employment outcomes for mothers were examined in only six programs. Of these programs, five--the Abecedarian Project, the Birmingham PCDC, the Teenage Pregnancy Intervention Program, the Milwaukee Project, and the Teen Age Parenting Program--had significant impacts on such

employment-related outcomes as employment rates, employment stability, and earnings. Only the Perry Preschool Program had no measured effects on maternal employment.

More recently, Brooks-Gunn et al. (1994) reported significant effects of the Infant Health and Development Program (IHDP) on the employment of mothers. This random-assignment intervention designed to improve the health and development of low-birthweight, premature infants offered home visiting from birth to three years and center-based child development programming in the second and third years- of life. Brooks-Gunn et al. (1994) found that mothers in the intervention group were more likely to be employed than were mothers in the control group. Employment effects were strongest for mothers with a high school education or less. Cumulative months of employment for less-educated black mothers were 14.1 for the intervention group and 12.0 for the **control** group; for less-educated white mothers, months of employment for each group were 18.1 and 14.0, respectively. Intervention-control differences began to emerge at 18 months, which corresponds to the first ~~data~~ collection point following the start of center-based care services for the intervention group. The impact of the intervention on maternal employment was stronger for mothers of lighter babies (weighing 2,000 **grams** or less at birth), who were **the** most biologically vulnerable. These results are important because they suggest that the provision of high-quality, center-based care to low-income mothers of very young children can increase employment rates and improve the stability of employment over time, and that these effects may be greater for parents of children with special needs. No other recent studies have looked at the effects of high-quality child care on low-income parents.



## IV. LINKING LOW-INCOME FAMILIES WITH QUALITY CHILD CARE

3

The previous chapter discussed how the quality of child care can affect parents' employment decisions. The quality of child care is not the only factor parents consider **as** they decide whether and how much to work, but it could have **an** important effect on employment. Some empirical evidence supports the idea that there is a link between the quality of child care and the employment of low-income parents of young children, although this relationship needs further study.

If research were to provide a basis for deciding that higher-quality child care is valuable in promoting employment among low-income families, then the next set of questions we would **ask** about the relationship between child care and employment decisions have to do with linking low-income families with higher-quality child care. In connection with this issue, we discuss supply considerations, including the quality of child care in the U.S., the relative scarcity of formal child care in low-income neighborhoods, and the cost of providing higher-quality child care. We also examine what is known about the demand for higher-quality child care by low-income families and consider how parent information, provider training, and child care subsidy policies could help link parents with higher-quality child care.

### A. THE QUALITY OF CHILD CARE IN THE UNITED STATES

We do not have nationally representative estimates of the quality of child care across the full range of child care settings in the U.S. because measures of quality, and even generally accepted definitions of quality, do not exist for the full range of child care settings. However, even in the more formal child care settings for young children, for which measures of quality are well-established, data on the quality of child care are not nationally representative because of the high cost of measuring quality reliably.

b

The available data from a series of recent multi-site studies of child care arrangements for infants, toddlers, and preschool-age children suggest that very few child care centers or home-based child care settings would be rated as good quality on the available measures. These studies suggest that the quality of child care for younger low-income children is of even greater concern. Our discussion of child care in the U.S. begins with these two issues.

### **1. Quality of Child Care for Younger Children**

While structural features of child care settings cannot be used as a proxy for process quality, there may be cause for concern when child-staff ratios and group sizes are higher than professionally recommended levels or out of line with even state regulations. Infants and toddlers, in particular, need a lot of individual attention from adult caregivers in order to encourage their social, emotional, and language development (Bomstein and Sigman 1986, Belsky et al. 1986), but a national study of formal child care in 1990 found that child care settings for older infants and toddlers were most likely to have group sizes, ratios, and levels of training that were below professionally recommended levels (Kisker et al. 1991). In many cases, ratios and group sizes reported by center directors were also out of compliance with state regulations (Kisker et al. 1991). For example, center classrooms serving only 1-year-old children have a recommended maximum ratio of 4: 1, but centers serving infants actually maintained an average ratio of 6.2: 1. Only 32 percent of the centers serving 1-year-olds had average ratios of 4: 1 or better; the rest of the centers had higher ratios, and 13.4 percent of the centers had ratios of 10: 1 or more. Between 19 percent and 33 percent of the centers serving 1-year-olds were out of compliance with their state's regulations for child-staff ratios. A recent comparison of state child care regulations in 1990 with quality criteria identified through research and practice found that about three-quarters of the states had regulations for group size and ratios that were poor or very poor in comparison with quality standards (Young et al. 1997). Given the low

prevailing standards for infant and toddler care in 1990, it is of particular concern that Kisker et al. (1991) found that many **providers** were out of compliance with their state's regulations on ratios for this age group.

Concerns about the quality of formal infant and toddler care are echoed in the Cost, Quality, and Child Outcomes in Child Care Centers study, which measured process quality of center-based child care in selected communities in California, Colorado, Connecticut, and North Carolina (Cost, Quality, and Child Outcomes Study **Team** 1995). Of the 225 center classrooms serving infants and toddlers, only 8 percent were rated good quality, and 40 percent were rated as being less than minimal in quality (see Table IV. 1). In the less-than-minimal-quality settings, children may face poor sanitary conditions; safety hazards; a lack of warm, supportive relationships with caregivers; and/or a lack of stimulating play materials that foster physical and intellectual growth. Compared with these infant and toddler classrooms, preschool classrooms were generally of higher quality. In the 511 preschool classrooms, 24 percent were rated "good quality," while only 10 percent were rated as being less than minimal quality.

An earlier study of the quality of center-based care found a similar distribution for the quality of center-based care in five other sites. The National Child Care Staffing Study rated quality in 643 infant, toddler, and preschool classrooms in 227 centers in Atlanta, Boston, Detroit, Phoenix, and Seattle (Whitebook et al. 1989). Even though researchers limited the study to classrooms in which caregiver-child ratios met recommended standards, the average scores only ranged from 3 to 3.5 for infant (3.17), toddler (3.57) and preschool (3.56) classrooms on a scale in which 5 is considered good quality (Whitebook et al. 1989).

Home-based care, either in formal, regulated family child care settings or in informal, nonregulated home-based sittings, is also rarely of good quality, according to a study of home-based care in Charlotte, NC; Dallas/Fort Worth, TX; and San Fernando/Los Angeles, CA (Galinsky et al. 1994, Kontos et al. 1995). Regulated home-based chld care was rated as higher quality, on average, than nonregulated home-based care ,but even in regulated care, only 12 percent of the settings were rated as having good quality (see Table IV. 1). In nonregulated home-based care, fully half of the settings were rated as having “**inadequate** quality,” meaning that the settings offered unsafe and unstimulating care for children; nearly 70 percent of the relative-care settings were rated inadequate.

Some have argued that providers of informal and relative care tended to receive lower ratings in the study of home-based care quality because the global quality ratings the researchers used omit such important features of informal and relative-care settings as the close relationship between parent and caregiver, continuity of care, and consistency of cultural and childrearing practices. Instead, the global ratings cover more institutional features that include the scheduling of activities, following routines necessary for managing a large group of children (even when only one or two children are being cared for), and having a variety of toys and child-sized furnishings in the home. However, informal and relative-care settings also were rated lower than regulated settings on such interactions measures as the caregiver’s sensitivity toward children and level of responsive involvement with children. Compared with providers of regulated care, relative care providers were rated higher on levels of detachment and on low-level involvement with children. Responsiveness of adults and involvement with children are important if children are to learn, build self-confidence, and develop socially.

Nevertheless, concerns about the appropriateness of quality measures in the Study of Family Child Care and Relative Care led to a different approach in the current National Study of Child Care

for Low-Income Families. This study will examine the range of home-based child care settings used by low-income families in several communities. Rather than attempt to define and measure quality, the study seeks to measure children's experiences in chdd care by using a range of instruments that characterize caregiver-child interactions, the child's experiences with peers and adults, and basic health and safety issues so that valid comparisons of quality across the range of child care settings can be made.

Response rates can be a serious issue in studies of child care quality. Child care providers may not want to have an interviewer observe the child care setting for several hours, and mothers may be unwilling to allow the interviewer to contact the provider to set up an interview and an observation time. In the Cost, Quality, and Child Outcomes in Child Care Centers study, response rates ranged from 41 percent in North Carolina to 68 percent in Colorado and Connecticut. In the Study of Family Child Care and Relative Care, 78 percent of the providers who were directly contacted agreed to participate in the study, while only 56 percent of the providers who were located by asking mothers for a referral participated in the study.

It is reasonable to be concerned that the providers who choose not **to participate** in the observational study offer lower-quality child care on average than those who are willing to be observed. In the NICHD Study of Early Child Care, the families whose child care arrangements could not be observed (because of either parent or provider refusal) had lower incomes and less stimulating home environments on average than those who were willing to have their care arrangements observed.

However, parents and providers who develop a relationship with the staff of a study are more likely to agree to participate in the observational component of the study. In the NICHD Study of Early Child Care, response rates for the observational child care study increased over time, from 79

percent at 6 months into the study to 90 percent at 36 months. It is possible that the shift from informal, in-home child care in the early years to more institutional forms of child care by age 3 may also help to explain the increase in response rates, but a growing relationship with study staff may have helped. The field needs to devote more attention to identifying ways of gaining cooperation in studies of child care quality so that we can have more confidence in the representativeness of the results of these studies.

## **2. Quality of Child Care for Young Low-Income Children**

Studies of child care quality by income group suggest that children from middle-income families and many lower-income families receive lower-quality child care than do children from higher-income families. Phillips et al. (1994), based on data from the National Child Care Staffing Study and the Profile of Child Care Settings, found that quality in centers that predominantly served low-income children (family income below \$15,000 in 1989) was highly variable, with some centers having very low quality and others having very high quality. Centers that predominantly served high-income children (family income above \$60,000) provided the highest quality of care on average, and those that predominantly served middle-income children (family income between \$15,000 and \$60,000) provided the lowest quality of care on average across multiple measures that included ratios and group sizes, global quality indices, and indicators of caregiver behavior toward children. The curvilinear relationship between income and the quality of center-based care is likely to be the result of subsidies directed toward some child care settings for very low-income families. Examples of such settings include Head Start centers, public-school sponsored programs, and other centers in urban areas. However, centers that serve mostly middle-income families are not similarly subsidized, and the families themselves have a limited ability to pay for quality child care. For these

income working parents may have limited access to the best child care that can be available to children of low-income parents who do not work.

In contrast to the findings about center-based care, the findings on family child care and relative care suggest that children from **low-income** families (income below \$20,000) were in the **lowest**-quality settings on average, followed by children from middle-income families (income between \$20,000 and \$40,000), and then by children from high-income families (income above \$40,000). Average global quality scores increased steadily by income group, as did average scores for caregiver sensitivity (Galinsky et al. 1994). About half of the low-income families in the study used relatives to provide child care, and researchers found that providers serving children from **low**-income families were less sensitive and had more restrictive attitudes toward child rearing than did providers who served children from higher-income families (Kontos et al. 1995).

An analysis of child care settings for **15-month-old** children from the NICHD Study of Early Child Care (NICHD Child Care Research Network 1997) shows that overall, there is a curvilinear relationship between family income and quality of care, but the relationship is not as pronounced as it was in the Phillips et al. (1994) study, which included only center-based care; **The** NICHD study included home-based as well as center-based child care settings, and so the weakening of the curvilinear relationship found in Phillips et al. (1994) may be a result of including a broader *mix* of child care settings.

### **3. Quality for School-Age Children**

We unfortunately know little about the quality of child care for school-age children generally and for low-income children in particular. Two studies indicate that low-income children are less likely than higher-income children to attend formal school-age programs. One study that focused

on out-of-school time for low-income children did examine quality, but used a sample in which only about one-third of the **mothers** were working. We discuss these studies further in this section.

A study of the characteristics of 1,300 formal before- and after-school programs in the U.S. (Seppanen et al. 1993) compared programs that primarily serve low-income families (on average, 55.5 percent of their enrolled children come from families with income below \$15,000) with those that do not primarily serve low-income families (on average, 10.1 percent of enrolled children come from families with an income below \$15,000). The staff composition by type of staff was the same across the two types of programs; the wages were comparable; and the education levels of staff were comparable. This study did not examine program quality more directly.

Low-income children are not enrolled in formal school-age programs **as** frequently **as** are higher-income children (Hofferth et al. 1991, Seppanen et al. 1993). A study focusing on after-school care for low-income children ages 4 years to 7 years in Worcester, MA, St. Paul, MN, and San Jose, CA found that most of these children were at home with a parent or other relative after school, watching television (Miller et al. 1996). Parents in the study cited economic, transportation, and safety barriers to enrolling their children in a formal program; but most of these parents did not work. Among employed parents (about 33 percent of the sample), 66 percent relied on the father, partner, an adult relative, or an older sibling to supervise the child at some point during the after-school hours; about 25 percent enrolled their children in an after-school program; 30 percent enrolled their children in lessons at some point during the after-school hours; and about 10 percent left their children home alone at least for some period of time. (Because many children were in multiple arrangements, the percentages sum to more than 100.)

Miller et al. (1996) examined two aspects of quality: children's activities and parents' satisfaction. It found that watching television dominated other activities, and that parents were



dissatisfied with the level of stimulation children were receiving during after-school hours. Unfortunately, however, the study did not examine these aspects of quality separately for children who were in self- or non-parental care while their mothers were working, and the sample of children of working parents was very small, so it is difficult to form judgements on the basis of this study about the quality of care for young, low-income, school-age children while their parents work.

## **B. THE SCARCITY OF FORMAL CHILD CARE IN LOW-INCOME NEIGHBORHOODS**

Although high-quality child care is available to a limited degree for low-income families, primarily through well-subsidized Head **Start** and state preschool programs, these programs tend not to accommodate the schedules of working parents. The quality of other child care centers used by low-income children is much more variable. In this section, we look at the way in which **center-**based and licensed care slots are distributed as a means of exploring the idea that low-income families may face a more limited supply of center-based care, thus constraining their child care options. While formal child care is not necessarily of higher quality than informal care, many **low-**income parents want center-based care for their preschool-age children in order to prepare them for school (Porter 199 1).

A study of the availability of center-based child care examined nationwide county-level and then zip-code-level data from Massachusetts on family income and the number of center-based classes and slots (Fuller and Liang 1996). The study found that center-based care tends to be available where it can be paid for, either by families themselves or by subsidy programs. Counties with higher median family income and greater concentrations of well-educated parents employed in professional or technical fields had a larger number of available center-based-care slots. **Working-**class and rural counties showed lower levels of supply of center-based care. The analysis of zip code areas in Massachusetts found that the supply of center-based care was lowest for working class and

lower-middle-income families (income of \$20,000 to **\$40,000**), greater for the lowest-income families (income below **\$20,000**), and most plentiful for families with a median income of \$40,000 and above. They attribute this curvilinear relationship between family income and the supply of center-based care to strong efforts by the state to support center-based care for the lowest-income families through subsidy programs.

The interplay between income, employment, demographics, and government support is also evident in an analysis of the supply of center-based and regulated home-based child care by zip code area in four counties in California (Fuller et al. 1997). The same patterns of licensed care supply by income are not found in every geographic area. In Los Angeles, Tulare, and Santa Clara counties in California, the supply of formal child care in affluent areas was as much as twice the level as it was in poor areas in these counties. San Francisco alone stood out because family income was not related to the supply of child care slots, a finding that the researchers attribute to greater political activism, local government spending, and possibly other county-specific factors.

A study of child care supply in Illinois showed a greater shortage of center-based care in **low-**income neighborhoods in a city with stringent child care center regulations and a state that provided less support than Massachusetts for center-based care for low-income families (Siegel and **Loman** 1991). **As** Fuller and Liang (1996) found nationwide, many rural counties in Illinois had few licensed center- and home-based child care slots per capita. However, Siegel and **Loman** found that the most severe shortages of licensed care exist in low-income neighborhoods of Chicago, where a few of the lowest-income quintiles of Chicago zip code areas had no center-based child care slots.

The **GAO** (1977) compared the current known supply of child care with the projected demand for child care under varying levels of work participation requirements in Baltimore City, Chicago, and Benton and Linn counties in Oregon (**GAO** 1997). Known supply generally includes child care

centers and regulated family child care homes, although in some states, known supply may also include some unregulated providers. The GAO found that the percentage of current demand that could be met by known supply ranged widely depending on the location and the age of the child. Infant care was very scarce in most sites, ranging from 16 percent of the projected demand in Chicago to 67 percent of the demand in **Benton** County, Oregon. Preschool-age care was the most plentiful, ranging from 74 percent of the projected demand in Linn County, Oregon, to 144 percent of projected demand in Baltimore City. School-age care was relatively scarce, with the percentages of projected demand met by known supply just slightly higher in each site than the infant care percentages. Collins and Li (1997) examined the supply of center-based care and regulated family child care in Maryland and Illinois by zip code in April 1996. They found that in Maryland, the number of regulated child care slots per thousand children under age 13 fell as the percentage of families in near poverty increased from less than 10 percent to more than 30 percent. In Illinois, the number of regulated spaces per thousand children was lower overall than in Maryland but had no discernable relationship to the percentage of families in near poverty.

More research is needed to untangle the effects of family income,; female labor force participation, state regulations, and subsidies on the price and supply of regulated child care. Moreover, studies of the supply of child care that are based on resource and referral databases omit legally unregulated care. In Maryland, only relatives are considered legally unregulated care providers, but in Illinois, relatives and others caring for fewer than four children are legally unregulated. While some research has questioned the quality of unregulated and relative care, they remain a very important source of child care for low-income families. Understanding how the supply of child care for low-income children responds to family income, the availability and level

of subsidies, state regulations, and women's labor force participation -will require that researchers have better definitions and estimates of the supply of unregulated care.

### **C. THE COST OF HIGH-QUALITY CHILD CARE**

If policymakers are to improve the quality of child care for low-income children, they need a better understanding of what aspects of the various child care settings need to be changed and what it would cost to change them. Two recent studies have carefully examined the cost and quality of a relatively large sample of child care centers (Cost, Quality, and Child Outcomes Study Team 1995, Helburn 1995), and two other studies have examined the same in a sample of family child care homes (Kontos et al. 1995, Modigliani et al. 1996). Together, these studies provide estimates of the cost of major components of child care services and conclude that there is only a modest positive relationship between cost and quality. However, more work is needed to understand the relationship between the cost and quality of child care, since many factors affecting the quality of center-based care have not yet been identified and measured, and in home-based care, measures of quality that researchers believe are reasonable for smaller, unlicensed settings are just being developed.

Economists have used production theory as a framework for thinking about the cost of quality child care and what can be done to improve quality. In this view, quality child care can be thought of as a service consisting of several "inputs": staff or provider resources, materials and equipment, space, and the size of the group of children. In the short run, when the amount of space available for child care may be difficult to alter, the service providers (center directors or home-based providers) decide how to combine staff of various education levels and experience with groups of children of various ages, and how much and what types of materials and equipment to provide, within a given amount of space (Mocan et al. 1995, Mocan 1997, Blau 1997). Each of the inputs has an associated

price, which must be weighed against the income that can be generated from parent fees and any subsidies from private and public sources. We use this basic framework in the following sections.

### 1. Cost and Quality in Center-Based Child Care

The annual cost of child care in centers in the early 1990s was estimated to be \$6,576 per child. Child care is a labor-intensive service, so the cost of salaries makes up the majority of a child care budget. In the early 1990s, labor costs in centers were an average of 70 percent of the total budget, occupancy costs were another 14 percent, and food was about 5 percent of the budget. The average annual cost of \$6,576 per child is an average over all centers in the study, so infant care, which requires more staff per child, would be more expensive per child, while preschool-age care, which requires fewer staff per child, would be less expensive. The large share of costs attributable to labor suggests that any decrease in child-staff ratios or increase in salaries, which would raise labor costs without changing the number of children, would increase average costs of child care substantially.

Yet, the Cost, Quality, and Child Outcomes in Child Care Centers study (Cost, Quality, and Child Outcomes Study Team 1995) found that average costs increase only modestly with increases in quality (Helburn and Howes 1996; Mocar et al. 1995). Increasing quality by 66 percent from mediocre (a score of 3.0 on the ECERS or ITERS) to good (a score of 5.0 on the ECERS or ITERS) would increase total costs about 10 percent, or about \$300 per child per year. It costs even less than that to increase quality from poor (a score of 1.0 on the ECERS or ITERS) to mediocre.

The literature does not provide strong guidance to policymakers about what features of a center matter most for quality, or about what changes would help to bring about quality. Much of the literature on developmental psychology concludes that staff-child ratios are a critical element of quality, but recent research using good econometric specifications **finds** that the relationship between ratios and quality is modest (Blau 1997, Mocar et al. 1995). This conclusion is consistent with the

finding of the Cost, Quality, and Child Outcomes in Child Care Centers study (Cost, Quality, and Child Outcomes Study Team 1995) that increasing center quality by 66 percent (from a 3 to a 5 on the ECERS) would cost only about 10 percent more (Mocan et al. 1995). Since center budgets are 70 percent labor costs, the cost of increasing quality would have to be very high if staff-child ratios had a strong relationship to quality. Moreover, caregiver wages, staff education and experience levels, and other inputs also have relatively modest associations with quality scores, and together, these elements leave a large share of the variation in global quality scores to be explained by other factors (Blau 1997, Mocan 1995). Blau, using data from the National Child Care Staffing Study, estimates the relationship between specific child care center inputs to quality scores, and includes fixed effects in the model to estimate the effects of unmeasured center-specific factors that may affect quality. The author ~~finds~~ that the proportion of the variation in global quality scores explained by the regression rises from about 20 percent before fixed effects to nearly 70 percent after fixed effects are added (Blau 1997). Further information on what center-specific factors affected quality would be helpful, ~~as~~ fixed effects do not explain, in a manner useful for policymaking, what it is about the centers that generated their particular quality scores. Mocan et al.'s (1995) regressions on the CQO data captured approximately 50 percent of the variation in global quality scores, which may mean that the CQO data contain some additional measures of center features that contribute to quality.

The lack of a strong association between factors typically believed to influence quality and quality scores, and the importance of unmeasured center-specific factors in quality suggest that we have a lot to learn about what factors create a quality center and how centers can create a quality environment. Clearly, many mediocre centers have many of the same measured characteristics ~~as~~ high-quality centers--acceptable child-staff ratios, similar wages and staffing ~~patterns, similar~~ staff

education, training, and experience--and for this reason, models based on these variables find that these features are not very **helpful** at predicting which centers have higher quality. A rough analogy appears in the literature on 'quality in schools, a point noted by Blau (1997). In this literature, researcherstrying to relate school inputs (for example, money and class size) to outputs (usually test scores) have been debating whether money matters to school outcomes. Researchers are pressing ahead to measure more features of both the schools and the classrooms so that they can learn more about what does matter to produce results in education. Similarly, researchers in child care are trying to determine what factors affect quality scores for chld care settings and have found that much of the variance in quality scores is not explained by the factors we have measured thus far.

Research on child care quality might benefit fi-om moving in some of the directions **taken** in education research. First, researchers should relate inputs (ratios, group sizes, caregiver styles, and other factors) to outputs (measured outcomes for children). Second, more features of the child care setting that might make a difference for quality should be measured. Some centers do seem to put together staff, materials, and facilities in a way that creates a hgh-quality program for children. Are these centers "creaming" the most talented early childhood workers and providing mainly intangible benefits, such as a free rein to develop a good program and the satisfaction of participating in a good program with other talented staff? Or do these centers have high expectations for staff and provide strong on-the-job training? We need better data on additional features of centers that might help us understand what practices and features distinguish high-quality centers fi-om others.

Some of these factors may have been captured in the data fi-om the Cost, Quality, and Chld Outcomes in Child Care Centers study. **Mocan** et al. (1995) included several variables measuring the administrator's characteristics (for example, education, professional involvement, and curriculum involvement) and found that the regressions relating quality scores to child care center inputs

explained more of the variation in quality scores than similar regressions reported in Blau (1997) that were based on data from the National Child Care Staffing Study, which did not include measures of the administrator's characteristics. Nevertheless, Mocan et al. (1995) included many other variables--including indicator variables for state, auspice, and extent of service (for example, part-day, summer camp, and sick care) that contribute to the higher R-square for these regressions but do not offer any obvious direction for improving the quality of care. Only about 12 percent of the centers in the Cost, Quality, and Child Outcomes dataset were of high quality. This small group of centers needs to be studied further and contrasted with mediocre and poor-quality centers so that we can measure more of what matters most for quality.

However, once we learn what factors contribute most to quality in centers, we may find that these approaches cannot be applied across all centers. For example, if good centers are "creaming" the most talented staff off the top, there may not be many good people left who are willing to work as child care teachers at current wage rates. Perhaps only 12 percent of all centers can manage to assemble and train the best staff at current wage rates so that they can attain quality. To attract additional good child care teachers and staff, it may be necessary to increase wages, which would increase the cost of improving quality.

While the estimated cost of improving quality in centers was small, the CQO study also found that the fee differential between mediocre and good quality centers was even smaller than the cost of improving quality. Researchers concluded that for centers that rely heavily on parent fees, such as for-profit and church-affiliated centers, there may be a disincentive to improve quality because fees cannot be raised sufficiently to improve quality. For other nonprofit centers with more diversified revenue streams, this disincentive may be weaker or nonexistent.



## 2. Cost and Quality in Home-Based Child Care

The costs of providing home-based child care were estimated as part of the study of quality in family child care and relative care (Helburn and Howes 1996, Kontos et al. 1995). The study found that home-based child care costs an average of \$4,660 per child per year. The provider's income and salaries for assistants and substitutes accounted for about 64 percent of the total budget, and food was about 12 percent of the budget. Occupancy costs (repairs, remodeling, utilities, and furniture) were about 12 percent of the budget. Thus, occupancy costs make up about the same proportion of the home-based care budget as they do for center budgets, but food costs are higher in homes and labor costs are smaller.

The EFCC study found that while home-based child care providers had very low earnings, providers who served eight or more children spent less per child in categories other than assistants and administrative expenses than those serving fewer children. Furthermore, the quality of care provided in homes with eight or more children was significantly higher compared to the average level of quality across all homes in the study. **Thus**, the homes providing higher-quality care tended to serve more children, and the associated cost per child tended to be lower.

The EFCC compared primarily poor- and mediocre-quality home-based child care because there were too few homes providing good-quality care in the study to support comparisons. Researchers found that the cost per child per hour was higher in homes offering mediocre quality care than in poor-quality home-based care. More research is needed to define acceptable measures of the quality of home-based child care. Once we have better information on the quality of home-based care, it would be useful to re-examine the cost of providing home-based care at varying levels of quality.

#### **D. THE RELATIVE IMPORTANCE OF QUALITY IN CHILD CARE CHOICES OF LOW-INCOME PARENTS**

To this point, we have<sup>2</sup> discussed supply and cost factors that affect the availability and quality of child care for low-income families, and what it might take to improve the quality and availability of child care for these families. However, linking low-income families with better-quality child care requires that parents be interested in these arrangements. If a supply of better-quality child care were available, would families come? To examine this part of the issue, we review information on the importance of quality in the child care choices that low-income families make. The quality of child care is a very important aspect of the child's care arrangement, according to surveys of parents (Hofferth et al. 1991, Kontos et al. 1995). Among low-income parents responding to the National Child Care Survey 1990, 51 percent cited the quality of the child care arrangement as the first or second most important reason for choosing the main arrangement for their youngest child (Ross 1996). Yet, other factors must also be important. Despite parents' desire to use high-quality child care arrangements, many parents place their children in child care settings that are not of adequate quality. In Chapter II, we discussed how this discrepancy may be related to parents' ability to observe the quality of their children's care settings as professionals would. The discrepancy can also be attributed to the tradeoffs parents must make as they weigh their options. These tradeoffs may be particularly acute for low-income parents, as we discuss in this section.

Low-income families spend a much higher proportion of their income on child care than do higher-income families. For example, Hofferth et al. (1991) found that employed mothers with a child under age 5 and family income below \$15,000 spend about 25 percent of family income on child care, compared with 10 percent or less for families with income at or above \$25,000. Thus, it is not surprising that low-income parents responding to the National Child Care Survey 1990 were

four times as likely as other parents to cite affordability as a factor influencing their child care decisions (Phillips 1995).<sup>3</sup>

Due to the time, expense, and difficulty low-income mothers may face transporting a child to child care using public transportation, convenience of location is another critical consideration for low-income parents when they choose child care arrangements. Commuting time (either to a job or to child care) reduces the effective hourly wage. Since time at home may be more valuable to single mothers who do not have other adults to help with housework or child care, a convenient location for child care may be even more important for them.

Other aspects of convenience are also important to low-income parents. Especially for parents who work nonstandard or changing hours and do not have other adults who can help with child care, convenience of hours is essential to maintaining employment. Likewise, parents who have inflexible work schedules and receive little leave time from work need child care that is convenient in terms of reliability. Sonenstein and Wolf (1991) found that among AFDC recipients in their study population, the mothers who were most satisfied with their child care had arrangements that were convenient in terms of hours and location, and they missed the fewest days of work because their arrangements were reliable. Likewise, Meyers (1993) found that when child care arrangements were inconvenient in terms of location and stability, parents enrolled in California's *GAIN* program were more likely to drop out of the employment and training program.

Parents' preferences for child care arrangements that they perceive to be safe, nurturing (for infants), educational (for preschoolers), convenient, affordable, and culturally appropriate often conflict with the child care arrangements available to them. Researchers have found that no single child care arrangement contains all characteristics desired by low-income parents because each type of arrangement has its own strengths and weaknesses (Mitchell et al. 1992). For example, relatives

may care for fewer children in addition to offering affordability, cultural continuity, and convenience in terms of hours. Centers, however, may provide more learning opportunities and a more convenient location. Likewise, Siegal and Loman (1991) found that mothers in their study expressed a desire for characteristics that could only be found in a combination of arrangements. For instance, many mothers desired the educational opportunities provided in centers but also wanted the convenience and affordability provided by relatives or other providers of informal care.

Emlen has identified flexibility as a major criterion parents use when choosing child care, and he asserts that all parents need flexibility in their lives in order to combine child rearing and employment (Oregon Child Care Research Partnership 1997). Although there are many ways in which parents can find the flexibility needed to meet their employment and child rearing responsibilities, Emlen identifies (1) job flexibility, (2) family flexibility, and (3) child care flexibility as the primary ones. To solve the puzzle of why parents do not always select the highest-quality child care arrangement, Emlen's research suggests that employed parents attempt to select an affordable and good-quality arrangement that also complements the degree of flexibility they have in their job and family circumstances. Low-income parents leaving welfare for work are likely to have inflexible family situations (because they are single) and jobs that are not flexible in terms of scheduling or leave time that would otherwise allow them to respond to child care emergencies. According to Emlen's framework, such parents would need to find highly flexible child care arrangements to sustain their employment over time. Emlen (1998) has found that the child care flexibility needed by low-income single parents with inflexible jobs tends not to be correlated with high quality. High-quality providers tend to be the most inflexible with respect to schedules for providing child care.

Thus, when low-income parents select child care arrangements, they must make tradeoffs and set priorities among the features of child care they seek. Because low-income parents often face constraints imposed by work schedules, lack of resources to pay for child care, and lack of transportation, they may need to choose child care that is convenient, flexible, and affordable, even though it does not provide the level of quality they desire.

However, as we discussed in the previous chapter, Meyers' (1993) study of participants in California's *GAIN* program suggests that there are limits to the tradeoffs that parents are willing to make in order to continue employment or related activities. While some mothers in Meyers' study may have used arrangements that did not meet their preferences for quality but were convenient and affordable, the absence of some desired characteristics represented a floor below which mothers could not maintain their participation in *GAIN*. For example, when child-caregiver ratios did not meet NAEYC standards for the age of the child, mothers were twice as likely to drop out of the program. Likewise, decreases in parents' trust in their providers sharply increased their odds of dropping out of *GAIN*.

#### **E. POLICIES DESIGNED TO LINK LOW-INCOME FAMILIES WITH HIGHER-QUALITY CHILD CARE**

For the most part, our analysis of the literature so far indicates that low-income families with working parents are unlikely to have access to formal child care, and many are using informal and relative home-based care of uncertain quality. Recent research on parent preferences indicates that many are unhappy with the child care they are using, but that they have made what they believe is the best choice given the available options. Yet, the parent's evaluation of the quality of the child care arrangement may be an important factor in employment decisions.

If higher-quality child care were made a goal in policy that applies to low-income parents, we would need to know how to, encourage providers to offer higher-quality care and how to encourage parents to use it. Some policies intervene on both the supply and demand sides of the market, although a careful analysis of the policies, their implementation, and the results has not yet been done. We discuss a few examples here.

One example is military child care facilities, which in 1982 were declared, “the ghetto of American child care,” but at the October 1997 White House Conference on Child Care, military child care was held up as an example for others to follow. Because of their success developing and providing quality child care, staff who operate the military child care programs have been asked by the President to offer technical assistance to civilian child care providers. Brigadier General John G. Meyer Jr., Chief of Public Affairs, presented his assessment of how quality had been improved in military child care facilities. He cited higher funding, higher standards, enforcement of standards, and incentives for staff to complete training and remain in their jobs. Parents pay a fraction of the cost of child care, depending on their income, but child care facilities are heavily subsidized by the military. Standards are “at about the mid-range of state regulations” but are strictly enforced through four annual, unannounced inspections. Staff are required to complete substantial amounts of training within a certain amount of time. If they succeed, they are rewarded with higher compensation; if they fail, they lose their jobs. Child care facilities are expected to work toward national accreditation, and currently, 75 percent meet NAEYC standards. This approach to improving child care quality sets up a framework of financial support, expectations, and accountability, which may be contrasted with the approach taken by local child care agencies, which teaches child care providers how to improve quality, but usually without financial support, expectations, or accountability. While the full military model may not be transferable to the broader civilian world,

states are capable of providing more financial support for child care, setting reasonable quality standards and enforcing **them** through frequent unannounced inspections, and setting higher standards for staff education and training.

Many of the strategies used by the military **focus** on the supply side, but interventions that affect both parents and providers are also possible and may help to provide incentives and ensure accountability that can encourage higher quality. In Jacksonville, Florida, the Jacksonville Children's Commission, which contracts with the state's Department of Health and Rehabilitative Services to administer the child care subsidy programs for low-income working families, has developed a system of support and incentives for child care providers designed to improve the quality of child care for low-income families. Providers who are interested may apply each year to become part of a network that subcontracts with the agency. Under the subcontract, providers receive training and on-site technical assistance to improve the quality of care; in exchange, they are frequently monitored by the agency to ensure compliance with higher quality standards. The agency informs parents who receive child care subsidies of the availability of child care providers who subcontract with the agency and explains how the subcontract system works to **improve** the quality of child care. Parents are free to choose a child care provider that has a subcontract with the agency or any other legal provider outside the subcontract system. The fact that the agency counsels parents who receive child care subsidies about the quality of care so **as** to highlight the benefits of choosing providers under contract with the agency serves as an important incentive to those providers to pursue quality goals.

Similar initiatives are taking place in other areas, including Seattle's city-funded child care assistance program and North Carolina's Smart Start program. These programs have several elements that work to varying degrees on the supply and demand sides of the market. To improve

quality, providers need more resources, and they often need technical assistance and training in order to know how to improve quality. To ensure that the additional resources are used to improve quality, incentives must be offered to providers. Such incentives may include additional funding that is contingent upon meeting higher standards for quality. To ensure that the parents who need higher-quality child care are matched with good-quality providers, they need the necessary resources to afford higher-quality child care and information that will help them select higher-quality providers. No careful evaluations have been made of the effectiveness of these strategies in producing higher-quality care, the cost of doing so, or the degree to which agencies are successful in encouraging parents to choose high-quality child care.

Parent choice can be a challenge in these systems. Although the quality of child care can be improved through resources, training, and incentives for providers, parents may still opt for the informal provider or relative, potentially eroding provider incentives to improve quality. **Thus**, an important question concerns the choice the parent makes when she is well-informed about the importance of quality child care for herself and her child, and the consequences of that choice for employment and her child's development.

In a study of welfare and child care systems in 23 cities in 15 states, Ross (1996) found that few cities offered comprehensive information about the availability of child care and how to choose a quality child care arrangement to low-income families seeking child care subsidies. In a few cities, comprehensive information and subsidy services were available in the same place, ensuring that families received both financial assistance and help choosing child care. In other cities, services were coordinated with varying degrees of success. In some cities, no information about choosing child care was provided to families seeking subsidies. Clearly, much can be done to improve the match between low-income families, their jobs, and their child care arrangements. Ross (1996)



provides a discussion of best practices for informing parents about choosing child care. Counselors should discuss parents' needs in terms of schedule, job or family flexibility, any special needs of the child, transportation problems, and backup care if a provider child becomes ill. They should then discuss how different types of child care might meet these needs. Counselors should explain how to interview a provider, what to look for when observing a child care setting, and why it is important to visit at least three child care settings before making a choice. Checklists and brochures can be helpful. Only one city--Jacksonville--had strong parent information services coupled with a known supply of higher-quality child care. The effect of these counseling services on parents' choices of care has not been evaluated.

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<sup>1</sup> Centers serving predominantly low-income children were defined as those in which at least 85 percent of the enrolled children came from families with income below 185 percent of the poverty line (\$24,790 for a family of four in 1991). Note, however, that 90 percent of Head Start children must have family income below the poverty line.

## V. SUMMARY AND RECOMMENDATIONS FOR RESEARCH

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Child care and welfare **program** administrators who allocate scarce child care resources across families often view their **task as** a conflict between promoting employment by providing a little assistance to more families and promoting children's development by investing more resources in fewer families in order to purchase higher-quality child care. In this paper, we have examined the evidence for a link between the quality of child care and employment that might lead to an answer to the question of how much assistance should be provided to each family if employment is the primary policy goal. If the quality of child care affects parents' employment decisions, then providing too little assistance may lead to poor-quality child care that undermines parents' efforts to become self-sufficient.

As we examined the literature on the questions of quality, parents' preferences, employment, and child care supply, we found enormous gaps and some inconsistencies. For instance, we have a very limited knowledge base about the quality of some important types of child care. We also have a limited understanding of the relationship between parents' and professionals' judgments about quality and about whether and by how much quality may affect the employment decisions of low-income families in the current welfare policy environment. Similarly, we do not know enough about how quality child care could be developed in low-income neighborhoods or about how parents can most effectively be encouraged to choose quality child care if it were made available. In this chapter, we discuss these gaps and make suggestions for a research agenda that could address them.

## A. THE QUALITY OF CHILD CARE

Conceptualization and measurement of quality in formal settings for all ages is well-developed, although there are areas of measurement, including cultural variations in quality, that need further attention. For infants, toddlers, and preschool-age children, the quality of formal care has been measured extensively.

For the full range of home-based child care arrangements and all but the formal school-age child care arrangements, the research is further behind. Conceptualization and measurement of quality is much less well-developed, and there is a great need for work in this area. The definition and measurement of quality in home-based child care settings may be advanced by ACF's Study of Child Care for Low-Income Families. This study is measuring children's experiences in home-based child care although it is not explicitly defining and measuring quality. To measure children's experiences, the study will draw on observational ratings of caregiver behavior, children's activities, and the child care environment. Most of the measures that are being used to measure features of the child care setting are modifications or adaptations of existing measures. The researchers are emphasizing measures that can be used across a range of child care settings, from relative **careto** licensed, **home-**based care. This is an important strategy for addressing questions that compare child care settings and ask how important features of child care in a range of settings affect family and child well-being.

Although that study represents an important first step in measures development for informal care, only a few of the measures have been used elsewhere because, for the most part, the researchers are adapting instruments for the study. Our state of knowledge about child care quality and its correlates will be stronger if work can continue to identify aspects of quality and develop **generally-**accepted measures of quality, and then use them in a variety of studies and settings so that we can

gain a better understanding of how these measures relate to children's outcomes and other important variables.

- ***Continue to Identify Features of a Quality Child Care Arrangement, Develop Measures of Quality, and Use Them Across Studies Relating Quality to Child Outcomes*** - Efforts made in the National Study of Child Care for Low-Income Families to measure desirable and undesirable features of home-based child care settings should continue in the direction of identifying features of a quality setting and acceptable measures of those features. Measures development should continue so that researchers learn more- about the psychometric properties of the measures, develop more elaborate interviewer guides, and publish the measures so that they can be adopted by other researchers. Research on quality that uses these measures should report on the relationships between the quality of care measured by these instruments, features of the child care settings associated with quality, parents' perceptions of quality, and the cost of quality.

In the area of school-age child care, relatively more attention has been devoted to quality in formal settings, but these may not be appropriate for children older than 9 or 10. Much more work needs to be done to conceptualize and develop measures of quality in school-age child care that are appropriate across types of settings, across the age span, and in particular, for low-income children.

***Develop Measures of Quality in School-Age Child Care*** -Psychologists and education professionals should be brought together to identify the critical elements of quality in school age care and then, how they might be measured. This work should draw on parents' and children's perspectives on quality. Parents may want a safe place for their children where they can be supervised in constructive activities, or they may want children engaged in remedial academic work. The measures developed by this group should be tested in low-income school-age child care settings, across multiple sites, types of care, and age groups. Psychometric work would need to be done to understand the properties of the scales, and solid documentation for interviewers and researchers would need to be developed so that the measures could be used in a broader range of child care studies.

- ***Study the Quality of School-Age Care Used by Low-Income Children of Working Parents*** - The measures developed in the study described above should be used to study quality in multiple sites based on a sample of low-income school-age children of working parents. The study should obtain longitudinal data that can be used to track

changes in child care arrangements and children's development over time, so that it is possible to control for family selection effects when estimating the effect of child care quality on development.

The theoretical model of the effects of quality child care on parents' employment decisions described in Chapter III suggests that parents' opinions of child care quality are important in their employment decisions. Some important work has explored the relationship between parents' and professionals' evaluations of the quality of child care settings. However, additional efforts should focus on how parents evaluate quality and how these evaluations change over time as they observe their child's progress and obtain more information about the child care arrangement.

- ***Study Parents' Perceptions of Quality*** – A study of parents' perceptions of quality could be embedded in a longitudinal study testing the effects of investments linking low-income families with quality child care so that the study includes more variation in quality of care and enables us to measure changes in parents' perceptions over time. The study would consider such questions as: How are parents' perceptions of the quality of their child care arrangements formed, and how do they change over time? How do parents' perceptions of quality differ from those of professionals? What is the relationship between quality from the parent's point of view and employment outcomes, and what is the relationship between professional evaluations of quality and employment outcomes? What can professionals learn from parents about the quality of child care?

## **B. THE RELATIONSHIP BETWEEN QUALITY OF CHILD CARE AND EMPLOYMENT**

Virtually no studies have examined the relationship between the quality of child care and parents' employment outcomes. The only exceptions are a recent early intervention study (Brooks-Gunn et al. 1994) and a study of JOBS participants in California (Meyers 1993). The former study contrasted professionally defined high-quality child care against generally available child care, which was likely of lower quality, and found that mothers entered employment sooner and were employed for more months when they had access to high-quality child care. The latter study used parents'

reports of the quality of child care across several different dimensions and found that parents were more likely to quit JOBS activities when their children were in settings that were crowded or not as safe as they might have been Both of these studies examined the effect of child care on employment for parents of children under six years of age.

Further research is needed on the relationship between quality of child care and parents' employment using a current sample of low-income working parents and parents receiving welfare who face work requirements and time limits. If we improved the quality of child care available to low-income parents, by how much would employment outcomes be improved? Many employment outcomes should be examined, including hours of employment, absences and time lost from work, continuity of employment, job progression and promotion, earnings, attitudes toward the job and co-workers, job stress, and work/family stress.

Some of these questions could be examined at relatively low cost by analyzing the NICHD Early Child Care Study database. Unfortunately, the NICHD sample of low-income families is relatively small. But the data are longitudinal, which would help in controlling for family selection effects, and they contain information on both employment and the quality of child care measured at frequent intervals. Similar opportunities to study the effects of quality child care on employment in longitudinal samples may become available when data from the Early Head Start evaluation and the Early Childhood Longitudinal Study - Birth Cohort are released. Another opportunity could be created by designing a research demonstration that would randomly assign low-income working parents and parents receiving welfare to have access to high-quality child care. We discuss this idea below.

### C. LINKING LOW-INCOME PARENTS WITH HIGHER-QUALITY CHILD CARE

To bring low-income parents and higher-quality child care together, the quality of existing child care must be improved, and parents must be made more aware of what to look for in a quality child care setting.

The Cost, Quality, and Child Outcomes in Child Care Centers Study (Helburn 1995) examined costs and the quality of care in child care centers. Analyses of the data have identified some of the features of care that affect quality scores but leave a lot of the variation in quality unexplained. Further studies are needed to determine what features of child care centers make a difference for quality. In addition, we need more information about what it takes to improve quality in centers. The military child care centers and centers participating in North Carolina's Smart Start program are working toward improving quality, and their experience may be useful.

- ***Conduct a Process Analysis of Child Care Centers and Homes of Varying Quality*** — Good-quality centers and home-based care need to be examined and contrasted with moderate- and poor-quality centers and home-based care so that additional variables that contribute to the quality of the child care setting can be identified.
- ***Evaluate the Smart Start Child Care Initiative-Much*** more needs to be learned about North Carolina's initiative to improve the quality of child care across the state. A process evaluation would help to identify approaches that seem to be working and the response of child care consumers to improved child care quality in their communities. The evaluation would need to measure quality in child care arrangements participating in the Smart **Start** initiative and would involve talking to staff and agencies in several counties to identify a variety of approaches that seem to be working. The evaluation should also consider what factors seem to be a necessary part of a high-quality child care setting and how these might be measured in a study that includes a large number of child care settings. The goal of this part of the analysis is to learn more about the "center-specific factors" measured by Blau (1997) so that policies can be designed to make these factors more common in child care arrangements.

- *Evaluate the Military Child Care Facilities—In* contrast to the Smart Start initiative, which seems to be voluntary and uses financial incentives for participation, the military model involves a **set** of rules, much like state regulations with strong enforcement, along with financial incentives. A process evaluation of this approach to improving quality would also be valuable to identify the major approaches to improving quality. Also important is the fact that the military child care program has worked with home-based providers to improve quality, and these approaches should be part of the process evaluation. What approaches to quality improvement seem to be effective for home-based providers? Finally, this process evaluation should also consider what seem to be the important components of a high-quality child care setting, and how these components could be measured in a study that includes a large number of child care settings.
- *Learn More About the Wage Elasticity of Child Care Teachers ‘Labor Supply—*Blau (1993) has examined the supply of child care labor and concluded that supply is very elastic with respect to wages, but it appears that the current wage levels are not calling forth well-educated and well-trained professionals who can create quality programs for children. We suggest examining the military child care experience and possibly the Smart Start experience in North Carolina to learn about what wages are required to attract and retain highly qualified child care staff.
- *Design an Intervention to Test Approaches to Improving Quality—*After the evaluations of approaches to improving quality, a demonstration should be designed to test the efficacy of different approaches to improving quality in center-based and **home-based** child care in low-income communities. The approaches might include a combination of direct or indirect provider training with some financial incentives, expectations, and accountability. Information should be collected about implementation issues, the quality of care over time, and parents’ choices of child care and their employment outcomes throughout the initiative.

The Quality in Family Child Care and Relative Care Study (Kontos et al. 1995) examined the cost of providing home-based care, but the measures of quality in that study have been criticized for bias against smaller-scale, kith-and-kin care. Very few homes in the cost study were rated as offering high-quality care. Therefore, it would be useful to conduct a cost sub-study as part of a future large-scale study of the quality of home-based child care, so that we would obtain cost information across a range of quality in child care providers used by low-income families.



- *Learn More About Features Related to Quality in Home-Based Care-Data from the National Study of Child Care for Low-Income Families* should be analyzed to learn more about what **features** of home-based care are associated with good developmental outcomes for children.

We also know very little about how the quality of home-based child care interacts with the age of the child, how quality changes with the supply of home-based child care, and how the quality of home-based child care might be improved. In home-based child care, where providers are unlikely to be trained as early childhood professionals, quality child care may be an accident of temperament and/or cultural values. Many home-based child care providers do not view themselves as professional child care providers, so they may not be receptive to early childhood training. Instead, training approaches may need to come from the parenting or family support fields. We need more research on effective ways in which the quality of home-based child care can be improved. We also need to know more about turnover and reliability in home-based child care arrangements.

We know very little about the supply of home-based child care and how it interacts with child care regulations, child care subsidy program rules, the state of the local labor market, neighborhood poverty, family income, and the demand for child care by low-income mothers. A fairly large supply of home-based child care appears to emerge when parents need child care services and/or when state welfare agencies are willing to pay unregulated care providers. More information is needed about how the supply of home-based child care reacts to demand and regulatory conditions in the current welfare policy environment of work requirements and time **limits**.

Response rates in child care quality studies need to be improved. A relationship between study staff, and parents and providers may help in this area. It may also be possible to improve the ways in which study staff communicate the goals of the study to providers they hope to recruit for the

study and develop the trust and interest of parents and providers so that they will participate in the study. Greater incentives may be necessary to encourage participation in the study, as child care observations can be fairly disruptive for providers.

Research is also needed on strategies for informing parents about the importance of quality child care for themselves and their children and about how to identify a quality child care arrangement. If parents were informed about the importance of quality and told where to find affordable, **high-**quality child care, would they use it? If they did not, would they choose child care of poorer quality? For example, we might find that the parents who receive information about a good-quality, **center-**based child care program that is affordable, but who choose a home-based child care arrangement instead may be the ones with access to good-quality home-based care. What strategies would be most useful and cost-effective for informing parents about quality child care? Many low-income parents also need flexible child care arrangements, so strategies for getting information to parents about child care may need to address flexibility **as well as** quality.

Many of these questions could be addressed by an intervention that would test approaches to providing low-income parents access to quality child care, give them the resources to pay for quality child care, and ensure that a supply of quality child care is available. The intervention to improve low-income parents' access to quality child care could take place in any community in which there is a supply, albeit limited, of high-quality child care. Ideally, the intervention would be implemented in conjunction with a well-organized child care subsidy system, in which all parents seeking financial assistance visit the same place, and this agency also offers good-quality information and referrals.

One intervention group would receive information about choosing child care based on the best practices developed to date. Recent work by Ross (1996) and by the National Child Care Information Center (1998) provides a discussion of best practices for informing parents about how to choose child care. Many parents do not follow any search procedure when they seek child care, so counselors would work with parents to help identify what features they are looking for in child care and what steps they should follow to improve their chances of finding it. Counselors would help parents develop flexible backup child care arrangements. Parents would be subsidized at a higher rate if they chose high-quality child care, so there would be no cost disadvantage to the family to choosing quality child care. Ultimately, the family's child care costs would be the same regardless of their choice of child care. Counselors would be available to help families when they need to change child care arrangements and to ensure that a child care placement was made. A second intervention approach would be to direct parents specifically to a few good-quality child care providers who reserve some slots for families in this group. Counselors would still need to provide parents with information about how to search for child care, help them identify what features of child care they are seeking, and help them arrange flexible backup child care. A third approach would have the agency work with both parents and child care providers to help parents identify and find the features of child care they are seeking and providers to supply the features of care parents want. The agency would act as an intermediary to help link parents and providers, but more proactively than is current practice in most R &Rs. Parents would receive information and coaching on search strategies, and they would offer information to agency staff that would help improve technical assistance to providers. The level of quality for this option would be determined as parents and providers work with the agency.

Research would address the following questions:

- What is the quality of child care chosen by parents?
- What factors affect families' choices of child care? How does the provision of information about choosing quality child care affect the quality of child care chosen? How does the provision of information about choosing flexible, high-quality child care arrangements affect the quality and flexibility of choices?
- What are parents' perceptions of the quality of their child care arrangements over time? Do parents and professionals come closer to agreement about the quality of a child care arrangement when parents have been informed about how to identify and choose a quality provider and have followed a more informative selection process? Are perceptions of quality affected by the degree of flexibility of child care arrangements? What can professionals learn from parents about the quality of child care?
- How does the quality of child care, measured from the professional's and the parent's perspective, affect employment outcomes? How do flexibility and quality interact to affect employment outcomes?
- Does the quality of child care make a greater difference for the employment outcomes of parents of infants and toddlers or for parents of preschool-age children? Does the flexibility and quality of child care make a greater difference for employment outcomes of parents of infants and toddlers or for parents of preschool-age children? Does consumer information affect the quality and flexibility of choices more for parents of infants and toddlers or for parents of preschool-age children?
- How does the quality of child care affect children's outcomes? The experimental variation in quality and the measures of quality and children's outcomes over time gives us a rare opportunity to measure the impact of quality child care on children in a methodologically sound way by controlling for family selection factors.

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