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REVIEWS OF RESEARCH
LITERATURE REVIEW

FAMILY CHILD CARE IN THE UNITED STATES

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The Reviews of Research series synthesizes research on selected topics in child care and early education. For each topic, Reviews of Research provides an in-depth Literature Review, a summary Research Brief, and a companion Table of Methods and Findings from the literature reviewed. Each of these are available on the *Research Connections* web site: www.researchconnections.org.

What We Know

Research shows that approximately one-quarter of children spend a considerable amount of time—about 30 hours per week—in family child care (FCC), and the quality of care they receive varies greatly. To date, studies have examined the demographics of family child care providers and the families who use family child care, and have assessed children’s experiences and outcomes, and the quality in this type of home-based, regulated care.

Given that state regulations vary for licensing and registration, the definition of family child care is not always precise in policy or the research literature. The research included in this review defines family child care as paid, home-based care by providers who are regulated through the state to care for nonrelative children (unless otherwise noted).

► Families using home-based care (both regulated and unregulated) are more likely to:

- Prefer this care for infants and toddlers, but prefer preschools and centers for older children,
- Be single, female-headed households.

Low-income families tend to use home-based, mostly unregulated care, but those families that access child care subsidies tend to use regulated care—either center or family child care.

► Family child care providers vary widely in race, age, educational attainment, and socioeconomic status, but share the following characteristics:

- 95 percent of FCC providers are female,
- 90 percent are parents themselves,
- About 33 percent care for their own children in addition to unrelated children.

Most family child care providers cite enjoyment working with children as a motivation for providing care. Mothers who became family child care providers also cite the job as a way to earn extra income while staying at home to care for their own children.

► Family child care providers have a flexible but sometimes challenging work environment.

- Most have low earnings (\$15,000 to \$25,000 annually for full-time care of low-income children), and most work long hours with little to no access to employment benefits such as health care and retirement;
- Personal relationships with children’s parents may interfere with business aspects of child care, resulting in negative attitudes, late pick-ups, and/or late or inadequate payments;
- Providers may feel socially isolated given that they have infrequent opportunities to interact with other adults; however, research is mixed regarding how problematic this is for providers.

► Most observational studies to date suggest that much of family child care is of “adequate” quality.

► Studies also suggest the following about the quality of FCC:

- The quality of care is not associated with the provider’s age or years of experience, but is positively correlated with the training and education the provider has received.
- Greater communication and partnership between the provider and the mother of the child is related to more positive provider-child interactions.
- The majority of parents using both regulated and unregulated home-based care are satisfied with their care arrangement. Parents who prefer home-based care believe that their children receive more individual attention in home-based settings.

INTRODUCTION

With increasing maternal labor force participation and the work requirements mandated by welfare reform, the need for child care for young children has grown in recent years. Currently, more than 60 percent of children in the United States under age 5 are in some type of nonparental child care on a regular basis (Johnson, 2005). Given that about one-quarter of children are in family child care at some point during their first five years of life, spending an average of 31 hours per week in family child care, including night and weekend hours (Johnson, 2005; Davis & Connelly, 2005), understanding the context of and outcomes for children in this type of child care setting is critical to guiding child care policy and practice (Hofferth, Shauman, Henke, & West, 1998; Sonenstein, Gates, Schmidt, & Bolshun, 2002). The definition of family child care and regulations also vary across state lines; a provider who is required to be licensed in one state may only have to register in another, or be legally license-exempt in yet another, presenting problems for researchers, policymakers, and parents trying to differentiate family child care from other types of home-based care. Furthermore, among regulated family child care providers, there is great diversity in their demographic characteristics, motiva-

tions for providing care, and the families they serve, making generalizing across the population difficult.

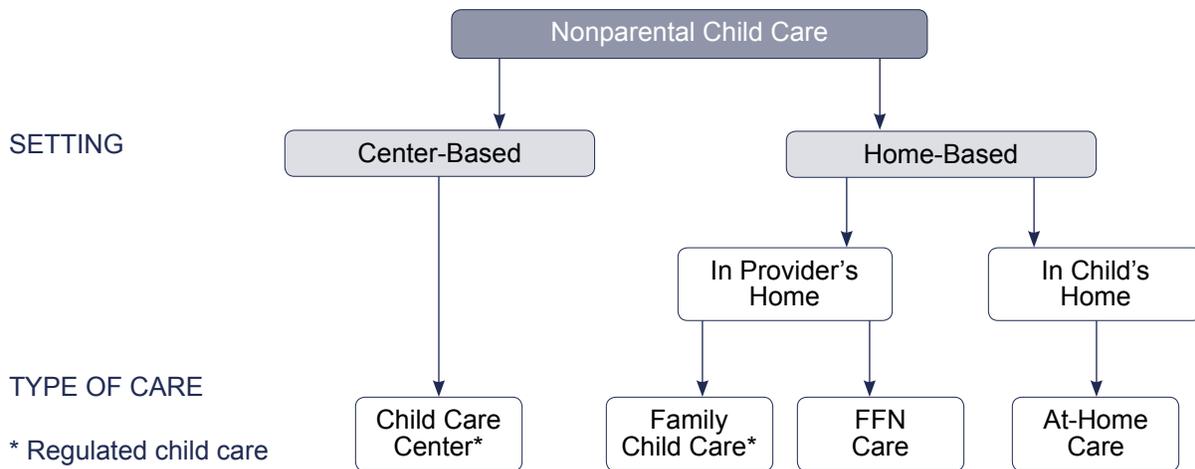
A substantial body of research has developed over the past two decades on the context of family child care and the characteristics of caregivers and families who provide and use family child care. The purpose of this review is to synthesize the growing number of studies concerning regulated family child care that have emerged in the last 20 years.

WHAT IS FAMILY CHILD CARE?

Family child care (FCC) is one of several different types of nonparental child care in the United States. Child care types are typically categorized according to setting, regulatory status, and the provider-child relationship (see Morgan, Azer, & Lemoine, 2001). A diagram of the child care market is shown in Figure 1.

The majority of young children with working mothers are cared for in private homes (Johnson, 2005). Home-based care takes place either in the child's or provider's home, through unregulated arrangements with relatives, neighbors, babysitters, and nannies referred to as family, friend, and neighbor care (FFN), or by regulated family child care providers. Regulated

Figure 1: Child Care Market Diagram



family child care homes are owner-operated small businesses and typically contain mixed-age groups and siblings, compared to larger centers in which children are usually separated by age (Whitebook, Phillips, Bellm, Crowell, Almarez, & Jo, 2004). The majority of family child care providers charge fees that are typically lower than centers' but higher than most unregulated home-based arrangements (Helburn, Morris, & Modigliani, 2002; Kontos, Howes, Shinn, & Galinsky, 1995). According to unweighted, preliminary estimates by the National Association of Child Care Resource and Referral Agencies (NACCRRA), in 2004 family child care providers charged an average of \$115 per week for infants and \$100 per week for preschoolers, compared with average center charges of \$142 for infants and \$114 for preschoolers (National Association of Child Care Resource and Referral Agencies, 2005). Many family child care homes receive federal or state subsidies for low-income children in their care (Pittard, Zaslow, Lavelle, & Porter, 2006). Caregivers' main motivations for providing care often relate to personal preferences (e.g., to be at home, to work with children, and to earn extra income) (Helburn, Morris, & Modigliani, 2002; Kontos, Howes, Shinn, & Galinsky, 1995). Most family child care providers have established hours of operation, although some offer flexible hours and weekend/evening care (Coley, Chase-Lansdale, & Li-Grining, 2001; Kontos, Howes, Shinn, & Galinsky, 1995; Li-Grining & Coley, 2006; Walker, 1992). Children in family child care usually live closer to their care provider than children cared for in centers or by relatives (Hofferth, Shauman, Henke, & West, 1998). Because of its flexible hours and residential location, many parents report that family child care is convenient (e.g., Fuller, Kagan, Loeb, & Chang, 2004). However, the characteristics above represent averages; there is great variation in quality and characteristics within the family child care sector (e.g., Helburn & Howes, 1996; Helburn, Morris, & Modigliani, 2002; Hofferth, Shauman, Henke, & West, 1998; Kontos, Howes, Shinn, & Galinsky, 1995).

The portion of children in regulated family child care settings has declined in the past few decades, from 22 percent in 1977 to 10 percent in 2002 (Johnson, 2005; Kontos, 1992);¹ however, fam-

ily child care remains a significant presence in the child care market. According to the child care module of the 2002 Survey of Income and Program Participation (SIPP) (Johnson, 2005), which includes a nationally representative sample of parents with children aged 15 and younger, about 10 percent of children with employed mothers use family child care as their primary nonparental child care arrangement. Many children use family child care as secondary arrangements; in 2002, 34 percent of children with employed mothers and 21 percent of children with nonemployed mothers spent some time in family child care. Children with employed mothers who use family child care spend an average of 34 hours per week there. Rates of family child care use vary across the states. For example, according to the 1997 National Survey of America's Families (NSAF) (Capizzano, Adams, & Sonenstein, 2000), 20 percent of children under age 5 in Wisconsin are in family child care, compared to 10 percent in Massachusetts. Family child care constitutes a large number of U.S. small businesses. In 2005, there were 166,514 licensed small and 47,452 licensed large family child care homes in the United States (National Association for Regulatory Administration & National Child Care Information and Technical Assistance Center, 2006).

Regulating Family Child Care

Regulatory status distinguishes family child care from informal home-based arrangements. States vary widely in the way they define and regulate family child care, making it difficult to access national statistics or draw state comparisons. Morgan, Azer, and Lemoine (2001) provide a detailed discussion of the parameters in which family child care is defined across states and the debate surrounding definitions. In some states, regulated family child care providers are licensed, while in others they are registered, which is usually a form of licensure. Most states (39) allow home-based providers to care for related children in addition to one or two unrelated children without being subject to licensing or training regulations (Porter & Kearns, 2005b). However, the line between regulated and unregulated care is often blurry. Ten states do not regulate home-based child care in any way, while one state

does not allow providers legally to care for unrelated children without being formally licensed.

Regulations concerning family child care are administered at the state level and typically include standards governing the maximum number of children in care or families served, hours permitted, health and safety measures, minimum indoor and outdoor useable space, provider training, and sometimes provider criminal background checks. The NCCIC compiles information on states' regulation policies regarding group size and provider preservice and inservice training requirements. As of 2004, NCCIC reported that 20 percent of states required a Child Development Associate (CDA) or Associate's degree to obtain a small family child care license, while 60 percent of states required no preservice training. Most states (34) require ongoing training, ranging from 1 hour to 20 or more hours per year. Licenses often require scheduled or unscheduled site visits and must be renewed every 1-3 years. Most states differentiate small and large family child care homes, with separate regulations. Small family child care homes care for up to six children, while large or "group" family child care homes employ an assistant in order to serve between seven to 12 children (Morgan, Azer, & Lemoine, 2001).

This review focuses on the "regulated sector," which includes both licensed and registered family child care providers, and will note whenever researchers specify or differentiate between the two.² Home-based caregivers who are neither registered nor licensed are referred to as "unregulated" FFN providers. Separate Research Connections literature reviews will examine research on FFN care, defined as legally operating, but unregulated care in the provider's or the child's home—typically for fewer children than in regulated home settings.³

BACKGROUND RESEARCH ON FAMILY CHILD CARE

Child care emerged as a research topic in the 1970s, as mothers were increasingly entering into the labor force and their children spent substantial amounts of time in nonparental child care. Large, nationwide surveys and

studies established child care as an important policy arena and brought family child care into the national consciousness. The studies of that era took a policy focus that acknowledged both the importance of quality care for children and the need to serve larger numbers of children as their mothers enter the work force.

Although small state and community studies of family child care were conducted in the 1970s and before (e.g., Emlen, 1974), the first major study of home-based child care was the National Day Care Home Study (NDCHS) (Divine-Hawkins, 1981; Fosburg, 1982). The NDCHS included a nationally generalizable, multi-site survey of U.S. families with children under age 13 and an observational study of regulated and sponsored family child care providers. That study was sponsored by the Day Care Division of the federal Administration for Children, Youth, and Families.⁴ The NDCHS set the stage for more recent national surveys, including the National Child Care Survey (NCCS) (Hofferth, Brayfield, Deitch, & Holcomb, 1991), the Profile of Child Care Settings (PCS) (Kisker et al., 1991), the 1995 and 2001 waves of the National Household Education Survey (Hofferth, Shauman, Henke, & West, 1998; Wrigley & Dreby, 2005), and the 1999 and 2002 waves of the National Survey of America's Families (Capizzano, Tout, & Adams, 2000; Sonenstein, Gates, Schmidt, & Bolshun, 2002), which have been essential for learning more about the prevalence of family child care and aspects of its environment. Individual states such as New Jersey and Massachusetts have conducted statewide surveys of family child care providers (e.g., Marshall et al., 2003; New Jersey Association of Child Care Resource and Referral Agencies, 2006).

Additional studies have focused on specific issues and policy questions, examining the experiences of children, families, and providers in family child care and the quality of care. Various qualitative, observational, and experimental studies have examined:

- ▶ Provider characteristics (e.g., experience, education, behavior, sensitivity)
- ▶ Providers' work environment (e.g., provider wages)
- ▶ Characteristics of children and families who use child care (e.g., ethnicity, socioeconomic status)

- ▶ Structural characteristics (e.g., adult-to-child ratio)
- ▶ Relationships within care (e.g., child-provider attachment, parent-provider communication)
- ▶ Child outcomes
- ▶ Promoting quality in family child care

Standardized measures for various aspects of family child care were developed (see Measures section on page 8), often from counterparts used in center-based care, and used in descriptive or comparison studies across geographic regions, policy contexts, and other variables.

In the past, research was often fueled by a fear that nonparental child care was “bad” for kids (Phillips & Adams, 2001). The results of many large-scale efforts such as the National Institute of Child Health and Human Development’s (NICHD) Study of Early Child Care indicate that the quality of child care, rather than nonparental care in itself, significantly influenced children’s development (e.g., NICHD Early Child Care Research Network & Duncan, 2003; Phillips & Adams, 2001; Votruba-Drzal, Coley, & Chase-Lansdale, 2004). The recognition of the importance of the quality of care in children’s early years, with urgency added by the new understanding of brain development in very young children, has prompted further research. In addition to surveys, interventions such as Project CREATE (Caregiver Recruitment and Training Enhancement) (Adams & Buell, 2002), the Study of Family Child Care and Relative Care (Kontos, Howes, Shinn, & Galinsky, 1995), and its substudy the Family Child Care Training Study (Kontos, Howes, & Galinsky, 1996), have added to our growing knowledge of the quality of family child care and strategies for promoting quality in the home-based context.

After 2000, when Congress appropriated \$10 million per year for child care research and the federal Child Care Bureau established research partnerships, the entire spectrum of child care, including family child care, received greater attention. Current research maintains a policy focus, addressing questions faced by states and the federal government as they attempt to account for the fact that most children are now in some form of child care.

CURRENT POLICY LANDSCAPE

Support and regulations for family child care come from federal, state, and local levels of the government and social service organizations. Several federal programs and block grants to the states are designed to improve access to and the quality of child care. The U.S. Department of Agriculture’s (USDA) Child and Adult Food Program, created in 1968, reimburses family child care providers and child care centers for serving nutritious food to children. The federal Early Head Start program, created in 1995 to serve low-income children under age 3, provides services in both centers and family child care homes. Early Head Start continues to expand its family child care program to increase the number of children in home-based arrangements receiving public services (Love, Brooks-Gunn, Paulsell, & Fuligni, 2002). In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act and the creation of the Child Care and Development Fund (CCDF)⁵ increased funds for child care subsidies with the goals of enhancing the affordability of child care and parent choice for low-income working families. In 2005, 17 percent of children subsidized by the CCDF were cared for in family child care homes⁶ (Child Care Bureau, 2006). Federal law requires that a minimum of 4 percent of CCDF dollars be used for systemic improvements to early care and education. These monies are used to fund resource and referral agencies, family support programs, provider training, accreditation, and compensation in both family child care and child care centers (Institute for Women’s Policy Research, 2005; Pittard, Zaslow, Lavelle, & Porter, 2006). In 2004, 85 percent of initiatives funded by CCDF quality improvement funds targeted the regulated care sector, including both centers and family child care providers (Pittard, Zaslow, Lavelle, & Porter, 2006).

State-level policies affecting family child care include regulations, tiered reimbursement or rating strategies, and the inclusion of family child care in their public prekindergarten initiatives. According to NCCIC, in 2005, 41 states and the District of Columbia regulated some aspects of family child care for their young children and their families, requiring

either the licensure or registration of home-based child care providers who cared for more than two unrelated children. Research has tried to determine which regulations are effective in promoting quality in family child care (e.g., Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002), but the unintended consequence of increased regulation and oversight moving some providers to leave the market or regulated system is a cause for concern among policymakers and researchers (e.g., Gormley, 1991).

An increasing number of states are instituting tiered strategies that reward high-quality programs with additional funds or publicity to promote quality in both child care centers and family child care homes. According to NCCIC, as of 2002, 33 states and the District of Columbia had implemented some sort of tiered strategy for improving the quality of child care centers, family child care homes, or both. Tiered strategies include quality rating systems, rated licensing, and tiered reimbursement systems. In tiered reimbursement programs—the most common strategy for improving subsidized child care—providers receive higher reimbursements if they meet one or more levels of quality above the basic licensing requirements. Funding sources typically included the Child Care and Development Fund, state subsidy dollars, and Temporary Assistance for Needy Families (TANF) funds. Quality levels often include holding a Child Development Associate credential (CDA) or accreditation by the National Association for Family Child Care (NAFCC). Research on the impacts of tiered strategies on child care centers has been conducted (e.g., Cornell University, 2002; Witte & Queralt, 2004), with some encouraging results, but whether the impacts differ for family child care homes remains to be seen.

In addition to regulations and tiered strategies, a growing number of states now have public prekindergarten programs (pre-k). Although the majority of children in public pre-k programs are served in public schools (Barnett, Hustedt, Robin, & Schulman, 2005), public pre-k programs in 12 states (Delaware, Illinois, Massachusetts, Missouri, Nevada, New York, Ohio, Oregon, Virginia, Washington, West Virginia, and Wisconsin) allow qualified family child

care homes to provide pre-k services. Family child care providers contract with the state or school districts to provide a range of services, from offering a pre-k classroom to providing wraparound child care (Schumacher, Ewen, Hart, & Lombardi, 2005).

At the local level, child care resource and referral (CCR&R) agencies—often supported with federal and state funds—are on the front lines and are most often where family child care providers receive support, information, training, and have children referred to their care. According to the National Association of Child Care Resource and Referral Agencies (NACCRRA), community-based CCR&R agencies are located in all 50 states and the District of Columbia, totaling about 800 different local and state organizations.⁷

CRITERIA FOR SELECTION OF STUDIES FOR REVIEW

The goal of this literature review is to compile and profile studies on regulated family child care in the United States, including survey, observation, demonstration, and evaluation research. Because the majority of research on family child care has taken place in recent years, studies conducted within the past 20 years are reviewed. Additionally, in the studies selected for review, the design, methods, and measures used met minimum standards of scientific inquiry and did not include local-level evaluation projects or descriptive studies. Thirty-nine studies were reviewed and are summarized in the Table of Methods, Data, and Findings (see www.researchconnections.org): 33 peer-reviewed journal articles; 5 research reports (from academic institutions, research institutes, and state or federal agencies) are included; and one academic book. The studies reviewed do not represent an exhaustive list of research on regulated family child care.

DESCRIPTION OF STUDIES

Methods

A variety of methods have been used in family child care research. Large-scale surveys have gathered demographic and other descriptive information on family child care providers and the families that use them, while observations, interviews, standardized assessments, and questionnaires have collected more individual-level information, such as the quality of care, child outcomes, and the work environment of providers. Both quantitative and qualitative methods have been used in short-term and longitudinal designs. As shown in Table 1, the majority of empirical studies included in the review used quantitative methods.

In addition to a variety of research methods, the studies reviewed addressed a wide range of topics, including the quality of family child care, child outcomes, quality promotion, and the demographic characteristics of family child care providers and of families who use family child care. Table 2 provides a list of the studies addressing emerging research themes that will be discussed in this review.

Measures

Creating standardized measures for research is always a challenging task, particularly in family child care. Most measures used to study family child care assess characteristics of the care environment, the provider, and children and families. Studies often adapt measures used in child care centers or private homes. Research in family child care is further complicated by the difficulties of contacting providers, obtaining parental permission, and observing in a private home.

Studies use two approaches to evaluate quality in child care settings: structure and process. *Structural* quality includes the aspects of child care that are often regulated by the government, including group size, adult-to-child ratios, caregiver education and formal training, and aspects of the child care facility

(a private home in the case of home-based care) (Helburn & Howes, 1996). *Process* quality refers to how children experience child care, specifically their interactions with caregivers and peers and their exposure to materials and activities. For example, children in high-quality environments have sensitive, responsive caregivers and engage in a range of age- and socially-appropriate activities (Helburn & Howes, 1996). Additionally, some measures assess *global* quality—a combination of elements of both structural and process quality.

The Family Day Care Rating Scale (FDCRS) and the Child Care HOME Inventory (CC-HOME) are research tools for measuring quality specific to family child care. The FDCRS (Harms & Clifford, 1989) is one of the most commonly used measures in family child care.* Originally called the Day Care Home Environment Rating Scale (DCHERS), the instrument was created from the original Early Childhood Environmental Rating Scale (ECERS) (Harms, Clifford, & Cryer, 1998) used in center-based settings. It has since been revised and renamed the FDCRS. The FDCRS assesses global quality in family child care using seven scales: space and furnishings, basic care, language and reasoning, learning activities, social development, adult needs, and provisions for exceptional children. Similarly, the CC-HOME (Bradley, Caldwell, & Corwyn, 2003) was adapted from the Home Observation Measurement of the Environment (HOME) (Caldwell & Bradley, 2003), which is used to assess the quality of the family environment. Like the FDCRS, the CC-HOME inventory consists of subscales, has separate versions for infant/toddler care and early childhood, and assesses caregiver-child interactions along with structural, organizational, and educational aspects of the environment.

Other commonly-used quality measures are used across types of child care settings. The Arnett Caregiver Involvement Scale (CIS) (Arnett, 1989) measures process quality across all types of child care settings by rating caregivers and teachers on aspects of their interactions with children, such as sensitivity,

* A revised version of the FDCRS, called the Family Child Care Environment Rating Scale (FCCERS), is scheduled to be released in spring 2007.

Table 1: Methodology of studies included in the Family Child Care Research Table

Type of Study/Method	Studies Reviewed
<i>Administrative data studies</i>	Helburn, Morris, & Modigliani, 2002; Wrigley & Dreby, 2005
<i>Survey studies</i>	
National surveys	Layzer & Goodson, 2006
Statewide surveys	Marshall et al., 2003; Maryland State Department of Education, 2002; New Jersey Association of Child Care Resource and Referral Agencies, 2006
Smaller-scale surveys/questionnaires	Atkinson, 1987; Atkinson, 1994; Helburn, Morris, & Modigliani, 2002; Kontos, 1994; Kontos, Howes, Shinn, & Galinsky, 1997; Kontos & Riessen, 1993; Nelson, 1988; Whitebook et al., 2004
Intervention studies	Adams & Buell, 2002; Faddis, Aherns-Gray, & Klein, 2000; Howes, Galinsky, & Kontos, 1998; Kontos, Howes, & Galinsky, 1996; Kontos, Howes, Shinn, & Galinsky, 1995
Longitudinal observational studies	Britner & Phillips, 1995; Howes, Galinsky, & Kontos, 1998; NICHD Early Child Care Research Network, 2004; Todd & Deery-Schmitt, 1996; Votruba-Drzal, Coley, & Chase-Lansdale, 2004; Whitebook et al., 2004
Single-site observational studies	Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Elicker, Fortner-Wood, & Noppe, 1999; Howes & Hamilton, 1992; Howes & Stewart, 1987; Kontos, 1994; Loeb, Fuller, Kagan, & Carrol 2004; Norris, 2001; Marshall et al., 2003; Weaver, 2002
Multi-site observational studies	Coley, Chase-Lansdale, & Li-Grining, 2001; Faddis, Aherns-Gray, & Klein, 2000; Fuller, Kagan, Loeb, & Chang, 2004; Hamre & Pianta, 2004; Helburn, & Howes, 1996; Knoche, Peterson, Edwards, & Jeon, 2006; Kontos, Howes, Shinn, & Galinsky, 1997; Layzer & Goodson, 2006; Li-Grining & Coley, 2006; Mueller & Orimoto, 1995; Owen, Ware, & Barfoot, 2000; Raikes, Raikes, & Wilcox, 2005; Walker, 1992
Child assessments	Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Kontos, 1994; Kontos, Howes, Shinn, & Galinsky, 1997; Kontos, Howes, Shinn, & Galinsky, 1995; Loeb, Fuller, Kagan, & Carrol, 2004; NICHD Early Child Care Research Network, 2004
<i>Qualitative studies</i>	
In-person interviews	Atkinson, 1988; Layzer & Goodson, 2006; Mueller & Orimoto, 1995; Nelson, 1988
Telephone interviews	Atkinson, 1992; Mueller & Orimoto, 1995; Nelson, 1988

Table 2: Topics Addressed by Reviewed Studies of Family Child Care

Topic/Main Theme	Studies Reviewed
Characteristics of family child care providers	Atkinson, 1987; Atkinson, 1988; Layzer & Goodson, 2006; Marshall et al., 2003; New Jersey Association of Child Care Resource and Referral Agencies, 2006; Weaver, 2002; Whitebook et al., 2004
Characteristics of families who use family child care	Atkinson, 1994; Kontos, 1994; Kontos, Howes, Shinn, & Galinsky, 1997; Layzer & Goodson, 2006; NICHD Early Child Care Research Network, 2004
The work environment of family child care	Atkinson, 1992; Helburn, Morris, & Modigliani, 2002; Kontos & Riessen, 1993; Mueller & Orimoto, 1995; Nelson, 1988; Todd & Deery-Schmitt, 1996; Walker, 1992; Weaver, 2002; Whitebook et al., 2004
Relationships within family child care	Britner & Phillips, 1995; Coley, Chase-Lansdale, & Li-Grining, 2001; Howes & Hamilton, 1992; Layzer & Goodson, 2006; Li-Grining & Coley, 2006; Owen, Ware, & Barfoot, 2000
Quality in family child care	Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Coley, Chase-Lansdale, & Li-Grining, 2001; Elicker, Fortner-Wood, & Noppe, 1999; Fuller, Kagan, Loeb, & Chang, 2004; Hamre & Pianta, 2004; Helburn & Howes, 1996; Howes & Stewart, 1987; Knoche, Peterson, Edwards, Jeon, 2006; Kontos, Howes, Shinn, & Galinsky, 1995; Layzer & Goodson, 2006; Li-Grining & Coley, 2006; Loeb, Fuller, Kagan, & Carrol, 2004; Marshall et al., 2003; NICHD Early Child Care Research Network, 2004; Norris, 2001; Raikes, Raikes, & Wilcox, 2005; Votruba-Drzal, Coley, & Chase-Lansdale, 2004; Whitebook et al., 2004; Wrigley & Dreby, 2005
Child outcomes	Elicker, Fortner-Wood, & Noppe, 1999; Howes & Hamilton, 1992; Howes & Stewart, 1987; Loeb, Fuller, Kagan, & Carrol, 2004; Maryland State Department of Education, 2002; NICHD Early Child Care Research Network, 2004; Votruba-Drzal, Coley, & Chase-Lansdale, 2004
Promoting quality in family child care	Adams & Buell, 2002; Howes, Galinsky, & Kontos, 1998; Kontos, Howes, & Galinsky, 1996; Kontos, Howes, Shinn, & Galinsky, 1995; Norris, 2001

harshness, detachment from children, and permissiveness. Similarly, the Child-Caregiver Observation System (C-COS) (Fuller, Kagan, Loeb, & Chang, 2004), developed by Mathematica, Inc., for use in the Early Head Start national evaluation, assesses child-provider interactions within snapshots of different tasks across child care settings. The Observational Record of Care Environment (ORCE) (NICHD Early Child Care Research Network, 2004) was developed as a standard measure to assess quality across multiple types of child care for the National Institute for Child Health and Human Development's Study

of Early Child Care (NICHD SECC). For the purposes of this study, the ORCE focuses on mapping an individual child's experiences in child care as opposed to the general quality for all children in care. Like the C-COS, the ORCE was designed for a specific study. Rather than using observational assessments, the Emlen Short Scale assesses parents' views of child care quality, using a series of questions with Likert scale responses on items such as the safety, flexibility, reliability of care, and mother-provider communication that can be used across child care types (Emlen, 1999).

Other measures have been used to assess specific aspects of the providers' work environment, including perceived social support and job attitudes, stress, commitment, and satisfaction. The Job Opinion Questionnaire (Campbell, Converse, & Rogers, 1976) and the Child Care Worker Job Stress Inventory (Curbow et al., 2000) have been used in studies of family child care and may also be used in center-based settings.

THEMES EMERGING ACROSS STUDIES

What are the Characteristics of Family Child Care Providers?

Family child care providers constitute an ethnically, educationally, and socioeconomically diverse sector of the child care delivery system. Family child care providers vary widely in race, age, educational attainment, and socioeconomic and marital status (Kontos, Howes, Shinn, & Galinsky, 1995; Hofferth, Brayfield, Deitch, & Holcomb, 1991, 1998; New Jersey Association of Child Care Resource and Referral Agencies, 2006). National, state, and multi-city studies indicate that over 95 percent of family child care providers are female (Faddis, Aherns-Gray, & Klein, 2000; Hofferth, Brayfield, Deitch, & Holcomb, 1991; Kontos, Howes, Shinn, & Galinsky, 1995; New Jersey Association of Child Care Resource and Referral Agencies, 2006). An estimated 90 percent of caregivers are parents themselves, and about one-third care for their own young children in addition to unrelated children (Atkinson, 1988; Hofferth, Brayfield, Deitch, & Holcomb, 1991; Kontos, Howes, Shinn, & Galinsky, 1995).

What is the Work Environment of Family Child Care Providers?

The work of family child care providers is unlike many other self-employed careers. Rather than being motivated solely by profit, as are most entrepreneurs, family child care providers are often also motivated by their enjoyment of working with children and their desire to stay at home with their own children (Helburn, Morris, & Modigliani, 2002; Kontos, 1992; Kontos,

Howes, Shinn, & Galinsky, 1995; Layzer & Goodson, 2006; Marshall et al., 2003). Family child care is not a lucrative business; most providers have low earnings, have little or no access to employment benefits such as health care and retirement, and work long hours (Atkinson, 1992; Helburn & Howes, 1996; Helburn, Morris, & Modigliani, 2002; Kontos, 1992; Kontos, Howes, Shinn, & Galinsky, 1995; Kontos & Riessen, 1993; Marshall et al., 2003; New Jersey Association of Child Care Resource and Referral Agencies, 2006). National and statewide surveys and studies of the child care providers of low-income children have found that average income from full-time family child care ranges from about \$15,000 to \$25,000 per year (Helburn, Morris, & Modigliani, 2002; Layzer & Goodson, 2006; New Jersey Association of Child Care Resource and Referral Agencies, 2006). Revenue from family child care typically contributes about a quarter to a third of total household income (Helburn & Bergmann, 2002), although it may constitute the provider's entire household income, particularly if providers are unmarried (New Jersey Association of Child Care Resource and Referral Agencies, 2006). Providers caring for their own young children may also benefit from the savings of not paying for their children's out-of-home child care, if the cost of care for their children elsewhere is greater than the provider's additional earning potential of those care slots. In general, family child care providers average lower earnings and benefits than they could receive in similar skill-level jobs (Helburn, Morris, & Modigliani, 2002).

Providers' private homes become places of business, and both they and their families must confront issues of privacy and work/life balance, potentially producing conflict within the caregiver's family (Atkinson, 1987, 1988; Layzer & Goodson, 2006; Nelson, 1988). The arrangement of space and meal-times must be in accordance with regulations, limiting flexibility within the home. Work and personal life can become enmeshed, especially when the provider is caring for her own children. In the National Study of Child Care for Low-Income Families, about one-third of providers caring for their own children reported resentment from their sons and daughters, and about one-quarter of all providers reported resentment from family members about the disruption in household

activities caused by child care in the home (Layzer & Goodson, 2006). In a qualitative study of family child care providers also caring for their own children, providers reported both positive (e.g., a greater awareness of their own children's needs) and negative effects (e.g., their own children wanting more attention or expressing jealousy of other children) of their work on their children (Atkinson, 1988). Compared with mothers employed outside the home, telephone interviews with mothers working as family child care providers and mothers with other types of jobs found that family child care providers reported more stress, worked longer hours, and earned lower incomes (Atkinson, 1992). Additionally, personal relationships with clients (i.e., the families of children in her care) can interfere with the business aspects of child care (Nelson, 1988). In a statewide survey in New Jersey, family child care providers reported that an overall lack of respect for their work and for their policies, mainly from parents, was a major issue, often resulting in difficult attitudes, late pick-ups, and late or inadequate payments (New Jersey Association of Child Care Resource and Referral Agencies, 2006).

One result of the stressful working conditions in family child care is high turnover. In the late 1980s and early 1990s, annual family child care provider turnover rates were estimated at 60 percent per year (Kontos, 1992), but more recent estimates range from 15 percent (Whitebook et al., 2004) to 25 percent (Todd & Deery-Schmitt, 1996). These figures are comparable to the annual turnover rates for child care center staff, which have been estimated at 20 percent (Whitebook et al., 2004), 26 percent (Whitebook, Phillips, & Howes, 1993), and 30 percent (Whitebook, Sakai, Gerber, & Howes, 2001). Surveys and qualitative studies have revealed that both personal reasons (e.g., own children aging out of child care, unfulfilled need for adult contact, problems with parents) and economic factors (e.g., income instability, lack of affordable liability and health insurance and retirement benefits) influence the decision to leave or remain in the child care field (Marshall et al., 2003; Mueller & Orimoto, 1995). In their observational study of turnover in licensed and license-exempt family child care providers, Todd and Deery-Smith (1996) found that providers with more educa-

tion (beyond high school), less specialized training in early childhood (either community-based trainings or a degree in early childhood), and higher stress levels are more likely to leave the field. Caregiver turnover has negative implications for the quality of care, including adjustment reactions in children and decreased confidence in care and increased stress for parents (Kontos, 1992; Kontos, Howes, Shinn, & Galinsky, 1995; Mueller & Orimoto, 1995). However, the providers who leave the field are often ones observed as offering lower-quality care or are new to the field; thus, the difficult working conditions may act as a filter for selecting out less qualified and committed providers (Kontos, Howes, Shinn, & Galinsky, 1995; Whitebook et al., 2004).

Despite challenging work conditions and low wages, most providers report being satisfied with their work (Kontos & Riessen, 1993). In the National Study of Child Care for Low-Income Families, both regulated and unregulated home-based providers cited multiple advantages to their work, such as working for oneself while still being a teacher, not having to worry about typical job requirements (e.g., business attire), and staying home with one's own children. Furthermore, of the nonrelative caregivers in the study, over 90 percent did not report any personal disadvantages to their jobs (Layzer & Goodson, 2006). In the NICHD Study of Early Child Care, family child care providers reported fewer depressive symptoms than center-based or FFN caregivers (Hamre & Pianta, 2004).

Because many providers have infrequent opportunities to interact with other adults, social isolation is assumed to be a problem in family child care (e.g., Mueller & Orimoto, 1995). Research is mixed on the issue of provider isolation, as some studies have found it to be a problem (Mueller & Orimoto, 1995) while others indicate that it is not an issue for most providers (Atkinson, 1988; Kontos & Riessen, 1993). However, social support appears to be beneficial for care quality. In Kontos and Riessen's (1993) study of family child care providers in North Dakota, social support surfaced as a predictor of greater commitment to providing child care, improved job attitudes, and the overall quality of care. Belonging to a support

group or provider association has been associated with higher-quality care (Kontos, Howes, Shinn, & Galinsky, 1995) and fewer child injuries and fatalities (Wrigley & Dreby, 2005). Provider networks are often used as a strategy for combating isolation and turnover (Institute for Women's Policy Research, 2005; Larner & Chaudry, 1993).

Who Uses Family Child Care?

A family's selection of child care is influenced by several ecological factors. The selection of home-based care has been linked to child and family characteristics and the local, state, and federal policy context (e.g., Howes & Stewart, 1987; Gable & Cole, 2000; NICHD Early Child Care Research Network, 2004).

Child Factors

In general, parents tend to use home-based child care for infants and toddlers and preschools and centers for older children (NICHD Early Child Care Research Network, 2004; Phillips & Adams, 2001). Whereas 15 percent of children under age 5 are in regulated family child care, only 8 percent of 6- to 9-year-olds and 5 percent of 10- to 12-year-olds in child care are in family child care (Capizzano, Tout, & Adams, 2002). As children age, there is a trade-off between hours in home- and center-based care; the number of hours in home settings decreases as the number of hours in center care increases (NICHD Early Child Care Research Network, 2004).

Family Factors

Family income, structure, attitudes, demographics, and location are also related to the type and quality of child care a family selects. The NICHD Study of Early Child Care (NICHD Early Child Care Research Network, 2004) found that in general, there was a trend for lower-income families to use home-based care, predominantly unregulated care, more often than higher-income families. In the Three-City Study of low-income families, 10 percent of the participating 2,400 families used licensed family child care, compared to 46 percent that used unregulated care (Coley, Chase-Lansdale, & Li-Grining, 2001).

In the Study of Early Child Care, children in home-based arrangements (both regulated and unregulated) were more likely to have single mothers and to live in families with fewer children than children in center care (NICHD Early Child Care Research Network, 2004). However, other research has found that parents with more than one child are more likely to use home-based child care, as all children can be cared for in mixed-age groups (Davis & Connelly, 2005; Johansen et al., 1996). Parents who hold more traditional childrearing values and those who are more concerned about the negative effects of child care on children's development are more likely to select home-based care than center care (Britner & Phillips, 1995). Families living in rural areas are more likely to use relative caregivers than regulated family child care providers or center care, likely due to the lack of group care facilities in areas of low population densities (Atkinson, 1994).

Independent of other family factors, family race and ethnicity are related to the type of child care a family chooses. Among children in home-based settings, white children are most likely to receive care from a nonrelative while black children are more likely to receive care from a relative (Gable & Cole, 2000). Although there are racial and ethnic differences in regulated family child care usage rates when children are young, these differences diminish as children age (Capizzano, Tout, & Adams, 2002). Across all ethnicities, families tend to select providers of their ethnic background, often to reinforce cultural values and practices (Faddis, et al., 2000; Kontos et al., 1997).

Maternal career choice, income, and education are associated with a family's selection of child care. Both mothers with demanding work schedules and mothers who work part-time tend to prefer home-based care due to its scheduling flexibility (Gable & Cole, 2000). Similarly, maternal but not paternal income is related to the choice of care; the likelihood of using home-based care increases with maternal wages, probably due to the convenience of nannies (Gable & Cole, 2000). In general, mothers with lower educational attainment tend to emphasize didactic methods of teaching and stress basic skill acquisition (e.g., tying shoes, brushing teeth) and are more likely to choose

home-based care (Gable & Cole, 2000). Mothers with higher educational levels emphasize the cognitive components of child care (e.g., counting, learning the ABC's) and tend to select high-quality center care, as opposed to low-quality centers (Gable & Cole, 2000; Fuller, Kagan, Loeb, & Chang, 2004; NICHD Early Child Care Research Network, 2004). However, among low-income families in the Three-City Study, no statistically significant differences in ethnicity, maternal education, employment status, child age, marital status, or welfare receipt among groups choosing center, regulated family child care, or unregulated FFN care were identified (Coley, Chase-Lansdale, & Li-Grining, 2001).

Policy Context

As the amount and availability of state and federal child care subsidies has grown in recent years (Pittard, Zaslow, Lavelle, & Porter, 2006), associations between subsidy use and families' choice of child care type have been studied. However, there are inconsistent findings regarding the direction of the association. Having access to child care subsidies (i.e., being below a certain income level or on welfare) is associated with a higher likelihood of using regulated child care arrangements (both family and center care) (Henly & Lyons, 2000), and parents who receive Child Care and Development Fund subsidies tend to choose center care over other types of child care (Child Care Bureau, 2006). Once families become ineligible for assistance (due to increased income or program time limits) they are more likely to select informal care arrangements (Gable & Cole, 2000). It is possible that the increased funds from the subsidy enable parents to afford preferred, higher-cost regulated care; on the other hand, it is possible that parents who already use regulated care are more likely to apply for a subsidy, as parents using unpaid or low-cost informal arrangements have little incentive to do so. The National Study of Child Care for Low-Income Families found that less than 10 percent of families changed child care arrangements when they received a child care subsidy or received a subsidy and then lost it (Layzer & Goodson, 2006). Furthermore, policy context appears to interact with ethnicity. In general, minority families are more likely to select home-based settings; however, the lowest-

income Latino and black families are the most likely families to use center child care arrangements, presumably as a result of public subsidies (Gable & Cole, 2000).

What is the Quality of Family Child Care?

Similar to that of centers, observational studies suggest that the quality of family child care varies widely, with much of family child care providing mediocre or low quality (Helburn & Howes, 1996; Kontos, Howes, Shinn, & Galinsky, 1995; Whitebook et al., 2004).⁸ National, multi-site studies such as the Cost, Quality, and Child Outcomes Study (Helburn & Howes, 1996) and the Study of Family Child Care and Relative Care (Kontos, Howes, Shinn, & Galinsky, 1995) found that less than 10 percent of family child care homes could be considered "good"/high quality while about half provided "adequate"/mediocre care, as rated using measures of structural, process, and adult work environment quality, including the FDCRS. More recent rates found by state- and local-level studies vary widely. Higher rates were found by the Three-City Study (Coley, Chase-Lansdale, & Li-Grining, 2001) and the Massachusetts study (Marshall et al., 2003), which used both the FDCRS and Arnett CIS, finding that between 30 and 35 percent of family child care homes used by low-income families met the benchmark for "good"/high quality. The lowest rates of high quality was a county-level study conducted by Whitebook et al. (2004) in which 3 percent of family child care homes and two-thirds of centers were rated as high quality in Alameda County, California, using the ECERS, FDCRS, the CC-HOME, and the Arnett CIS.

Variations in quality are closely tied to characteristics of individual caregivers, including their levels of education and training. Low-quality ratings are often attributed to a tendency for activities in family child care homes to involve routines such as naps, meals, physical care, television-watching, and free play, while less time is devoted to learning activities and opportunities (Kontos, 1992; Kontos, Howes, Shinn, & Galinsky, 1995; Layzer & Goodson, 2006). Specifically, the Head Start Family Child Care

Evaluation Project (Faddis et al., 2000) found that centers scored higher on ratings of parent involvement (e.g., caregiver-parent conferences, volunteering in the classroom), facility cleanliness, safety, and availability of equipment, while family child care homes had smaller average child-staff ratios and group size. The two types of settings did not differ in the caregiver-child interactions or environment's developmental appropriateness; however, family child care providers exhibited more attentive and encouraging behaviors than center staff.

Unequal Access to High-Quality Care

As is true in all types of child care, access to the limited supply of high-quality care is dependent on family factors. Multi-site and statewide observational studies of child care have found that low-income and minority children are more likely to be in lower-quality care than higher-income and white children (Coley, Chase-Lansdale, & Li-Grining, 2001; Kontos, 1994; Kontos, Howes, Shinn, & Galinsky, 1997; Li-Grining & Coley, 2006; Marshall et al., 2003; Votruba-Drzal, Coley, & Chase-Lansdale, 2004; Whitebook et al., 2004). In the National Study of Child Care for Low-Income Families' Care in the Home, one-third of providers rarely or never played with children in their care, and reading was observed in less than 40 percent of homes. In more than 40 percent of homes, the television was rarely or never turned off (Layzer & Goodson, 2006). Similarly, in the Study of Family Child Care and Relative Care, low-income children were less likely to be involved in activities than higher-income children, and Latino children spent more time involved in no activities or watching television than did white and black children (Kontos, Howes, Shinn, & Galinsky, 1997). Disproportionate access to quality care for low-income families is not surprising, as the cost and quality of child care are positively related (Helburn & Howes, 1996; Marshall et al., 2003). The relationship between cost and quality is even stronger for home-based child care than for center-based care (Gable & Cole, 2000; Kontos, Howes, Shinn, & Galinsky, 1995).

Structural Variables and Quality

Policy-level variables such as government regulation and subsidy availability influence both structural and process quality in family child care. In the Three-City Study, adult-to-child ratios averaged 1:3 in regulated family child care homes, lower than in center care but higher than in unregulated homes (Coley, Chase-Lansdale, & Li-Grining, 2001). However, some studies have found that adult-to-child ratio, the number of children enrolled, and whether the caregiver's own children are present are unrelated to the quality in family child care (Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002). In contrast, group size has been linked to caregiver sensitivity and the security of infant-provider attachment (Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Elicker, Fortner-Wood, & Noppe, 1999). Likewise, the age composition of children in the family child care setting affects quality; the addition of school-age children to a child care home was found to decrease provider sensitivity and shift attention away from the younger children (Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002).

Following the National Association for Family Child Care's (NAFCC) guidelines for accreditation is associated with higher-quality care; compliance with age-weighted⁹ group size recommendations predicted more positive caregiving (Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002). Greater government regulation and lower subsidy density (i.e., less use of public child care assistance) have been associated with higher global quality of care, and lower subsidy density is related to increased provider sensitivity to children (Raikes, Raikes, & Wilcox, 2005). Additionally, observations of quality between inclusive (i.e., included children with disabilities) child care centers and family child care homes and those that were not inclusive showed that inclusive family child care homes averaged lower observed quality than noninclusive homes. This was not true for centers, where the average observed quality in inclusive and noninclusive classrooms was comparable (Knoche, Peterson, Edwards, & Jeon, 2006).

Caregiver Education and Quality

The individual characteristics of caregivers play important roles in predicting quality in regulated family child care, even more so than in center-based care (Whitebook et al., 2004). While the quality of care is not associated with caregivers' age or years of experience (Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Raikes, Raikes, & Wilcox, 2005), caregiver training and education have emerged as important predictors of care quality. Caregivers with more education (i.e., years of secondary and higher education) and training (i.e., workshop or community-level courses in child care and child development) provide higher-quality care, and caregivers with specialized training in child development provide richer learning environments and warmer and more sensitive caregiving in observational studies (Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Marshall et al., 2003; Norris, 2001; Raikes, Raikes, & Wilcox, 2005; Weaver, 2002; Whitebook et al., 2004). In areas with loose or few government regulations and oversight, provider education is an even more significant predictor of quality (Raikes, Raikes, & Wilcox, 2005). Providers with training are more likely to read to children and offer opportunities for language and reasoning development than providers with no previous training (Whitebook et al., 2004). More training appears to be better; in a quasi-experimental study, licensed family child care providers who continuously attended trainings and workshops throughout their careers displayed higher-quality care and greater sensitivity than those who had never participated in in-service training or those who intermittently did so (Norris, 2001). However, the providers who seek opportunities for advanced training and credentials have been found to be more committed to the field and to offer higher-quality care before training (Weaver, 2002), possibly confounding these results. In addition, training may have different effects on different types of providers. DeBord and Sawyers (1996) found that before training, family child care providers who were affiliated with their local state family child care association or the National Association for the Education of Young Children (NAEYC) provided higher-quality care than nonaffiliated providers, but after train-

ing, unaffiliated providers increased their care quality while affiliated caregivers did not, although affiliated providers still scored higher overall on quality ratings than unaffiliated caregivers. In addition to a provider's education and training background, observational studies have found that her intentionality, professionalism, level of planning, and commitment to the child care field predicts higher-quality care (Kontos, Howes, Shinn, & Galinsky, 1995; Weaver, 2002).

Caregiver Mental Health and Quality

There are somewhat mixed results regarding the effects of caregiver depression on the quality of care. Weaver (2002) found that family child care providers with higher levels of depression scored lower on environmental ratings of care quality. Similarly, using data from the NICHD Study of Early Child Care, Hamre and Pianta (2004) found that self-reported depression was associated with more negative caregiver-child interactions in family child care than in centers and care arrangements in the child's own home. Differences in effects between care types were attributed to structural and organizational differences in child care settings, particularly the presence of other adults. In contrast, in their single-site observational study, Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney (2002) found no association between providers' mental well-being and the quality of care. The rate of depressive symptoms among family child care providers is debated as well. In Hamre and Pianta's (2004) analysis, family child care providers reported the lowest rates of depressive symptoms across child care types. In contrast, in their study of caregivers in Alameda County, California, Whitebook et al. (2004) found that 16 percent of licensed family child care providers showed signs of depression – a rate typical of low-income women, but higher than in the general population. More research is needed to clarify the relationship between caregiver characteristics and child care quality, particularly of factors that may mitigate the effects of caregiver depressive symptoms.

Comparisons to Other Types of Care

Several studies have compared the developmental quality of centers and family child care homes, such

as the NICHD Study of Early Child Care (Hamre & Pianta, 2004; NICHD Early Child Care Research Network, 2004), which used the Observational Record of the Environment (ORCE) and the Arnett CIS, the Three-City Study (Coley, Chase-Lansdale, & Li-Grining, 2001; Votruba-Drzal, Coley, & Chase-Lansdale, 2004), the Cost, Quality, and Outcomes Study (CQO) (Helburn & Howes, 1996), and a longitudinal study of children from low-income families (Fuller, Kagan, Loeb, & Chang, 2004; Loeb, Fuller, Kagan, Carrol, 2004), all of which used the FDCRS, the ECERS, and the Arnett CIS. Combined, these studies indicate that, in general, centers average higher-quality care than regulated family child care providers, who in turn average higher-quality care than unregulated FFN caregivers. Research findings are mixed with regard to comparisons in the quality of provider-child interactions, with some studies finding no differences between center and family child care providers (Fuller, Kagan, Loeb, & Chang, 2004) and others finding higher levels of sensitivity and less withdrawal in the behavior of family child care providers (Faddis et al., 2000; Hamre & Pianta, 2004). There is some evidence that different child care settings may be beneficial for children according to their age. In the NICHD Study of Early Child Care, the quality of care in family child care was found to be higher than center care for children under age 2, while center care was rated higher quality when children are age 4 (NICHD Early Child Care Research Network, 2004).

Quality and Child Outcomes

The early childhood literature indicates that the quality of child care has modest but significant effects on children's development (e.g., NICHD Early Child Care Research Network, 2004; Votruba-Drzal, Coley, & Chase-Lansdale, 2004).¹⁰ Across all types of care, children in higher-quality programs with sensitive and responsive caregivers display better cognitive, social-emotional, and behavioral outcomes (Faddis et al., 2000; Fuller, Kagan, Loeb, & Chang, 2004; Helburn & Howes, 1996; Loeb, Fuller, Kagan & Carrol, 2004; NICHD Early Child Care Research Network, 2004; NICHD Early Child Care Research Network & Duncan, 2003; Votruba-Drzal, Coley, & Chase-Lansdale, 2004). The effects of the qual-

ity of child care have been found to persist through elementary school or beyond (Helburn & Howes, 1996). High-quality care serves as a protective factor for children from low-income families (e.g., Love, Brooks-Gunn, Paulsell, & Fuligni, 2002; Votruba-Drzal, Coley, & Chase-Lansdale, 2004). Likewise, in family child care, children with more educated and trained providers have been found to score higher on measures of language and cognitive development (Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002). Additionally, the security of child-caregiver attachment was positively related to the level of child-caregiver interactive involvement and overall care quality in infancy and early childhood, and caregivers were most sensitive to children who were securely attached (Elicker, Fortner-Wood, & Noppe, 1999; Howes & Hamilton, 1992). Spending more hours in both family child care (Bacharach & Baumeister, 2003; Loeb, Fuller, Kagan, & Carrol, 2004) and center care (NICHD Early Child Care Research Network, 2004) has been associated with increased behavioral problems.

The studies that have directly compared child outcomes across family child care, center care, parental care, and unregulated FFN care before entering kindergarten do not find a single type that is uniformly "best" for fostering healthy child development (NICHD Early Child Care Research Network, 2004). A statewide study in Maryland found that children from family child care were as prepared as children from child care centers, public prekindergarten programs, and Head Start centers, with approximately half of children entering kindergarten being rated as "fully ready" to do kindergarten work and another 44 percent as "approaching readiness" (Maryland State Department of Education, 2002). Likewise, the Head Start Family Child Care Evaluation found no differences in the short- and long-term cognitive outcomes between children who received Head Start services in centers or in family child care homes; however, children in family child care homes received higher scores on physical development measures, including music and movement (Faddis et al., 2000). Studies using the NICHD Study of Early Child Care and other datasets have shown small differences in child outcomes

from different types of care, depending on child's age. Enrollment in relatively high-quality center care during the preschool years has been linked to more advanced intellectual and language development than for children who were cared for by their parents, in family child care, or unregulated FFN arrangements (Loeb, Fuller, Kagan & Carrol, 2004; NICHD Early Child Care Research Network, 2004). However, results must be interpreted with some caution, as a wealth of research has demonstrated the importance of the quality of care, and there is great within-care type diversity in quality, with high- and low-quality programs in all types of care (Helburn & Howes, 1996; NICHD Early Child Care Research Network, 2004). Furthermore, in studies of child outcomes, it is difficult to account for family selection factors such as socioeconomic status, ethnicity, and family structure that influence both the type of child care a family selects and child outcomes (Fuller, Kagan, Loeb, & Chang, 2004; Gable & Cole, 2000; NICHD Early Child Care Research Network, 2004; NICHD Early Child Care Research Network & Duncan, 2003).

What are Relationships within Family Child Care Like?

Parent-Provider Relationship

The parent-provider relationship in the family child care context is unique, often walking the line between a strictly business relationship and a personal friendship (Gable & Cole, 2000; Kontos, Howes, Shinn, & Galinsky, 1995). Effective parent-caregiver partnership and communication is beneficial for children in care, and a satisfying parent-provider relationship is associated with stronger parent-provider attunement and better child adjustment to child care (Britner & Phillips, 1995; Gable & Cole, 2000; Owen, Ware, & Barfoot, 2000). In their observational study of family child care homes and the families they served, Owen, Ware, and Barfoot (2000) found that greater communication and partnership between mothers and child care providers was related to more sensitive and supportive provider-child interactions in child care. Mother-caregiver agreement in childrearing attitudes helped to foster greater partnership and higher-

quality caregiver-child interactions in family child care. In Atkinson's (1988) qualitative study of family child care, providers most commonly cited financial and scheduling issues or parents' lack of respect for providers as sources of parent-provider conflict. In the Three-City Study, mothers using family child care were moderately satisfied with the level of mother-provider communication, about the same as ratings of mothers using center care but less than reports of mothers using FFN care (Coley, Chase-Lansdale, & Li-Grining, 2001; Li-Grining & Coley, 2006).

Parental Satisfaction and Perception of Quality

The majority of parents using regulated and unregulated home-based care are satisfied with their arrangements (Britner & Phillips, 1995; Coley, Chase-Lansdale, & Li-Grining, 2001; Kontos, Howes, Shinn, & Galinsky, 1995; Hofferth, Shauman, Henke, & West, 1998). Parental satisfaction with their family child care arrangement is associated with children's experiences (e.g., provider warmth, daily activities), attributes of the facility (e.g., space, safety), low provider turnover, parent-provider agreement about traditional childrearing practices, and the quality of parent-provider interactions (Britner & Phillips, 1995). The National Study of Child Care for Low-Income Families found that almost two-thirds of low-income parents using home-based care believed it was advantageous for children to be in a home-like setting and that children in family child care receive more individual attention than those in center care. Furthermore, parents reported that the flexibility of hours in home-based care better met their work schedules (Layzer & Goodson, 2006). Likewise, participants in the Three-City Study using family child care reported high levels of overall satisfaction (Coley, Chase-Lansdale, & Li-Grining, 2001; Li-Grining & Coley, 2006), higher than parents using child care centers (Coley, Chase-Lansdale, & Li-Grining, 2001).

Parental satisfaction with their children's child care arrangement may be related to their perception of child care as a social support (Britner & Phillips, 1995; Gable & Cole, 2000). Some researchers suggest that as a local and trusted expert in early childhood, family child care providers can serve as vehicles

for providing family support to their clients (Bromer, 2001; Kontos, 1992; Phillips & Adams, 2001; Schnur, Koffler, Wimpenny, Giller, & Rafield, 1995). Family child care can provide increased contact with people of the same cultural and ethnic background, potentially minimizing stress, and for new immigrants, can ease adjustment and provide the opportunity to make social contacts (Schnur, Koffler, Wimpenny, Giller, & Rafield, 1995).

What Kinds of Programs and Policies Promote Quality in Family Child Care?

Evaluations of quality enhancement strategies are less frequent than descriptive studies. The Family Child Care Training Study is the largest peer-reviewed study to date that rigorously evaluated a multi-site training program for family and relative child care providers (Howes, Galinsky, & Kontos, 1998; Kontos, Howes, Shinn, & Galinsky, 1995; Kontos, Howes, & Galinsky, 1996). In order to determine what kind of providers seek and remain in training, and what the effects of training are on the quality of care provided, researchers followed 130 regulated family child care providers enrolled in the Family-to-Family training program in three cities (San Fernando Valley, CA; Metropolitan Dallas, TX; and Charlotte, NC). The Family-to-Family training was tailored to local needs but included topics such as health, safety, nutrition, and business practices. Kontos, Howes, and Galinsky (1996) compared the training group to a representative group of 112 family child care providers who did not participate in the training. Providers who sought training were generally younger and more committed to family child care as a profession, and those who dropped out of the program tended to have less experience and fewer safety and business practices. Of the providers who remained in training, the Family-to-Family program had modest positive effects on the global quality of care and provider intentionality (such as planning activities and commitment) but not process quality. Howes, Galinsky, and Kontos (1998) examined the effects of the training intervention on child-caregiver attachment security, finding that caregivers of children who became securely attached or remained securely attached were more sensitive fol-

lowing training. The evaluation offered evidence that modest training programs can increase provider knowledge, awareness, and sensitivity, but the authors suggest that more rigorous programs are needed to effectively change provider behavior.

Other, more recent studies of family child care provider training include the Project CREATE (Caregiver Recruitment, Education, and Training Enhancement) evaluation (Adams & Buell, 2002). Project CREATE was funded by the Division of Child Care Licensing of the State of Delaware and through grant money from the federal Child Care and Development Fund (CCDF). Focused specifically on center and family child care providers who served infants and toddlers, Project CREATE offered training modules that addressed topics such as social-emotional and cognitive development, environment design, supporting special needs, and curriculum. Pre- and post-training measures indicated Project CREATE's training modules and technical assistance were effective in increasing caregiver's knowledge and practice of developmentally appropriate environments and interactions.

Beyond the few evaluations of training intervention programs, there is little existing research that has examined the effects of the growing number of federal and state policies aimed at promoting quality in family child care, including the U.S. Department of Agriculture's (USDA) Child and Adult Care Food Program, state tiered reimbursements, and quality rating systems.

METHODOLOGICAL ISSUES

Inconsistent Definitions and Regulations

The early childhood field has yet to develop clear and agreed-upon definitions of and distinctions for family child care and FFN care (Morgan, Azer, & Lemoine, 2001). In this review, some studies defined family child care as a nonrelative paid provider offering care in her home (e.g., Bruenig, Brandon, & Maher, 2003; NICHD Early Child Care Research Network, 2004), while others specify family child care as a registered or licensed care (e.g., Atkinson, 1987,

1988; Burchinal, Howes, & Kontos, 2002; Knoche, Peterson, Edwards, & Jeon, 2006; Raikes, Raikes, & Wilcox, 2005; Weaver, 2002). Several studies included in this review did not specify their definitions of family child care or grouped regulated and unregulated home-based care together. With policies and definitions varying widely by state and geographic region, researchers and early childhood experts must be clear on the types of providers included in their studies (Morgan et al., 2001).

Data Collection and Measures

Related to the problem of inconsistent definitions of family child care is the issue of data collection and sampling within child care populations. The caregivers who elect to participate in studies on family child care, particularly training evaluations, may be a self-selected group representing the more motivated, dedicated segment of the family child care population, making it problematic for generalizing findings to family child care providers as a whole (e.g., Kontos, Howes, Shinn, & Galinsky, 1995; Weaver, 2002). Furthermore, most research has focused on family child care in major metropolitan areas (e.g., Coley, Chase-Lansdale, & Li-Grining, 2001; Fuller, Kagan, Loeb, & Chang, 2004); providers in rural areas must also be included to assure generalizability to this substantial segment of family child care (Atkinson, 1994). Finally, in training program evaluations, researchers must be cautious in selecting an appropriate comparison group. Randomized, experimental designs are rare in the training literature but should be used as often as possible.

In addition to sampling, measuring quality and other aspects of the family child care environment remains an important arena for further work. There is less consensus on the components of quality in family child care than in center care (Marshall et al., 2003), and measures commonly used in family child care research have received criticism for holding too narrow a perspective of quality to be used in home settings (e.g., Porter & Kearns, 2005a). Most studies use assessment tools that were modified from instruments used in center care or to measure the quality of

the home environment. In the future, measures may be designed to capture the unique strengths of family child care, such as the flexibility in hours, the high caregiver-to-child ratios, and the mix of young and school-age children. Furthermore, instruments must be tested to assure levels of validity and reliability sufficient for research standards.

Reporting of Findings

A key issue today is how to make child care research more relevant for policy and more translatable into the language of both policy and practice. Studies of family child care are of interest to several types of audiences, including researchers, policymakers, parents, child care providers, and program administrators. A range of media, such as peer-reviewed journals, academic and practitioner conference presentations, government-sponsored reports, and policy fact sheets should be used to communicate findings. Likewise, family child care researchers should be in tune with and draw on findings from other domains of child care research as well as the important issues in the policy world, and translate these ideas and needs into research questions.

ISSUES NOT ADEQUATELY ADDRESSED IN THE CURRENT SET OF STUDIES

Training Strategies for Family Child Care

A variety of training strategies are needed to address the needs of a group as diverse as family child care providers. Several states and local organizations have created a range of quality-promotion programs for family child care, including classroom-based trainings, home visiting programs, mentor programs, and family child care networks (Institute for Women's Policy Research, 2005). An assortment of training programs that can be combined and tailored to individuals' needs may be more appropriate than traditional classroom workshops with this audience. While in center care other staff can serve as substitutes and directors usually pay training and workshop fees, in the self-employed business of family child care, providers often pay fees out of pocket.

et and need to search for back-up care. Although these quality-promotion programs are promising, rigorous program evaluations are needed to clarify the effects of different types of training and quality-enhancement programs on the quality of care, and whether certain programs are more effective than others for specific segments of the family child care provider population. Furthermore, studies suggest that training that is specialized in child development, child care issues, and the needs of children with disabilities improves the quality of care and reduces caregiver turnover more than unspecialized educational attainment (e.g., Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002; Knoche, Peterson, Edwards, & Jeon, 2006; Raikes, Raikes, & Wilcox, 2005; Todd & Deery-Smith, 1996).

Training Incentives for Family Child Care

Due to the self-employment nature of family child care providers, there are no financial rewards for increased training intrinsic to the family child care market (Helburn, Morris, & Modigliani, 2002; Walker, 1992), thus providers lack economic motivations to receive advanced training or education. States are experimenting with quality rating systems, tiered reimbursements, and economic incentives (e.g., training scholarships and career ladders) to promote caregiver training. For example, in 2004, North Carolina's T.E.A.C.H.[®] program awarded financial assistance to 450 family child care providers seeking college degrees in early childhood (Institute for Women's Policy Research, 2005). Rigorous evaluations of these programs would be useful to the early childhood field.

Helping Parents Recognize and Select High-Quality Care

The child care literature suggests that while parents cite the same characteristics of developmental quality as researchers (Kontos, Howes, Shinn, & Galinsky, 1995), including a warm caregiver-child relationship, a safe environment, and good parent-caregiver communication, they often use additional aspects of care such as flexibility and reliability in choosing their arrangements (Gable & Cole, 2000).

Additionally, parents are likely to report being satisfied with their children's child care, regardless of its quality as rated by researchers (Helburn & Howes, 1996; Kontos, Howes, Shinn, & Galinsky, 1995; Layzer & Goodson, 2006). Furthermore, lower-income and less-educated parents tend to select lower-quality care arrangements (Gable & Cole, 2000; Fuller, Kagan, Loeb, & Chang, 2004; Kontos, Howes, Shinn, & Galinsky, 1997; NICHD Early Child Care Research Network, 2004). In conjunction with policies that help families afford high-quality care, parent and consumer education initiatives such as information systems may help parents recognize and choose higher-quality care. While evaluations of information rating systems for center care suggest positive impacts (e.g., Cornell University, 2002; Witte & Queralt, 2004), the effects of rating systems on the use of family child care are largely unknown.

Understudied Populations

Previous research on family child care has taken ethnicity and location into account but has focused primarily on whites, blacks, and Latinos living in major metropolitan areas. Research shows that minority and rural families are usually somewhat more likely to use unregulated FFN care and less likely to use regulated family child care (Atkinson, 1994; Gable & Cole, 2000; Kontos, 1992; Kontos et al., 1995; Kontos, Howes, Shinn, & Galinsky, 1997), although more information on the specific child care preferences, needs, and quality of care used is needed in order to develop support and supply-enhancing strategies that are culturally and contextually appropriate.

The Effects of Public Policies and Unionization on Family Child Care

A growing number of public programs, including Head Start and state prekindergarten programs, are contracting with family child care providers. The evaluation of the Head Start Family Child Care Project found that contracting with family child care providers resulted in increased training and educational opportunities and program cohesiveness; however, family child care services were more expensive than pro-

viding services in Head Start centers primarily because family child care homes offered full-day, full-year programming, rather than part-day, school-year programs at centers (Faddis et al., 2000). Likewise, an increasing number of states are creating public pre-k programs, in which currently 12 states contract with qualified family child care providers (Schumacher, Ewen, Hart, & Lombardi, 2005). However, little is known about what types of providers choose to participate and why, the quality of services they provide, or the effects of state pre-k programs on the family child care market. Limited evidence suggests that the free or low-cost services at public universal pre-k programs can decrease enrollment at surrounding child care centers (Morrissey, Lekies, & Cochran, in press; U.S. General Accounting Office, 2004); the same may be true for family child care. It is possible that the new funds from pre-k programs allow participating family child care homes to increase in quality.

Additionally, in an increasing number of states, family child care providers have been organized into unions. Memberships are based on public subsidy receipt or regulatory status. Unions that are respectful and committed to the needs of providers have the potential to give family child care a collective voice in advocating funding for quality improvements at the federal and state levels (National Association for Family Child Care, 2006). However, the impacts of unionization on provider work conditions, including compensation and access to affordable health insurance, and the quality of care have yet to be empirically explored.

STUDIES TO WATCH FOR IN THE FUTURE

QUINCE

The Quality Interventions for Early Care and Education (QUINCE) evaluation, funded by the Child Care Bureau and the Office of the Assistant Secretary for Planning and Evaluation of the U.S. Department of Health and Human Services, is an experimental evaluation of a training program that involves on-site consultation approaches to improving quality. Both regulated family child care providers and unregulated FFN caregivers are included.

Cornell Caring for Quality Pilot Project

This pilot study is a demonstration and evaluation project of a training and support program for both licensed and license-exempt home-based child care providers in Rochester, New York. The program includes biweekly home visits to providers based on the Parents As Teachers (PAT) Curriculum® and monthly group meetings of providers and their home visitors for support and socializing. Participating providers bring the children in their care, who are cared for by substitute providers during the meeting. The program takes place over the course of 12 months and measures change in the quality of care and outcomes of participating providers and the children in their care compared to providers and children in a comparison group.

Sparking Connection

This project of the Families and Work Institute (FWI) is a three-phased, four-year national initiative to demonstrate and evaluate strategies to support home-based caregivers through partnerships with retailers and other nontraditional partners (senior citizen programs, libraries, museums, and others). The project explores nontraditional partnerships and other strategies for bringing child development information and resources to home-based caregivers. The Sparking Connections National Consortium began in December 2003 following the publication of FWI's initial Sparking Connections report about unregulated relative, friend, and neighbor care (Stahl, Sazer O'Donnell, Sprague, & Lopez, 2003). While most of the project's eight sites serve predominantly unregulated family, friend, and neighbor care, the Greenville, South Carolina, site serves family child care providers who are registered and technically regulated. Because South Carolina's regulations on home-based child care are relatively loose, they are provided with supports similar to those for informal providers. The final Sparking Connections report was released in fall 2006 (Sazer O'Donnell, Cochran, Lekies, Diehl, Morrissey, Ashley, & Steinke, 2006).

SUMMARY/CONCLUSIONS

Family child care is essential to families and communities. Approximately one-quarter of children spend some time in family child care arrangements (Johnson, 2005), and the quality of care and caregiver-child relationships have important impacts on children's development (Loeb, Fuller, Kagan, & Carrol, 2004; NICHD Early Child Care Research Network, 2004; Votruba-Drzal, Coley, & Chase-Lansdale, 2004). The services supplied by family child care providers are also vital to local economies; family child care providers represent an estimated 300,000 small businesses across the United States, according to the National Child Care Information Center.

Family child care providers are a diverse group, most motivated to provide care by a love of working with children and the extra income (Helburn et al., 2002). However, most earn low wages, have little or no access to employment benefits, work long hours, and have unique work-home enmeshment (e.g., Atkinson, 1992; Helburn, Morris, & Modigliani, 2002). Family child care providers serve a range of families with a variety of needs (e.g., Knoche, Peterson, Edwards, & Jeon, 2006; Marshall et al., 2003). Families who use family child care prefer its flexibility and home-like environment, particularly for infants and toddlers (Gable & Cole, 2000; NICHD Early Child Care Research Network, 2004). Despite the decline in the proportion of families using family child care over the past few decades, family child care remains a substantial segment of the child care market (Johnson, 2005; Kontos, 1992).

As with center and unregulated FFN care, the quality of services in family child care is highly variable (Helburn & Howes, 1996). Quality-enhancement initiatives hold promise for family child care (e.g., Kontos, Howes, & Galinsky, 1996), but more methodologically rigorous evaluations of the impacts of policies and programs such as training programs, information rating, and tiered reimbursement systems focused on family child care are needed to draft specific recommendations. Consumer education initiatives may help parents recognize and select high-quality care, but again, evaluations focused on the use of family child care are needed to draw conclusions.

REFERENCES

- Adams, J. H., & Buell, M. (2002). Project CREATE: *Caregiver Recruitment, Education, and Training Enhancement*. Newark: University of Delaware, Center for Disabilities Studies. <www.researchconnections.org/location/ccrca5913>
- Arnett, J. (1989). Caregivers in child care centers: Does training matter? *Journal of Applied Developmental Psychology, 10*(4), 541-552. <www.researchconnections.org/location/ccrca278>
- Atkinson, A. M. (1987). Fathers' participation and evaluation of family day care. *Family Relations, 36*(2), 146-151. <www.researchconnections.org/location/ccrca777>
- Atkinson, A. M. (1988). Providers' evaluations of the effect of family day care on own family relationships. *Family Relations, 37*(4), 399-404. <www.researchconnections.org/location/ccrca6746>
- Atkinson, A. M. (1992). Stress levels of family day care providers, mothers employed outside of the home, and mothers at home. *Journal of Marriage and the Family, 54*(2), 379-386. <www.researchconnections.org/location/ccrca2324>
- Atkinson, A. M. (1994). Rural and urban families' use of child care. *Family Relations, 43*(1), 16-22. <www.researchconnections.org/location/ccrca10238>
- Barnett, W. S., Hustedt, J. T., Robin, K. B., & Schulman, K. L. (2005). *The state of preschool: 2005 state preschool yearbook*. New Brunswick, NJ: The National Institute for Early Education Research. <www.researchconnections.org/location/ccrca8587>
- Bradley, R. H., Caldwell, B. M., & Corwyn, R. F. (2003). The Child Care HOME Inventories: Assessing the quality of family child care homes. *Early Childhood Research Quarterly, 18*(3), 294-309. <www.researchconnections.org/location/ccrca10292>
- Britner, P. A., & Phillips, D. A. (1995). Predictors of parent and provider satisfaction with child day care dimensions: A comparison of center-based and family child day care. *Child Welfare, 74*(6), 1135-1168. <www.researchconnections.org/location/ccrca1311>
- Broberg, A. G., Wessells, H., Lamb, M. E., & Hwang, C. P. (1997). Effects of day care on the development of cognitive abilities in 8-year-olds: A longitudinal study. *Developmental Psychology, 33*(1), 62-69. <www.researchconnections.org/location/ccrca1867>
- Bromer, J. (2001). Helpers, mothers, and preachers: The multiple roles and discourses of family child care providers in an African-American community. *Early Childhood Research Quarterly, 16*(3), 313-331. <www.researchconnections.org/location/ccrca595>
- Bromer, J. & Henly, J. R. (2004). Child Care as family support: Caregiving practices across child care providers. *Children and Youth Services Review, 26*(10), 941-964. <www.researchconnections.org/location/ccrca4471>

- Bruenig, G. S., Brandon, R., Maher, E. J. (2003, November). *Counting the child care workforce: A catalog of state data sources to quantify and describe child caregivers in the fifty states and the District of Columbia*. Seattle, WA: Human Services Policy Center, University of Washington. Accessed July 3, 2006 from <hspc.org/publications/pdf/CCCW.pdf>
- Burchinal, M., Howes, C., & Kontos, S. (2002). Structural predictors of child care quality in child care homes. *Early Childhood Research Quarterly*, 17(1), 87-105. <www.researchconnections.org/location/ccrca1305>
- Caldwell, B. M., & Bradley, R. H. (2003). *Home Observation for Measurement of the Environment Early Childhood (EC) Home*. Little Rock, AR: University of Arkansas. <www.researchconnections.org/location/ccrca5093>
- Campbell, A., Converse, P., & Rogers, W. (1976). *The quality of American life*. New York: Russell Sage Foundation.
- Capizzano, J. & Adams, G. (2000). *The number of child care arrangements used by children under five: Variation across states*. Washington, DC: Urban Institute. <www.researchconnections.org/location/ccrca167>
- Capizzano, J., Adams, G., & Sonenstein, F. (2000). *Child care arrangements for children under five*. Washington, DC: Urban Institute. <www.researchconnections.org/location/ccrca165>
- Capizzano, J., Tout, K. & Adams, G. (2000). *Child care patterns of school-age children with employed mothers*. Urban Institute Occasional Paper No. 41. Washington, DC: The Urban Institute. <www.researchconnections.org/location/ccrca235>
- Child Care Bureau. (2006). *Table 6—Child Care and Development Fund preliminary estimates: Average monthly percentages of children served in all types of care (FFY 2005). FFY 2005 CCDF Data Tables (Preliminary Estimates)*. Washington, DC: Administration on Children, Youth and Families. U.S. Department of Health and Human Services. <www.acf.hhs.gov/programs/cb/data/ccdf_data/05acf800/table6.htm>
- Clarke-Stewart, K. A., Vandell, D. L., Burchinal, M., O'Brien, M., & McCartney, K. (2002). Do regulable features of child-care homes affect children's development? *Early Childhood Research Quarterly*, 17(1), 52-86. <www.researchconnections.org/location/ccrca365>
- Coley, R. L., Chase-Lansdale, P. L., & Li-Grining, C. (2001). *Child care in the era of welfare reform: Quality, choices, and preferences. Policy Brief 01-04*. Baltimore, MD: Johns Hopkins University. <www.researchconnections.org/location/ccrca834>
- Cornell University. (2002). Child Care Programs of Excellence: Child Care Quality Matters. *Human Ecology*, 32(6), 6-11. <www.researchconnections.org/location/ccrca5129>
- Curbow, B., Spratt, K., Ungaretti, A., McDonnell, K., & Breckler, S. (2000). Development of the Child Care Worker Job Stress inventory. *Early Childhood Research Quarterly*, 15(4), 515-536. <www.researchconnections.org/location/ccrca4480>
- Davis, E. E., & Connelly, R. (2005). The influence of local price and availability on parents' choice of child care. *Population Research and Policy Review*, 24(4), 301-334. <www.researchconnections.org/location/ccrca8445>
- DeBord, K., & Sawyers, J. (1996). The effects of training on the quality of family child care for those associated with and not associated with professional child care organizations. *Child & Youth Forum*, 25(1), 7-15. <www.researchconnections.org/location/ccrca1565>
- Divine-Hawkins, P. (1981). *Family day care in the United States: Executive summary*. Final Report of the National Day Care Home Study. Report No. DHHS-OHDS-80-30287. Washington, DC: Administration on Children, Youth and Families, U.S. Department of Health and Human Services. <www.researchconnections.org/location/ccrca9251>
- Elicker, J., Fortner-Wood, C., & Noppe, I. C. (1999). The context of infant attachment in family child care. *Journal of Applied Developmental Psychology*, 20(2), 319-336. <www.researchconnections.org/location/ccrca361>
- Emlen, A. C. (1974). *The stability of the family day care arrangement: A longitudinal study*. Covallis, OR: Division of Continuing Education, Oregon State University. <www.researchconnections.org/location/ccrca10333>
- Emlen, A. C. (1999). *From a parent's point of view: Measuring the quality of child care*. Portland, OR: Portland State University and Oregon Child Care Research Partnership. <www.researchconnections.org/location/ccrca210>
- Faddis, B. J., Aherns-Gray, P., & Klein, K. L. (2000, February). *Evaluation of Head Start Family Child Care Demonstration: Final Report*. Washington, DC: Commissioner's Office of Research and Evaluation and the Head Start Bureau, Administration on Children, Youth and Families. U.S. Department of Health and Human Services. <www.researchconnections.org/location/ccrca1035>
- Fosburg, S. (1982). Family day care: The role of the surrogate mother. In L. Laosa & I. Siegel (Eds.), *Families as learning environments for children*. New York: Plenum, pp. 223-260. <www.researchconnections.org/location/ccrca10331>
- Fuller, B., Kagan, S. L., Loeb, S., & Chang, Y. (2004). Child care quality: Centers and home-based settings that serve poor families. *Early Childhood Research Quarterly*, 19(4), 505-527. <www.researchconnections.org/location/ccrca4676>
- Gable, S., & Cole, K. (2000). Parents' child care arrangements and their ecological correlates. *Early Education and Development*, 11(5), 549-572. <www.researchconnections.org/location/ccrca2334>
- Goelman, H., Shapiro, E., & Pence, A.R. (1990). Family environment and family day care. *Family Relations*, 39(1), 14-19. <www.researchconnections.org/location/ccrca2459>
- Gormley, W.T. (1991). State regulations and the availability of child care services. *Journal of Policy Analysis and Management*, 10(1), 78-95. <www.researchconnections.org/location/ccrca10334>

- Hamm, K., Gault, B., & Jones-DeWeever, A. (2005). *In our own backyards: Local and state strategies to improve the quality of family child care*. Washington, DC: Institute for Women's Policy Research. <www.researchconnections.org/location/ccrca6898>
- Hamre, B., & Pianta, R. C. (2004). Self-reported depression in nonfamilial caregivers: Prevalence and associations with caregiver behavior in child care settings. *Early Childhood Research Quarterly*, 19(2), 297-318. <www.researchconnections.org/location/ccrca3982>
- Harms, T., & Clifford, R. M. (1989). *Family day care rating scale*. New York: Teachers College Press. <www.researchconnections.org/location/ccrca292>
- Harms, T., Clifford, R., & Cryer, D. (1998). *Early childhood environment rating scale (Rev. ed.)*. New York: Teachers College Press. <www.researchconnections.org/location/ccrca462>
- Helburn, S. W., & Bergmann, B. R. (2002). *America's child care problem: The way out*. New York: Palgrave. <www.researchconnections.org/location/ccrca2645>
- Helburn, S. W., & Howes, C. (1996). Child care cost and quality. *The Future of Children*, 6(2), 62-82. <www.researchconnections.org/location/ccrca2093>
- Helburn, S. W., Morris, J. R., & Modigliani, K. (2002). Family child care finances and their effect on quality and incentives. *Early Childhood Research Quarterly*, 17(4), 512-538. <www.researchconnections.org/location/ccrca1095>
- Henly, J. R., & Lyons, S. (2000). The negotiation of child care and employment demands among low-income parents. *Journal of Social Issues*, 56(4), 683-706. <www.researchconnections.org/location/ccrca1269>
- Hofferth, S. L., Brayfield, A., Deitch, S., & Holcomb, P. (1991). *National Child Care Survey, 1990*. Washington, DC: The Urban Institute. <www.researchconnections.org/location/ccrca372>
- Hofferth, S. L., Shauman, K. A., Henke, R. R., & West, J. (1998). *Characteristics of children's early care and education programs: Data from the 1995 National Household Education Survey*. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education. <www.researchconnections.org/location/ccrca174>
- Howes, C., Kontos, S. & Galinsky, E. (1998). Child care caregiver sensitivity and attachment. *Social Development*, 7(1), 25-36. <www.researchconnections.org/location/ccrca6349>
- Howes, C., & Hamilton, C. E. (1992). Children's relationships with caregivers: Mothers and child care teachers. *Child Development*, 63(4), 859-866. <www.researchconnections.org/location/ccrca9139>
- Howes, C., & Stewart, P. (1987). Child's play with adults, toys, and peers: An examination of family and child-care influences. *Developmental Psychology*, 23(3), 423-430. <www.researchconnections.org/location/ccrca10244>
- Johansen, A., Leibowitz, A., & Waite, L. (1996). The importance of child care characteristics to choice of care. *Journal of Marriage and the Family*, 58(3), 759-772. <www.researchconnections.org/location/ccrca410>
- Johnson, J. O. (2005, October). *Who's minding the kids? Child care arrangements: Winter 2002*. Washington, DC: U.S. Census Bureau. <www.census.gov/prod/2005pubs/p70-101.pdf>
- Kisker, E. E., Piper, V., Maynard, R., Ensor, T., Hall, E., Hofferth, S. L., Brayfield, A., Phillips, D., & Farquhar, E. (1991). *A profile of child care settings: Early education and care in 1990*. Washington, DC: U.S. Department of Education, Office of the Under Secretary. <www.researchconnections.org/location/ccrca4983>
- Knoche, L., Peterson, C. A., Edwards, C. P., Jeon, H. J. (2006). Child care for children with and without disabilities: The provider, observer, and parent perspectives. *Early Childhood Research Quarterly*, 21(1), 93-109. <www.researchconnections.org/location/ccrca8396>
- Kontos, S. (1994). The ecology of family day care. *Early Childhood Research Quarterly*, 9(1), 87-110. <www.researchconnections.org/location/ccrca6332>
- Kontos, S. (1992). *Family day care: Out of the shadows and into the limelight*. (Research Monograph of the National Association for the Education of Young Children, Vol. 5) Washington, DC: National Association for the Education of Young Children. <www.researchconnections.org/location/ccrca10332>
- Kontos, S., Howes, C., & Galinsky, E. (1996). Does training make a difference to quality in family child care? *Early Childhood Research Quarterly*, 11(4), 427-445. <www.researchconnections.org/location/ccrca526>
- Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1997). Children's experiences in family child care and relative care as a function of family income and ethnicity. *Merrill Palmer Quarterly*, 43(3), 386-403. <www.researchconnections.org/location/ccrca2484>
- Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press. <www.researchconnections.org/location/ccrca2627>
- Kontos, S., & Riessen, J. (1993). Predictors of job satisfaction, job stress, and job commitment in family day care. *Journal of Applied Developmental Psychology*, 14(3), 427-441. <www.researchconnections.org/location/ccrca9217>
- Larner, M., & Chaudry, N. (1993). *Promoting professionalism through family day care networks: A study of Child Care, Inc.'s neighborhood child care initiatives project*. New York: National Center for Children in Poverty, Columbia University. <www.researchconnections.org/location/ccrca10336>
- Layzer, J. I., & Goodson, B. D. (2006). *Care in the home: A description of family child care and the experiences of the families and children that use it*. National Study of Child Care for Low-Income Families, Wave I Report. Cambridge, MA: Abt Associates. <www.researchconnections.org/location/ccrca11568>

- Li-Grining, C. P., & Coley, R. L. (2006). Child care experiences in low-income communities: Developmental quality and maternal views. *Early Childhood Research Quarterly, 21*(2), 125-141. <www.researchconnections.org/location/ccrca9523>
- Loeb, S., Fuller, B., Kagan, S. L., & Carrol, B. (2004). Child care in poor communities: Early learning effects of type, quality, and stability. *Child Development, 75*(1), 47-65. <www.researchconnections.org/location/ccrca3525>
- Love, J., Brooks-Gunn, J., Paulsell, D., & Fuligni, A. (2002). *Making a difference in the lives of infants and toddlers and their families: The impacts of early Head Start*. Princeton, NJ: Mathematica Policy Research, Inc. <www.researchconnections.org/location/ccrca119>
- Marshall, N. L., Creps, C. L., Burstein, N. R., Cahill, K. E., Wagner Robeson, W., Wang, S. Y., Keefe, N., Schimmenti, J., & Glantz, F. B. (2003). Massachusetts family child care today: A report of the findings from the Massachusetts cost and quality study. Wellesley Centers for Women. <www.researchconnections.org/location/ccrca2965>
- Maryland State Department of Education. (2002). *Children entering school ready to learn: School readiness baseline information*. Baltimore: Maryland State Department of Education. <www.marylandpublicschools.org/NR/rdonlyres/BCFF0F0E-33E5-48DA-8F11-28CF333816C2/2490/School_Readiness_Report_all.pdf>
- Morgan, G., Azer, S., & Lemoine, S. (2001). *Family child care: What's in a name?* Boston, MA: Wheelock College Institute for Leadership and Career Initiatives. Accessed July 3, 2006 from <www.researchconnections.org/location/ccrca2126>.
- Morrissey, T. W., Lekies, K. S., & Cochran, M. M. (in press). Implementing New York's Universal Prekindergarten program: An exploratory study of systemic impacts. *Early Education and Development*.
- Mueller, C., & Orimoto, L. (1995). Factors related to the recruitment, training, and retention of family child care. *Child Welfare, 74*(6), 1205-1213. <www.researchconnections.org/location/ccrca973>
- National Association of Child Care Resource and Referral Agencies (NACCRRRA). (2005). *Profile of CCR&Rs: 2005*. Arlington, VA: NACCRRRA. <www.naccrra.org/randd/index.php?q=3>
- National Association for Family Child Care (NAFCC). (2006, July). *Best practices for family child care union organizing*. A position statement of the National Association for Family Child Care. Salt Lake City, UT: NAFCC.
- National Association for Regulatory Administration (NARA) & National Child Care Information and Technical Assistance Center (NCCIC). (2006). *The 2005 Child Care Licensing Study: Final report*. Conyers, GA: NARA. <nara.affiniscape.com/associations/4734/files/2005%20Licensing%20Study%20Final%20Report_Web.pdf>
- Nelson, M. K. (1988). Providing family day care: An analysis of home-based work. *Social Problems, 35*(1), 78-94. <www.researchconnections.org/location/ccrca6732>
- New Jersey Association of Child Care Resource and Referral Agencies (NJACCRRRA) & Child Welfare League of America (CWLA). (2006). *The state of family child care in New Jersey*. Trenton, NJ and Washington, DC: NJACCRRRA and CWLA. <www.researchconnections.org/location/ccrca7977>
- NICHD Early Child Care Research Network. (2000). Characteristics and quality of child care for toddlers and preschoolers. *Applied Developmental Science, 4*(3), 116-135. <www.researchconnections.org/location/ccrca2460>
- NICHD Early Child Care Research Network. (2004). Type of child care and children's development at 54 months. *Early Childhood Research Quarterly, 19*(2), 203-230. <www.researchconnections.org/location/ccrca3978>
- NICHD Early Child Care Research Network & Duncan, G. J. (2003). Modeling the impacts of child care quality on children's preschool cognitive development. *Child Development, 74*(5), 1454-1475. <www.researchconnections.org/location/ccrca2820>
- Norris, D. J. (2001). Quality of care offered by providers with differential patterns of workshop participation. *Child & Youth Care Forum, 30*(2), 111-121. <www.researchconnections.org/location/ccrca2375>
- Owen, M. T., Ware, A. M., & Barfoot, B. (2000). Caregiver-mother partnership behavior and the quality of caregiver-child and mother-child interactions. *Early Childhood Research Quarterly, 15*(3), 413-428. <www.researchconnections.org/location/ccrca314>
- Pence, A., & Goelman, H. (1987). Who cares for the children in day care? An examination of caregivers from three types of care. *Early Childhood Research Quarterly, 2*(4), 315-334. <www.researchconnections.org/location/ccrca9225>
- Pence, A., & Goelman, H. (1991). The relationship of regulation, training, and motivation to quality of care in family day care. *Child & Youth Care Forum, 20*(2), 83-101. <www.researchconnections.org/location/ccrca2760>
- Phillips, D., & Adams, G. (2001). Child care and our youngest children. *The Future of Children, 11*(1), 34-51. <www.researchconnections.org/location/ccrca2097>
- Pittard, M., Zaslow, M., Lavelle, B., & Porter, T. (2006, April). *Investing in quality: A survey of state child care and development fund initiatives*. Washington, DC: The National Association of State Child Care Administrators, Child Trends, and Bank Street College of Education. Retrieved July 3, 2006 from <www.childtrends.org/Files/InvestinginQualityChildcareRpt.pdf>.
- Porter, T., & Kearns, S. (2005a). Family, friend and neighbor care: Crib notes on a complex issue. In R. Rice (Ed.), *Perspectives on family, friend, and neighbor child care: Research, programs, and policy*. New York: Bank Street College of Education. <www.bankstreet.edu/gems/ICCC/OPS15.pdf>
- Porter, T., & Kearns, S. (2005b). *Supporting family, friend and neighbor caregivers: Findings from a survey of state policies*. New York: Bank Street College of Education. <www.researchconnections.org/location/ccrca4790>

- Raikes, H. A., Raikes, H. H., & Wilcox, B. (2005). Regulation, subsidy receipt, and provider characteristics: What predicts quality in child care homes? *Early Childhood Research Quarterly*, 20(2), 164-184. <www.researchconnections.org/location/ccrca6437>
- Sazer O'Donnell, N., Cochran, M., Lekies, K., Diehl, D., Morrissey, T. W., Ashley, N., & Steinke, P. (2006, September). *A multi-site evaluation of community-based strategies to support family, friend and neighbor caregivers of children: Lessons learned and recommendations*. New York: Families and Work Institute. <familiesandwork.org/eproducts/sparking-phase2.pdf>
- Schnur, E., Koffler, R., Wimpenny, N., Giller, H., & Rafield, E. N. (1995). Family child care and new immigrants: Cultural bridge and support. *Child Welfare*, 74(6), 1237-1243. <www.researchconnections.org/location/ccrca1956>
- Schumacher, R., Ewen, D., Hart, K., & Lombardi, J. (2005). *All together now: State experiences in using community-based child care to provide pre-kindergarten*. Washington, DC: Center for Law and Social Policy. <www.researchconnections.org/location/ccrca6347>
- Smith, K. (2002). *Who's minding the kids? Child care arrangements: Spring 1997*. Washington, DC: U.S. Census Bureau. <www.census.gov/prod/2002pubs/p70-86.pdf>
- Sonenstein, F. L., Gates, G. J., Schmidt, S., & Bolshun, N. (2002). *Primary child care arrangements of employed parents: Findings from the 1999 National Survey of America's Families* (Occasional Paper No. 59). Washington, DC: The Urban Institute. <www.researchconnections.org/location/ccrca587>
- Stahl, D., Sazer O'Donnell, N., Sprague, P., & Lopez, M. (2003). *Sparking connections: Community-based strategies for helping family, friend and neighbor caregivers meet the needs of employees, their children and employers*. Families and Work Institute. <www.researchconnections.org/location/ccrca5748>
- Stonehouse, A. (2004). *Family day care: Dimensions of excellence in many ways*. Gosford, Australia: National Family Day Care Council of Australia.
- Sussman-Stillman, A. (2004). *Family, friend and neighbor care: Promoting quality care and children's healthy development*. Sacramento: First 5 California. <www.researchconnections.org/location/ccrca4672>
- Todd, C. M., & Deery-Schmitt, D. M. (1996). Factors affecting turnover among family child care providers: A longitudinal study. *Early Childhood Research Quarterly*, 11(3), 351-376. <www.researchconnections.org/location/ccrca531>
- U.S. General Accounting Office. (2001). *Child care: States increased spending on low-income families*. (GAO-01-293). Washington, DC: United States Government Accountability Office. <www.researchconnections.org/location/ccrca572>
- U.S. General Accounting Office. (2002). *Child care: States have taken a variety of quality improvement initiatives, but more evaluations of effectiveness are needed*. (GAO-02-897). Washington, DC: United States Government Accountability Office. <www.researchconnections.org/location/ccrca2332>
- U.S. General Accounting Office. (2004). *Prekindergarten: Four selected states expanded access by relying on schools and existing providers of early education and care to provide services*. (GAO-04-852). Washington, DC: United States Government Accountability Office. <www.researchconnections.org/location/ccrca4230>
- Votruba-Drzal, E., Coley, R. L., & Chase-Lansdale, P. L. (2004). Child care and low-income children's development: Direct and moderated effects. *Child Development*, 75(1), 296-312. <www.researchconnections.org/location/ccrca4254>
- Walker, J. R. (1992). New evidence on the supply of child care: A statistical portrait of family providers and an analysis of their fees. *Journal of Human Resources*, 27(1), 40-69. <www.researchconnections.org/location/ccrca2038>
- Weaver, R. H. (2002). Predictors of quality and commitment in family child care: Provider education, personal resources, and support. *Early Education and Development*, 13(3), 265-282. <www.researchconnections.org/location/ccrca1734>
- Whitebook, M., Phillips, D., Bellm, D., Crowell, N., Almaraz, M., & Jo, J. Y. (2004). *Two years in early care and education: A community portrait of quality and workforce stability*. Berkeley, CA: Center for the Study of Child Care Employment, University of California, Berkeley. <www.researchconnections.org/location/ccrca3643>
- Whitebook, M., Phillips, D., & Howes, C. (1993). *National child care staffing study revisited: Four years in the life of center-based child care*. Oakland, CA: Child Care Employee Project. <www.researchconnections.org/location/ccrca2576>
- Whitebook, M., Sakai, L., Gerber, E., & Howes, C. (2001). *Then and now: Changes in child care staffing, 1994-2000*. Washington, DC: Center for the Child Care Workforce. <www.researchconnections.org/location/ccrca2373>
- Witte, A. D., & Queralt, M. (2004). *What happens when child care inspections and complaints are made available on the internet?* (NBER Working Paper No. 10227). Cambridge, MA: National Bureau of Economic Research. <www.researchconnections.org/location/ccrca3264>
- Wrigley, J., & Dreby, J. (2005). Fatalities and the organization of child care in the United States, 1985-2003. *American Sociological Review*, 70(5), 729-757. <www.researchconnections.org/location/ccrca7469>

ENDNOTES

1. While the proportion of children in family child care has decreased over the past few decades, the actual numbers of children in family child care have not significantly changed, as the number of children in nonmaternal care has continued to grow.
2. Several studies included in this review did not specify definitions of family child care or grouped regulated and unregulated home-based care together.
3. Neither review will include literature on providers who are operating in violation of their state's laws—e.g., on numbers of children served or health and safety requirements.
4. This review is limited to family child care in the United States. Other studies such as the Victoria Day Care Project in British Columbia, Canada (Goelman, Shapiro, & Pence, 1990; Pence & Goelman, 1987; Pence & Goelman, 1991) and other research in Sweden (Broberg, Wessells, Lamb, & Hwang, 1997) and Australia (Stonehouse, 2004) have also examined family child care.
5. The name “Child Care and Development Fund” does not appear in legislation; it is the name given by the U.S. Department of Health and Human Services to the federal child care funding consolidated in the 1996 amendments to the Child Care and Development Block Grant.
6. Fifty-six percent of children subsidized by CCDF were in centers, 8 percent were in the child's own home, 28 percent were in a family home (Child Care Bureau, 2006).
7. In addition to providing caregiver support, many CCR&R agencies provide parent and consumer training (97%), conduct community needs assessments (88%) and market rate surveys (75%), and recruit providers into the regulated system (88%).
8. These findings were taken from studies using the ECERS, ITTERS, and FDCRS, for which scores range from 1-7, and a score above 5 is considered high quality. Scores below 3 were considered poor quality, and scores from 3-4.9 were considered mediocre/adequate. It should be noted however, that some researchers caution that these distinctions in scores are arbitrary (Glantz & Layzer, 2000).
9. Age-weighted group size regulations give greater weight to younger children when calculating group size. For example, one child under age 2 may equal two children ages 3-6 and three children over age 6.
10. The effects of family factors are much more significant than child care influences.

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