



Child Care
Quality Study

The Impact of Head Start
Partnership on Child Care Quality
Final Report

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EXECUTIVE SUMMARY

INTRODUCTION

In light of federal and state leaders' support for creating a more seamless system of child care and early education services, questions exist about how to best support partnerships that improve outcomes for both children and their families. With the expansion of federal- and state-funded child care subsidies and separate early education programs in the 1960s, our nation created child care programs designed primarily to support parents' workforce participation and separate early education programs to support children's early development (Schilder, Kiron et al., 2003; Selden, 2006). While both child care and early education programs offer services to young children, the goals and structure of these programs differ (U.S. Department of Health and Human Services/Administration for Children and Families, 2005; U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Child Care Bureau, 2005; U.S. Department of Health and Human Services/Administration for Children and Families, 2007). Recognizing the potential benefit of partnerships between child care and other early education programs, policymakers have supported partnerships at the point of service delivery, with the aim of meeting both the child development needs of young children and the workforce participation needs of their parents (Sowa, 2001; Schilder, 2003; Schumacher, Ewen et al., 2005).

The U.S. Department of Health and Human Services (DHHS), Office of Policy Research and Evaluation (OPRE) provided grant funding to researchers at Education Development Center, Inc. (EDC) to conduct a rigorous investigation of the impact of one type of partnership—formal arrangements between child care providers, which primarily provide support for families' workforce participation, and Head Start programs, which focus on children's early development. This research builds on existing research findings that partnerships between child care and Head Start are associated with improved benefits at the program level. Our study examines whether partnerships yield benefits for family child care providers, examines quality at the classroom level, and explores the relationship between partnership and children's school readiness. This report represents the findings from our study of partnerships called the Child Care Quality Project (Grant Number 90YE0077).

RESEARCH QUESTIONS AND METHODS

Our study addresses the broad question of whether child care providers in partnership with Head Start demonstrate quality improvements compared with similar child care providers that are not partnering with Head Start. The sub-questions we address are as follows:

- Is observed classroom quality in center-based child care programs in partnership with Head Start higher than observed quality in comparison classrooms?
- Is the duration of the partnership related to improvements in observed quality?
- Do children in classrooms in partnership with Head Start demonstrate greater improvements in school readiness as measured by language and literacy outcomes than children in classrooms not in partnership?
- Do family child care providers in partnership with Head Start report higher levels of quality than providers not in partnership with Head Start?
- What are the implications of research findings regarding child care/Head Start partnership for child care and early education policy and practice?

Methods

To address our research questions, we analyzed data collected from a sample of child care providers in Ohio. We selected Ohio as our study state because lessons learned from this state are more likely to be transferrable to other states since the child care licensing standards and demographic characteristics are similar to those of states across the nation. We collected new observational data from child care centers and family child care homes, collected new survey data from family child care providers, conducted child assessments, and analyzed existing archival survey data. To investigate differences between providers in partnership with Head Start and comparison providers, we collected data from providers in partnership with Head Start and a comparison group that was not partnering with Head Start that was matched based on percent of children receiving child care subsidies and location.

For purposes of this research study, the term “partnership” refers to a formal contractual relationship between a Head Start program and a child care provider. Terms used interchangeably with partnership are “collaboration” or “integration” (Simpson,

Jivanjee et al., 2001; Paulsell, Cohen et al., 2002; Ray, 2002; Selden, 2006). However, because the federal government and many states use the term partnership to refer to the contractual relationship between Head Start and child care we use the term partnership in this study.

To address questions regarding the implications of the findings, we presented the findings to key decision-makers responsible for child care and early education policies and practices. We conducted focus groups to obtain their perspectives. Our focus group participants included state child care administrators, Head Start State collaboration directors, and national child care and Head Start leaders. We analyzed the qualitative data and identify key themes. The quotes presented are illustrative of points made in the focus groups. To protect the confidentiality of the respondents, we omitted identifying information.

FINDINGS

Partnership Predicts Improved Classroom Quality

Classrooms in child care centers partnering with Head Start demonstrated significantly higher observed classroom quality than comparison classrooms. Specifically, ANOVA results revealed that classrooms in partnership centers had higher observed global quality on two measures of classroom quality—the Environmental Rating Scale Revised edition (ECERS-R) a measure of global quality, and the Early Language and Literacy Classroom Observation Toolkit (ELLCO)—a measure of language and literacy practices.

Classrooms in partnership had significantly higher scores on most of the ECERS-R subscales ($p < .05$) as reported in the table below. Moreover, classrooms in partnership performed statistically significantly higher on language and literacy practices as measured by the ELLCO ($p < .05$).

ECERS-R and ELLCO Scores by Partnership Status

Classroom Assessment	Comparison (n=24) M (SD)	Partnership (n=42) M (SD)
ECERS-R		
Space & Furnishings	3.7 (1.1)	4.2 (1.2)
Personal Care Routines	2.5 (1.2)	2.8 (1.2)
Language Reasoning	3.6 (1.4)	4.6 (1.8)*
Activities	3.1 (1.0)	4.0 (1.5)*
Interactions	3.4 (1.8)	4.6 (1.9)*
Program Structure	3.6 (1.6)	4.9 (1.8)**
ELLCO		
General Classroom Environment	14.4 (5.9)	18.0 (6.0)*
Language, Literacy, and Curriculum	16.8 (8.2)	24.3 (9.3)**
Classroom Observation Total	33.0 (14.0)	44.7 (16.0)**

*p < .05 level, **p < .01 level

Partnership Duration Predicts Observed Quality

As expected, we found positive associations between duration of partnership and observed quality using Ordinary Least Squares Regression analysis. We found a strong and statistically significant relationship between the duration of the partnership and scores on ECERS-R and ELLCO when controlling for the percentage of students receiving child care subsidies.

Partnership Predicts Some Improvements In School Readiness Outcomes

Our analysis of child assessment scores revealed that on average children at partnership centers were more likely than comparison children to demonstrate significant improvements on the language and literacy sub-scales related to phonological awareness (beginning sounds and print awareness) and nearly significant improvements ($p < .10$) on two other sub-scales (upper case letter recognition and rhyming awareness), but were no more likely than children at comparison centers to demonstrate improvements on the remaining language and literacy assessments. We compared children's gain scores across three rounds of data collection using ANOVA. We found statistically significant and nearly significant improvements on assessments of children's

knowledge regarding upper case letters, print and word awareness, and rhyming ability. However, we found no significant differences on assessments of receptive vocabulary, receptive language, or emergent writing.

We found that duration of the partnership predicted improvements in receptive vocabulary, receptive language and many of the aspects of phonological awareness after controlling for partnership duration. However, partnership duration was not significantly related to improvements in upper case letter recognition.

Family Child Care Providers in Partnership Report Higher Quality but Not Improved Interactions

Like child care centers in partnership with Head Start, the characteristics of family child care providers vary in terms of the number of children in attendance, the population of children served, and the characteristics of the providers. Despite the variation, family child care providers in partnership are more likely than comparison providers to offer comprehensive services and to provide an educationally enriched curriculum.

Family child care providers in partnership are more likely than comparison providers to participate in professional development. For example, partnering providers were more likely to attend conferences, or receive in-home support from an outside agency, than comparison providers. Moreover, a majority (58 percent) of partnering family child care providers reported that they had participated in professional development and training that was supported by Head Start. A smaller group (22 percent) reported having the opportunity to receive professional development and training that is offered to Head Start staff.

No significant differences between partnership and comparison family child care homes were observed on global measures of observed quality as measured by the Family Day Care Rating Scale (FDCRS) and the Arnett Caregiver Interaction Scale. However, we found that family child care providers in partnership actually performed worse than comparison providers on the Arnett Caregiver Interaction Punitive sub-scale ($p < .05$).

Implications of Research Findings for Policy and Practice

To learn about the implications of these findings for policy and practice we collected data from stakeholders across the country. Child care and early education stakeholders—including child

care administrators, Head Start State collaboration directors, state prekindergarten specialists, national policy experts, and researchers—reported that our research findings on child care/Head Start partnerships have important implications for policy and practice.

Child care and early education leaders suggested that federal and state decision-makers could take specific actions in light of the research findings.

- Rather than supporting collaboration broadly, take actions that support child care/Head Start partnerships that blend funds and services at the point of service delivery with the goal of meeting the dual needs of children and families.
- Recognize that partnership requires resources to yield desired benefits.
- Provide consistent ongoing communication at all levels of government.
- Consider supporting joint child care and Head Start assessments and monitoring activities.
- Encourage states to use incentive funds and quality dollars to support partnerships.
- Use training and technical assistance to support partnerships.
- Continue to support systematic links between partnership research and policy.

CONCLUSION

Our study found that child care/Head Start partnerships are associated with a number of desired benefits at the provider, classroom and child level. National and state policymakers suggested that these findings can inform policy decisions, training and technical assistance efforts, and decisions regarding partnership formation at the provider level as individuals at all levels consider ways to best meet the needs of low-income working parents and their children.

INTRODUCTION AND POLICY CONTEXT

For nearly half a century, government leaders have voiced support for creating a more seamless system of child care and early education services to improve outcomes for both children and their families (Fuller, 2007). With the expansion of federal- and state-funded child care subsidies and separate early education programs in the 1960s, policymakers produced child care programs designed primarily to support parents' workforce participation and early education programs to support children's early development (Schilder, Kiron, & Elliott, 2003a; Selden, 2006). While both child care and early education programs offer services to young children, the goals and structure of these programs differ (U.S. Department of Health and Human Services/Administration for Children and Families, 2005, 2007a; U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Child Care Bureau, 2005) Recognizing the potential benefit of seamless services, policymakers have supported partnerships between child care and early education programs at the point of service delivery, with the aim that such partnerships could serve the dual purposes of meeting the child development needs of young children and the workforce participation needs of their parents (Schilder, 2003; Schumacher, Ewen, Hart, & Lombardi, 2005; Sowa, 2001).

Policymakers have supported such partnerships for decades and researchers have examined aspects of partnerships, but few empirical studies exist that systematically study the impact of partnerships on desired outcomes (Bond & The Research and Evaluation Department, 1997; Goodman & Brady, 1988; Kagan, Moore, & Bredekamp, 1995; Sowa, 2001). In 2004, the U.S. Department of Health and Human Services (DHHS), Office of Policy Research and Evaluation (OPRE) provided grant funding to researchers at Education Development Center, Inc. (EDC) to conduct a rigorous investigation of the impact of one type of partnership—formal arrangements between child care providers, which primarily provide support for families' workforce participation, and Head Start programs, which focus on children's early development. In this report we present the findings from our four-year investigation.

We begin this report with a description of the policy context and a review of existing research on partnerships. We then present the theoretical benefits of child care/Head Start partnerships. Next, we describe our research questions and design. We

then present the findings from our study of partnerships between child care providers and Head Start. Finally, we present recommendations based on voices from the field: a summary of focus group findings from child care administrators' and early education policymakers' considerations regarding the implications of the research for policy and practice.

THE POLICY CONTEXT

To examine the benefits of partnerships between child care and early education programs, it is first important to define each program and the term “partnership”. Federal and state laws and regulations govern child care and early education programs and it is therefore critical that these be considered. Below we briefly describe the federal laws that support child care and present one state, Ohio, as an example of a state’s child care system. Next we describe federal laws and supports for the largest existing federal early education program, Head Start, and follow with a description of Ohio’s efforts to support partnerships between child care and Head Start.

Federal Child Care Subsidy Laws and Regulations

The major federal funding sources for child care subsidies are the CCDF and funds transferred to CCDF from the Temporary Assistance to Needy Families (TANF) program (U.S. Department of Health and Human Services/Administration for Children and Families, 2007b; U.S. Department of Health and Human Services/Administration for Children and Families/Child Care Bureau, 2006). CCDF is designed to assist low-income families—including families receiving or transitioning from welfare—in obtaining child care so they can work or attend training or education (U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Child Care Bureau, 2005). In addition, CCDF requires states to set-aside 4 percent of Child Care and Development Fund (CCDF) monies for quality enhancements. The TANF program—the largest federal welfare program—is designed to support families with young children and offers temporary support to parents seeking employment or attending job training. States can spend TANF funds on a variety of services including child care subsidies (U.S. Department of Health and Human

Services/Administration for Children and Families/Administration on Children Youth and Families/Child Care Bureau, 1999a).

Child care subsidy laws and regulations grant states authority in designing child care subsidy systems with the aim of providing parents with a range of child care choices. In turn, most states use federal child care funds to offer low-income parents either a voucher or a slot with a provider that is contracted by the state (U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Child Care Bureau, 1999a). Typically, parents can use vouchers to choose from among child care agencies and an array of private, for profit and non-profit center and family child care based providers (Cohen, 1996). The federal laws that affect the child care system give states wide discretion in defining employment and preparation for employment, as well as in setting income eligibility ceilings, family co-payment levels, provider payment rates, and other policies (U.S. General Accounting Office, 2003). Despite the variation in laws, regulation, and administration of subsidy programs across states, each state's child care subsidy system is designed to increase accessibility of child care services to low-income families (Stoney & Stanton, 2001).

While subsidized child care programs are designed to support parents' workforce participation, another important aim of CCDF is to enhance the quality of child care (U.S. Department of Health and Human Services/Administration for Children and Families/Child Care Bureau, 2003). As part of the 4 percent set aside for quality enhancements additional services can be offered to parents such as resource and referral counseling (U.S. General Accounting Office, 2002). States use child care quality dollars to fund a range of activities such as enhanced inspections, incentives for accreditation and professional development supports (U.S. General Accounting Office, 2002).

Increasingly, states are also adopting child care quality rating and improvement systems (National Child Care Information and Technical Assistance Center, 2005). A quality rating system (QRS) is a tool to evaluate the quality of a child care and related early childhood program (Edie, Adams, Riley, & Roach, 2005; National Child Care Information and Technical Assistance Center, 2005). Quality rating systems have multiple uses: as a consumer guide, a benchmark for provider improvement, and an accountability measure for funding (Stoney, 2004). While states use different criteria to measure quality with some using staff education or ratios as quality criteria, some states give recognition to child care providers that partner with Head Start since such programs,

in theory, would meet Head Start standards (National Child Care Information and Technical Assistance Center, 2005).

In federal fiscal year 2008, CCDF made over \$5 billion in funding available to states and territories. The fiscal year 2008 appropriation included \$167 million in set-aside funding for quality expansion and \$96 million to improve the quality of care for infants and toddlers. In addition, federal law requires states to allocate matching and Maintenance of Effort (MOE) funds for child care (U.S. Department of Health and Human Services/Administration for Children and Families/Child Care Bureau, 2007). In federal fiscal year 2007—the latest year for which figures are available—CCDF served an estimated 1,705,000 children (U.S. Department of Health and Human Services/Administration for Children and Families, 2008a).

In sum, the federal government devotes substantial dollars to the child care subsidy program which serves over 1 million children annually. Yet federal law allows states a substantive role in setting specific child care subsidy policies and guidelines that are best suited to the state context. State child care subsidy policy varies substantially with some states issuing strict eligibility and licensing regulations and others delegating such decisions to localities. Therefore, each state's child care subsidy policies affect the partnerships between child care and Head Start providers. We have selected Ohio as our study state and below present it as an example of one state's role in child care subsidy policy.

Ohio's Demographics and Child Care Subsidy System

We selected Ohio as our study state since the demographic characteristics of Ohio's population are similar to those of the nation and the child care policy context in Ohio is similar to many other states. Table 1 below presents the demographic characteristics of the state compared to those of the nation.

Table 1. Demographics of U.S. and Ohio

Demographic Variables	Ohio	U.S.
Child poverty rate (under 18) 2006 (%)	18.7	18.3
Children under age 5 in Poverty 2006 (%)	22.9	21.0
Median family income 2006	\$56,148	\$58,526
% of population that is Black 2006 (%)	11.8	12.4
Population below 5 years old 2006 (%)	6.4	6.8

Moreover, the administration of the child care subsidy system in Ohio is similar to many other states such as New York. For example, in Ohio the child care subsidy system is state-supervised and county-administered (Ohio Department of Job and Family Services, 2003). The Ohio Department of Job and Family Services (ODJFS) serves as the lead state agency, with each county administering the subsidy program (Hare, 2007; Ohio Department of Job and Family Services, 2003). As such, ODJFS regulates child care centers and large family child care homes. Ohio's child care regulations consist of basic requirements designed to prevent harm to children's health, safety and development. The regulations cover the following areas: space requirements, safety/discipline, nutrition, staff requirements, program equipment, health programs, hand washing/diapering, policies/procedures, children's records, infant care, and staffing/grouping (Ohio Department of Job and Family Services, 2003).

The Ohio Department of Job and Family Services requires that child care centers follow state licensing guidelines with regard to group size and ratios of children to adults. For centers serving 3-year olds, no more than 24 children can be served in a single group and one adult must be present for each 12 children. For 4- and 5-year olds, the group size cannot exceed 28 and the ratios may not be greater than 14 children to one adult (Daycare.com, 2008).

For family child care homes, Ohio allows individuals who care for one to six children in their personal residence to operate without a license. However, these smaller family child care homes, called "Type B" providers, must be certified by the county department of Job and Family Services if the child care is paid for with public funds. Approximately 7,000 individuals in Ohio are certified by local departments of Job and

Family Services to provide child care to fewer than six children (Daycare.com, 2008). The licensing standards for both child care centers and family child care homes are more rigorous than many states and less rigorous than some, making the findings from Ohio more transferable to other states.

Like many states, Ohio is using child care quality funds to support a Quality Rating System (QRS). The Ohio Step Up To Quality initiative, the state's voluntary QRS, has three steps that correspond to levels of child care quality. To achieve the first quality step providers must receive specialized training on the state's Early Learning Content Standards; to achieve the second quality step providers must align their curriculum to the Content Standards; to achieve the third quality step providers are required to conduct ongoing child assessments that meet the Content Standards (Ohio Department of Job and Family Services, 2007). Ohio does not currently use partnership with Head Start as a criterion for achieving a step, but theoretically partnership with Head Start could assist a provider in meeting the criteria. For example, Ohio has integrated its QRS with health and safety regulations, giving credit to centers that receive professional development and services from professional health consultants. These services are available to providers free of charge to ensure that children receive care that is optimal for healthy development. Since Head Start also requires that providers offer health services to children and their families, partnership with Head Start could theoretically increase the center's quality rating. We will discuss this in more detail in the partnership section below. Other states specifically mention Head Start in the corresponding levels. For example, Maine's Quality Rating System indicates that providers that meet the Head Start Program Performance standards can potentially obtain a higher quality rating (Digital Research Inc. & Schilder, 2006).

Head Start

The federally-funded Head Start program is designed to promote school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social, and other services to enrolled children and families (U.S. Department of Health and Human Services/Administration for Children and Families/Office of Head Start, 2008). While one important component of Head Start is part-day preschool for young children, Head Start also provides comprehensive health, development, and educational services to children and their parents. For example, Head Start offers health and social service referrals to participating children as well as their

parents and is therefore a comprehensive development program rather than simply part-day preschool. The DHHS provides grants directly from the federal government to local public and private non-profit and for-profit agencies to provide comprehensive child development services to economically disadvantaged children and families. The program focuses on helping preschoolers develop the early reading and math skills they need to be successful in school and also offers children and their families needed services (Kuntz, 1998).

In FY 1995, the Early Head Start program was established to serve children from birth to three years of age. This program was developed in recognition of the mounting evidence that the earliest years matter a great deal to children's growth and development (Love et al., 2002; Vogel et al., 2006).

Head Start programs are required to follow federal program performance standards to ensure they promote school readiness (U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Head Start Bureau, 1998a). Standards require Head Start programs to support parents' engagement in their children's learning and to help them in making progress toward their educational, literacy and employment goals. Moreover, standards require that programs meet more rigorous requirements than most child care programs in areas such as the ratio of children to adults, teacher professional development, and the provision of an early childhood curriculum (Schilder, Chauncey, Broadstone et al., 2005; U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Head Start Bureau, 2004; U.S. Department of Health and Human Services/Administration for Children and Families/Office of Head Start, 2008).

Research has shown that children attending Early Head Start and Head Start are more likely than their low-income peers to score higher on a range of standardized assessments. For example, children attending Head Start and Early Head Start perform better on an array of measures including assessments of health, language and literacy development, and socio-emotional well-being (Love et al., 2002; U.S. Department of Health and Human Services/Administration for Children and Families, 2005; Vogel et al., 2006).

Head Start is offered primarily in center-based settings whereas Early Head Start is more likely to be offered in family child care homes. Regardless of the setting, the

early education component of Head Start is typically offered on a part-day and part-year basis. Thus, programs that are not in partnerships with full-time child care providers are inaccessible for many low-income, working parents who need full-time child care (Robin, Frede, & Barnett, 2006; U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Head Start Bureau, 1998b). To address the concern of limited access to Head Start for families in need of full-time services for their young children, the federal government issued guidance to encourage federally-funded Head Start programs to partner with child care providers. The aim of this guidance was to promote the delivery of full-day, full-year comprehensive early childhood services to meet children's development needs and to support parents' workforce development (U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Child Care Bureau, 1999b; U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Head Start Bureau, 2001a, 2001b).

To support programs in offering the Head Start services that are described above, DHHS reports that the FY 2007 appropriation was \$6,877,975,000. This funding supported a total of 908,412 children who were enrolled in Head Start (U.S. Department of Health and Human Services/Administration for Children and Families, 2008b). In the latest year for which data are available, Ohio's Head Start enrollment was 37,940 and total funding was \$247,914,736.

In sum, Head Start is the nation's largest early education program. The federal dollars devoted to Head Start exceed the federal funding for child care, because Head Start provides comprehensive early education to children and their families. While Head Start has been viewed as successful in preparing young children for school entry, the half-day nature of the program has created barriers for some low-income parents who are working full-time.

Partnership

For purposes of this research study, the term "partnership" refers to a formal contractual relationship between a Head Start program and a child care provider. Other researchers use the term "collaboration" or "integration" to describe the formal relationship between two early care and education providers that aim to create more seamless services at the

point of service delivery (Paulsell et al., 2002; Ray, 2002; Selden, 2006; Simpson, Jivanjee, Koroloff, Doerfler, & García, 2001). However, since the federal government and many states use the term partnership to refer to the contractual relationship between Head Start and child care we use the term partnership in this study.

Some advocates and policymakers use the term partnership to refer only to child care and Head Start programs that offer full-day, full-year services, meet the highest regulated standards, and provide services at one location. However, our earlier research on partnerships found that some providers in child care/Head Start partnerships, with formal arrangements regarding joint delivery of services, transport children between locations. Therefore, for purposes of this study, we define partnership to include child care and Head Start programs that are involved in a formal or contractual relationship that specifies that services will be jointly delivered and that operate on a full-day, full-year basis. See Box 1 for examples of child care/Head Start partnerships.

Box 1. Child Care/Head Start Partnership Examples

- Sunshine Child Care Center*, serving a mixed-income population—with some families participating in the child care subsidy program and other families paying for services—enters into partnership with the Hartford* Head Start Agency. The directors of Sunshine Center and Hartford Head Start sign a formal contract indicating the number of children attending Sunshine who will receive Head Start services. The agreement also specifies that, in order to support the services offered through the child care center, Hartford will provide \$3600 per year per child to Sunshine. An education supervisor from Hartford regularly meets with the Sunshine teachers; a Hartford family services coordinator works with Sunshine center staff to ensure that all eligible children and families complete family services plans, and together Hartford and Sunshine staff ensure that all eligible children receive comprehensive services. Some Head Start-eligible children participate in the child care subsidy program that pays for the full-day, full-year child care services. The partnership aims to offer seamless, full-day, full-year comprehensive services for children and families.
- A large community action agency called the Concord* Community Action Agency houses a Head Start program and oversees child care centers. The child care centers serve low-income families that are eligible for child care subsidies. Staff from the Head Start agency and child care centers meet to develop a formal agreement to provide Head Start services to eligible children attending the child care center. The goal of the partnership agreement is to ensure Head Start-eligible children and their families receive comprehensive Head Start services and are able to receive the child care services needed to support their workforce participation.
- A family child care provider named Mary-Lou Hobbs* operates from 7:00 am until 7:00 pm if needed and is open year-round. Mary-Lou serves children participating in the child care subsidy system but wants to offer the children comprehensive services and an educational curriculum. A local Head Start agency approaches Mary-Lou to inquire if she is interested in entering into a partnership with Head Start. Mary-Lou hears about the potential benefits of the partnership as well as the requirements. Mary-Lou and the partnership coordinator from the Head Start agency decide to sign a formal agreement outlining the partnership services that will be offered to eligible children and families and detailing the funding that will be provided to Mary-Lou for the services she provides. Mary-Lou has the opportunity to participate in Head Start training and offers Head Start services to eligible children. Head Start staff regularly visit Mary-Lou’s family child care home and work with her to ensure eligible children and families receive comprehensive services.

*The examples are based on actual providers in partnership but names have been changed to ensure confidentiality.

Ohio's Efforts to Promote Partnership

Ohio is currently viewed as a leading state in the child care and early education arena because of the substantial funding the state devotes to these services and the large number of children who are served. For more than a decade, the state has promoted partnerships between child care and Head Start through state programs and policies (Schilder, Chauncey, Smith, & Skiffington, 2005). While the specific programs and policies have changed over the years, for over a decade the state has consistently taken actions to promote partnerships between child care providers and Head Start with the goals of supporting both parents' workforce participation and children's school readiness (Ohio Department of Job and Family Services, 2003; Schilder, Chauncey, Smith et al., 2005).

Currently the state's Early Learning Initiative (ELI) is the primary state program that provides incentive funding for programs that are engaged in partnerships (Ohio Department of Education, 2006, 2008). This program is administered through the state education agency with funds transferred from the state agency that oversees the Temporary Assistance to Needy Families program and the state child care subsidy program. This program is designed to support partnerships among early care and education providers with the aim of offering full-day, full-year comprehensive early care and education services (Ohio Department of Education, 2006). Ohio's Early Learning Program Guidelines, which govern the implementation of ELI, are modeled, in part, on the Head Start Program Performance Standards.

In addition, the state's Head Start State Collaboration Office supports partnerships between federally-funded Head Start and child care programs. Collectively the state programs, policies, and initiatives have resulted in a large number of child care providers engaged in partnerships with Head Start (Schilder, Chauncey, Smith et al., 2005; Schilder et al., 2003a). Moreover, since the 1990s the state funding, training, and technical assistance has supported partnerships in bridging structural differences between Head Start and child care and support providers engaged in partnerships.

THEORETICAL FRAMEWORK AND REVIEW OF THE LITERATURE

In theory, child care/Head Start partnerships will result in full-day, full-year, high-quality care that meets the needs of children and families. Two key assumptions underlie this premise. First, it is assumed that Head Start programs will provide their partners with

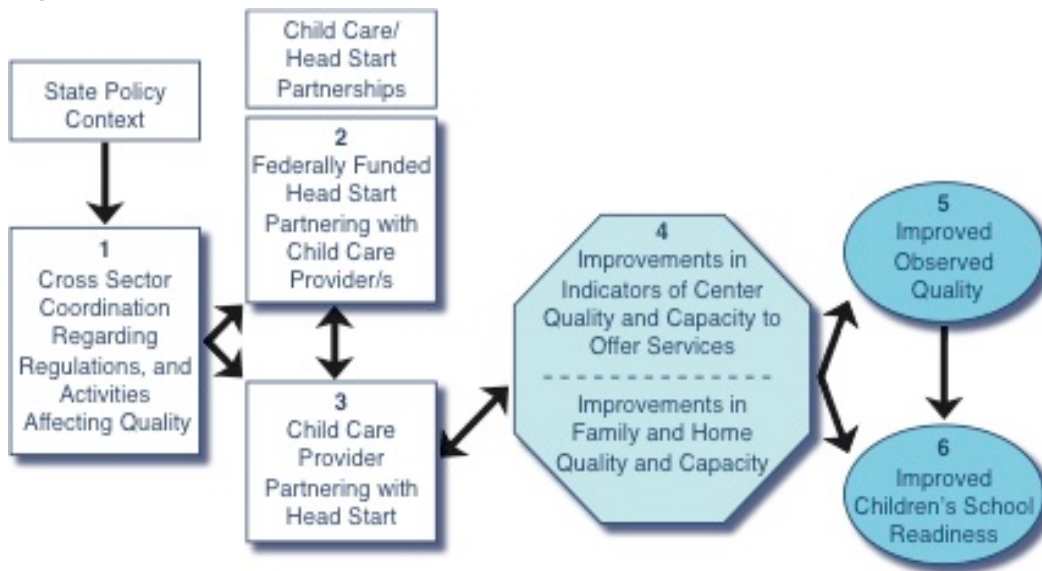
additional resources—such as funding, professional development, and opportunities for staff—that contribute to higher quality care, more comprehensive services, and other benefits for children and families. Theoretically, these additional resources would be used to improve the classroom environment, enhance language and literacy practices, and assist young children in performing at a higher level on outcome measures.

The second assumption is that child care providers in partnership will follow Head Start’s more rigorous standards, which will result in higher classroom quality and enhanced child outcomes. Head Start follows rigorous program performance standards that require programs to offer comprehensive child and family services (Schilder et al., 2003a). The Head Start Program Performance Standards require Head Start programs and their partners to abide by specific child-teacher ratios, teacher educational requirements, teacher professional development and training standards, and supervision practices (Sandfort & Selden, 2001; U.S. Department of Health and Human Services/Administration for Children and Families/Administration on Children Youth and Families/Head Start Bureau, 1998a). These standards also require Head Start to involve families in their children’s education and to offer specific screenings, referrals, and services. Furthermore, Head Start programs are subjected to regular monitoring by the federal government (Schumacher, Irish, & Lombardi, 2003). In contrast child care standards in many states are less rigorous regarding structural variables of quality and few states require child care providers to offer comprehensive services. For example, child care standards in Ohio are less rigorous than Head Start standards for child-teacher ratios, teacher educational requirements, teacher professional development and training standards, and supervision and monitoring practices, and do not require providers to offer comprehensive services (Stoney & Stanton, 2001). Yet child care programs in partnership with Head Start are required to follow Head Start’s more rigorous standards. As such, child care providers in partnership would theoretically offer higher quality care. Moreover, to assist child care providers meeting the more rigorous standards, providers in partnership would theoretically receive technical assistance and ongoing support from the partnering Head Start program. In turn, these benefits would lead to higher quality.

Figure 1 below provides a logic model illustrating the theory. In this model, child care centers in partnership receive from Head Start financial supports and resources that enable them to offer continuity of care, improved curriculum, parent involvement opportunities and support, and comprehensive services to children and parents. In addition, teachers and staff at partnering centers receive increased training and

professional development opportunities and enhanced supervision. Thus, the partnership yields benefits to centers, classrooms, and families.

Figure 1. Conceptual Model of Child Care/Head Start Partnerships



While this theory is compelling to many, limited research has been conducted that tests whether partnerships result in anticipated benefits. In the pages that follow, we describe the existing research that has been completed and then present the research design we developed to examine the nature and benefits of child care/Head Start partnerships.

LITERATURE REVIEW

Prior research suggests that existing fragmentation in service delivery and standards among child care and early education programs affects quality and accessibility of services, and that partnerships appear to ameliorate some of these problems. Specifically, studies show that fragmentation can be a barrier to obtaining high-quality services that meet working parents' needs and position children for success in school (Adams & Rohacek, 2002; Besharov & Germanis, 2002; Gallagher & Clifford, 2000; Kagan, 2001; Long, Kirby, Kurka, & Waters, 1998; Sonenstein, Gates, Schmidt, & Bolshun, 2002). Working parents participating in the child care subsidy program report greater

employment stability than parents who do not receive subsidies, but the quality of care affects parents' workforce participation and child outcomes. Parents with lower quality child care have less employment stability (Gennetian et al., 2002); conversely, when compared with their peers, low-income children who participate in high-quality programs demonstrate higher cognitive gains, reduced grade retention, and receive needed special education placements. (Berrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984; Consortium for Longitudinal Studies, 1983; Garber & Heber, 1981; Lazar & Darlington, 1982; Reynolds, Temple, Robertson, & Mann, 2001).

At the same time, substantial variation in quality across centers and family child care homes exists (Marshall et al., 2003; NICHD Early Child Care Research Network, 2001; Peisner-Feinberg et al., 1999), and a significant portion of child care is low quality (Edie, Adams, Riley, & Roach, 2003; Galinsky, Howes, Kontos, & Shinn, 1994; Helburn, 1995; NICHD Early Child Care Research Network, 2002). The low quality of child care is not surprising, since in many states, licensing standards for centers address only basic health and safety requirements with minimal quality standards, and the standards for family child care homes tend to be lower than center-based care (Schilder, Kiron, & Elliott, 2003b). By contrast, Head Start programs—following more rigorous standards—typically offer higher quality services that meet the school readiness needs of children and service needs of their families (U.S. Department of Health and Human Services, 2006). Moreover, studies of Head Start illustrate that children attending the program are more likely than their peers to receive services and engage in enriching experiences (Lim, Schilder, & Chauncey, 2007; Schilder, 2004; U.S. Department of Health and Human Services/Administration for Children and Families, 2005). Moreover, the Head Start Impact Study showed that Head Start positively impacted many aspects of children's cognitive and social/emotional development compared with disadvantaged children in the control group. In addition, Head Start nearly cut in half the achievement gap between Head Start children and non-disadvantaged children (Department of Health and Human Services/ACF 2005).

In response to these and other studies, states have adopted measures to improve the quality of child care by promoting partnerships between child care and Head Start (Schilder et al., 2003a). Yet, until recently many questions remained about whether and under what conditions state support of partnerships between child care and Head Start actually yielded desired improvements.

Since 2000, a number of research teams have studied the nature and benefits of partnerships between child care and other early education providers with the aim of examining whether the theoretical benefits of such partnerships exist. Qualitative case studies have found that child care providers in partnership with Head Start view the partnership as beneficial (Schilder et al., 2003a; Selden, 2006; Sowa, 2001). Specifically, case study research conducted by Seldon, Sowa, & Sandfort (2003) and a qualitative study carried out by our EDC research team (Schilder et al., 2003a) found that child care providers in partnership with Head Start reported benefits to:

- teachers in terms of participation in professional development opportunities, employment benefits and satisfaction with employment in their center
- families in terms of their satisfaction with the quality and accessibility of services
- children in terms of the quality and access to comprehensive services as well as interactions with teachers and the quality of their classroom environments.

Seldon, Sowa, and Sandfort's case study research also suggested that the small sample of child care classrooms participating in their study had higher classroom quality as measured by the Early Childhood Environmental Rating Scale, Revised Edition (ECERS-R) than comparison classrooms. Moreover, Kiron found that child care directors believed that the funds and supports Head Start provided to the child care providers were critical in enabling them to follow Head Start's more rigorous program standards, thereby increasing overall quality (Kiron, 2003).

In order to investigate whether these findings were generalizable we conducted a longitudinal study between 2001 and 2004 in which we collected self-report data from directors, teachers, and parents at randomly selected child care centers in Ohio (Schilder, Chauncey, Smith et al., 2005). Ohio was initially chosen because it had a sufficiently large number of child care centers in partnership with Head Start, devoted substantial amounts of money to child care and early education, and had demographic characteristics that were similar to those of the nation, (see Table 1). In addition, the child care licensing standards in Ohio are neither the most nor the least rigorous, thereby increasing the likelihood that the results would be transferable to more states. We surveyed 141 child care directors at 3 points in time and also collected data from teachers and parents at 3 points in time. The total sample included 78 centers in partnership and 63 matched comparison centers that were not in partnership with Head Start. We surveyed 222

teachers from partnership centers and 866 parents of children from partnership centers as well as 186 comparison teachers and 825 parents of children from comparison centers.

The findings indicated a great deal of variation in the child care centers engaged in partnership in terms of numbers of children served, auspices (e.g., for-profit versus non-profit), budgets, urbanicity, organizational capacity, and the demographics of the population served. For example, the number of children served at partnership centers ranged from 1 to 38 with an average of 13 Head Start children being served in partnering child care centers. We also found that child care directors, teachers, and parents in partnership with Head Start reported significantly more benefits to staff, children, and families than comparison providers. Furthermore, the benefits of partnership extended beyond the Head Start and CCDF target group of low-income families; higher income parents at partnering centers reported greater supports for employment and services for themselves and their children than parents of similar incomes at comparison centers (Lim, Schilder & Chauncey, 2007). This is an important finding, as existing research shows that socio-economically diverse settings—such as those of child care providers in partnership with Head Start—predict improved outcomes for low-income children as compared with homogeneous environments (Bagby, 2005).

Existing research on partnerships, including our own, also found that partnering centers received resources including direct funding, professional development and training, paid staff, and additional materials and supplies (Schilder, Chauncey, Broadstone et al., 2005; Selden, 2006). Additionally, partnership was a strong predictor of training opportunities and compensation packages for teachers. Moreover, teachers at partnering programs were also more likely to use structured curricula and standardized assessments in the classroom. These outcomes of partnership benefited all children in the centers, not only those meeting the criteria for Head Start services (Lim et al., 2007; Schilder, 2004).

This existing research demonstrates clear benefits of partnership to staff, children, and parents but also reports that the extent of the benefits vary based on the nature of the partnership (Sloper, 2004). For example, our EDC research team (Schilder, Chauncey, Broadstone et al., 2005) found that child care centers in partnership with Head Start experienced benefits for teachers and for the overall quality of the program but centers that had detailed partnership agreements with Head Start, a clear and mutual understanding of partnership goals, and good communication reported more benefits than centers that did not have strong agreements and good communication. Seldon's study

(2006) yielded similar results. Moreover, our earlier research showed that partnership duration and the funding child care centers received from Head Start partners were strongly predictive of partnership benefits. Specifically, we found that duration and funding were related to positive outcomes—thus suggesting that some aspects of partnership are particularly predictive of improved outcomes (U.S. Department of Health and Human Services/Administration for Children and Families, 2005).

In sum, the research indicates benefits for child care centers in partnership with Head Start, highlights challenges in reconciling differences among these programs, and suggests improved benefits at the program level. However, questions remain about whether partnerships predict improvements in classroom quality and corresponding enhancements in children’s school readiness. Moreover, a gap in the literature has existed regarding whether partnership leads to benefits for family child care homes. To address these important questions, and to determine if differences exist in the school readiness of children served by partnering and non-partnering centers, we designed the current study: The Child Care Quality Project (Grant Number 90YE0077).

RESEARCH OBJECTIVES, QUESTIONS, AND METHODS

OBJECTIVES

In collaboration with researchers at The Ohio State University, we designed The Child Care Quality Study as a multi-year, field-based research project in Ohio to address the critical need for evidence about the outcomes of strategies designed to improve child care quality. Specifically, the objectives of our research project were to:

- Explore the relationship between child care/Head Start partnerships and observed child care classrooms as well as improvements in children’s school readiness
- Examine child care/Head Start partnerships in family child care homes by examining the contextual factors that are associated with quality outcomes
- Produce reports, briefs, and articles to disseminate findings to policymakers and broader audiences

To achieve these objectives, we conducted a longitudinal research study with both survey and observational data components. To meet our first two objectives we studied child care providers in partnership with Head Start and comparison providers not in partnership. To achieve our third objective, we regularly reported our results to advisors, policymakers, and practitioners with the aim of informing the field of our research findings.

RESEARCH QUESTIONS AND HYPOTHESES

Our overall research question was:

Do child care providers in partnership with Head Start demonstrate quality improvements compared with similar child care providers that are not partnering with Head Start?

To address this larger research question, we developed the following sub-questions and corresponding research hypotheses:

Sub-question 1: *Is observed classroom quality in center-based child care programs in partnership with Head Start higher than observed quality in comparison classrooms? Is the duration of the partnership related to improvements in observed quality?*

Specifically, we hypothesized that observed classroom quality would be higher in center-based programs partnering with Head Start than in non-partnering comparison classrooms and these differences will be significant at $p < .05$. This hypothesis was based on the existing research conducted by our team and by other researchers (e.g., (Selden, 2006)). Both research teams found that teachers in partnership classrooms reported significantly higher levels of engagement in developmentally appropriate activities, receiving more professional development supports, and having more resources for their classrooms than comparison teachers. Moreover, the FACES research team (U.S. Department of Health and Human Services, 2006) found that teachers' self-reports of developmentally appropriate practices were predictive of overall observed quality.

Moreover, we hypothesized that the duration of the partnership would predict improvements in classroom quality as measured by the ECERS-R and ELLCO. This hypothesis was based on our previous research that showed duration was related to improvements in services and structural indicators of quality such as teacher professional development. Theoretically, the resource enhancements offered by the Head Start partner and the improvements in structural variables of quality that are seen over time would also be associated with higher levels of classroom quality. We therefore hypothesized that such a predictive relationship would be observed for the classrooms in our sample.

Sub-question 2: *Do children in classrooms in partnership with Head Start demonstrate greater improvements in school readiness as measured by language and literacy outcomes than children in classrooms not in partnership?*

We hypothesized that children attending centers in partnership with Head Start would demonstrate greater improvements in school readiness as measured by language and literacy assessments than children attending centers that are not partnering with Head Start. This hypothesis was based on the theory that children at partnership centers will receive higher quality care and better services compared with children attending non-partnering centers. For example, our previous research revealed that centers in sustained partnerships provided more developmental and health screening referrals for services, such as speech and language. In addition, an extensive body of research exists

demonstrating the link between these intervention services and child outcomes (Foorman, Francis, Beeler, Winikates, & Fletcher, 1997; Oser & Cohen, 2003; Zigler & Styfco, 2001). Screenings are especially important in identifying service needs and ensuring that young children receive the interventions that will ameliorate the identified problems (Shonkoff & Phillips, 2000). At the same time, we acknowledge the likelihood that children attending partnership centers will demonstrate specific characteristics that are associated with lower school readiness. For example, children at partnering centers could demonstrate higher incidents of poverty and developmental delays. Therefore, we planned to take into account characteristics associated with lower school readiness in our analysis.

Sub-question 3: *Do family child care providers in partnership with Head Start report higher levels of quality than providers not in partnership with Head Start?*

We hypothesized that family child care providers in partnership with Head Start would report higher levels of quality as measured by structural indicators of quality than providers not in partnership with Head Start. Moreover, we hypothesized that these providers would demonstrate improvements in observed quality. Our hypotheses were based on our own previous research as well as research on Early Head Start (Love et al., 2002). Our research demonstrated that centers in partnership with Head Start report more improvements in structural indicators of quality and provision of services than comparison providers. Moreover, Paulsell et al.'s (2002) qualitative study of infant and toddler care found that many family child care providers believed partnership with Head Start yielded improved quality. Raikes and others also showed that partnering with Head Start predicts improved observed family child care quality (Raikes, Raikes, & Wilcox, 2005; Zaslow & Martinez-Beck, 2005).

Sub-question 4: *What are the implications of research findings regarding child care/Head Start partnership for child care and early education policy and practice?*

We hypothesized that our findings would have implications for child care and early education policies and practices based on our conversations with child care administrators, Head Start State Collaboration directors, and other stakeholders as well as our previous research on partnerships (Child Care Administration Project, 2001; Hare, 2007; Kiron, 2001; Schilder et al., 2003b). We theorized that the findings could inform decisions regarding state child care subsidy policies, quality improvement initiatives, and

training and technical assistance efforts and could inform Head Start and child care providers' partnership practices.

METHODS

Sample

To address our questions about the nature and impact of child care/Head Start partnerships, we collected data from a randomly selected sample of child care providers in the state of Ohio. To address questions about the implications of our findings, we collected data from a sample of key informants.

Child Care Classroom Observations and Child Assessments. To examine observed classroom quality and to assess child outcomes we continued to work with a subset of the child care centers that had participated in our previous longitudinal study. The original sample was randomly selected from a comprehensive list of all licensed child care programs in Ohio. Approximately half of the original sample represented programs in partnership with Head Start and half served as comparison classrooms. The original sample was matched on key demographic characteristics including the portion of the center that was participating in the child care subsidy program. For the current study, we selected a sub-set of 66 classrooms representing 63 centers from the original sample of centers that had participated in our previous research study. From these centers, we conducted a total of 673 child batteries across three rounds. Within any single round of data collection the fewest children per classroom was one, the most is 12.

Family Child Care Homes. To address questions about partnerships in family child care homes, we sampled 135 family child care providers selected randomly from the Ohio family child care provider database. We sampled 50 family child care providers that were in partnership with Head Start, 30 providers that had previously been in partnership with Head Start, and 55 comparison programs not in partnership. From this sample, we selected 42 family child care homes for observations. Separately, we selected a convenience sample of 12 family child care providers in partnership to participate in key informant interviews to learn more about their experiences with Head Start partnerships.

Table 2. Sample of Providers Based on Sources of Data Collected

SOURCE	Comparison Center	Partnership Center	Total
Child Care Center Survey Data*	54	40	94
Child Care Classroom Observations	24	39	63
Child Assessments	253	414	667
Family Child Care Provider Surveys	85	50	135
Family Child Care Observations	22	20	42

Note. Survey data collected between 2002 and 2005. 66 classrooms from these 63 centers were observed in our sample. 50 completed surveys were analyzed with 3 additional partnering centers providing partial data regarding nature of partnerships.

Key Informant Sample. To address questions about the implications of our findings for policy and practice, we collected data from child care administrators, Head Start State Collaboration directors, state early education directors, national policy experts, foundation project officers, training and technical assistance providers, other researchers, and regional early education consultants. For the purposes of this report, we created composites of the comments provided by key informants and they are included in the Implications and Conclusion section. We also shared our findings with federal staff and

federal regional staff. We collected data from 117 child care and early education decision-makers at conferences and regional meetings, and collected in-depth focus group data from 16 family child care providers.

Measures

To address our research questions, we used a range of psychometrically valid and reliable measures.

- **Child Care Survey Data.** We used archival survey data collected to assess structural indicators of center and classroom quality and the services provided by child care centers. We had previously collected this survey data using a battery of surveys that we found to be valid and reliable.
- **Classroom Quality.** We used the Early Childhood Environmental Rating Scale-Revised Edition (ECERS-R) and the Early Language and Literacy Classroom Observation Toolkit (ELLCO) to assess classroom quality. The ECERS-R—developed at the Frank Porter Graham Child Development Institute of the University of North Carolina is widely used to assess classroom quality (Harms, Clifford, & Cryer, 1998b). The instrument has been shown to be a valid and reliable tool for assessing global quality. The instrument assesses the following domains: space and furnishings, personal care routines, language reasoning activities, interactions, and program structure. The ELLCO—developed by Smith, Dickinson, Sangeorge, & Anastasopoulos at Education Development Center—is a valid and reliable measure of the quality of language and literacy in early childhood classrooms (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002). The U.S. Department of Education requires use of this tool for many early childhood language and literacy interventions it includes a literacy environment checklist, a classroom observation component and a literacy activity rating scale (U.S. Department of Education, 2003).
- **Child assessments.** We used valid and reliable instruments to measure children’s receptive vocabulary (Peabody Picture Vocabulary Test Version IV, or PPVT-IV), phonological awareness (Phonological Awareness Literacy Screening for Preschool, PALS-PreK), and auditory comprehension (the Preschool Language Scales-4 (PLS-4) Auditory Comprehension Subtest). Each of these instruments

- has high test-retest reliability, high inter-rater reliability, and high internal consistency and is used by researchers and educators to assess children's language and literacy outcomes (Dunn & Dunn, 2007; Invernizzi, Sullivan, & Meier, 2001; U.S. Department of Health and Human Services/Administration for Children and Families/Office of Planning Research & Evaluation, 2005; Zimmerman, Steiner, & Pond, 2002).
- **Family child care surveys.** We developed a battery of surveys to assess self-reported structural indicators of family child care quality and nature of partnership. Our expert advisory board reviewed the key constructs and provided guidance in the development of these instruments. We modified questions from existing valid and reliable tools including a survey of center quality (Schilder, Chauncey, Broadstone et al., 2005) and a telephone interview protocol (Holloway, Kagan, Fuller, Tsou, & Carroll, 2001) that showed a strong correlation between survey responses and observed quality. The survey was designed to assess structural indicators of quality, provision of comprehensive services, and nature of partnerships between family child care homes and Head Start.
 - **Observed quality of family child care homes.** To assess the quality of family child care homes we used the Family Day Care Rating Scale (FDCRS) and the Caregiver Interaction Scale (Arnett, 1989; Harms & Clifford, 1989). The FDCRS was developed by the Frank Porter Graham Child Development Center by Harms (Harms et al., 1998b). This measure assesses global quality. It includes the following sub-scales: space and furnishings for care and learning, basic care, language and reasoning, learning activities, social development, and adult needs. The Caregiver Interaction Scale was developed by Arnett (1989) and is designed to assess interactions between caregivers and children. Both tools have been found to be valid and reliable measures of family child care quality.
 - **Interview protocols.** We conducted two types of key informant interviews. To obtain additional information about the nature of partnerships for family child care providers, we conducted key informant interviews with family child care providers using a semi-structured interview protocol. The protocols were designed to obtain qualitative data regarding perceptions of the nature, challenges, and benefits of participation in a partnership with Head Start. Secondly, we developed informal interview protocols to obtain insights from key stakeholders regarding the implications of our research findings for policy and practice. To enhance the

validity of the instruments, our expert advisory committee reviewed the protocols and we modified questions based on expert opinion.

- **Focus group protocols.** We conducted two telephone focus groups with key informants to obtain in-depth qualitative data regarding the implications of our research findings for the field. The protocols were developed based on a review of the findings from the informal interviews.

Analytic Techniques

We analyzed our survey, observational, and child assessment data to examine:

- differences between providers in partnership with Head Start and comparison providers
- the relation between child care/Head Start partnerships and observed classroom quality
- improvements in children's school readiness that can be attributed to differences in, or quality of partnership
- contextual factors associated with quality outcomes when the child care/Head Start partnership is based in family child care homes

We utilized varied analysis techniques, mostly consisting of simple linear and multiple regression analysis, as well as ANOVA and independent and paired-sample t-test analyses. For our regression analyses, we developed models to examine differences between centers or family child care homes that partner with Head Start versus those not in partnership. Moreover, we examined how the differences in the quality of partnerships are associated with outcomes for children on measures of school readiness. Our models consisted of both continuous (quality and additional organizational components) and dichotomous (dummy variables representing group membership) predictors. Specifically, we fit models that allowed us to compare partnership providers to comparison providers on the following:

Center and Classroom Level:

- Classroom quality/learning environment

- Teacher beliefs about learning, teaching and literacy development
- Workshops attended/training
- Job satisfaction
- Parental involvement and support
- Child and parent services
- Organizational capacity
- Teacher turnover
- Quality of supervision
- Child-teacher ratio

Child Level:

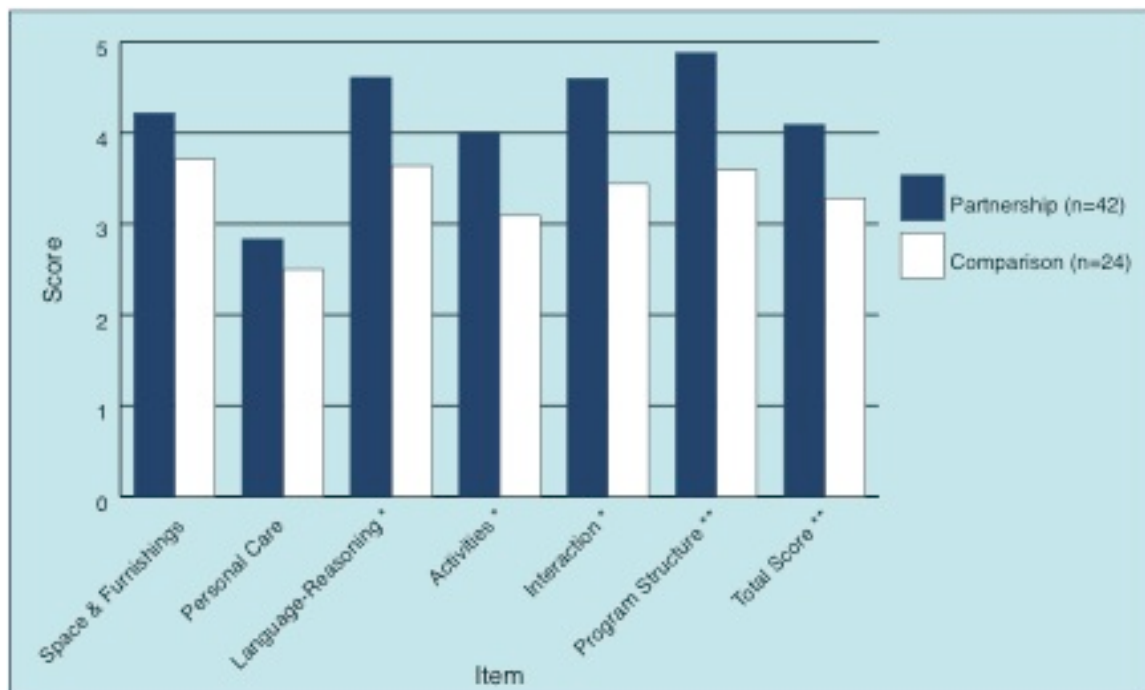
- Language and Literacy Development

FINDINGS: PARTNERSHIP PREDICTS IMPROVEMENTS, BUT QUESTIONS REMAIN

OBSERVED CLASSROOM QUALITY HIGHER IN PARTNERSHIP CENTERS

Independent sample t-test analyses showed that classrooms in child care centers partnering with Head Start demonstrated significantly higher observed classroom quality than comparison classrooms. Specifically, classrooms at partnership centers reported higher observed global quality on most of the ECERS-R sub-scales ($p < .05$) as reported in Figure 2. The higher observed quality in partnership classrooms was consistent with our hypothesis that partnership with Head Start would predict higher observed quality. It is interesting to note that the largest differences in observed quality were on the language and reasoning as well as the interaction sub-scales. Improvements in these sub-scales require changes in staff behaviors, which we had hypothesized would be more difficult to change than aspects of the environment such as space and furnishings.

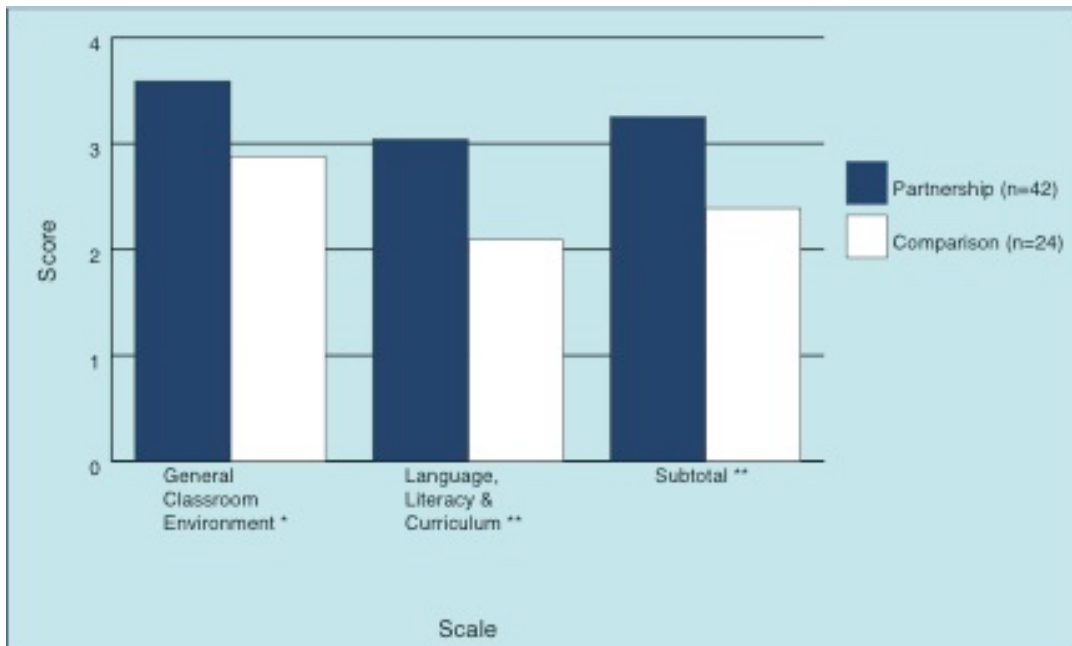
Figure 2. Average ECERS-R Score by Partnership Status



* $p < .05$ level, ** $p < .01$ level

Independent samples t-test analysis of observational data also showed that classrooms in partnership performed higher on language and literacy practices as measured by the ELLCO ($p < .05$). These differences can be seen in Figure 3.

Figure 3. Average ELLCO Score by Partnership Status



* $p < .05$ level, ** $p < .01$ level

Table 3 shows the mean scores and standard deviations on the ECERS-R and ELLCO for partnership and comparison classrooms. Partnership centers showed particular strength on the activities, interaction, and language reasoning, and program structure subscales, compared to non-partnership centers.

Table 3. ECERS-R and ELLCO Scores by Partnership Status

Classroom Assessment	Comparison (n=24) M (SD)	Partnership (n=42) M (SD)
ECERS-R		
Space & Furnishings	3.7 (1.1)	4.2 (1.2)*
Personal Care Routines	2.5 (1.2)	2.8 (1.2)*
Language Reasoning	3.6 (1.4)*	4.6 (1.8)*
Activities	3.1 (1.0)*	4.0 (1.5)*
Interactions	3.4 (1.8)*	4.6 (1.9)*
Program Structure	3.6 (1.6)**	4.9 (1.8)*
ELLCO		
General Classroom Environment	14.4 (5.9)*	18.0 (6.0)*
Language, Literacy, and Curriculum	16.8 (8.2)**	24.3 (9.3)*
Classroom Observation Total	33.0 (14.0)**	44.7 (16.0)*

*p < .05 level, **p < .01 level

To rule out alternative explanations for the higher observed quality in the partnership classrooms, we examined background characteristics of the sample of classrooms participating in the observation study. We found no statistically significant

differences between partnership and comparison classrooms in our observational sample in terms of the following characteristics: child/teacher ratios, nonprofit status, faith based status, affiliation with a chain using Chi-Square analyses. Using Analysis of Variance we found no differences between partnership and comparison centers in terms of hours of operation, weeks of operation, or percent of families participating in the subsidy program.

Partnership duration predicts observed quality

As expected, our regression analysis showed positive associations between indicators of quality and observed quality. We found a strong and statistically significant relationship between the duration of the partnership and scores on ECERS-R and ELLCO when controlling for the percentage of students receiving child care subsidies.

Figure 4. Partnership Duration Predicts ECERS-R Total Score

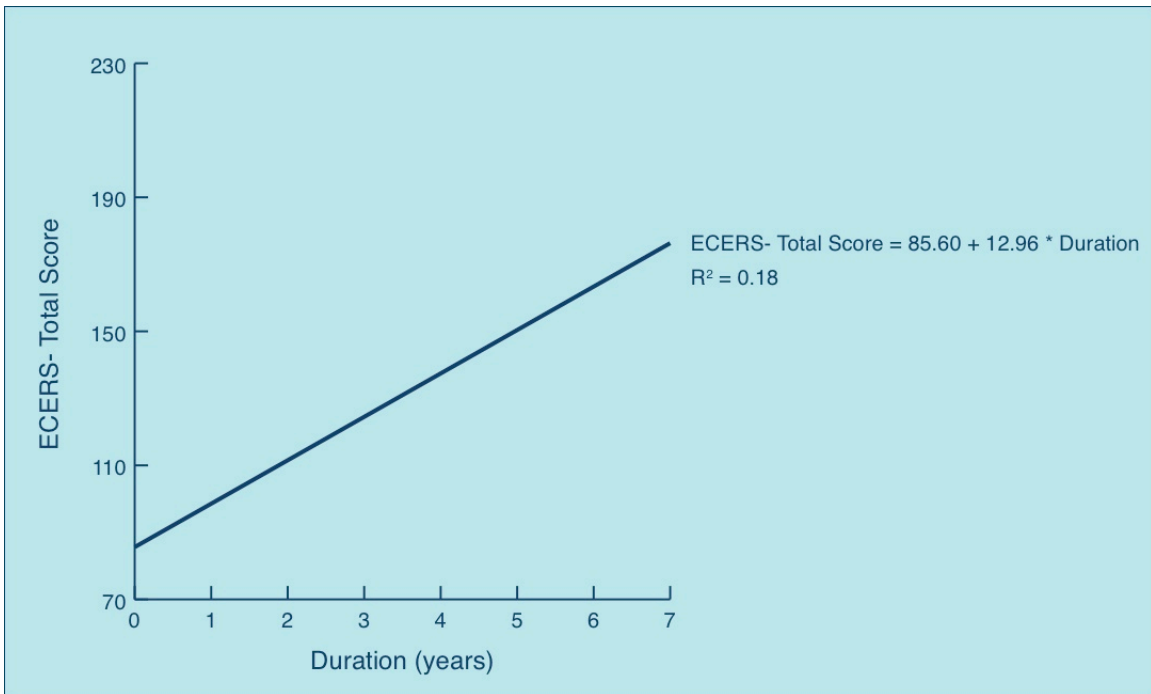
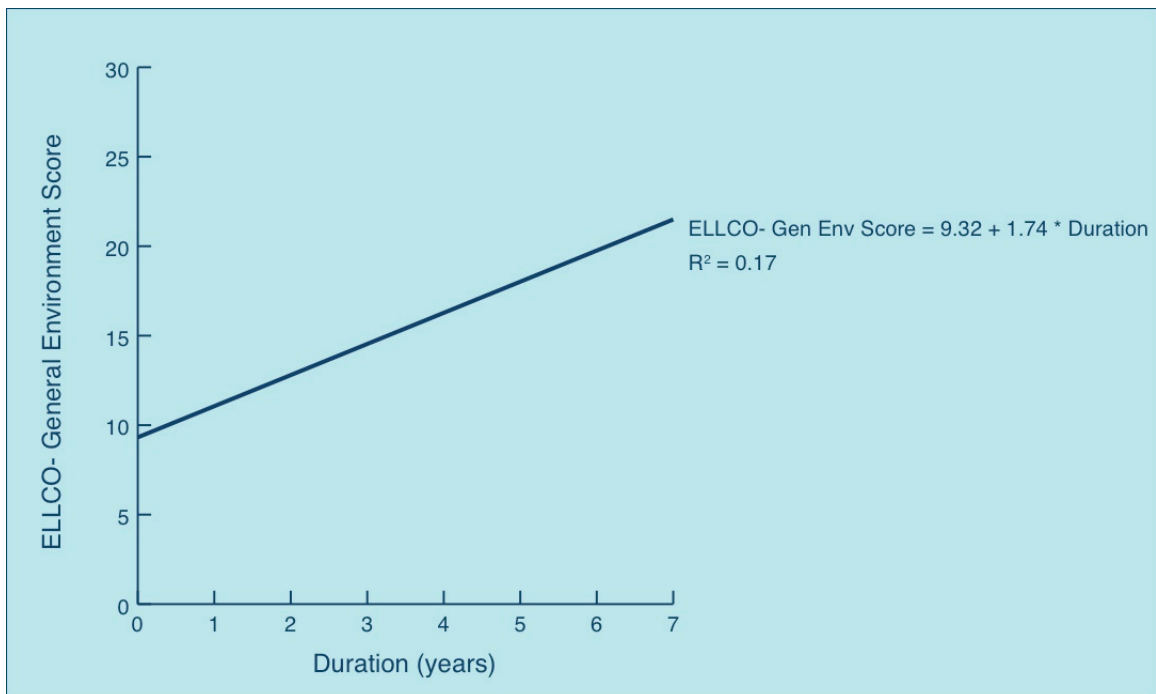


Figure 5. Partnership Duration Predicts ELLCO General Environment Score

CHILD ASSESSMENT DATA

Our analysis of child assessment scores revealed that on average children at partnership centers were more likely than comparison children to demonstrate significant improvements on the language and literacy sub-scales related to phonological awareness (beginning sounds and print awareness) and nearly significant improvements ($p < .10$) on two other sub-scales (upper case letter recognition and rhyming awareness), but were no more likely than children at comparison centers to demonstrate improvements on the remaining language and literacy assessments. We compared change in children's gain scores across three rounds of data collection using paired sample t-tests to examine pre-post change within groups and independent sample t-tests to compare change between groups. The tables below show the statistically significant and nearly significant improvements demonstrated by children on several PALS subscales (upper case, print and word, and rhyming). We found no significant differences in language and literacy improvements on the other language and literacy measures. That is, partnership children performed no better than comparison children on assessments of receptive vocabulary, receptive language, or emergent writing.

Table 4a. Language and Literacy Average Change Score for Children Attending Partnership and Comparison Centers

Outcome Variables (Range)	Partnership			Comparison		
	Round 1	Round 3	Change	Round 1	Round 3	Change
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
PALS Upper Case (0-26)	n=21			n=34		
	6.3 (7.9)**	18.0 (7.4) ⁺	11.8 (6.0) ⁺	13.3 (9.8)**	21.5 (7.4) ⁺	8.3 (7.3) ⁺
PALS Print & Word (0-10)	n=22			n=34		
	3.1 (2.0)**	7.0 (1.9)	4.0 (2.0) [*]	5.6 (3.0)**	7.9 (2.2)	2.3 (2.9) [*]
PALS Rhyming (0-10)	n=21			n=35		
	3.2 (1.8)	6.1 (2.4)***	2.9 (2.7) ⁺	4.2 (3.3)	8.5 (2.2)***	4.3 (2.9) ⁺

Note. + nearly significant, $p < .10$ * $p < .05$ level, ** $p < .01$ level, *** $p < .001$ level

Table 4b. Language and Literacy Average Change Score for Children Receiving Partnership Services and Comparison Children

Outcome Variables (Range)	Partnership Children n=17			Comparison Children n=15		
	Round 2	Round 3	Change	Round 2	Round 3	Change
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
PALS Beginning Sounds (0-10)	2.7 (3.4)**	6.9 (3.3)	4.2 (3.9) [*]	6.3 (4.0)**	7.5 (3.3)	1.1 (2.7) [*]

* $p < .05$ level, ** $p < .01$ level

Our hypothesis that children attending partnership centers would demonstrate significant improvements on the battery of language and literacy assessments was partly based on the assumption that children attending partnership centers would report characteristics comparable to children attending comparison centers. For our previous study we began by matching child care centers based on selected characteristics including the percentage of children in attendance whose families were participating in the child care subsidy program. We recruited centers from this sample to participate in the more in-depth child and center data collection. Yet the sub-sample of centers that opted to participate in the more in-depth child data collection yielded partnership centers with significantly higher percentages of children receiving subsidies than comparison centers ($p < .05$). Since our hypothesis that partnership children would report higher gain scores

was based on the assumption that children would be matched, we reconsidered the hypothesis after examining the characteristics of centers that opted to participate in the sub-study. Our revised hypothesis is that selected characteristics associated with the centers including partnership are predictive of children’s gain scores.

To explore the relationship between center characteristics—such as percent of children at the center receiving child care subsidies, organizational capacity and duration of the partnership—and improvements in language and literacy scores, we conducted regression analyses. We ran individual models to examine whether improvements in language and literacy scores for children were significantly associated with percent subsidies, organizational capacity or duration of partnership. We found that duration of the partnership was significantly associated with improvements in receptive vocabulary (PPVT-4), receptive language (PLS-4) and many of the PALS sub-scales. However, partnership duration was not significantly related to improvements in PALS upper case letter recognition. The individual regression coefficients in Tables 5a-e show the statistically significant associations between center characteristics and improvements in language and literacy for children.

Table 5a. Regression Results Predicting PPVT Standard Score

Criterion Variable	N	Constant	β	R ²
Partnership Duration	323	81.994 (2.328)	2.992 *** (0.472)	0.111
Subsidy Rate	595	105.232 (1.060)	-0.201 *** (0.020)	0.152

Note. Standard errors are reported in parentheses. *p < .05 level, **p < .01 level, ***p < .001.

Table 5b. Regression Results for Predicting PLS Standard Score

Criterion Variable	N	Constant	β	R ²
Partnership Duration	321	88.138 (2.223)	2.737 *** (0.451)	0.104
Subsidy Rate	589	108.192 (1.106)	-0.143 *** (0.020)	0.078

Standard errors are reported in parentheses.

*p < .05 level, **p < .01 level, ***p < .001.

Table 5c. Regression Results for Predicting PALS PreK Upper Case Letters Score

Criterion Variable	N	Constant	β	R ²
Partnership Duration	313	10.927 (1.707)	0.345 (0.348)	0.003
Subsidy Rate	572	16.153 (0.867)	-0.070 *** (0.016)	0.033
Organizational Capacity	598	9.021 (1.278)	0.868 ** (0.275)	0.016

Standard errors are reported in parentheses.

*p < .05 level, **p < .01 level, ***p < .001.

Table 5d. Regression Results for Predicting PALS PreK Beginning Sounds Score

Criterion Variable	N	Constant	β	R ²
Partnership Duration	310	2.834 (0.664)	0.455 *** (0.134)	0.036
Subsidy Rate	565	6.372 (0.335)	-0.028 *** (0.006)	0.035
Organizational Capacity	591	3.780 (0.491)	0.286 ** (0.106)	0.012

Standard errors are reported in parentheses.

*p < .05 level, **p < .01 level, ***p < .001.

Table 5e. Regression Results for Predicting PALS PreK Print & Word Awareness Score

Criterion Variable	N	Constant	β	R ²
Partnership Duration	311	3.851 (0.507)	0.371 *** (0.103)	0.041
Subsidy Rate	569	7.073 (0.247)	-0.032 *** (0.005)	0.079
Organizational Capacity	595	4.870 (0.370)	0.149 (0.080)	0.006

Standard errors are reported in parentheses.

*p < .05 level, **p < .01 level, ***p < .001.

THE NATURE OF CHILD CARE/HEAD START PARTNERSHIPS IN FAMILY CHILD CARE HOMES

Characteristics of Family Child Care Homes

Like child care centers in partnership with Head Start, the characteristics of family child care providers vary in terms of the number of children in attendance, the population of children served, and the characteristics of the providers. Despite the variation, family child care providers in partnership are more likely than comparison providers to offer comprehensive services and to provide an educationally enriched curriculum.

Table 6 provides an overview of all the family child care homes in the sample. As shown, this population is primarily White (72%) and over half (59%) reported that children in attendance received subsidies at the time of data collection.

Our analyses revealed that partnership and comparison family child care providers reported similarities for most background variables but some differences were reported (See Table 7). One significant difference between partnership and comparison family child care providers was in the average group size. Comparison family child care homes had smaller groups on average (4.6) than partnership homes (6.0). This is an important difference to note when considering our analyses. While benefits may be available to homes in partnership with Head Start, the larger group size may affect the impact of these benefits.

Family child care homes in partnership also reported providing services to a higher percentage of children whose parents speak a language other than English. Homes in partnership also reported higher levels of participation in the USDA Child and Adult Care Food Program.

Table 6. Characteristics of Family Child Care Homes in the Sample

Variable	Results
Percent current partnership	37% (n=50)
Percent previous partnership	22% (n=30)
Percent no partnership	41% (n=55)
Percent receiving subsidy	59% (n=129)
Percent of children attending full time	43% (n=130)
Percent Black/African-American	19% (n=128)
Percent Hispanic	5% (n=127)
Percent Asian	1% (n=127)
Percent White	72% (n=129)
Percent Other	3% (n=126)
Percent ESL	11% (n=128)
Percent Accredited	11% (n=121)
Percent Participating In USDA Child And Adult Care Food Program	69% (n=133)
Average Group Size	5.4 (n=132)
Average Child-Teacher Ratio	5.0 (n=127)

Table 7. Significant Differences In Family Child Care By Partnership Status

Variable	Active Partnership	Comparison
Average. Group Size	6.0 (n=49)	4.6** (n=53)
Percent ESL	20% (n=48)	4%* (n=52)
Participation in USDA Child and Adult Care Food Program	88% (n=43)	43%** (n=23)
Serve Children with Disabilities	22% (n=11)	15% (n=8)
Providers with Education Above HS Diploma	33% (n=16)	22% (n=12)

*p < .05, **p < .001 level

Characteristics of Family Child Care Staff

Providers reported working in family child care for an average of 10 years (with a range of 9 months to over 35 years). Nearly all—98 percent—of the family child care staff operate five or more days. Moreover, 30 percent of providers operate up to seven days a week depending on the needs of the children and their families. This shows that family child care is an important option for parents in need of care that operates outside of traditional business hours.

In some cases, the partnering family child care providers report that Head Start employs and supervises staff who work directly in partnering child care homes. About 14 percent of partnering family child care providers reported that Head Start hired a teacher or family service workers to work at their family child care home.

A majority (58%) of partnering providers reported that they had participated in professional development and training that was supported by Head Start. A smaller group (22%) reported having the opportunity to receive professional development and training that is offered to Head Start staff. Partnering providers were more likely to attend conferences, $X^2(1, N = 97) = 5.9070, p < .05$, or receive in-home support from an outside agency, $X^2(1, N = 98) = 16.8966, p < .0001$, than comparison providers.

Separate analyses revealed that previously partnered providers were more likely to attend workshops, $X^2(1, N = 81) = 4.6246, p < .05$, or receive in-home support from an outside agency, $X^2(1, N = 78) = 11.7535, p < .001$, than comparison providers. This may indicate that even after losing their partnerships, providers may still take advantage of professional development opportunities.

While a majority indicated that the partnership resulted in additional professional development and training opportunities, one challenge family child care providers reported was the time at which trainings were offered as well as the location. Over half of the providers reported that the opportunities were offered at a time and place that were convenient to attend, but one third of respondents reported that the training was not offered at a convenient time or location. Our qualitative interview data (presented in more detail later in the report), reveals that family child care providers who receive on-site coaching, mentoring, and professional development report fewer scheduling challenges than those who only have access to professional development off-site.

Children Served at Family Child Care Homes

Family child care homes in partnership provided Head Start services to an average of 2.54 children ($SD=2.13$). However, the range of children receiving services was 0 to 10. This finding revealed that for a portion of family child care providers with active partnerships, fluctuation in enrollment can lead to zero children being enrolled at any one moment in time but providers can also serve relatively high numbers of children. The majority (74%) of providers in the study reported that they experienced fluctuation in the number of children receiving Head Start services during the previous year. Providers reported year-end changes, seasonal changes, and changes in subsidy eligibility as the reasons for the fluctuation. The changes in subsidy eligibility can occur because determination of child care subsidy eligibility is made regularly throughout the year based on the family's income and/or employment status. While children who are deemed eligible for federal Head Start remain eligible until the age of school entry, children can lose the full-day child care services if their parents lose eligibility for subsidies.

We also learned that the Head Start services are most often delivered within the family child care homes (as opposed to in a Head Start classroom). In the majority of homes receiving Head Start services, either the child care provider or a visiting Head Start staff person provides services to the eligible children.

Resources from Head Start

Sixty-nine percent of partnering child care providers reported receiving funds directly from Head Start. Analyses of the Provider Survey data revealed a great deal of variability in funding received by each child care provider in a Head Start partnership. The average annual funding received by family child care providers was \$775 dollars. However, nearly 30 percent of providers reported receiving no funds from Head Start. Of those receiving funds, the per-child annual funding ranged from six dollars to 168 dollars. In addition to funds, 42 percent of family child care providers reported receiving equipment and 68 percent reported receiving supplies directly from Head Start.

Half of family child care providers reported using funds for equipment, such as science centers or bookshelves, while slightly more (56%) spent funds on supplies, such as art supplies, paper, and books. Only 10 percent of providers reported using the funds for their own training. About a quarter of providers (26%) used funds to enhance their salary and 14 percent used funds to enhance their benefits.¹

Developing a Partnership Agreement

Nearly all of the family child care homes in partnership in Ohio (92%) reported having a written partnership agreement/contract with Head Start. Furthermore, nearly all of the providers reported regularly updating the contract: 91 percent of providers with contracts reported updating it regularly. However, less than half of family child care providers (48%) reported that they worked with their Head Start partner to mutually develop the partnership agreement.

From our previous research on partnerships, we have learned that the process of developing a partnership agreement can determine whether the partnership achieves its goals. Almost all family child care directors (94%) reported that their agreement specified the roles and responsibilities of each partner and 84 percent specified how to meet Head Start Program Performance Standards. However, only about half specified procedures for communicating with Head Start partners (56%) or determined the

¹Sum of percentages is greater than 100 percent, as survey respondents were asked to check all that applied.

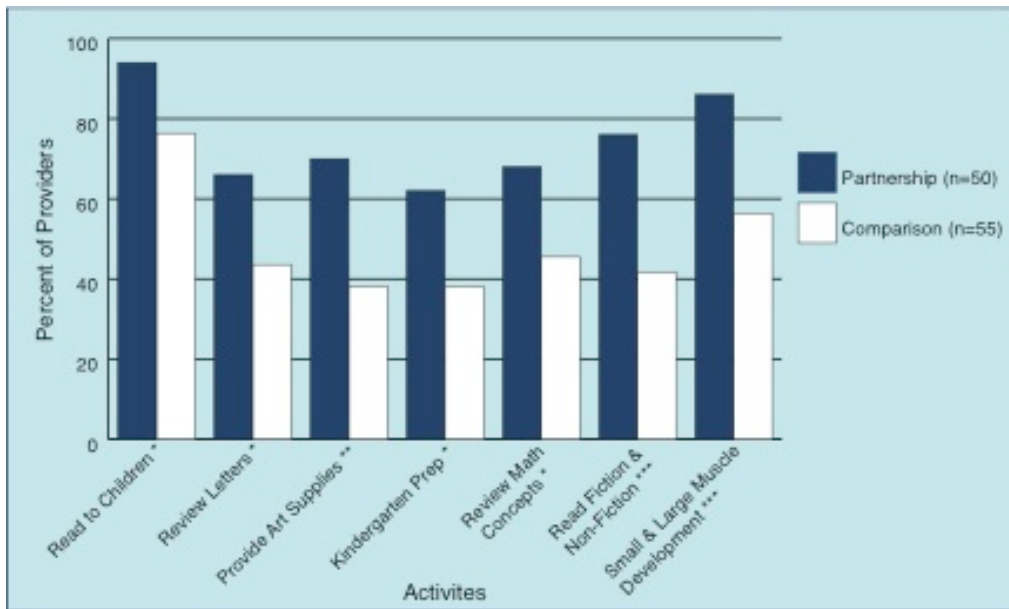
maximum number of partnership children to be served (59%). Furthermore, only 65 percent specified how to recruit and enroll Head Start children. The lack of details in partnership agreements or communication between partners can have an impact on the success of the partnership itself.

Classroom Activities, Services, and Referrals

Family child care homes in partnership are more likely than comparison providers to offer developmentally appropriate activities as well as services and referrals. This finding is consistent with earlier research conducted on child care centers (Schilder, 2004).

Family child care providers in partnership were more likely to read to children, give children art supplies to use, and provide science and nature materials. Partnership providers were also more likely to send home written communication to parents and spend time preparing children for Kindergarten. See Figure 6 below. (Detailed responses to our survey on specific activities can be examined in detail in Appendix A).

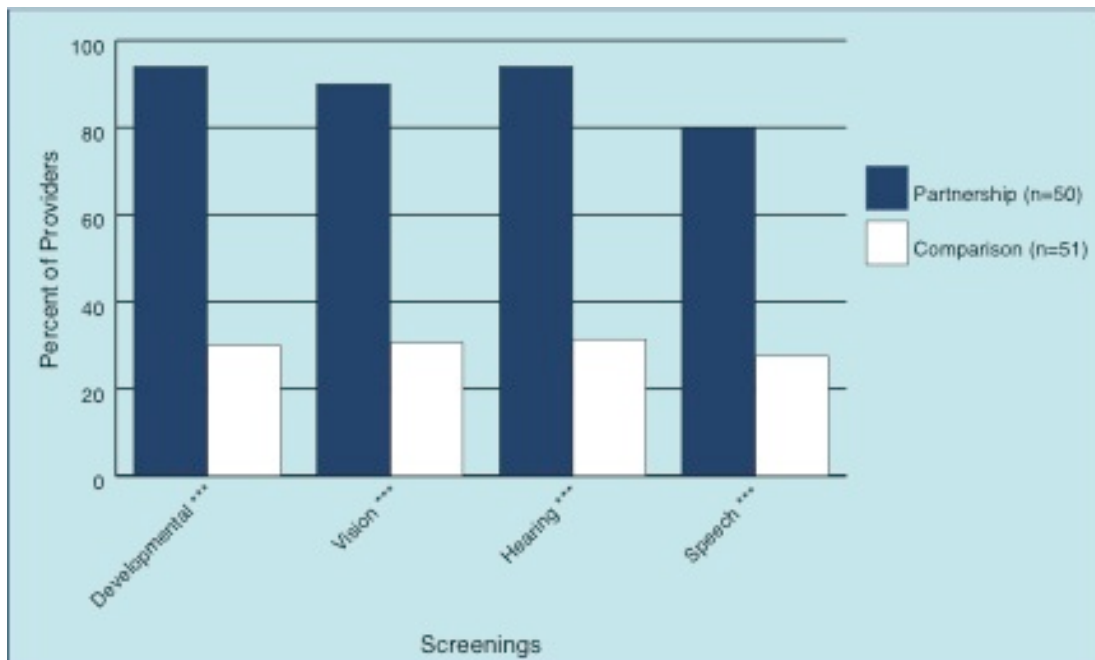
Figure 6. Family Child Care Providers’ Self-Reported Daily Activities



*p < .05 level, **p < .01 level, ***p < .001

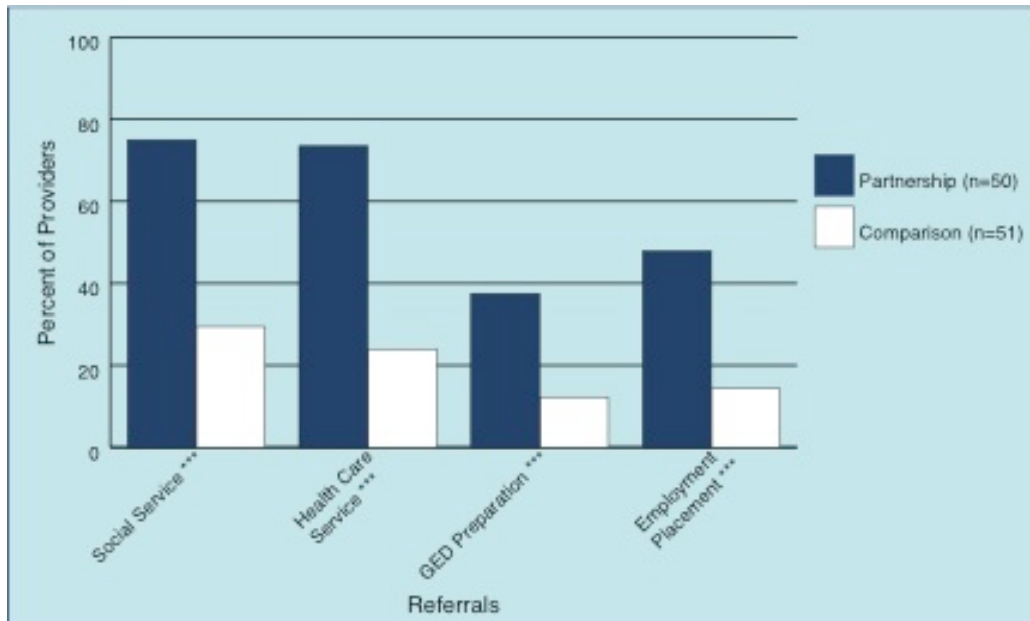
According to providers' reports, family child care homes in partnership were more likely to provide screenings, referrals, and services for children. The screenings included developmental screenings, lead screenings, mental health observation, and speech and nutritional screenings. See Figure 7 below. (For a complete list see Appendix B).

Figure 7. Family Child Care Providers' Self-Reported Child Screenings Offered



*p < .05 level, **p < .01 level, ***p < .001

Parents were also more likely to attain services from family child care homes in partnership. For example, partnership providers were more likely to offer social service referrals, health referrals, immigration services or referrals, GED preparation referrals, and processes for working on family issues and goals. See Figure 8 below. (For a complete list see Appendix B.)

Figure 8. Family Child Care Providers Self-Reported Parent Services Offered

*p < .05 level, **p < .01 level, ***p < .001

Predictors of Partnership Benefits

The analyses described above provide evidence that partnership itself predicts benefits for family child care homes, staff, and families. In addition, in our previous research with center-based care, we found that certain qualities in a partnership made the benefits more likely to occur. We therefore wanted to test whether the same relation existed in family child care homes.

In our child care center research we found that partnerships with well-defined agreements and goals as well as good communication, also had more benefits. We predicted that we would find a similar pattern for family child care homes. To explore this hypothesis, we created composite variables of “well-defined agreement and goals” and “good communication and relationship” from items in the provider partnership questionnaire. We also created composite items of benefits to the family child care provider and to the families served.

We found that the relationship between “well-defined agreement and goals” was predictive of the composite items of benefits of partnership. It predicted both benefits to the provider $F(1, 38) = 19.29, p < .001$ and to families $F(1, 38) = 16.70, p < .001$. As we

expected, we also found that “good communication and relationship” was a significant predictor of benefits to family child care providers $F(1, 43) = 84.32, p < .001$ and to the families $F(1, 43) = 77.17, p < .001$. These statistically significant relationships held for both current and previously partnered family child care homes (the statistics reported above were for the current partnerships).

“Good communication and relationship” was also found to be a predictor of particular qualities of family child care homes in partnership. Higher scores on “good communication and relationship” were related to a literacy rich environments in the classroom for current partnerships $F(1, 37) = 4.57, p < .05$. Quality supervision was also predicted by higher scores on “good communication and relationship” $F(1, 38) = 5.45, p < .05$.

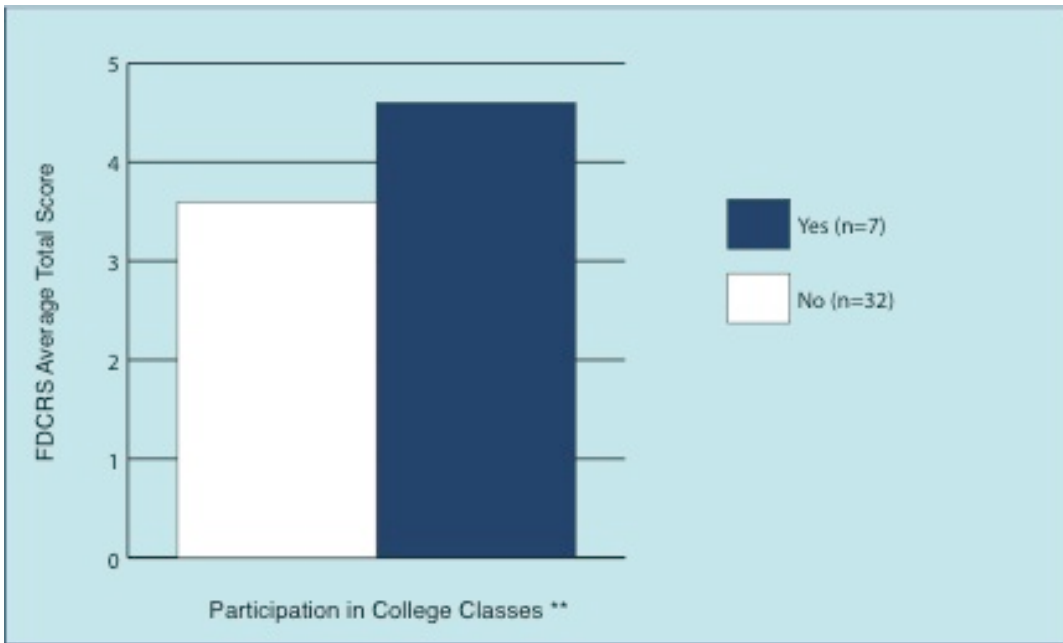
Family Child Care Observations

We predicted that family child care homes in partnership would have better observed quality than comparison providers not in partnership. Our hypothesis is based on previous studies which have looked at Head Start compared with other child care settings using the same measurements. Previous research with Head Start has demonstrated higher quality care for children compared with family child care (Li-Grining & Coley, 2006). We therefore predicted that the qualities present in Head Start centers would carry over into homes in partnership.

Our analyses showed no significant differences between partnership and comparison family child care homes on global measures of observed quality as measured by the Family Day Care Rating Scale (FDCRS) and the overall score on the Arnett Caregiver Interaction Scale. However, we found that family child care providers in partnership actually performed worse than comparison providers on the Arnett Caregiver Interaction punitive sub-scale ($p < .05$). Specifically, family child care providers in partnership were more likely to correct children without explanation than comparison providers, yet the incidence rate was relatively low. On a 4-point scale, partnership providers were rated a 1.89 on this sub-scale, compared to 1.14 for comparison providers. This finding is consistent with Thornburg’s preliminary findings that child care providers focus on changing behaviors that are regulated rather than behaviors that are not regulated (Thornburg, 2008).

We did find a strong and statistically significant relationship between some structural indicators of quality and observed family child care quality. For example, we found statistically significant improvements in observed quality on many of the subscales for family child care providers who reported taking college courses, using a structured curriculum, offering science activities to children, and communicating with parents ($p < .05$). The graphic below illustrated the strong and statistically significant relationship between FDCRS scores and participation in college classes.

Figure 9. FDCRS Average Total Score by Providers' Participation in College Classes.



* $p < .05$ level, ** $p < .01$ level, *** $p < .001$

Partnerships from the Caregiver's Perspective

To provide a more in-depth view of partnerships in family child care homes, we conducted follow-up interviews with several providers who had partnerships (current or past) with Head Start. The answers given by family child care providers are an important source of information for the policy-making community. Three major topics were covered by the family child care providers: the variability in the quality of Head Start workers, the convenience of trainings, and the topics of trainings.

Family child care providers' partnership experiences depended on who came to their family child care program. Descriptions of Head Start workers ranged from "not so good" to "great." While some Head Start workers engaged the children in lessons and provided mentoring and support to the family child care providers, others simply laid out materials and talked only with the other adults. As one provider explained, "Our teacher the first year was phenomenal and bilingual...the other two teachers were not as good." Another provider added, "We've had four or five different mentors and some are good and some are not so good." This insight into family child care providers' own experiences illustrates that the partnership can look a certain way on paper, but the quality is often determined by the human interactions.

In the interviews, providers also discussed their experiences with trainings. Overall, providers felt limited by the logistics of trainings. Providers' feelings can be summarized by the respondent who explained: "During the week it's impossible because I have my kids to take care of." The child care providers "work all the time," so finding a few hours to travel to a training can be prohibitively difficult. Several providers suggested that offering child care at trainings—so their own children could be cared for—would make it possible for them to attend.

Family child care providers also reported that some training topics were more beneficial than others. Respondents wanted trainings to offer specifics from arts and crafts activities to dealing with behavior issues. Other suggested topics included diversity and tolerance. One provider voiced her disappointment that her local Resource & Referral Agency (R&R)—that offered services to child care providers regardless of whether they were in partnership—offered trainings without asking the providers what they need. She stated, "I wish they were more personal with us." The family child care provider was unaware that the R&R offered services to all providers, not simply those in partnership. By entering into a partnership with Head Start, she became aware of other opportunities that she had not taken part in previously. At the same time, the R&R was not aware of the array of professional development services available to family child care providers in partnership with Head Start.

This study overall, and the interviews in particular, allowed family child care providers an opportunity to share their experiences with partnerships. While there were specific complaints about particular workers, the timing of trainings, and the lack of communication with R&Rs, the providers welcomed the opportunity to share their positive feelings about partnership. One of the major goals of partnership, to offer quality

care to children who did and did not qualify for Head Start services, was clearly articulated by one participant: “What I really liked was that they always included any child that was here at the time, so it wasn’t like the Head Start kids were segregated or my non-Head Start kids didn’t get to play the same activities.” When a quality worker is engaged with children and responds to the needs of the provider, partnership can benefit a large number of children.

IMPLICATIONS AND CONCLUSION

Partnership with Head Start is clearly correlated with quality enhancements for child care classrooms and self-reported higher quality practices for family child care homes. Our study showed that classrooms at child care centers in partnership with Head Start are higher quality than comparison centers, and family child care providers in partnership with Head Start are more likely than comparison providers to offer comprehensive services. While our study was unable to demonstrate that partnership *causes* improvements—as it was correlational in design—we did find that partnership is an important indicator of quality. To learn about the implications of these findings for policy and practice we collected data from stakeholders across the country. Child care and early education stakeholders—including child care administrators, Head Start State Collaboration directors, state prekindergarten specialists, national policy experts, and researchers—reported that our research findings on child care/Head Start partnerships have important implications for policy and practice.

IMPLICATIONS FOR POLICY AND PRACTICE

Key themes emerged from our focus groups, informal interviews, and formal telephone interviews with child care and early education stakeholders, suggesting that the findings from our study offer important information to inform policy and practice. The implications, as voiced from stakeholders working in the field, are presented below.

Support Child Care/Head Start Partnerships as a Strategy Unique from Generic “Partnerships”

Child care and early education leaders at the federal, state, and local levels noted that the term “partnership” is used generically and therefore it is important to be clear that research showing benefits of child care/Head Start partnerships are focused on one specific strategy of blending funds and services with the goal of meeting the dual needs of children and families. One national expert who had studied issues of collaboration and partnership for decades stated:

For decades we've been looking at this broad concept of partnership and sometimes we see benefits and other times we don't. When I reviewed the findings from this project, I found that the research operationally defined partnership in a way that goes beyond the generic use of partnership. This is extremely helpful to the field. Sometimes this term is used simply to refer to people sitting around a table to discuss ways they might work better together. In the absence of an operational definition that focuses on the point of service delivery, you can have people talking past one another. I've sat at meetings of state policy makers who have agreed in theory to support partnerships but when you get down to it, people have different concepts in mind. I think the focus on one particular strategy is very helpful. (Anonymous, personal communication, December 4, 2007)

Federal and state leaders noted the importance of clarifying child care/Head Start partnerships as a distinct strategy separate from community partnerships, family partnerships or professional development partnerships. A training and technical assistance provider said that while our research might have implications for different types of partnerships, it is important for the field to recognize that child care/Head Start partnerships are one specific strategy that research has now demonstrated is correlated with desired outcomes.

Voice Federal And State Commitment For Child Care/Head Start Partnerships

Child care and early education leaders recommended that federal and state leaders voice commitment for child care/Head Start partnerships. Leaders noted that the federal government issued policy guidance nearly a decade ago that allows providers to blend child care subsidy and Head Start funding (See Appendix B). Some state leaders stated that this guidance was very helpful to their efforts to support partnerships but noted the importance of updating and disseminating guidance that addresses financial and eligibility issues. One state child care administrator said:

I am aware of the IM's [information memoranda issued by the DHHS], but are these still in effect? I didn't realize. Our state extended subsidy eligibility for children who were attending partnership centers after this guidance was issued, but that was before we changed governors and we rescinded that policy. Now that

so much has changed, I didn't realize the guidance was still valid. (Anonymous, personal communication, October 11, 2007)

Others concurred that they believed it is very important for state leaders to receive regular guidance from the federal government regarding child care/Head Start partnerships. A Head Start State Collaboration director said that regular communication from the federal government provided a needed spark for state-level activity to support partnerships.

Some state leaders reported that their state agencies supported partnerships and posted information on state agency websites regarding partnerships. Focus group participants stated that such up-to-date commitment for partnerships is important for providers working in a changing policy context. For example, one community action agency director stated that she had been promoting partnerships for over a decade and found guidance from her state extremely helpful to her efforts.

Leaders noted the importance of receiving communication from child care, Head Start, and early education leaders. One state leader noted that the governor's office issues broad statements promoting partnerships, but child care providers in her state look to the state child care administrator for specific guidance on partnerships and to the Head Start State Collaboration director for information about Head Start's role in partnerships. A Head Start State Collaboration director stated that providers seek practical support from their agency leader. He noted that he spent time working with Head Start and child care providers in his state disseminating information about each program's rules and guidance regarding partnership.

Recognize That Partnership Requires Resources That Yield Benefits

Focus group members and interviewees stated their belief in the importance of supporting the blending of child care and Head Start funds to reap the benefits of partnership. One interviewee noted that her state had reduced the child care subsidy payment for children served in partnership for the "Head Start portion of the day" which resulted in a dramatic decline in the number of partnerships throughout her state. She said that previously the state had recognized that the child care subsidy supported the full-day, year-round care and the Head Start resources were devoted to enhancing the quality of the early education offered to children and ensuring that all eligible children and families had access to

comprehensive services. With the reduction in child care subsidy funding for children served in partnerships, many directors were opting out of partnerships since the funding from Head Start did not adequately compensate the time the director and teachers were devoting to offering Head Start services.

By contrast, another state child care administrator stated that she engaged in an ongoing effort to educate her legislature and governor about the benefits of partnerships and the corresponding importance of state resources to support such partnerships. She said:

Partnerships between Head Start and child care providers can yield the dual benefits of offering high-quality education, comprehensive services, and providing full-day, year-round care, thereby meeting the needs of both parents and children. Ultimately there will be a cost savings if we can offer services that meet the needs of children and families, in that we hope families will receive needed services and will have access to child care that supports their employment or education. However, we make it clear that you can't simply reduce the child care subsidy payment as this would create a disincentive for child care providers to engage in partnerships. (Anonymous, personal communication, April 4, 2008)

Some focus group participants and interviewees said they believed it is important for state leaders to have information about the average cost per child of partnership. One policy expert from a national non-profit stated:

It is important for federal and state leaders to know that on average, a child care center in partnership receives \$3700 per year per child and a family child care provider receives around \$1000 as well as professional development, ongoing monitoring and assistance, and help from Head Start staff in coordinating services. This can help policy makers as they draft budgets and make funding decisions. (Anonymous, personal communication, February 26, 2008)

Provide Consistent Ongoing Communication To Federal Regional Staff And Monitors

State child care administrators and state early education policy makers said they believe it is very important for federal leaders to provide ongoing communication to regional staff and appoint monitors to ensure that the federal government provides consistent messages

regarding partnership. A number of individuals stated that monitors appeared to be unaware of the federal guidance that allows states to extend the child care subsidy eligibility period for children served by child care providers in partnership with Head Start. One state administrator said, “I was able to pull out the guidance because I had worked on this issue. It seems important to me that the monitors have this information if we want states to consistently support partnerships.”

Another leader noted that turn-over among federal regional staff, monitors, and state staff requires an ongoing effort to educate individuals about policy issues. She said:

I understand that you can’t expect everyone to be up-to-date on each issue affecting child care subsidy policy and partnerships with Head Start. But if the federal government and states are serious about promoting partnerships, it is important that some ongoing effort be made to educate individuals in key roles. (Anonymous, personal communication, October 11, 2007)

Consider Conducting Joint Child Care And Head Start Assessments And Monitoring Visits

State and local leaders reported that there are opportunities for conducting joint child care, Head Start, and early education assessments and monitoring activities. One state leader said:

Our state has been successful at reducing the separate “stovepipe” funding and regulation but we still had separate assessments and monitoring efforts. As a result of the efforts, many providers now offer full-day, full-year seamless comprehensive services to children and their families. At the same time, providers have reported that each funding stream—such as Head Start or the state’s quality rating system—requires different assessments, creating additional paperwork and a disincentive for continuing the partnerships. In some instances, a single child could be required to participate in three different assessment batteries. (Anonymous, personal communication, October 11, 2007)

The state policy maker reported that when the state became aware of the problem, a state assessment task force began a systematic process of examining each set of assessments that are required by each program with the aim creating one assessment bank

that could be used across programs. She stated that the state hopes to implement the new system next year.

A director of a community action agency said that she recognizes that a ‘cost’ of partnership is that the child care programs now conduct separate classroom and child assessments that are linked to each funding stream and each of these assessment and monitoring requirements adds to the teachers’ workload. She said:

It feels that we are constantly completing assessments—one for the state quality rating program and another for the Head Start program. We have been talking with the state and federal regional staff about coordinating these efforts. We recognize it might be more work for them to coordinate the assessment and monitoring requirement and their monitoring visits, but it would truly demonstrate their commitment to supporting partnerships at the point of service delivery. (Anonymous, personal communication, March 2, 2007)

State preK, child care, and Head Start state collaboration leaders noted the importance of state agencies’ active participation in such efforts to coordinate assessment and monitoring requirements. Leaders noted that since the state is required to issue child care regulations and because state education agencies are often the lead agencies in developing early education guidelines, coordination efforts must take place at the state level. One state agency director said:

This stuff isn’t glitzy. Quite frankly it is boring—it requires sitting around a table looking at each standard and figuring out how child care, Head Start, and our early education program can assess children and classrooms. We need to figure out a cost-effective way to do this that still meets the intent of federal and state laws. However, we realized that when we spend time in this way, it really does support more seamless services for kids and families and that is what we are all aiming to do. (Anonymous, personal communication, April 4, 2008)

Another national child care expert said that while the efforts must take place at the state level, federal staff must be involved for such efforts to be aligned with federal monitoring efforts.

Encourage States to Use Incentive Funds and Quality Dollars to Support Partnerships

Some state leaders reported that federal dollars and incentive grants can be very important to their efforts to support child care/Head Start partnerships. Ohio, a leader in promoting partnerships between child care and Head Start, was among the first states in the nation to receive federal funding for a Head Start State Collaboration director. The state used this funding to conduct a needs assessment that was used to determine the state strategies that would best meet the needs of Head Start and child care providers. As noted in the introduction, some states list partnership with Head Start as an indicator of quality in the state quality rating system.

Some national experts and state leaders recommended listing partnership with Head Start as a quality indicator in state quality rating systems that are currently under development or that are being refined. One state child care administrator said:

There appears to be synergy between the QRS and the partnership efforts. We are aiming to achieve higher quality and our QRS encourages child care providers to seek a Child Development Associate's and to participate in targeted training. Since providers in partnership with Head Start are more likely than comparison providers to be engaged in these educational activities, we should consider listing Head Start as an indicator in our new QRS. (Anonymous, personal communication, December 4, 2007)

Use Training and Technical Assistance to Support Partnerships

Focus group participants, interviewees, and attendees at national and regional meetings noted that federal and state training and technical assistance (T/TA) that disseminates findings, provides state- and local-tailored technical assistance, and shares lessons learned is critically important to state and local providers engaged in partnership. Moreover, coordination of T/TA across child care, Head Start, and state early education programs could both model partnership practice and create more efficient and streamlined training and technical assistance.

Three specific types of T/TA were suggested by individuals who participated in our focus groups and interviews: 1) onsite TA; 2) information dissemination; and 3) state peer support. Specifically, some state leaders reported that they had benefited from onsite

TA during which a facilitator assisted a team of state child care and early education leaders in systematically reviewing state policies that support or impede partnerships with the aim of crafting state policies to support more seamless services. One state child care administrator stated that this facilitation was very helpful since each person around the table was focused on his or her own program and the facilitator helped to elevate the conversation so that the focus was on the goal of seamless services for children and families. The result was a matrix that illustrated the similarities and differences for each program that was used as a basis for changing state regulation and targeting local T/TA.

Many state and local leaders reported that they benefited from printed information about partnerships and about how to engage in effective partnerships. One Head Start State Collaboration director noted that he regularly disseminated a “tip sheet” and materials to Head Start agencies and child care staff engaged in partnership. He said that it is cost efficient and effective for providers to have information about what works as they begin a partnership. A number of individuals reported using the Quality in Linking Together (QUILT) materials that were developed with joint funding from the Head Start and Child Care Bureaus. A number of state administrators reported using the new PACT materials but noted that the modeling of partnership that was demonstrated by QUILT with joint funding and support from child care and Head Start offered “an additional boost” to state efforts to support partnership. Others noted the importance of disseminating tip sheets, briefs, model partnership agreements, and other user-friendly materials to providers on a regular basis. One Head Start agency director said she used these materials regularly and found it helpful when the state regularly disseminated information.

Finally, some state leaders who had participated in foundation-supported projects said they benefitted greatly from state peer support. One former state child care administrator said she and a team of early education policy makers from her state attended a three-day meeting sponsored by a foundation that required each state to come with a particular agenda item of interest. During the three-day meeting, each team shared challenges and best practices with a matched state. She said that this type of exchange was extremely beneficial. She suggested that the federal government consider ways to support state peer exchange to support child care/Head Start partnerships.

At the same time, providers reported that T/TA that is coordinated across programs is more beneficial than training and technical assistance that focuses simply on one program. As noted in the family child care section of the report, some providers were

surprised that their local Resource and Referral Agencies were not aware of the professional development services providers were receiving through Head Start. A systematic review of T/TA within and across states could create a more efficient and seamless system training and technical assistance that better meets the needs of providers.

Continue to Support Systematic Links Between Partnership Research and Policy

Policy makers, advocates, and practitioners reported benefits from the systematic efforts to link our partnership research findings to policy and practice. As researchers, we recognize the importance of exercising caution in collecting, analyzing, and reporting our findings. We include caveats, take time to conduct quality assurance checks to ensure all of our data are accurate, and refine our analytic models to rule out alternative hypotheses. Finally, we report our results in research documents that list the limitations of our research in terms of the generalizability of our findings and limits of non-experimental research designs. At the same time, we recognized the importance of our research for policy makers and stakeholders and took steps to share early findings with these key groups with the hope that our findings could inform policy and practice.

Participants in our focus group and interviews, as well as child care and Head Start stakeholders who attended our meetings, stated that they benefitted from the timely sharing of early findings and recognized that while no research is perfect, solid research can help to inform policy and practice. One state child care administrator said:

Sure it is helpful for us to read research articles but we have to make decisions even if we don't have perfect information that is based on an experimental design. We want to know if partnerships make a difference and your study gives us solid information about partnerships. We have learned what types of partnerships work. (Anonymous, personal communication, December 4, 2007)

Conclusion

Our research on child care/Head Start partnerships was designed to provide empirical data to inform policy and practice. We found statistically significant relationships between child care/Head Start partnership and a range of quality improvements and child outcome variables. Moreover, our study showed that specific types of partnerships are

more likely to yield desired benefits. Partnerships with clear and concrete partnership goals that detail how children will be jointly served yield benefits for providers and the children they serve. Strong communication—where child care and Head Start staff understand regulations of each program—predicts partnership benefits. Finally, duration is significantly predictive of benefits at the classroom level and at the child level. National and state policy makers suggested that these findings can inform policy decisions, training and technical assistance efforts, and decisions regarding partnership formation at the provider level as individuals at all levels consider ways to best meet the needs of low-income working parents and their children.

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APPENDICES

APPENDIX A

Table A. Regression Results for ELLCO and ECERS-R Scores

Dependant Variable	Explanatory Variable	N	Constant	β	R ²
ECERS-R Total Score	Partnership Duration	30	85.603 (23.750)	12.958 * (5.186)	0.182
ELLCO General Classroom Environment Subtotal	Partnership Duration	30	9.322 (3.301)	1.738 * (0.721)	0.172
ELLCO Classroom Observation Total	Partnership Duration	30	24.463 (9.250)	4.259 * (2.020)	0.137

Note. Standard errors are reported in parentheses. *p < .05 level, **p < .01 level, ***p < .001.

APPENDIX B.

Table B.1. Family Child Care Providers' Reports of Conducting Specific Activities on a Daily Basis

Activity	Partnership		Comparison		χ^2
	n	%	n	%	
Greet each parent and child when they arrive	50	98.0	55	96.4	0.25
Read to children	50	94.0	55	76.4	6.31*
Review names of colors	50	88.0	55	72.7	3.82
Review letters of the alphabet or words	50	66.0	55	43.6	5.28*
Review number concepts or count	50	66.0	55	49.1	3.06
Provide toys and materials that reflect cultural diversity	50	50.0	55	40.0	1.06
Give children art supplies to use	50	70.0	55	38.2	10.65**
Give children time to spend outside (weather permitting)	50	82.0	55	67.3	2.97
Give children science or nature materials	50	38.0	55	21.8	3.30
Give children free choice time in different types of play activities	50	80.0	55	70.9	1.16
Give children a good supply of age-appropriate toys and materials	50	94.0	55	90.9	0.36
Spend time preparing children for Kindergarten	50	62.0	55	38.2	5.94*
Involve parents in children's learning activities	50	32.0	55	23.6	0.92

Send home written communication to parents	50	12.0	55	12.7	0.01
Encourage parents to spend time in family child care home	50	14.0	55	25.5	2.15
Talk with parents about children	50	78.0	55	87.3	1.59
Use math concepts such as counting or reviewing patterns	50	68.0	55	45.5	5.41*
Read from non-fiction and fiction content	50	76.0	55	41.8	12.57***
Adapt home to include children with disabilities	50	34.0	55	30.9	0.11
Provide activities to develop small and large muscle development	50	86.0	55	56.4	11.06***
Integrate health and nutrition practices in home	50	86.0	55	83.6	0.11
Use a purchased curriculum	50	28.0	55	14.6	2.86
Provide television or videos for children to watch	50	52.0	55	52.7	0.01
Provide children with materials for active/physical play	50	78.0	55	70.9	0.69

Note. For each item, providers were asked, “How frequently do the following activities occur at your family child care home?” Response options were as follows: 0 = Never, 1 = Seldom (less than 1 time a week), 2= Sometimes (weekly), 3 = Frequently (several times a week), 4= Daily.

*p < .05, **p < .01, ***p < .001

Table B.2. Differences in Reports of Screenings, Referrals, and Services for Children Based on Family Child Care Provider Reports

Child screenings	Partnership		Comparison		X ²
	n	%	n	%	
Developmental Screening	50	94.0	50	30.0	43.46 ***
Lead screening	50	68.0	48	22.9	20.04 ***
Vision screening	50	90.0	49	30.6	36.56 ***
Hearing screening	50	94.0	51	31.4	42.20 ***
Dental screening	49	73.5	50	26.0	22.31 ***
Mental health observation	45	53.3	50	22.0	9.99 **
Speech screening	50	80.0	51	27.5	28.02 ***
Nutritional screening	49	65.3	50	28.0	13.85 ***
Child referrals					
Medical referrals	49	71.4	50	22.0	24.31 ***
Dental referrals	49	73.5	50	22.0	26.29 ***
Social service referrals	48	70.8	49	22.5	22.82 ***
Child services					
Physical therapy	47	38.3	49	12.2	8.68 **
Speech therapy	48	64.6	51	25.5	15.31 ***
Transportation	47	31.9	50	14.0	4.43 *

*p < .05, **p < .01, ***p < .001

Table B.3. Differences in Parent Referrals and Services Based on Provider Reports

Parent services	Partnership		Comparison		X ²
	n	%	n	%	
Social service referrals	48	75.0	51	29.4	20.58 ***
Health care service referrals	49	73.5	50	24.0	24.25 ***
Mental health service referrals	47	57.5	50	20.0	14.40 ***
GED preparation referrals	48	37.5	49	12.2	8.31 **
English proficiency classes	48	29.2	49	4.1	11.08 ***
Immigration services	48	16.7	49	4.1	4.15 *
Employment placement referrals	48	47.9	49	14.3	12.84 ***
Assistance obtaining food stamps	49	55.1	50	22.0	11.47 ***
Assistance with financial aid	49	55.1	50	16.0	16.56 ***
Marriage counseling	48	25.0	49	6.1	6.61 *
Legal services	48	22.9	49	8.2	4.04 *
Energy/fuel assistance	49	65.3	49	16.3	24.33 ***
Processes for working on family issues/goals	48	54.2	49	18.4	13.47 ***
Transportation	47	27.7	50	30.0	0.06

*p < .05, **p < .01, ***p < .001

APPENDIX C.

Additional Research Literature on Child Care and Early Education Related to Partnerships

Existing Research Shows Clear Differences Among Early Childhood Sectors. Unlike public K-12 education, the United States does not have a uniform, coherent approach to serving young children, leaving instead a patchwork of for-profit and non-profit, public and private child care centers, family child care homes, faith-based programs, and Head Start programs (Barnett, 1993; Flynn & Hayes, 2003; Gallagher & Clifford, 2000; Goodman & Brady, 1988; Kagan, 2001; Kagan & Cohen, 1997; Schilder et al., 2003a; Vast, 2001; Whitebook & Bellm, 1999). The nation’s child care and Head Start funding streams are united in providing services to young children, but are deeply divided by distinctly different missions, funding requirements, administration, and standards (Azer, LeMoine, Morgan, Clifford, & Crawford, 2002; Gallagher & Clifford, 2000; Kagan & Cohen, 1997; Mitchell, 2001; Schilder et al., 2003a; U.S. General Accounting Office, 2000). As noted previously, child care is designed as a work support and Head Start is designed to address children’s school readiness needs (Adams & Rohacek, 2002). As such, these programs operate without a common infrastructure, and without a strong web of early education services; instead, they present challenges to providers and parents with their multiplicity of eligibility requirements (Barnett, 1993; Flynn & Hayes, 2003; Gallagher & Clifford, 2000; Goodman & Brady, 1988; Kagan, 2001; Kagan & Cohen, 1997; Schilder et al., 2003a; Vast, 2001).

Research Shows Differences Exist Within Early Childhood Sectors. Variability contributing to fragmentation exists not only between, but within the different sectors of early childhood education. In Ohio—typical of many states across the nation—over 3,500 child care centers and 7,000 family child care providers operate; and over 60 Head Start programs provide services (Ohio Department of Job and Family Services, 2003). Each of these providers follows standards and regulations and administers services differently. For example, differences between non-profit and for-profit child care programs can impact the accessibility of services for children and families. These issues place a special burden on CCDF administrators to create policies that are equitable and address variability across sectors and within sectors.

Policymakers Respond by Calling for Systemic Reform to Improve Child Care Quality.

To address the need for higher-quality child care to support children's school readiness, policy makers and experts have called for systemic reform (Melaville, Blank, & Asayesh, 1993; U.S. General Accounting Office, 1994). Such efforts are designed to encourage collaboration across programs to better organize and deploy resources; raise the quality bar for the field by building a cross-program, shared vision of high-quality curriculum and practices; and embrace a higher standard for workforce qualifications supported by enhanced, ongoing professional development. (National Association for the Education of Young Children & International Reading Association, 1998; Ramey & Ramey, 2003; U.S. Department of Education, 2002; White House, 2002). Many states are initiating innovative reform efforts to reduce fragmentation and strengthen the early childhood education infrastructure (Flynn & Hayes, 2003; Groginsky, 2002; Groginsky, Robinson, & Smith, 1999; Park-Jadotte, Golin, & Gault, 2002; Schilder et al., 2003b; Schumacher, Greenberg, & Lombardi, 2001).

Systemic reform efforts contrast with the piecemeal quality enhancement activities supported by many states. States are using CCDF quality set-aside dollars to fund activities that examine the links to quality, such as caregiver training, safety improvements, or accreditation incentives (U.S. General Accounting Office, 2002). Yet many state leaders understand that more systemic efforts that combine individual activities could reduce fragmentation, strengthen the early childhood education infrastructure, and leverage quality enhancements across different sectors (Flynn & Hayes, 2003; Groginsky, 2002; Groginsky et al., 1999; Park-Jadotte et al., 2002; Schilder, 2004; Schumacher et al., 2001).

While some CCDF administrators are exceeding the required 4 percent set-aside and are now devoting 10 percent (CCDF and/or other funds) for quality initiatives to improve child care, many of these activities target specific areas of weakness, such as lack of equipment or need for more inspections. Few are designed to bring about systemic changes that could result in improved learning outcomes for children attending center-based or family child care (U.S. General Accounting Office, 2002).

At the same time, research suggests that policy makers are typically faced with competing priorities and inadequate resources (Healey & DeStefano, 1997; Yoshikawa, Rosman, & Hsueh, 2002). At a recent National Child Care Research Consortium meeting, a state administrator expressed the frustration that many feel when grappling with how to integrate current research into their policy agenda. While CCDF administrators stay

abreast of the research and recognize their role in achieving higher quality, they struggle with how to use specific policy levers to bring about changes associated with quality. For example, many CCDF administrators are aware of the research that links caregiver education with quality and, therefore, support training and education initiatives for child care providers. However, many of these actions do not systematically address the needs of center-based and family child care providers.

APPENDIX D. MEASUREMENT TOOLS AND CONSTRUCTS

Table D.1. Measurement Tools and Constructs Assessed

CHILD CARE CENTER SURVEYS	CONSTRUCT
Survey of Quality Indicators	Structural indicators of quality, provision of services; coordination between provider and other early childhood programs
Survey of Child Services	Screenings, services and referrals received by children
FAMILY CHILD CARE SURVEYS	CONSTRUCT
Survey of Quality Indicators	Structural indicators of quality, provision of services; coordination between provider and other early childhood programs
Survey of Child Services	Screenings, services and referrals received by children
CHILD ASSESSMENTS	CONSTRUCT
Peabody Picture Vocabulary Test-III (PPVT-III) (Dunn & Dunn, 1997)	Receptive vocabulary
Test de Vocabulario en Imagenes Peabody (TVIP) (Dunn, Padilla, Lugo, & Dunn, 1986)	Receptive vocabulary in Spanish
PreLAS 2000, Oral Subscale (Duncan & De Avila, 2000)	Proficiency in English
Preschool Language Scales-4 (PLS-4)-Auditory Subtest(Zimmerman et al., 2002)	Receptive language in English and Spanish versions
Phonological Awareness Literacy Screening for Preschool (PALS-PreK) (Invernizzi et al., 2001)	Phonological awareness, alphabet knowledge, verbal memory, print knowledge, emergent writing

CLASSROOM RATINGS	CONSTRUCT
Early Language and Literacy Classroom Observation (ELLCO)(Smith et al., 2002)	Classroom quality, with emphasis on language and literacy
Early Childhood Environment Rating Scale-Revised Edition (ECERS-R)(Harms, Clifford, & Cryer, 1998a)	Global quality of the educational environment
FAMILY CHILD CARE PROVIDER RATINGS	CONSTRUCT
Caregiver Interaction Scale (Arnett, 1989)	positive interaction, punitiveness, detachment, and permissiveness
Family Day Care Rating Scale(Harms & Clifford, 1989)	Global quality of family child care