Education Development Center, Inc. Newton, MA

CHILD CARE/HEAD START PARTNERSHIP STUDY:

FINAL REPORT

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Partnership Impact
research project

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EXECUTIVE SUMMARY

Since the 1990s, federal and state governments have increasingly supported partnerships[1] between subsidized child care providers and Head Start programs (Schilder, Kiron, & Elliott, 2003). The goal of the partnerships has been to create high-quality seamless services for low-income children and their families. Two factors contributed to the government's promotion of these partnerships. First, the passage of welfare reform legislation—with more stringent work requirements for parents—increased the need for full-day, full-year subsidized child care for low-income working parents (Adams & Rohacek, 2002; Long, Kirby, Kurka, & Waters, 1998). Second, new attention was brought to research demonstrating the benefits of high-quality, comprehensive early education programs for low-income children (Shonkoff & Phillips, 2000)

Despite the promise of early education programs to provide services to low-income families and to enhance young children's school readiness and long-term prospects, the majority of such programs—including Head Start—provide primarily part-day services and are inaccessible to many low-income working parents who need full-time child care (Schilder et al., 2003). By supporting partnerships between full-day full-year child care centers and Head Start, policymakers believe the combined services could meet the needs of both parents and their children (Schilder et al., 2003).[2] The rationale for partnerships is as follows: Head Start will provide child care centers with resources that contribute to higher quality care and result in benefits for children and families. Further, partnering centers will offer not only higher quality,

[1]It is important to note that we define partnership as an agreement between a Head Start agency and a child care center to jointly provide services to eligible families. While multiple definitions of partnership exist, we use the term narrowly to refer to these formal arrangements that are, for the most part, contractual in nature. These formal agreements define the resources that Head Start provides to the child care program and the services the child care program agrees to provide.

[2]See *Early Care and Education Partnerships: State Actions and Local Lessons* by Schilder, Kiron, and Elliott for Phase 1 findings—a detailed description of the impetus behind partnerships and federal, state and local actions to support partnerships.

but more comprehensive services (Schilder et al., 2003). While this theory is compelling to many, few quantitative researchers have tested whether partnerships are related to the anticipated benefits. Moreover, limited research exists on the factors that contribute to a partnerships' ability to yield desired results.

Research Design and Methodology

To address questions about early care and education partnerships, researchers at the Center for Children & Families (CC&F) are undertaking a longitudinal survey research study of child care centers that examines the nature and benefits of partnerships, as well as the differences between partnering and comparison centers. This report is the final report from first phase of the study that we undertook from 2001 to 2005. For this report we used chi-square statistics, logistic regression analyses, regression analyses, t-tests, and Analysis of Variance (ANOVAs) to analyze quantitative data collected from a stratified sample of randomly selected licensed child care providers in Ohio. We analyzed differences between the following two groups: 78 centers in partnership with Head Start and 63 comparison centers not in partnership with Head Start. The data set consisted of responses to three rounds of surveys administered to partnership center directors[3] and comparison center directors, teachers, and parents. These surveys asked questions about structural indicators of quality; the services provided by centers; teacher professional development, education, and benefits; as well as parents' perceptions of quality. The process we used to develop the survey instruments[4] ensured careful and rigorous construction and measurement of key concepts.

[3]Researchers also surveyed the Head Start programs partnering with these centers.
[4]Researchers derived items in the instruments from nationally recognized surveys such as the *Cost, Quality, and Child Outcomes in Early Childhood Care and Education Study*, the *Investigating Partnerships in Early Childhood Education* (I-PIECE) Study, and the *Head Start Family and Child Experiences Survey* (FACES).

Our research sought to build upon existing qualitative research that reveals variation in the types of providers engaged in partnerships (Ontai, Hinrichs, Beard, & Wilcox, 2002; Paulsell, Nogales, & Cohen, 2003; Sandfort & Selden, 2001; Schilder et al., 2003) and suggests that certain factors are important to partnerships' growth, development, and capacity to achieve desired outcomes (Kiron, 2003). Three research questions framed our analysis and writing:

- What are the characteristics of child care centers in partnership with Head Start and what is the variation in partnership duration, resources, communication, and management?
- Do differences exist between child care centers in partnership with Head Start and comparison centers in terms of center characteristics; teacher characteristics, benefits, and classroom practices; and services offered to children and their families? Are there demographic differences in the parent populations at partnering and non-partnering centers?
- Do duration, resources, communication, and management of the partnership predict desired outcomes?

Findings

- **Variation:** Our study confirms that variation exists in the types of child care centers engaged in partnership. Child care centers that engage in Head Start partnerships range from non-profit to for-profit, religious-affiliated to secular, large to small, urban to rural.
- **Population Served:** Our analyses reveal that partnering child care centers provide services not only to children from low-income families, but also provide child care to a large percentage of children from higher income families. As research has shown that school-aged low-income students served in economically diverse settings perform better than those in homogenous settings, this finding reveals an additional potential benefit of partnerships.

- **Resources:** Our data indicate that partnership centers receive resources from Head Start. These resources include funding, professional development, and additional materials and supplies. On average, partnership centers receive $3,600 dollars per child per year. Centers use this funding to purchase supplies such as art materials, to support teacher training, and to enhance teacher compensation packages. In addition to this funding, partnership centers receive professional development and training, paid staff, and additional materials and supplies from Head Start. These resources can help partnership centers meet Head Start's rigorous program performance standards. While the resources are related to the number of Head Start children attending the center, centers use the funds in a variety of ways that can improve early education experiences for every child. For example, all children can benefit from classrooms with enhanced equipment, such as science centers or bookshelves, and supplies or additional art and curriculum materials. Furthermore, all children have the potential to benefit from better-trained teachers.
- **Staff:** Our findings reveal that partnership is a strong and statistically significant predictor of offering teachers more professional development and training opportunities and better compensation packages. Our data also indicate that partnership is a statistically significant predictor of teachers' usage of structured curricula and standardized assessments.
- **Services:** Our analyses indicate that partnership is a statistically significant predictor of centers' provision of additional screenings, referrals, and services to children and families. This finding is especially compelling given that the final evaluation of the federally funded Comprehensive Child Development Program (CCDP)—a program funded in 1997 at a level of $15,768 dollars per family per year—found few differences in the services accessed by CCDP and non-participating control group families. That study found that control group

families were able to access many of the services offered by CCDP. For example, equal percentages of CCDP and control group families visited a doctor for checkups, received acute medical care, and received dental services. In contrast, our findings indicate that families served by partnership centers are more likely to have access to services than comparison families. Furthermore, regardless of income, parents at partnering centers are more likely to receive comprehensive services for their children, more parent involvement opportunities, and services and referrals for their families. Thus, it is possible for centers in partnership with Head Start to leverage the benefits of the partnership to enhance the quality of care for all children and families at the center. The size of the differences between partnering and comparison centers indicates that partnership with Head Start is an important factor in a center's likelihood of offering screenings, referrals, and services (U.S. Department of Health and Human Services/Administration for Children and Families/Child Care Bureau, n.d.).[5]

- **Agreement, Goals, and Benefits:** While our findings indicate that the existence of a partnership predicts certain benefits to child care centers, it appears that the nature of partnerships is important. Centers that develop strong agreements and have consistent goals with their partners, and who report good communication, are the most likely to report improved benefits. These findings have implications for Head Start and Child Care Development Fund (CCDF) policies. Over the past decade, federal leaders have encouraged partnerships between Head Start and child care centers. At the same time, states have devoted CCDF quality dollars to a range of activities with the goal of improving quality. Our research demonstrates that partnership with Head Start is related to specific quality improvements.

[5]This research and demonstration program—funded by the federal government—was designed to provide comprehensive services to low-income children and families. For additional information see: http://www.abtassociates.com/reports/ES-D19940018.pdf

Thus, leaders might consider the implications of this finding for policies related to CCDF quality funds. Policymakers could consider ways to strengthen partnership agreements and communication among partners as they consider ways to encourage the development of these factors in partnerships.

Conclusion

Study findings serve to bridge gaps in the literature and expand the current knowledge base on child care/Head Start partnerships. While researchers did not include random assignment—and the study cannot provide definitive answers about causation—the study's findings provide a closer look at the nature and impact of partnerships and clearly reveal a strong relationship between partnership and desired outcomes.

As policymakers seek ways to leverage improvements in child care, we hope that these findings will serve to inform their deliberations. Federal and state leaders issuing regulations and guidance to programs in partnership might consider one of our study's most important findings: partnership with Head Start is related to additional resources to a child care center and an increased likelihood that the center will offer the screenings, referrals, and services that researchers suggest make a difference for low-income children and their families.

Our study also leads to specific questions for future research. While the findings appear promising, questions exist about whether observations would confirm the quality differences reported by the directors, teachers, and parents. Furthermore, questions remain about whether the reported improvements in teacher practices, along with the additional services provided to children and their families, lead to improvements in children's school readiness. 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 will continue our longitudinal study. In the

upcoming years, we will collect classroom and child-level data from the sample of partnership centers and comparison centers using standardized observational tools.

CHAPTER 1 CHILD CARE/HEAD START PARTNERSHIPS: ISSUES, THEORETICAL FRAMEWORK, AND RESEARCH DESIGN

INTRODUCTION

Since the 1990s, federal and state governments have increasingly supported partnerships between subsidized child care providers and Head Start programs (Schilder, Kiron, & Elliott, 2003). The goal of the partnerships has been to create high-quality, seamless services for low-income children and their families. The impetus behind this move was twofold. First, the passage of welfare reform legislation—with more stringent work requirements for parents—increased the need for full-day, full-year subsidized child care for low-income working parents (Adams & Rohacek, 2002; Long, Kirby, Kurka, & Waters, 1998). Second, new attention was brought to research demonstrating the benefits of high-quality, comprehensive early education programs for low-income children (Shonkoff & Phillips, 2000). However, most of these programs—including Head Start—provided primarily part-day services and were, therefore, inaccessible to many low-income working parents who needed full-time child care (Schilder et al., 2003). By supporting partnerships between child care centers and Head Start programs, policymakers believed the combined services could meet the needs of parents and their children (Schilder et al., 2003).[6]

In 2001, the U.S. Department of Health and Human Services (DHHS) Administration for Children and Families (ACF) Child Care Bureau awarded a three-year research grant to Education Development Center, Inc. (EDC) to study partnerships between child care providers and Head Start programs. Upon receipt of this grant, we launched the *Partnership Impact* study, an intensive, longitudinal survey research study of child care centers that examined the nature of partnerships and the differences between partnering and comparison centers.

[6]See *Early Care and Education Partnerships: State Actions and Local Lessons* by Schilder, Kiron, and Elliott for a detailed description of the impetus behind partnerships and federal, state, and local actions to support partnerships.

We asked randomly selected child care centers to participate in the study, and center directors completed questionnaires in 2002, 2003, and 2004. Teachers at these centers and parents of children served by these centers also completed surveys. The surveys collected data on structural indicators of quality; the services provided by centers; teacher professional development, education, and benefits; and parents' perceptions of quality. We present our findings in this report.

In the remainder of this chapter, we describe the theoretical framework underlying the study and present our research methodology. Chapter 2 presents our analyses of data on the nature of child care/Head Start partnerships. Chapter 3 outlines our findings related to teacher benefits and practices. Chapter 4 reviews our analyses of differences in the comprehensive services offered by partnering and comparison centers and presents parents' perspectives on the services they received. In Chapter 5, we conclude the report with a summary of findings and a discussion of implications for future research.

THEORETICAL FRAMEWORK

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. One reason for this assumption is that the cost of Head Start is greater than the cost of child care. According to the U.S. Government Accountability Office, Head Start served 912,000 children in FY 2003 at a cost of approximately 6.5 billion dollars. Note that the Child Care Development Fund (CCDF), the largest federal source of subsidized child care

dollars–served an estimated 1,260,000 children under age five. While the annual federal cost is 4.8 billion, CCDF also requires states to allocate matching and Maintenance of Effort (MOE) funds for child care which increases the amount of subsidized child care funding beyond the level of Head Start funding (U.S. Department of Health and Human Services/Administration for Children and Families/National Child Care Information Center, n.d.).

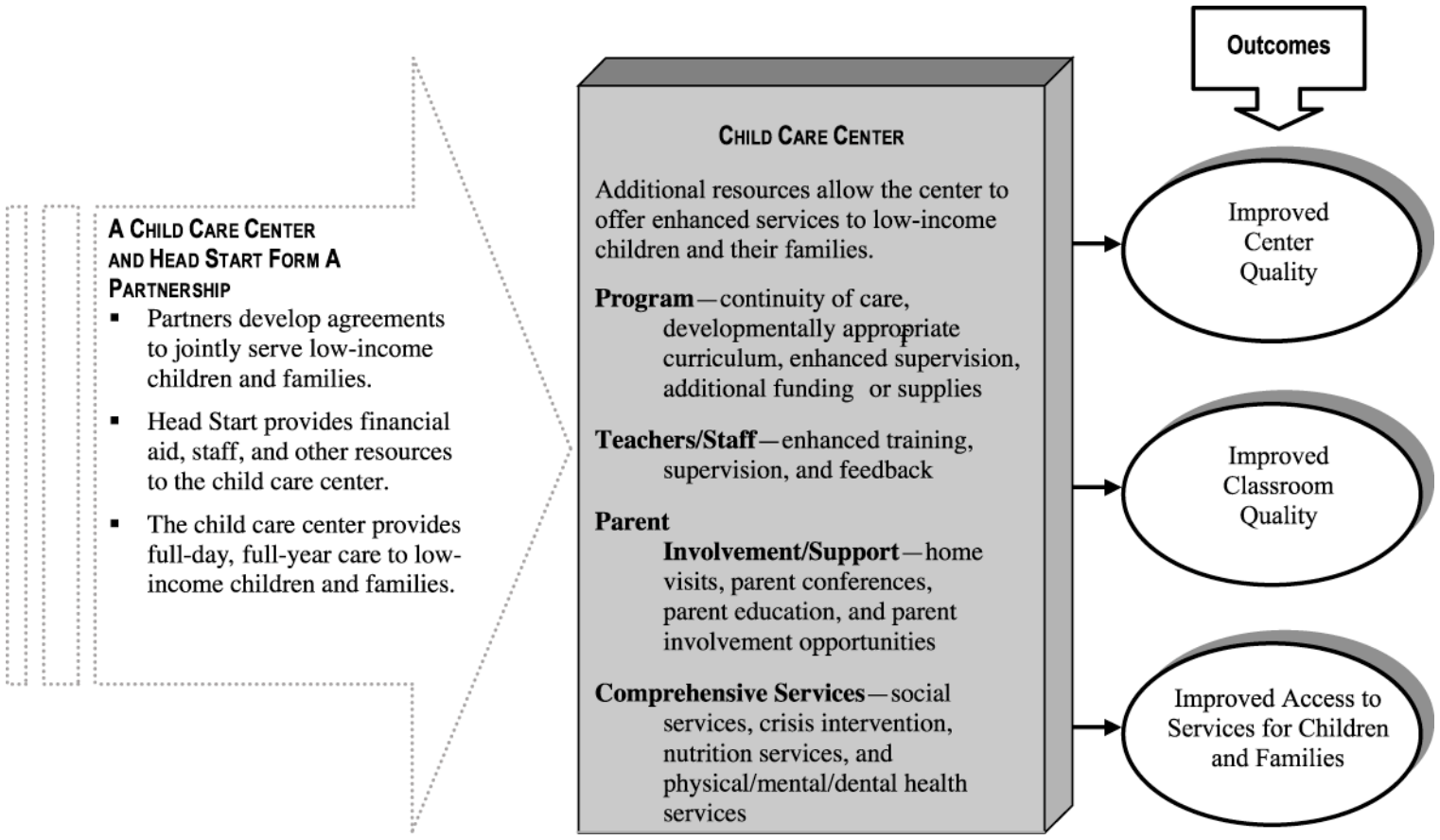
Second, it is hypothesized that by partnering with Head Start, child care centers will offer more comprehensive services because the Head Start program is required to provide more comprehensive services than some subsidized child care (Schilder et al., 2003). Moreover, child care centers in partnership with Head Start might offer features of higher quality care. Head Start programs are required to follow the Head Start Program Performance Standards. These 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. 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, states regulate subsidized child care and there is a range of regulations governing child-teacher ratios, teacher educational requirements, teacher professional development and training standards, and supervision and monitoring practices (Stoney & Stanton, 2001).

Figure 1.1 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.

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 Figure 1.1, we describe the research design that we developed to explore whether partnerships yield the intended benefits and to examine the nature of child care/Head Start partnerships.

Figure 1.1
Conceptual Model of Child Care/Head Start Partnerships



RESEARCH DESIGN: OBJECTIVES, SCOPE, AND METHODOLOGY

We designed our study to examine the following:

- Characteristics of child care/Head Start partnerships and variations in partnership arrangements
- Differences between teachers at partnering centers and comparison teachers in terms of their characteristics, benefits, and classroom practices
- Differences in services offered to children and families according to child care directors and the parents of children attending partnering and comparison centers

We began data collection in 2002, completed data collection in 2004, and concluded data analysis in 2005. It is important to note that for this study we defined partnership as an agreement between a Head Start agency and a child care center to jointly provide services to eligible families. While multiple definitions of partnership exist, we used the term narrowly to refer to these formal arrangements that are, for the most part, contractual in nature. These formal agreements define the resources that Head Start provides to the child care program and the services the child care program agrees to provide.

Research Questions

The study addressed the following research questions:

- What are the characteristics of child care centers in partnership with Head Start and what is the variation in partnership duration, resources, communication, and management?
- Do differences exist between child care centers in partnership with Head Start and comparison centers in terms of center characteristics; teacher characteristics, benefits, and

classroom practices; and services offered to children and their families? Are there demographic differences in the parent populations at partnering and non-partnering centers?

- Do duration, resources, communication, and management of the partnership predict desired outcomes?

Sampling Strategy and Data Sources

We selected the child care centers in the study based on a stratified random sample of all licensed child care providers in Ohio. We began by stratifying centers on the comprehensive list available from the Ohio Department of Job and Family Services child care licensing database. First, we separated the centers into one of two groups: those in partnership and those in comparison centers. Next, we stratified centers in each group by urbanicity to ensure that a representative portion of child care centers were selected from urban, suburban, and rural areas. Finally, we contacted the U.S. Bureau of the Census to review existing definitions of urbanicity, and we also contacted the U.S. Department of Health and Human Services to ensure that the urbanicity categories reflected the challenges that child care centers face depending upon their geographic location.

After stratifying the list, we randomly selected centers to participate in the study. We contacted the directors at the randomly selected centers by telephone, asked initial screening questions, and recruited eligible centers for the study. Based on the screening calls, we sent recruitment packages to a total of 221 eligible child care centers (i.e., those providing full-day, full-year care and accepting child care subsidies). The packages included questionnaires and explanatory information. Following the mailing, we called center directors to answer any questions about the materials. To increase the response rate, we sent packages to non-respondents and telephoned each non-respondent to encourage participation. We also sent non-

respondents a third package of materials, and they received a letter from the state care administrator encouraging their participation in the study. A total of 141 child care centers were both eligible and agreed to participate. At the point of initial data collection the sample included 78 centers that were in partnership with Head Start, and 63 comparison centers not in partnership, with a response rate for the baseline survey of 65 percent.

We asked each center director to complete surveys in 2002, 2003, and 2004, and we requested that they distribute surveys to teachers and parents at their centers. In addition, we surveyed the Head Start programs partnering with these centers. Table 1.1 illustrates the number of surveys completed from each source in each round of data collection.

Table 1.1 Data Sources

Data Source	Year 1			Year 2			Year 3		
	Part.	Comp.	Total	Part.	Comp.	Total	Part.	Comp.	Total
Child Care Center Directors	78	63	141	47	66	113	40	54	94
Teachers	102	53	155	71	78	149	49	55	104
Parents	415	323	738	318	381	699	133	121	254
Total	595	439	1034	436	525	961	222	230	452

The attrition rate for partnership centers between Year 1 and Year 2 is partly due to centers' discontinuation of partnerships and partly due to centers' refusal to participate further in the study. Of the 78 centers in partnership in Year 1, 17 partnership centers—or 21 percent of partnership centers—discontinued their partnerships and became comparison centers in Year 2. Moreover, 16 centers—or 21 percent of 78 partnership centers that participated in the survey in Year 1—refused to participate in the survey in Year 2. For comparison centers, 12 comparison centers—about 19 percent of the 63 comparison centers that participated in the survey in Year 1—refused to participate in the survey in Year 2. However, centers that discontinued their partnerships after Year 1 joined the comparison sample for Year 2. Thus, the total number of

comparison centers appeared to increase to 66. Note that only two comparison centers in Year 1 initiated new partnerships prior to the second round of data collection.

Instruments

We used an exhaustive and systematic process to develop a battery of five surveys. The steps in the process—conducting a review of the literature, interviewing researchers across the country, and convening review groups of national experts and state stakeholders—ensured careful and rigorous construction and measurement of key concepts. We pilot-tested each survey to ensure item-construct validity.

Items in the instruments are from nationally-recognized surveys such as the *Cost, Quality, and Child Outcomes in Early Childhood Care and Education Study,* the *Investigating Partnerships in Early Childhood Education* (I-PIECE) Study, and the *Head Start Family and Child Experiences Survey* (FACES). Table 1.2 presents details about the survey instruments that we used (Cost Quality and Child Outcomes Study Team, 1995; Sandfort & Selden, 2001; U.S. Department of Health and Human Services/Administration for Children and Families/Project Team FACES, 2003).

Table 1.2 Survey Instruments, Respondents, and Constructs

Instrument	Respondent	Constructs
Partnership Survey	▪ Child care center director (only those in partnership)	▪ Partnership duration ▪ Resources devoted to the partnership ▪ Communication among partners ▪ Management of the partnership
Director Survey	▪ Child care center director (partnership and comparison centers)	▪ Child care center practice ▪ Characteristics of the child care center ▪ Structural elements of quality
Teacher Survey	▪ Teachers (partnership classroom teachers and comparison teachers)	▪ Teacher compensation and benefits ▪ Teacher education and professional development ▪ Teacher practices
Parent Survey	▪ Parents (with children in partnership classrooms and with children not in partnership classrooms)	▪ Satisfaction with quality of care and services ▪ Satisfaction with access to services ▪ Employment stability
Head Start Partner Survey	▪ Head Start programs in partnership with child care centers	▪ Resources devoted to the partnership ▪ Nature of the partnership

Surveys were similar for each round, but some minor differences existed. In some instances, we added questions to address new areas of interest based on feedback from the project's advisory committee. For example, we added more detailed questions about the nature and use of screenings; we asked child care directors not only if screenings occurred, but also who conducted the screenings, where they occurred, and how the data were used. Moreover, the first round parent survey asked parents to list "other" services they received, and subsequent surveys listed the most frequently noted items, such as transportation, in the service section.

To capture information about the partnership from both Head Start and child care sources, we administered two different surveys. The Partnership Survey asked questions of child care directors about the partnership duration, resources received, communication, and management of the partnership. The Head Start Partner Survey measured Head Start directors' or partnership coordinators' perspectives on the nature of partnership.

Analyses

We analyzed the survey data to address the key research questions. Analyses included chi-square statistics, logistic regression analyses, regression analyses, t-tests, and Analysis of Variance (ANOVAs). We analyzed differences between the following two groups: centers in partnership with Head Start and comparison centers not in partnership with Head Start.

We developed analytic models that included predictors, and in some cases outcome variables, that were composites of a number of items (see Appendices) that measured classroom quality, teacher beliefs about learning and teaching, parental involvement and support, organizational capacity, well-defined agreement and goals, communication and relationship, and benefits for the center, staff, and families and also consisted of child-teacher ratio and turnover. Our control variables consisted of duration of the partnership, total Head Start funding received, per child funding received from Head Start, equipment and supplies received from Head Start, child-teacher ratio, and non-profit and faith-based organizational status. We tested interactions between duration of partnership and all predictors, and Head Start funding and all predictors, throughout our analysis process. Before we performed any inferential statistical analysis, we used descriptive statistics and frequencies to examine differences between partnership centers and comparison centers on individual survey items. We also examined the distributions of all

survey composite items that would be used in any further analysis to ensure no transformations were needed for abnormally distributed variables. All centers that had individual data were included in these analyses. We used three different sets of analyses to address our research questions.

First, we used regression analysis to examine the teacher and director/partnership survey composites discussed previously. We fit models allowing us to compare partnership centers to comparison group centers by using group code as a dummy variable (Partnership=1, Comparison=0) to examine differences between groups on the following center and classroom level variables:

Classroom Level (teacher and parent survey):

- Classroom quality/learning environment
- Teacher beliefs about learning and teaching
- Teacher beliefs about literacy development
- Teacher beliefs about child initiated activities and explicit rewards
- Workshops attended
- Job satisfaction
- Parental involvement and support

Center Level (director survey and parent survey):

- Child and parent services
- Organizational capacity
- Teacher turnover
- Quality of supervision
- Child-teacher ratio

Second, we conducted growth modeling of the composites mentioned previously to examine differences in teacher growth as a result of participation in a partnership. Growth modeling analysis was conducted using two different approaches. We used duration of partnership (continuous variable beginning with 0 for center that had no partnership) to predict differences in growth at three time points. However, we acknowledge the possibility that the model may overestimate the effect of duration on growth because centers that did not benefit

from partnerships might discontinue their arrangements with Head Start. Therefore, there exists a potential selection bias in this estimation. After examination of these initial growth models, we decided to conduct another set of analyses that would provide insight into differences that might exist for centers that remained consistent over the course of the study. To do this, we used a dummy variable (Partnership=1; Comparison=0) to examine differences in growth based only on differences between groups at three time points while controlling for duration of partnership and two dummy coded (0,1) indicators measuring non-profit and faith-based centers. Centers with missing data and those who changed partnership status could not be included in our growth modeling analysis.

Third and lastly, we used multiple regression analysis to examine the relationship between various center/partnership characteristics and our predictors of classroom quality, teacher beliefs and practices, parental support and involvement, teacher turnover, organizational capacity, and quality of supervision. In our models we controlled for duration of the partnership, funding and supplies received from Head Start, and the interaction between these variables and each predictor.

Strengths and Limitations of the Study Design

Our findings serve to bridge gaps in the literature and expand the current knowledge base on child care/Head Start partnerships. By carrying out rigorous, quantitative research, we have gathered a new data set that provides a closer look at the nature and impact of partnerships.

While the study included a randomly selected sample of partnering centers and comparison centers throughout Ohio, some limitations exist with its design. For example, the study is based on randomly selected programs that were in partnership with Head Start. We did

not "assign" partnership to these programs, and it is possible that reported differences could be a result of self-selection bias. To address this issue, we examined differences between comparison and partnership centers in terms of their organizational capacity and found no statistically significant differences (see Chapter 2). Furthermore, we completed non-response analyses to determine if differences existed in the centers that elected to participate compared with non-participating centers. Analyses revealed no differences in center budgets, total enrollments, demographics of the population, and urbanicity.

While these measures strengthened the research design, we did not include random assignment and therefore the study cannot provide definitive answers about causation. The study's findings do, nevertheless, clearly reveal a strong relationship between partnership and desired outcomes. Data about this relationship, as well as our findings concerning the nature of partnerships, can be useful to policymakers and researchers alike.

CHAPTER 2 THE NATURE OF CHILD CARE/HEAD START PARTNERSHIPS

OVERVIEW OF RELEVANT RESEARCH

Existing research on early care and education partnerships reveals variation in the types of providers engaged in partnerships and suggests that certain factors are important for partnerships to successfully develop and grow (Kiron, 2003). Specifically, qualitative studies show that child care providers engaged in partnership vary in terms of their size and type, the numbers of children served through the partnership, and the ways in which services are delivered (Ontai, Hinrichs, Beard, & Wilcox, 2002; Paulsell, Nogales, & Cohen, 2003; Sandfort & Selden, 2001; Schilder et al., 2003). Furthermore, these qualitative studies suggest that the following factors are important for partnership success:

- Strong planning to ensure partners develop well-defined partnership agreements/goals
- Communication among partners that enables individuals to resolve issues as they arise
- Resources including direct funding, professional development, and other resources such as materials, supplies, and staff
- Duration of the partnership, as many partners report that the first year is spent planning and the delivery of jointly planned services takes time (Kiron, 2003; Schilder, et al., 2003)

Qualitative research on these features has shown that because child care providers are governed by different laws and regulations than Head Start, agreement among the partners is important for the partnership to succeed. Since child care centers that partner with Head Start are required to follow Head Start regulations, strong agreements and goals, regular communication to resolve issues as they arise, and funding that can be used to meet Head Start's regulations can help partnerships succeed (Schilder, et al., 2003).

While child care administrators, policymakers, and training professionals have used these qualitative findings to inform partnership policies and practices, questions remain about the generalizability of the findings regarding the characteristics of partnering child care centers. Furthermore, it is unclear whether the factors that qualitative research has identified as important to partnerships are associated with desired outcomes for typical child care centers in partnership with Head Start.

METHODS IN BRIEF

We used a Director Survey (see Chapter 1) and a Partnership Survey to collect data from participating child care centers. We sent surveys to each center director in 2002, 2003, and 2004. The Partnership Survey was sent only to centers that had partnerships with Head Start.

The Partnership Survey included questions about the characteristics of the partnership; the factors of partnership that qualitative research revealed were associated with partnership success; the duration of the partnership; the process of developing the partnership; and the features of partnership planning and management that appeared most important to the success of partnerships. We also asked child care directors to provide us with data about their perceptions of the benefits of partnership.

We asked a series of questions to obtain data about features of partnership that the qualitative literature had shown to be related to improved outcomes. Specifically, the survey included questions to address the following:

- Characteristics of the partnership
- Factors of partnership qualitative research revealed were associated with success
- Duration of the partnership
- Partnership development process
- Features of partnership planning and management that appeared most important to success

Additionally, we asked child care directors to provide us with data about their perceptions of the benefits of partnership. Questions were directly related to benefits for the centers overall, benefits for staff, as well as benefits for families. Table 2.1 provides a detailed list of the underlying constructs of the partnership survey, a summary of the questions we asked, and descriptions of the properties of the construct scores we used to analyze the data. These constructs were designed to provide an overall assessment of outcomes related to partnership and included the following:

- Well-defined partnership agreement and goals
- Good communication and relationship
- Benefits and improvement for center and staff overall
- Benefits and improvements for families

To examine the properties of our constructs and the items that make them up, we conducted reliability analysis. Table 2.1 also shows the results of these analyses. Cronbach's alphas were obtained and are based on the average inter-item correlations. An alpha that approximated .70 or greater was considered highly acceptable. As Table 2.1 shows, all constructs measured by our partnership survey showed a very high internal consistency, with alphas ranging from .70 to .90.

Table 2.1 Partnership Constructs, Questions, and Description of Scale Scores

Construct	Survey Questions	Description of Scale Scores
Well-Defined Partnership Agreement and Goals	Do you have the following: ▪ A written contract with Head Start ▪ A regularly updated contract ▪ Written roles and responsibilities ▪ Written partnership goals ▪ Written plans for the partnership ▪ Written procedures for communication ▪ A shared partnership philosophy with the Head Start program ▪ Agreement with Head Start about curriculum ▪ A process to orient staff to the Head Start program ▪ A process to orient staff to Head Start regulations ▪ Procedures for resolving conflicts ▪ Clearly defined roles and responsibilities for staff involved in the partnership ▪ Ways to prepare staff for new responsibilities ▪ A process to involve all staff in all phases of partnership ▪ Procedures to keep children enrolled if parents lose subsidy eligibility ▪ Procedures to keep children enrolled if parents lose Head Start eligibility ▪ Procedures to manage finances as part of partnership ▪ Similar goals regarding working together	Scale range is 0 to 58. Dichotomous questions were coded 0 for "no" and 1 for "yes." Likert scale questions were coded 0 to 4. The responses were summed to create the total composite. (Reliability results: Alpha=. 90; 19 Items; *n* = 109)
Good Communication and Relationship	To what degree do you believe… ▪ You have good communication within your organization ▪ You have good communication across organizations ▪ You and your partner have mutual respect ▪ You are a full partner ▪ Your voice is heard ▪ You can call Head Start when you need to ▪ Head Start views your center as a full partner	Scale range is 0 to 28. The 7 Likert scale questions were coded 0 to 4 and the responses were summed to create the total composite. In addition, an average was created using a range of 0 to 4. (Reliability results: Alpha=. 90; 7 Items; *n* = 163)
Benefits and Improvements for Center	To what degree do you believe the partnership has resulted in… ▪ Benefits to staff not directly involved in partnership ▪ Improved capacity to provide family involvement opportunities ▪ Improved capacity to provide family services ▪ Improved compensation for staff ▪ Improved professional development opportunities	Scale range is 0 to 20. The 5 Likert scale questions were coded 0 to 4 and responses were summed to create the total composite. In addition, an average was created with a range of 0 to 4. (Reliability results: Alpha=. 81; 5 Items; *n* = 162)
Benefits for Staff	To what degree do you believe the partnership has resulted in… ▪ Benefits to staff ▪ Improved compensation for staff ▪ Improved professional development opportunities	Scale ranges from 0 to 12. The 4 Likert scale questions were coded 0 to 4 and responses were summed to create the total composite. In addition, an average was created with a range of 0 to 4. (Reliability results: Alpha=. 70; 3 Items; *n* = 162)

Construct	Survey Questions	Description of Scale Scores
Benefits and Improvements for Families	To what extent do you believe the partnership has resulted in improvements in… ▪ Family involvement opportunities ▪ Improved services to families ▪ Benefits for families not directly involved in Head Start	Scale ranges from 0 to 12. The 4 Likert scale questions were coded 0 to 4 and responses were summed to create the total composite. In addition, an average was created with a range of 0 to 4. (Reliability results: Alpha=.79; 3 Items; *n* = 90)

We analyzed data to determine frequencies, differences among groups, and relationships among variables and desired outcomes (see Chapter 1 for additional details about the analyses). Below, we present our findings concerning:

- Characteristics of the child care centers in the sample
- Partnering child care centers in the sample
- Resources from Head Start
- Well-defined agreement and goals, communication, and benefits of partnership
- Predictors of partnership benefits
- Challenges of partnership

Characteristics of the Child Care Centers in the Sample

- **Partnership Status.** Approximately 47 percent of centers were in partnership with the federal and/or state Head Start program during data collection. Fifty-three percent of the sample was comprised of comparison centers that either did not engage in partnership or discontinued their partnership with Head Start during the study.
- **Non-Profit Status and Religious Affiliation.** About 40 percent of all centers were non-profit, and 18 percent considered themselves to be faith-based. The proportion of partnership and comparison centers in the sample were similar for both types.

- **Urbanicity.** Forty percent of the centers were urban, 43 percent were suburban, and the remaining centers were in small towns or rural areas. No statistically significant differences existed in the urbanicity of partnering centers and comparison centers.
- **Size.** The average total number of preschool-aged children enrolled in the centers was 39. The comparison and partnering centers appear to serve similar numbers of preschool-aged children. Along with preschool enrollments, the average annual child care center budgets were also similar. The mean annual budget was about $380,000 (*SD* 550,000) dollars. No significant differences were reported between partnership and comparison centers.
- **Populations.** A summary of the percentage of the population receiving subsidies, population demographics, and full-time status of the children who attended child care centers follows.
  - *Percent of population receiving subsidies*: The average percentage of the population receiving child care subsidies was 51 percent. Partnering centers served a somewhat higher percentage of subsidy children as they reported an average of 54 percent compared with 47 percent for comparison centers ($p < .05$).
  - *Demographics:* On average, 59 percent of the students attending the child care centers were white, 33 percent were African American, and 7 percent were Hispanic, Asian, or Other. We found differences in the demographics of centers in partnership and comparison centers. Comparison centers reported that 65 percent of the children were white compared with 53 percent of children attending partnership programs ($p < .01$). Centers reported that an average of 4 percent of children attending centers were from families where English was not the native language. While comparison centers appear to serve a slightly higher percentage of this population (5 percent versus 3 percent for partnership centers), the difference is not statistically significant. Both partnership and

comparison centers indicated serving similar numbers of children with disabilities, with an average of 4 percent per center.

  - *Full-time status:* On average, 64 percent of the students attending child care centers attended 40 hours per week or more. Partnering centers reported that on average about 69 percent of students were enrolled full-time, whereas comparison centers reported that about 61 percent of students were enrolled full-time.

- **Selected Indicators of Quality.** A summary of selected indicators of quality—accreditation status and child-teacher ratios—follows.
  - *Accreditation:* The National Association for the Education of Young Children (NAEYC) had accredited 15 percent of all of the centers. While 19 percent of the partnership centers were accredited, compared with 12 percent of the comparison centers, this difference is not significant.
  - *Ratios:* The average number of children to teachers was 9.9 for all centers. While the difference between centers in partnership and comparison centers appears to be small (9.6 versus 10.2), this difference is statistically significant ($p < .05$). The average ratios were well below the maximum according to the Ohio child care licensing standards both for partnership centers and comparison centers. For 3-year-olds, the ratio required by Ohio State licensing standards is 12 children to one adult and 14 children to one adult for 4-year-olds and 5-year-olds. Note that the ratio required by Head Starts program standards is no more than 17 children to 2 adults for 3-year-olds and no more than 20 children to 2 adults for 4-year-olds and 5-year-olds.
- **Indicators of Center Capacity.** While 96 percent of centers reported having a staff handbook, only 55 percent reported using salary scales. Furthermore, only a few centers (7 percent) had

a collective bargaining agreement. There were no significant differences between partnership and comparison centers for any of the capacity items (see Table 2.2 below for a complete list).

Table 2.2 Characteristics of Child Care Centers in the Sample

Characteristic	
Partnership	
Percent federal and/or state HS centers	47 %
Percent comparison centers	53 %
Urbanicity	
Percent urban	40 %
Percent suburban	43 %
Percent small town/rural	16 %
Size	
Average total number of preschoolers enrolled	39
Average center annual budget	380 K
Population	
Percent of children receiving subsidy	51 %
Percent full-time	64 %
Race/Ethnicity	
Black/African American	33 %
Hispanic	3 %
Asian	1 %
White	59 %
Other	2 %
Quality Indicators	
Percent of centers accredited	15 %
Average child-teacher ratio	9.9
Center Capacity Indicators	
Organizational chart/staffing plan	71 %
Annual budget	68 %
Staff handbook	96 %
Salary scales	55 %
Collective bargaining agreement	7 %
Strategic plan	39 %
Enrollment and policy information for parents	99 %
Job descriptions	91 %
Health insurance as a benefit to staff	61 %

Partnering Child Care Centers in the Sample

- **Number of Children Varies Substantially.** The number of preschoolers who received Head Start services at partnership centers varied substantially. The average number receiving services was 13 (M = 13.44, SD = 8.39). The number of Head Start children at child care centers ranged from 1 child to 38 children. We found no statistically significant differences in the number of children receiving Head Start services over the three rounds of data collection.
- **Fluctuation in Numbers Receiving Services**. The vast majority—about 79 percent—of center directors in the study reported that they experienced fluctuation in the number of children receiving Head Start services during the previous year. Directors mentioned year-end changes, seasonal changes, and changes in subsidy as the reasons for the fluctuation. For example, 60 percent of directors reported that fluctuations occurred due to seasonal changes and 64 percent of directors stated that fluctuations resulted from changes in subsidy eligibility. 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. The fluctuation that was reported by centers in our study appeared to be quite substantial in partnership centers. The percentage of children who received Head Start services at one point during the year but who left during the year constituted, on average, 35 percent of the total number of children who received Head Start services in each partnership center.

- **Delivery of Services.** The child care centers in the study reported providing Head Start services to children through a variety of arrangements. While nearly all of the centers reported serving Head Start children in classrooms that also served non-Head Start children, just over 10 percent reported serving children in a separate Head Start-enhanced classroom.
- **Duration and Development of the Partnerships in the Study.** Child care centers in the study reported a mean partnership duration with Head Start of 3.12 years, with the duration of partnerships ranging from .06 to 9.09 years. About 8 percent of center directors reported that the partnership was in the early stages of formation and about 31 percent reported that the partnership was fully established. Not surprisingly, analyses reveal a statistically significant relationship between directors' perceptions of the development of the partnership and the partnership duration ($r^2 = .1091$), $p < .0001$.
- **Partnership Planning.** Center directors reported spending an average of nearly six months ($M = 5.95$) planning with Head Start before formally establishing the partnership. However, the amount of time spent planning varied substantially—18 percent of child care centers reported that they began providing services the day they first talked with Head Start, but 79 percent reported providing services within a year of talking with Head Start. On average, child care center directors reported meeting with Head Start 2.63 times before establishing the partnership.

Resources from Head Start

- **Funding.** Over 90 percent of partnering child care centers reported receiving funds directly from Head Start. Analyses of Director Survey data revealed that the mean reported annual funding Head Start was $25,342 dollars, but the standard deviation was $19,676 dollars per

center, indicating a great deal of variability in per center funding. The per child annual funding ranged from $6 dollars to $3,600 dollars.

Most center directors (69 percent) reported using funds for equipment, such as science centers or bookshelves, and supplies (73 percent), such as art supplies and curriculum materials. More than half of the centers reported using funds for training (66 percent) or to enhance teachers' salaries (60 percent), and about a quarter of directors reported using funds to enhance teacher benefits (23 percent).[7]

- **Staff.** In some cases, Head Start employs and supervises teachers who work directly in partnering child care centers. About 39 percent of partnering center directors reported that Head Start hires teachers or family service workers to work in their centers.
- **Professional Development and Training.** A majority (76 percent) of partnering center directors reported that their staff had participated in professional development and training that was supported by Head Start. The types of professional development and training varied. For example, 60 percent reported receiving training that is offered to Head Start staff, 60 percent reported receiving parent involvement training, 53 percent reported receiving literacy training, 51 percent reported receiving cardiopulmonary resuscitation (CPR training), 56 percent received training on how to meet the Head Start Program Performance Standards, and 38 percent reported participating in Child Development Associate (CDA) credential training or college courses.

While a majority indicated that the partnership resulted in additional professional development and training opportunities, one challenge for child care directors was the convenience of the training. Over half of the directors reported that the opportunities were

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

offered at a time that were convenient to attend, yet nearly a third indicated that the training was not offered at a convenient time or location.

- **Equipment, Supplies, and Materials.** Analyses revealed that, in addition to receiving funding, substantial percentages of child care centers in partnership also received equipment, supplies, and materials directly from Head Start. Child care center directors reported receiving equipment (50 percent) and supplies (65 percent) directly from Head Start.

Well-Defined Agreement and Goals, Communication, and Benefits of Partnership

- **Well-Defined Agreement and Goals.** Nearly all of the child care centers in partnership in Ohio (95 percent) reported having a written partnership agreement/contract with Head Start, with the remaining centers reporting that they were in the process of establishing a formal agreement. Furthermore, nearly all of the centers reported regularly updating the contract—96 percent of centers with contracts reported updating it regularly, and 1.36 percent reported updating the contract on an "as needed" basis.

  Most child care directors (70 percent) reported that they worked with their Head Start partner to mutually develop the partnership agreement. However, a substantial percentage (30 percent) of directors reported that their Head Start partner developed the agreement without input from the child care center.

  Many center directors reported that the agreements contained specific details that previous qualitative research has shown are important for partnerships to achieve desired results. However, variability existed. For example, when we asked directors about the details of the contracts, data revealed that:

  – Ninety-three percent specified roles and responsibilities of each partner.

- Eighty-four percent specified partnership goals.
- Seventy-seven percent specified how to recruit and enroll Head Start children.
- Seventy-seven percent specified procedures for communicating with their Head Start partners.
- Seventy-six percent specified the maximum number of partnership children to be served.
- Seventy-six percent specified how to meet Head Start Program Performance Standards through partnership.

We also asked child care directors a series of questions about the degree to which they believed they shared goals with their Head Start partners. We asked child care directors if they had the following: a written contract with Head Start, a regularly updated contract, written roles and responsibilities, written partnership goals, written plans for the partnership, written procedures for communication, a shared partnership philosophy with the Head Start program, agreement with Head Start about curriculum, a process to orient staff to the Head Start program, a process to orient staff to Head Start regulations, procedures for resolving conflicts, clearly defined roles and responsibilities for staff involved in the partnership, ways to prepare staff for new responsibilities, a process to involve all staff in all phases of partnership, procedures to keep children enrolled if parents lose subsidy eligibility, procedures to keep children enrolled if parents lose Head Start eligibility, procedures to manage finances as part of partnership, and similar goals regarding working together.

Based on this series of questions, we developed a composite of items called "Well-defined agreements and goals" with the lowest possible score of 0 and the highest possible score of 58. The average score was 37 (M = 37.18, SD = 12.45). This indicates that the average center director reported neither perfect agreement nor absolute disagreement on the

series of questions about agreement and goals. However, some centers expressed very strong agreement—reporting 58. The lowest rating was six, indicating that while in some cases agreement was weak, no centers believed there was absolute disagreement. Nonetheless, the reports reveal a range of experiences in terms of the agreement among partners.

- **Good Communication and Relationship.** To determine the level of communication among partners, we asked child care center directors to rate the degree to which they believed they had good communication within and across organizations and mutual respect. We also asked the degree to which the director felt she was a full partner, that her voice was heard, that she could call Head Start, and that Head Start viewed the center as a full partner. The lowest possible total score was 0 and the highest possible total score was 28. The average score was 20 (M = 20.229, SD = 6.28).
- **Benefits and Improvements for Center Overall.** To assess the perceived benefits of the partnership to the center overall, we asked directors to rate the degree to which they believed the partnership led to: benefits to staff not directly involved in partnership, improved capacity to provide family involvement opportunities, improved capacity to provide family services, improved compensation for staff, and improved professional development opportunities for staff. The possible values ranged from 0 to 20. The average reported score was 11 (M = 10.55, SD = 4.87). It is interesting to note that some centers reported 0 benefits whereas others reported 20.
- **Benefits and Improvements for Staff.** To explore benefits to staff, we also developed a composite with items only related to staff. For this composite we used the items related to benefits to staff, improved compensation for staff, and improved professional development

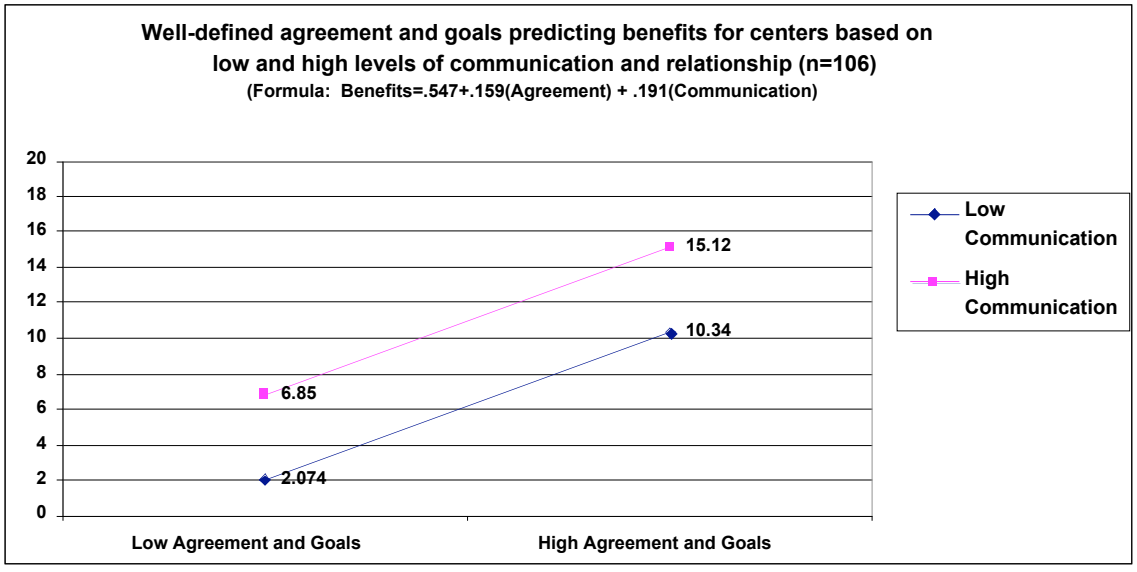
opportunities. The range for this scale was 0 to 12. The average score was six (M = 5.67, SD = 3.26). While some centers reported a score of 12, others reported 0 benefits for staff.

- **Benefits and Improvements for Families.** To examine benefits to families, we also developed a separate composite of the items related to improvement to families. This composite consisted of questions about improved family involvement opportunities, improved services to families, and benefits for families not directly involved in Head Start. On this 3-item scale with a possible range of 0 to 12, the average score was 7 (M = 6.89, SD = 2.99). The perceived benefits for families also spanned the possible range—from 0 to 12.

Predictors of Partnership Benefits

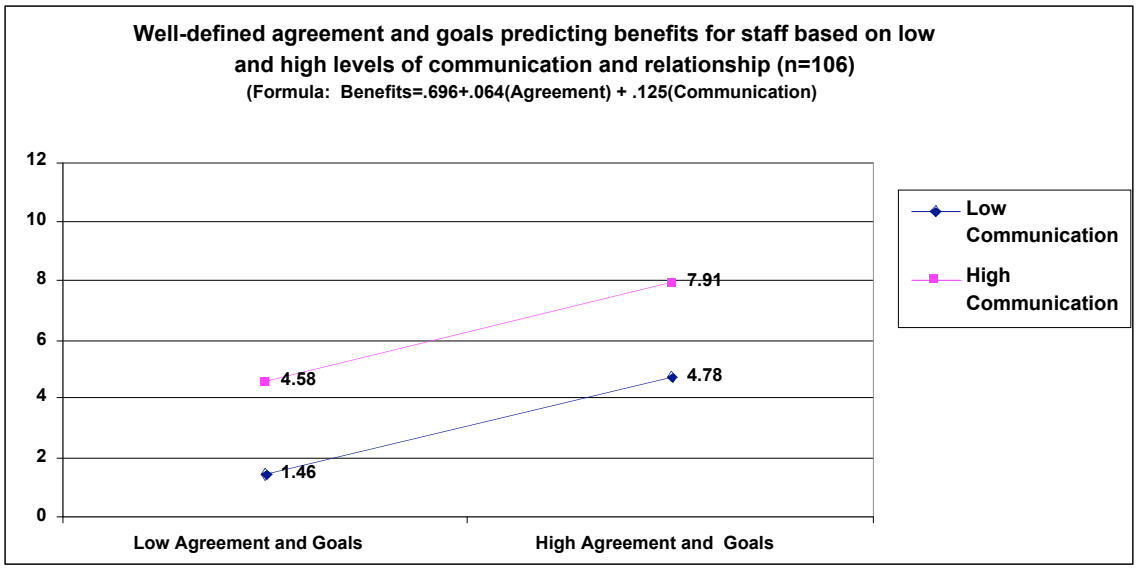
Regression analysis showed that agreements about goals and strong communication are predictive of the benefits of partnership. Figure 2.1 below illustrates that the higher the level of communication, the higher the reported benefits for the center. Furthermore, this figure shows the relationship between the score on "Well-defined agreement and goals" and reported benefits for the center. Centers with a high score on "Well-defined agreement and goals" experienced greater benefits and improvements regardless of the reported level of communication.

Figure 2.1 Agreement and Goals Predicting Benefits for Centers



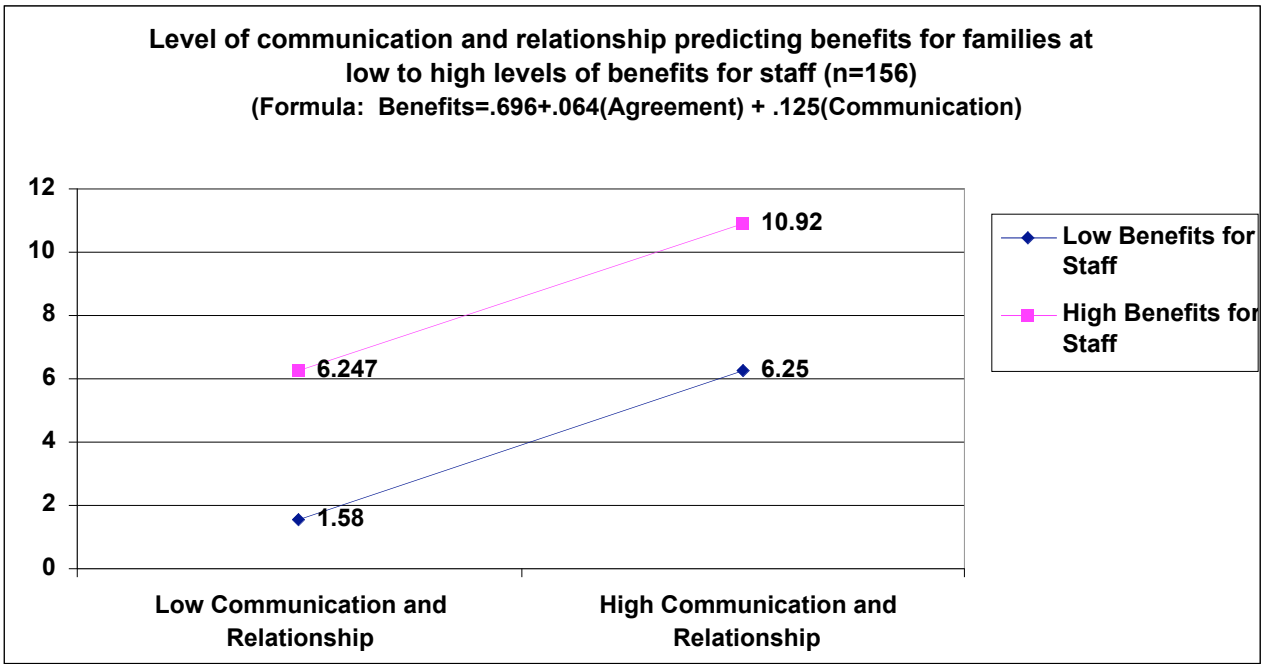
Our analyses also revealed a strong and statistically significant relationship between well-defined agreement and goals, communication, and benefits to staff at partnering centers. Figure 2.2 illustrates the relationships among these variables.

Figure 2.2 Well-Defined Agreement and Goals Predicting Benefits for Staff



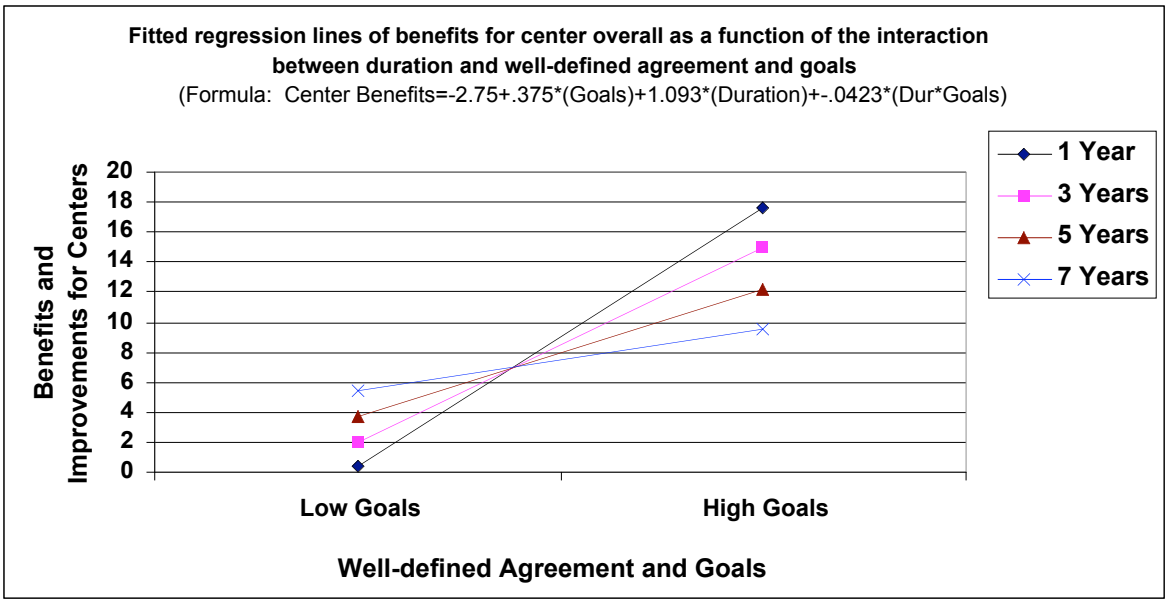
Furthermore, we found that level of communication and relationship predicted benefits for families (see Figure 2.3 below).

Figure 2.3 Level of Communication and Relationship Predicting Benefits for Families



There is a significant statistical interaction, (t = 3.72), p < .0001, between duration of partnership and well-defined agreement and goals when predicting benefits and improvements for centers overall (see Figure 2.4 below). A very high amount of variation (62 percent) in the scale score for "Benefits and Improvements for Centers Overall" is associated with variation in the interaction between duration of the partnership and well-defined agreement and goals. Centers that participated in the partnership showed a greater increase in the "Benefits and Improvements for the Center," as scores on the "Agreement and Goals" scale increased at the beginning of the partnership. The impact of well-defined agreement and goals on benefits and improvements for centers lessens with each year of participation in the partnership, but still has a positive association up to seven years.

Figure 2.4 Benefits for Center as a Function of Interaction between Duration and Goals



Challenges of Partnership

Our surveys included open-ended items asking about the challenges of partnerships. It is not surprising that the challenges cited most often are associated with those factors that appear most important for partnership success. For example, nearly one fifth of respondents cited that communication between partners was a challenge. Similarly, many child care directors reported challenges associated with agreement and alignment of goals. Slightly more than 15 percent reported challenges with specifying roles and responsibilities. Other challenges that were cited were associated with changes in the staffing at the program. For example, some directors reported that changes in staffing at their own program or at their partnering Head Start agency caused service disruptions. Furthermore, many cited challenges working with parents to complete the necessary paperwork and with parents' eligibility.

DISCUSSION

Our findings serve to clarify and quantify the differences between partnership and comparison centers, the nature of child care/Head Start partnerships, and the supportive factors and outcomes of partnerships. The comparison of partnering and non-partnering child care centers reveals that our samples were relatively well matched at the inception of the study. For example, no statistically significant differences exist in the size of the centers and each indicator of center capacity.

While partnering centers serve slightly higher percentages of children on subsidies, nearly half of the population at these centers is comprised of non-subsidized families who pay the full tuition. As policymakers consider ways to provide the same, high-quality services to low-income families that are available to higher income families, it is interesting to note that in our sample of Ohio partnership centers, children from different economic backgrounds are being served in the same settings, are being taught by the same teachers, and are participating in the same curricula and activities.

Our data analyses do indicate that centers in partnership differ from comparison centers on one important indicator of quality—child/staff ratios. Our hypothesis that centers in partnership would provide better ratios—because the Head Start Program Performance Standards require more stringent ratios than Ohio child care licensing standards—is correct.

Our data analyses also support qualitative findings concerning the nature of partnerships. The variation in characteristics and structure of partnering and comparison centers is similar to that identified in the current literature; centers vary in terms of partnership status, urbanicity, size, populations served, and selected structural indicators of quality. Furthermore, the group of partnering child care centers exhibits substantial variation in the number of children receiving

Head Start services, the degree of fluctuation in the population of children served, and the ways in which services are delivered.

Importantly, we found that the centers in partnership received an average of $3,600 dollars per child per year from Head Start and also received other resources such as training and professional development, paid staff, and materials and supplies. The qualitative research reveals that while resources can be an incentive, funding can also help centers meet the more rigorous Head Start Program Performance Standards. Our findings suggest such a relationship exists.

Furthermore, a key finding is that the factors that qualitative literature suggests are important for partnership success do, indeed, appear to be statistically significant predictors of partnership benefits for child care centers, staff, and families. The findings illustrate the importance of well-defined agreements and goals among partners in achieving desired results. Furthermore, strong communication among partners is predictive of the benefits of partnerships.

While these findings are strong, we recognize the importance of validating the self-reported benefits of the partnership. Therefore, in Chapters 3 and 4 we present additional analyses that explore the relationship among these partnership factors and the benefits that teachers and families reported receiving.

CHAPTER 3 TEACHER CHARACTERISTICS, BENEFITS, AND PRACTICES

OVERVIEW OF RELEVANT RESEARCH

Qualitative studies have revealed that teachers at partnering child care centers believe that their centers' partnerships with Head Start lead to benefits for themselves that ultimately result in quality improvements in classrooms. Kiron's profiles of child care centers in partnership indicated that teachers at partnering centers believe that their partnerships produce improvements in compensation and employment benefits, supervision, and professional development opportunities (Education Development Center Inc., 2001). These benefits to teachers—which studies have shown are important predictors of high-quality early childhood classrooms—are reflected in the research findings of Sandfort & Selden, Paulsell et al., and Ontai (Ontai et al., 2002; Paulsell et al., 2003; Sandfort & Selden, 2001). These studies have also suggested that teachers at partnering centers believe that partnerships lead to improvements in the services they provide.

However, no large-scale, systematic, quantitative studies have explored whether teachers at partnering centers actually receive additional opportunities and supports compared with teachers at non-partnering centers. Moreover, no studies have examined systematically whether these reported benefits are associated with improvements in teacher attitudes, beliefs, and practices that are related to observed classroom quality. Our research with teachers was designed to explore whether such differences exist between partnering center teachers and comparison center teachers.

METHODS IN BRIEF

We analyzed data from two different target populations. Data were analyzed from the randomly selected sample of child care centers included in the overall *Partnership Impact* study (see Chapter 1 for more details). In addition, we invited teachers within these centers to participate. Participating teachers represented a self-selected sample from child care centers in the study. Across the three rounds of data collection, we received 408 completed teacher surveys (see Table 1.1 in Chapter 1).

We collected the data using two different instruments. First, the Director Survey included questions about opportunities offered to teachers. Second, a Teacher Survey included questions about teacher compensation and benefits, teacher education and professional development, and teacher practices. The surveys were similar, but not identical, for each round of data collection. Our Teacher Survey used many of the same questions and scales used by FACES as well as items from the I-PIECE Study. We also included a modified "Developmentally Appropriate Practices Scale" which FACES researchers found to be correlated with classroom observation data, providing evidence for the validity of these measures.

The Teacher Survey was designed to provide an overall assessment of how a center's participation in the partnership was related to classroom level practice. Table 3.1 provides a detailed list of the underlying constructs of the teacher survey, a summary of the questions we asked, and descriptions of the properties of the construct scores we used to analyze the data. The classroom-level outcomes included the following:

- Classroom quality/rich learning environment
- Teacher beliefs about teaching and learning
- Child initiated activities
- Literacy activities
- Quality of job/job satisfaction
- Parental involvement

- Parental support/linkages to resources
- Quality of supervision

We conducted reliability analysis to examine the properties of our constructs. Cronbach's alphas were obtained and are based on the average inter-item correlations. Table 3.1 also shows the results of these analyses. An alpha that approximated .70 or greater was considered highly acceptable and above .65 was considered acceptable. As Table 3.1 shows, all constructs measured by our teacher survey showed very high or at least acceptable (> .65) internal consistency with alphas ranging from .65 to .91.

Table 3.1 Teacher Constructs, Questions, and Description of Scale Scores

Construct	Teacher Survey Question	Description of Scale Scores
Classroom Quality/ Rich Learning Environment	Read to children Use structured curriculum Review letters of alphabet or words Review names of colors Review number concepts or count Give children science materials Give time in different play activities Give supply of age appropriate toys Give time outside Give art supplies Greet each parent Involve parents in learning activities Formally assess or screen children	Thirteen individual items with range from 0 to 2 based on Likert scale responses were averaged to form construct. (Reliability results: Alpha=. 73; *n* = 374)
Teacher Beliefs About Learning and Teaching	Responsive to differences in development Each curriculum area taught separately Children select own learning activities Children cut shapes, drama, art, writing Children work silently and alone Children learn through active exploration Teachers use treats to encourage behavior Teachers use punishments to encourage behavior Children involved in establishing rules Children should recognize single letters Children should color within predefined lines Children should form letters correctly on page Children should dictate stories to teacher Children know letter sounds Children know letter forms before writing	Fifteen individual items with range from 0 to 3 based on Likert scale responses were averaged to form construct. (Reliability results: Alpha= .73; *n* = 323)
Child Initiated Activities	Children select own learning activities Children cut shapes, drama, art, writing Children learn through active exploration Children should dictate stories to teacher Children involved in establishing rules	Five individual items with range 0 to 3 based on Likert scale responses were averaged to form construct. (Reliability results: Alpha=.72; *n* = 366)
Literacy Development	Children should recognize single letters Children should form letters correctly on page Children know letter sounds	Three individual items with range from 0 to 2 based on Likert scale responses were averaged to form construct. (Reliability results: Alpha=.66; *n* = 374)
Quality of Job/Job Satisfaction	Receive guidance from my director Have enough time to do all required Clearly defined job responsibilities High enough salary for job demands Get support from other staff Get support from my supervisor Get support & communication from management Get enough funds for supplies & activities	Construct range is 0 to 13 based on sum of "yes" answers to dichotomous questions. (Reliability results: Alpha=.74; 13 items; *n* = 287)

Construct	Teacher Survey Question	Description of Scale Scores
	Opportunities to give input to management for changes Have clear goals & objectives for teaching Center has a staff handbook Center director not afraid to take risks Center has a collective bargaining agreement	
Parental Involvement	Involve parents in child's learning activities Parent advisory group opportunities Volunteer in classroom Meet with parents to discuss child's progress Send home written communication to parents Parents participate in the classroom	Construct range is 0 to 10 based on the sum of four items with range from 0 to 2 and two dichotomous (yes/no) questions. (Reliability results: Alpha=.65; 6 items; *n* = 291)
Parental Support/Linkages to Resources	Immigration referrals Employment services referrals Adult literacy opportunities Assistance obtaining food stamps Financial aid for school Housing assistance or referral GED preparation referrals English proficiency class referrals	Construct range is 0 to 1 based on the average of eight dichotomous (yes/no) questions. (Reliability results: Alpha=.91; *n* = 197)
Parental Involvement & Support	Involve parents in child's learning activities Meet with parents to discuss child's progress Send home written communication to parents Parents participate in the classroom Immigration referrals Parent advisory group opportunities Volunteer in classroom Employment services referrals Adult literacy opportunities Assistance obtaining food stamps Financial aid for school Housing assistance or referral GED preparation referrals English proficiency class referrals	This construct was formed to provide an overall score on involvement and support and consists of the parental involvement and support items mentioned previously. The construct range is 0 to 18 based on the sum of 4 items with range from 0-2 and ten dichotomous (yes/no) items. (Reliability results: Alpha=. 86; 14 items; *n* = 184)
Quality of Supervision	Administrator observes in classroom Administrator meets to give feedback Administrator discusses linking curriculum to children's developmental needs Administrator discusses developmentally appropriate practice Administrator discusses strategies for literacy-rich curriculum Administrator reviews teaching plans	Six individual items with range from 0 to 2 based on Likert scale responses were averaged to form construct. (Reliability results: Alpha=.91; *n* = 381)

We conducted quantitative analyses to: 1) compare teachers in partnering centers to teachers in non-partnering centers; 2) describe the quantitative relationship, where one existed, between the quality of the partnership with Head Start (assessed using composites of individual

partnership survey items) and classroom quality, teacher beliefs about learning and teaching, job satisfaction, parental involvement and support, quality of supervision, turnover, organization capacity, parent and child services, and benefits for centers, staff, and families; and 3) assess the extent to which centers that participated for more than three years experienced growth as a result of the partnership and determine how that growth differed from comparison centers' growth.

RESULTS

We analyzed data to ascertain whether differences exist between teachers in partnering and non-partnering centers, and we explored whether specific types of partnerships are more likely to produce desired results. Below, we present our findings concerning:

- Characteristics of teachers in the sample
- Teacher compensation and benefits
- Professional development opportunities
- Turnover
- Classroom practices
- Supervision and support

Characteristics of Teachers in the Sample[8]

- **Geographic Distribution.** Teachers who participated represented a wide range of geographic locations in the state. Thirty-six percent of participating teachers were from urban centers, 41 percent were from suburban areas, and 23 percent were from centers in small towns or rural areas.

[8]For a detailed description of differences between partnership and comparison teachers, see Appendices.

- **Hours Per Week, Number of Classrooms, and Number of Children Served.** Teachers reported working an average of 37.4 hours per week. On average, teachers worked in 1.21 classrooms serving 15 children per classroom.
- **Length of Child Care Career.** Teachers reported working in child care for an average of 90 months. Teachers' experience ranged from less than a month to over 30 years.
- **Education Level.** We found no differences in the education level of the teachers working at partnering centers and comparison teachers.
- **Professional Identity.** We analyzed data related to professional identity and experience to explore whether differences exist between teachers at partnering centers and teachers at comparison centers. Analyses revealed that teachers at partnering centers and comparison centers reported the same perceptions of professional identity (see Table 3.2).

Table 3.2 Percent of Teachers in Each Category of "View of Job" (n = 394)

	Partnership	Comparison	χ^2
My chosen occupation	70.42	67.78	0.3203
A stepping-stone to work in another field related to child care	15.49	16.67	0.0998
A stepping-stone to K–12 teaching	16.90	12.78	1.3002
An entry-level job in this organization	1.88	1.11	0.3816
Temporary employment (until a better job is available)	2.35	1.11	0.8523

$^{-}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

Teacher Compensation and Benefits

While teachers at partnering centers were more likely than comparison teachers to receive a range of employment benefits, no differences in compensation were reported. However, Table 3.3 shows statistically significant differences in the percentage of teachers who received paid sick leave, family leave, dental insurance, tuition reimbursement, release time for training, and retirement plans.

Table 3.3 Percentage of Teachers at Partnering and Comparison Centers Receiving Specific Employee Benefits

	n	Partnership	Comparison	χ^2
Paid vacation	295	77.98	71.84	1.96
Paid sick leave	376	60.19	46.75	6.76**
Paid maternity leave	330	22.35	15.89	2.18
Paid family leave	321	22.73	11.03	7.55**
Paid health insurance	377	39.34	36.97	0.22
Paid dental insurance	371	28.37	19.75	3.64–
Tuition reimbursement	343	35.08	15.79	16.16***
Retirement plan	355	46.73	25.16	17.34***
Release time for training	345	58.67	44.59	6.70**

–$p < .10$ *$p < .05$ **$p <. 01$ ***$p <. 001$

A two-tailed independent samples t-test revealed that differences also existed in the total number of employee benefits that teachers at partnering centers received compared with teachers at non-partnering centers ($M = 3.08$, $SD = 2.52$), $t(405) = -4.29$, $p < .001$. While differences existed in the number of benefits, there were no statistically significant differences in the compensation that teachers received at partnering centers compared with teachers at non-partnering centers.[9]

To determine if specific aspects of partnership were related to improvements in the benefits received by teachers, we explored two critical aspects of partnership. We examined whether the duration of the partnership was associated with benefits. In addition, we examined whether the strength of the partnership, as we describe in Chapter 2, was associated with improvements in benefits.

Logistic regression analyses of data from teachers working at partnering centers revealed that the duration of partnership was a strong and statistically significant predictor of the

[9]Researchers asked teachers to indicate their monthly compensation using a scale with specific income ranges. Wilcoxon Two-Sample tests were then used to detect statistically significant differences in the ordinal data between the two groups of teachers.

likelihood that teachers would receive paid maternity leave, paid family leave, release time for training, and tuition reimbursement (see Table 3.4).

Table 3.4 Logistic Regression Analysis for Employee Benefits Offered to Teachers Controlling for Duration of Partnership

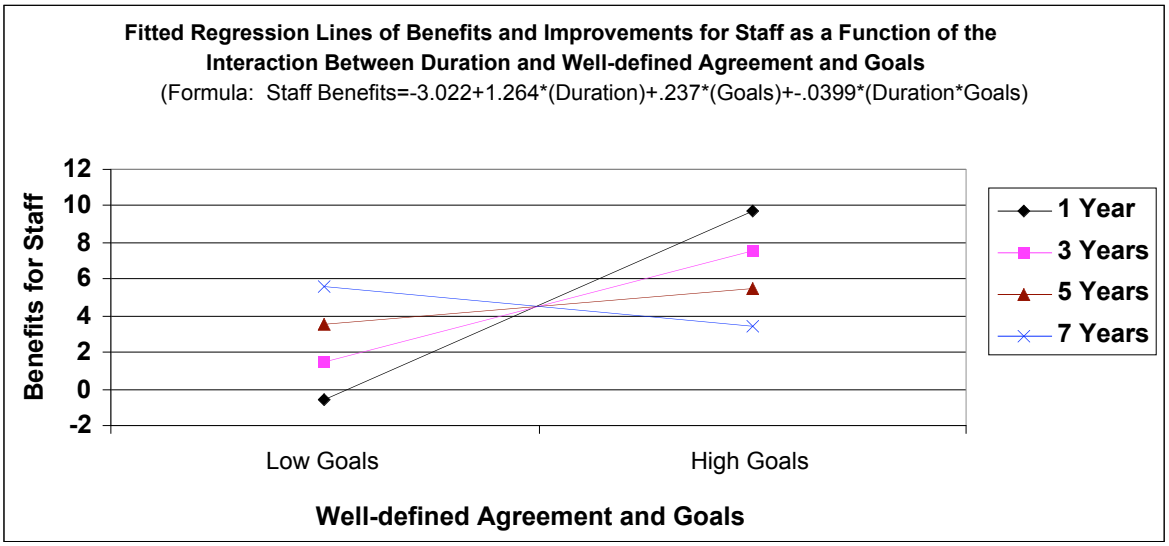
Dependent variables	*n*	*B*	*SE B*	$_eB$	*Wald* $_^2$
Paid vacation	196	-0.14	0.10	0.87	1.82
Paid sick leave	186	0.14	0.09	1.15	2.49
Paid maternity leave	160	0.42	0.12	1.52	12.80***
Paid family leave	157	0.43	0.12	1.54	13.27***
Paid health insurance	190	0.16	0.09	1.17	3.17–
Paid dental insurance	188	0.23	0.10	1.26	5.63*
Tuition reimbursement	171	0.23	0.10	1.26	5.87*
Retirement plan	178	0.33	0.10	1.40	12.15***
Release time for training	178	0.23	0.10	1.26	5.64*

–$p < .10$ *$p <. 05$ **$p < .01$ ***$p < .001$

Building on our finding that well-defined agreement and goals, strong communication, and partnership duration were predictive of self-reported improvements, we looked at whether partnering centers reported a relationship between well-defined agreement and goals and teacher reported benefits. We found a significant statistical interaction between duration of partnership and scores on the "Well-defined Agreement and Goals" scale when predicting benefits and improvements for staff at centers in partnership

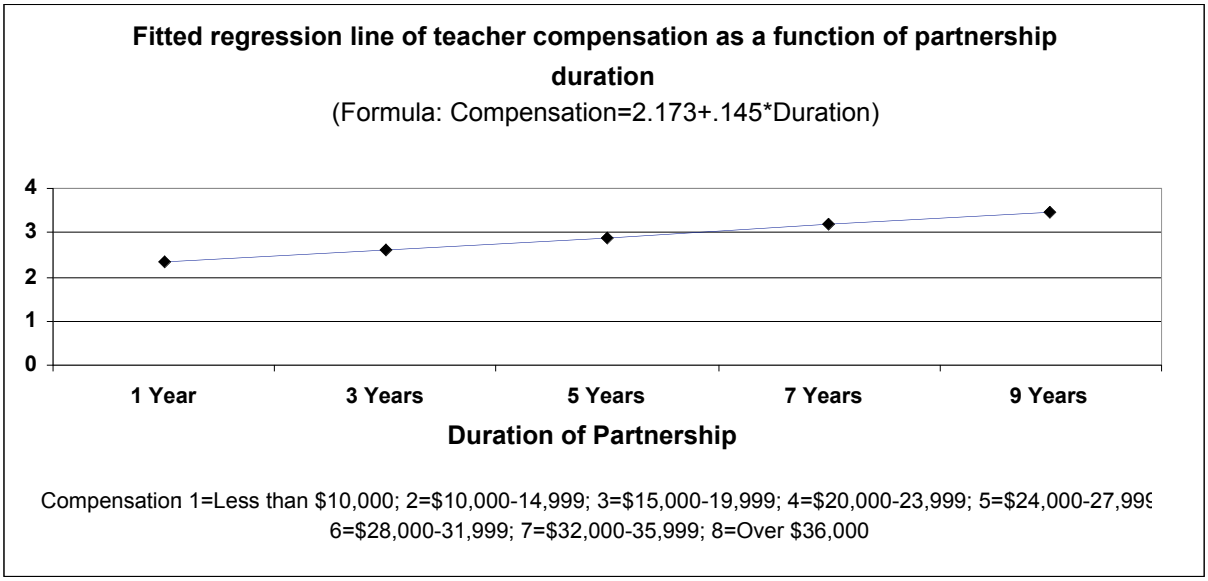
($t = 4.09$), $p < .0001$. Thirty-seven percent of the variation ($r2 = .37$) in benefits and improvements for staff was associated with variation in the interaction between duration of the partnership and well-defined agreement and goals. Moreover, there was a greater increase in the "Benefits and Improvements for Staff" scale score as the score on the "Agreement and Goals" scale increased at the beginning of the partnership. The impact of well-defined agreement and goals on benefits and improvements for centers lessened with each year of participation in the partnership, but still had a positive association up to five years.

Figure 3.1 Benefits and Improvements for Staff as a Function of Partnership Duration and Well-Defined Agreement and Goals



We also found that while no differences existed between the compensation of teachers at partnering and comparison centers, duration of the partnership was significantly positively associated, (t = 2.45), $p < .05$, with teacher compensation. As duration increased, so did the amount of teacher compensation received (see Figure 3.2). The association was low, however, explaining only 3 percent (r^2 = .032) of the variation in teacher compensation.

Figure 3.2 Teacher Compensation as a Function of Partnership Duration



Professional Development Opportunities

We found some differences in the professional development opportunities reported by partnering center teachers and comparison center teachers. A two-tailed independent samples t-test revealed statistically significant differences in the number of hours of professional development received (M = 24.93, SD = 34.58), $t(336) = -2.47$, $p < .05$, with partnership teachers receiving more professional development. We also found that when compared to teachers in non-partnering centers, teachers in partnering centers were offered more offsite workshops, $X^2(1, N = 378) = 19.0479$, $p < .001$, and gave higher rating to the effectiveness of professional development training, (M = 3.35, SD = 0.57), $t(397) = -2.24$, $p < .05$.

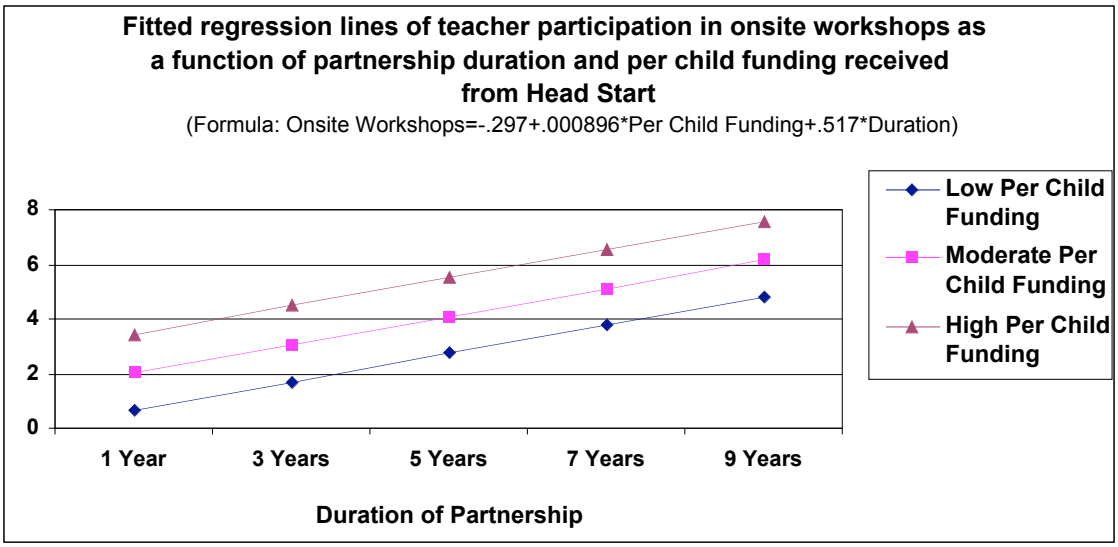
We also examined a relationship between duration of partnership and professional development opportunities reported by teachers. Our analysis revealed that duration of partnership was a positive predictor for teachers' ratings of the effectiveness of professional development received ($r^2 = .0353$), $F(1, 194) = 7.10$, $p < .01$. However, duration of partnership was not significantly predictive of teachers' likelihood of reporting that they had participated in

professional development opportunities such as taking college courses, onsite workshops, or offsite workshops.

When analyzing the interactions between specific aspects of partnership and the professional development opportunities provided to teachers, we found some strong and statistically significant effects (see Figure 3.3). Specifically, we found that approximately 24 percent of the variation ($r^2 = .237$) in participation in onsite workshops was associated with variation in duration of the partnership, ($t = 2.53$), $p < .05$, and per child funding ($t = 2.28$), $p < .05$, together. The model was significant overall ($F = 6.83$), $p < .01$. That is, duration of the partnership and the amount of funding received from Head Start per child were positively related to teacher participation in onsite workshops. Furthermore, centers with high per child funding and longer partnership duration had teachers who participated in the highest number of onsite workshops. Centers with low per child funding and low partnership duration had teachers who participated in the lowest number of onsite workshops.

It took seven years of participation in the partnership before centers with low per child funding received from Head Start had teachers who participated in an equal number of workshops as teachers in centers with high per child funding at one year duration. However, the number of onsite workshops teachers participated in increased steadily as the number of years in the partnership increased, regardless of the amount of funding per child.

Figure 3.3 Teacher Participation in Onsite Workshops as a Function of Duration and Funding



Turnover

To examine the relationship between teacher turnover and the existence of partnership, we analyzed data from child care directors and found that partnership with Head Start was associated with increased teacher turnover. Partnering centers reported that mean annual teacher turnover was 2.47, compared with 1.66 at comparison centers ($M = 2.04$, $SD = 2.83$), $t(258) = -2.6$, $p < .05$. Analyses revealed that 21 percent of the teachers leaving partnership centers left involuntarily and 79 percent left voluntarily. This finding is consistent with qualitative study reports that partnering with Head Start leads child care directors to seek higher standards for teachers (Schilder et al., 2003). In addition, some studies have suggested that when some child care teachers working in partnering centers become aware of higher paying employment at Head Start, they leave the child care centers for better pay. While initially turnover was related to partnership, regression analyses revealed that duration of the partnership was not related to turnover ($r^2 = .0105$), $F(1, 141) = 1.50$, $p < .22$. Thus, changes in turnover appeared to happen initially, but did not increase over the duration of the partnerships.

Classroom Practices

- **Curriculum.** Teachers at partnering centers were more likely to report using a structured curriculum in the classroom ($M = 3.45$, $SD = 0.89$), $t(354) = -2.15$, $p < .05$. Specifically, chi-square analyses revealed that teachers at partnering centers were more likely than non-partnering centers to use Creative Curriculum $X^2(1, N = 397) = 4.16$, $p <. 05$, High Scope $X^2(1, N = 397) = 11.03$, $p < .001$, or Bright Beginnings $X^2(1, N = 243) = 4.12$, $p < .05$. Furthermore, teachers at partnering centers were less likely to use a teacher-designed curriculum, $X^2(1, N = 397) = 19.07$, $p < .001$, and less likely to report that they used no curriculum $X^2(1, N = 397) = 6.54$, $p < .05$.
- **Assessments.** Partnering centers were more likely to report using some standardized child and classroom assessment tools. While partnering centers were as likely as comparison centers to report using the Early Language and Literacy Classroom Observation (ELLCO) (nearly 3 percent for both groups) and the Early Childhood Environmental Rating Scale (ECERS) (nearly 10 percent versus 8 percent of the comparison centers), partnership centers were more likely to report using the National Association for the Education of Young Children (NAEYC) self-study tool (71 percent versus 35 percent of the comparison centers). Comparison centers were more likely to use center-designed child assessment tools or no standardized instruments: 68 percent used center-designed child assessment tools compared with 46 percent of partnership centers; 8 percent reported using no child assessment instruments compared with 2 percent of the partnership centers. Partnering centers were more likely to engage Head Start staff in the assessment process than comparison centers. While all of the comparison centers reported that teachers and/or center directors conducted child

assessments, 38 percent of the partnership centers reported that Head Start staff conducted the child assessment.

- **Classroom Activities**. When asked about frequency of specific classroom activities, only the use of structured curriculum differentiated partnering center teachers from comparison center teachers (see Table 3.5). Yet, some differences between partnering and comparison centers existed with teachers' engagement of parents (see Table 3.6). Partnership teachers were significantly more likely to meet with parents to discuss children's progress and parents in partnering classrooms were significantly more likely to help out in the classroom.

Table 3.5 Teachers' Reports of Specific Classroom Activities

	n	Partnership *M* (*SD*)	Comparison *M* (*SD*)	*t*
Read to children	405	3.81 (0.44)	3.76 (0.46)	-1.13
Review names of colors	405	3.63 (0.57)	3.56 (0.61)	-1.25
Review letters of the alphabet or words	404	3.64 (0.58)	3.68 (0.59)	0.61
Review number concepts or count	406	3.68 (0.52)	3.72 (0.53)	0.76
Give children art supplies to use in the classroom	406	3.85 (0.46)	3.81 (0.45)	-0.98
Give children time to spend outside (weather permitting)	405	3.87 (0.40)	3.82 (0.50)	-1.04
Give children science or nature materials	406	3.37 (0.74)	3.25 (0.78)	-1.51
Give children time in different types of play activities	406	3.91 (0.30)	3.90 (0.35)	-0.20
Give children a good supply of age-appropriate toys and materials	407	3.88 (0.40)	3.88 (0.37)	-0.03
Use a structured curriculum	397	3.54 (0.80)	3.35 (0.97)	-2.15*
Total Score	407	36.90 (3.21)	36.64 (3.54)	-0.77

Note. For each item, teachers were asked, "During a typical day, how often do the following activities occur in your preschool classroom?" Response options were as follows: *1 = Never, 2 = Sometimes, 3 = Often, 4 = Always*.
$^{-}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

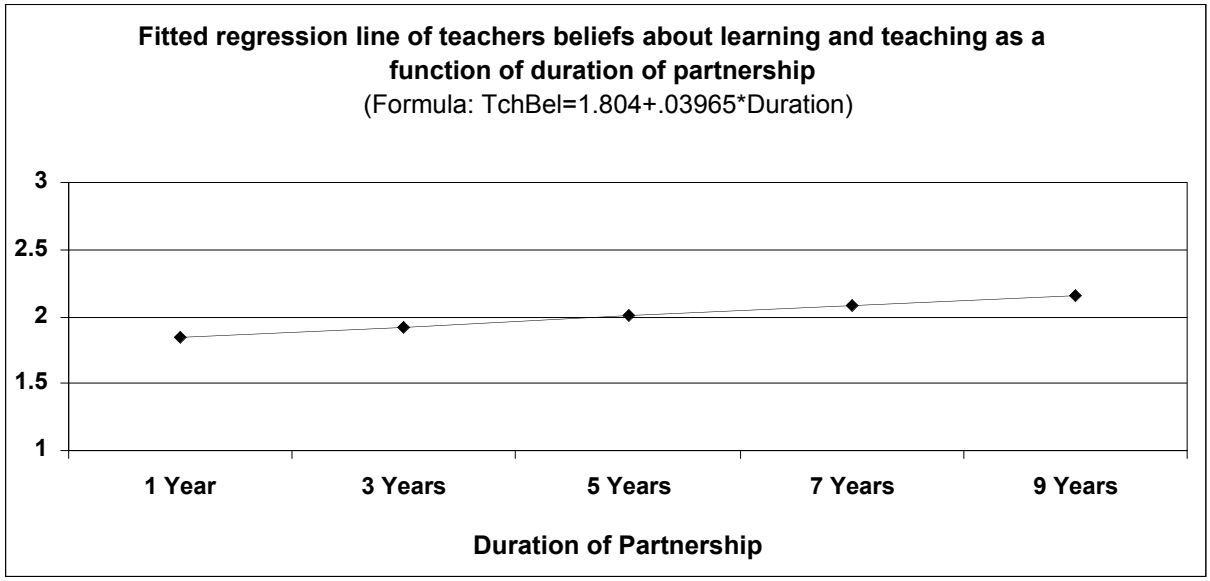
Table 3.6 Teachers' Reports of Specific Parent Involvement Activities

	n	Partnership *M* (*SD*)	Comparison *M* (*SD*)	*t*
Greet each parent and child when they arrive	404	3.81 (0.47)	3.80 (0.51)	-0.29
Involve parents in their child's learning activities	400	3.30 (0.73)	3.23 (0.78)	-0.97
Meet with parents to discuss their child's progress	397	3.03 (0.87)	2.84 (0.88)	-2.19*
Send home written communication to parents	399	3.10 (0.91)	3.16 (0.86)	0.64
Parents participate as helpers in the classroom	398	2.17 (0.84)	1.94 (0.78)	-2.69**
Total Score	385	5.44 (2.50)	14.97 (2.60)	-1.79–

Note. For each item, teachers were asked, "How often do the following activities occur?" Response options were as follows: 1 = *Never*, 2 = *Sometimes*, 3 = *Often*, 4 = *Always*.
–$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$

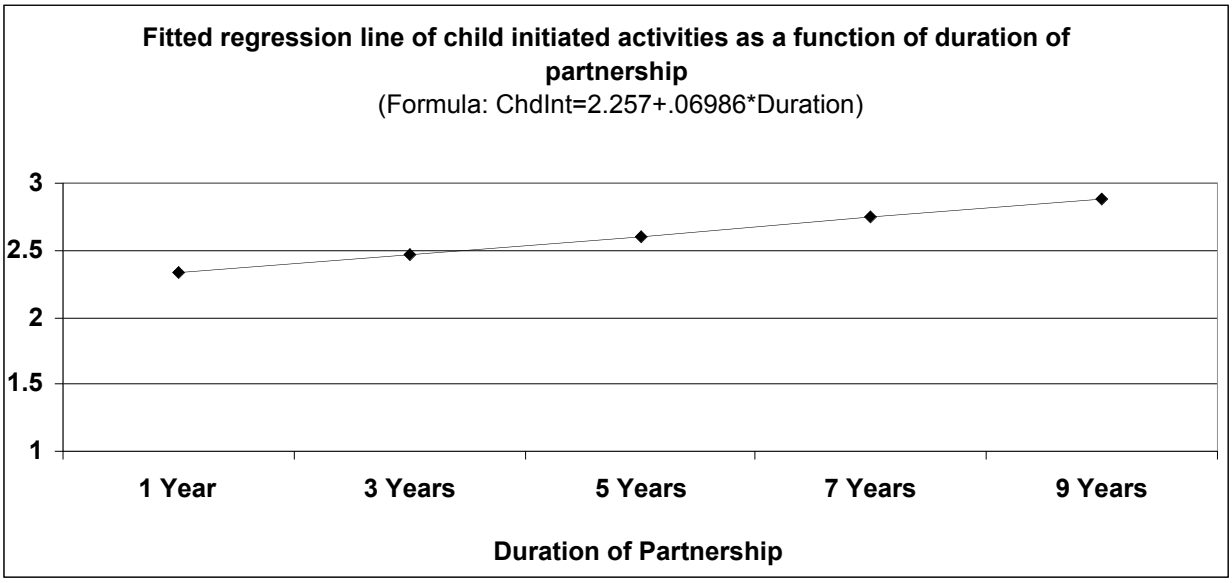
Developmentally Appropriate Beliefs. Teachers working at partnering centers and comparison teachers reported similar beliefs about developmentally appropriate practices. While no differences were reported between the groups, our analyses of data from partnership teachers revealed a slight, but steady, increase in teacher beliefs about learning and teaching that was significantly associated, ($t = 2.65$), $p < .01$, with the number of years their centers had been participating in the partnership (see Figure 3.4). The association was low, however, explaining only 3 percent of the variation in teacher beliefs about learning and teaching.

Figure 3.4 Teacher Beliefs about Learning and Teaching as a Function of Duration



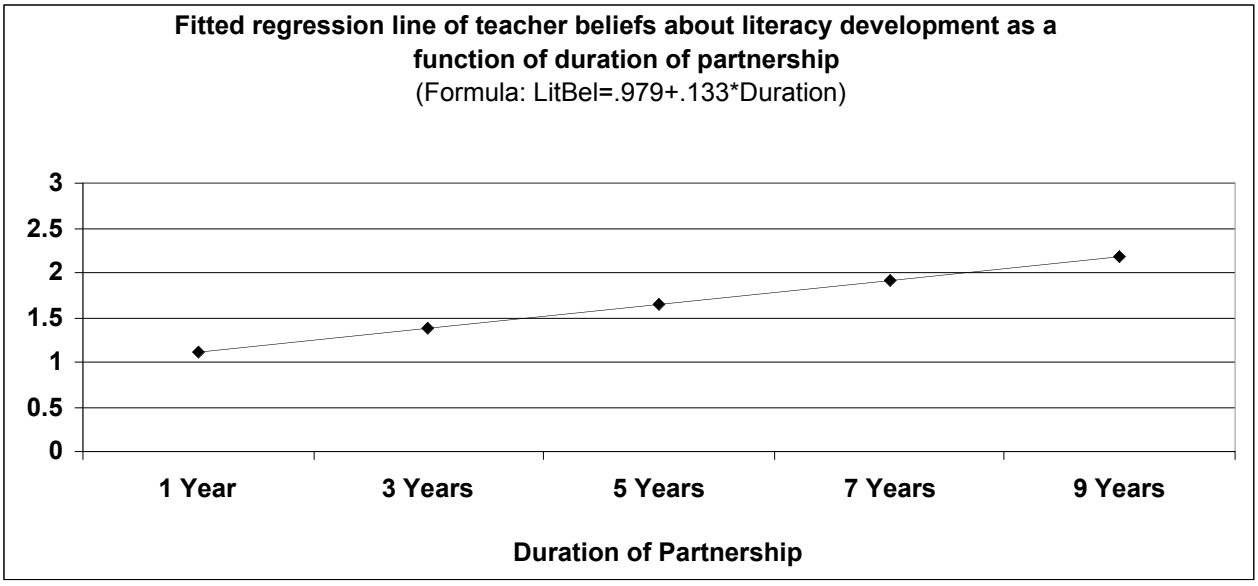
Nonetheless, partnership teachers showed a steady increase in their beliefs related to child-initiated activities as duration of the partnership increased ($t = 4.14$), $p < .0001$. Eight percent of the variation in child-initiated activities was associated with variation in duration (see Figure 3.5).

Figure 3.5 Child-Initiated Activities as a Function of Duration



Furthermore, there was a steady increase in teacher beliefs about literacy development that was associated with the number of years their centers had been participating in the partnership ($t = 5.42$), $p < .0001$. Our analyses revealed that 13 percent of the variation in teachers' beliefs about literacy development was associated with variation in duration (see Figure 3.6).

Figure 3.6 Teacher Beliefs about Literacy Development as a Function of Duration



Supervision and Support

We found that partnership teachers differed from comparison teachers in terms of the amount and type of supervision they received (see Table 3.7). Independent samples t-test analyses revealed that teachers at partnering centers were more likely than teachers at non-partnering centers to report that they received guidance from the director and that an administrator discussed strategies to ensure a literacy-rich curriculum. Analyses also suggested that partnership teachers were more likely to discuss the relationship between the curriculum and children's developmental needs with an administrator.

Table 3.7 Teacher Reports of Administrator Supervision Activities

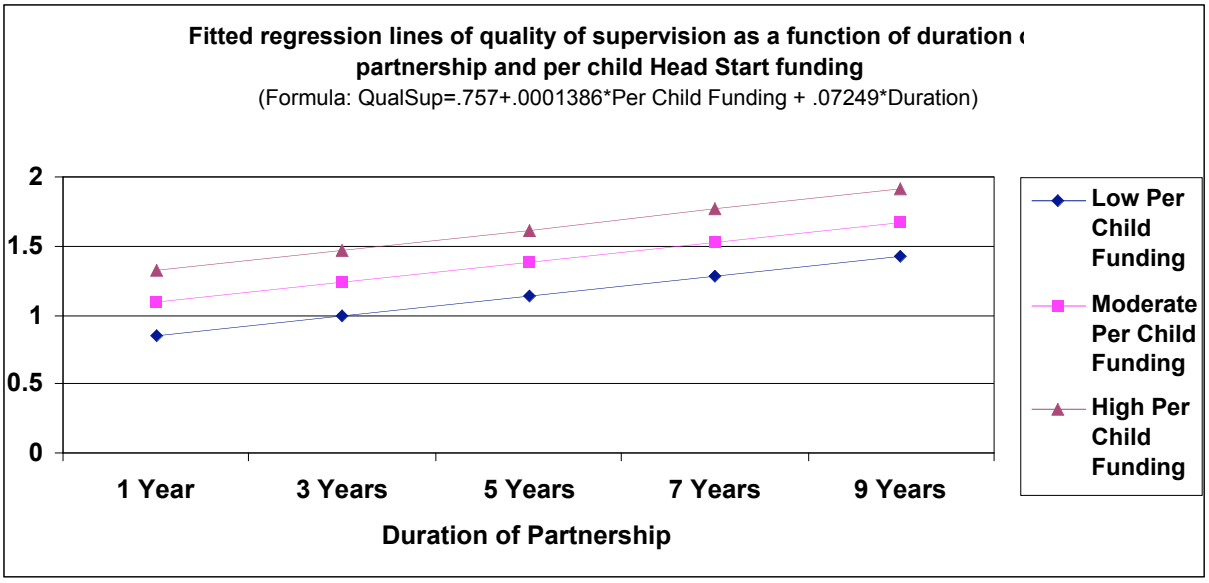
	n	Partnership *M* (*SD*)	Comparison *M* (*SD*)	*t*
An administrator…				
Observes me in the classroom to assess my practice	397	2.49 (0.95)	2.43 (0.91)	-0.58
Meets with me to give me feedback regarding my classroom teaching practices	393	2.63 (0.83)	2.47 (0.94)	-1.69–
Discusses with me how to link the curriculum to children's developmental needs	394	2.58 (0.91)	2.42 (0.97)	-1.71–
Discusses with me strategies for developmentally appropriate teaching practice	392	2.62 (0.93)	2.49 (0.98)	-1.36
Discusses with me strategies to ensure a literacy-rich curriculum	390	2.57 (0.92)	2.34 (0.97)	-2.44*
Reviews teaching plans with me	389	2.44 (0.93)	2.34 (1.05)	-1.03
Receive guidance from my director	393	3.33 (0.83)	3.13 (0.91)	-2.33*
Total score	372	18.76 (5.34)	17.64 (5.81)	-1.95–

Note. For each item, teachers were asked, "How often do the following activities occur?" Response options were as follows: 1 = *Never*, 2 = *Sometimes*, 3 = *Often*, 4 = *Always*.
–$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$

Furthermore, we found that the number of years in the partnership and the amount of per child funding were positively associated with the quality of supervision received (see Figure 3.8). That is, the quality of supervision increased as duration increased, and the quality of supervision increased as the amount of per child funding from Head Start increased. Analyses revealed that approximately 8 percent of the variation ($r^2 = .082$) in quality of supervision was associated with variation in duration of partnership, ($t = 2.00$), $p < .05$, and per child funding

received from Head Start (t = 2.01), p <. 05. Furthermore, the quality of supervision was highest in centers that received a high amount of per child funding and were engaged in partnership longer (5–9 years), and the quality of supervision was lowest in centers that received a low amount of per child funding and were engaged in partnership fewer years (1–4 years).

Figure 3.8 Quality of Supervision as a Function of Duration and Per Child Funding



DISCUSSION

Our analyses reveal that teachers who are working at partnering child care centers are more likely to receive employee benefits than teachers at comparison centers. This finding supports previous, qualitative studies that suggest that teachers who work at child care centers in partnership with Head Start have the potential of receiving additional benefits and guidance. Teachers at partnering centers are also more likely to participate in professional development opportunities. Finally, our research indicates that teachers at partnering centers use standardized curricula and assessment tools more often than teachers at non-partnering centers.

Statistically significant differences exist between teachers working at partnering centers and comparison teachers at non-partnering centers in terms of their use of curriculum and their use of assessment data. While few differences exist in the teachers' reports of classroom activities, teachers at partnering centers were more likely to report engaging parents in activities. Furthermore, analyses reveal that partnership duration is significantly predictive of improved classroom activities. Partnerships with specific features are also significantly more likely to engage in high-quality early childhood activities. For example, the number of years in the partnership is associated with an increase in teacher beliefs about literacy development. Moreover, duration and the amount of per child funding are positively associated with the quality of supervision received.

These results suggest that partnerships between Head Start and child care centers can improve the quality of care children receive directly and indirectly. Children benefit directly when research-based standardized curricula are used in their classrooms (Goffin & Wilson, 2001). Children may indirectly benefit when teachers receive supports such as health insurance and professional trainings, theoretically improving job satisfaction and decreasing turnover. However, our research did not find differences in salaries reported by partnership teachers and comparison teachers, and we found that partnership centers were more likely to report higher teacher turnover. Since children benefit from stability in child care environments (Whitebook, Howes, & Phillips, 1990), increasing teaching salaries, as opposed to increasing benefits, may play a larger role in improving child care quality.

Our findings reveal no statistically significant differences in the background characteristics of the teachers in the sample. Therefore, our research did not find support for our hypothesis that teachers at partnering centers would have higher education levels than teachers at

comparison centers. Our prediction was based on the fact that Head Start regulations currently call for all Head Start teachers to have CDA certification and require that at least half of all teachers have an associate's degree in early childhood or a related field (U.S. Department of Health and Human Services, 1998). Although not significant at the .05 level, our data does, however, suggest a difference between partnering and comparison centers in the percentage of teachers with CDAs, $X^2(1, N = 91) = 3.1310$, $p = .0768$. With a larger sample, this difference may have been significant and should be included in future research.

While we did not find the expected relationship between teaching at a partnership center and the adoption of "developmentally appropriate practices," our within-partnership analyses reveal that the longer a center is in partnership, the higher the likelihood that the center will adopt such practices. Beliefs about literacy practices and child-initiated practices are also associated with partnership duration. Furthermore, centers with strong agreement on goals and with high levels of communication with their partners are much more likely to engage in such practices. Taken together, these findings reveal that merely entering into a partnership will not produce desired results for teachers, but partnerships that endure and have strong communication among partners will produce desired results.

Our survey of teachers shows differences between partnering and comparison centers. However, due to the structure of the study, we cannot determine whether the partnerships caused the differences. It could be that the centers that sought partnerships were already more likely to offer benefits to staff and to use a structured curriculum, and it was not the partnership itself which led to these improvements. However, the relationship between duration of the partnership and improvements leads us to attribute some aspects of the partnership to these improvements. Furthermore, according to teacher surveys, there are benefits to working at a partnership center.

To better understand the actual impact of partnership on teachers, we believe an important next step is to collect observational data from classrooms to better understand partnerships' relationship to teacher practice.

CHAPTER 4 PARENTS AND CHILDREN SERVED BY PARTNERSHIPS: PERSPECTIVES ON SERVICES AND QUALITY

OVERVIEW OF RELEVANT RESEARCH

The inclusion of parents' experiences in research on child care is essential. Until recently, most researchers focused on how child care professionals and researchers defined quality in child care centers. However, researchers have found that parents and researchers do not always rate child care quality identically (Cryer & Burchinal, 1997; Lim, 2005). In our study, we administered surveys to child care directors and parents to learn about parents' satisfaction with care, the opportunities offered to parents to participate in classrooms, and services provided through child care centers to families. One of the hallmarks of Head Start is its emphasis on parental involvement (Castro, Bryant, Peisner-Feinberg, & Skinner, 2004). Therefore, as suggested earlier, partnerships with Head Start will theoretically lead to increased parent involvement and family access to services. To date, however, little research has been conducted concerning the specific differences in services offered to families attending partnering centers versus non-partnering centers.

METHODS IN BRIEF

To understand the services provided to parents and children, we analyzed responses to specific questions from the Director Survey (see Chapter 1) related to services, opportunities, and supports offered to parents and screenings, referrals, and services offered to children. We also analyzed data from the Parent Survey. This data represented responses from a self-selected sample of parents whose children attended the child care centers participating in the study. The sample included surveys from 1,691 parents. Parents who completed surveys represented a wide range of geographic locations in the state.

RESULTS

Below, we present our findings concerning:

- Characteristics of parents in the sample
- Demographic comparisons
- Hours of child care
- Reasons for selecting a child care center
- Family involvement at child care centers
- Screenings, referrals, and services
- Satisfaction with accessibility and quality of services

Characteristics of Parents in the Sample

Approximately one-third (33 percent) of parents who completed surveys were from urban centers, 42 percent were from suburban areas, and 25 percent were from centers in small towns or rural areas. Non-response analyses revealed that the parents completing the surveys were less likely to come from urban areas compared with the number of parents at the centers overall (the percentage of parents from urban centers in the study was 38 percent).

Nearly all (92 percent) of the parents who completed surveys were mothers, 4 percent were fathers, and 3 percent were guardians or grandparents. Most (83 percent) of the parents completing the surveys were white, 12 percent were African American, and 5 percent were Hispanic, Asian, or other. A small percentage (5 percent) of parents reported that they spoke a language other than English in their homes. More than half (60 percent) of parents completing the surveys reported that they were married, 23 percent categorized themselves as single, and 12 percent stated that they were divorced.

Ninety-seven percent of the surveyed parents reported having a high school diploma, 16 percent of parents reported that they had earned a trade license or certificate, 16 percent had an associate's degree, and 20 percent had a bachelor's degree or higher. Parents reported a range of incomes. Approximately 5 percent of parents reported that they had household incomes of less than 500 dollars per month, and close to half (47 percent) reported that they had incomes above $2,500 dollars per month (see Table 4.1). The mean number of hours worked per week by the primary parent was 37 hours. Twenty-nine percent (n = 1651) of parents reported they received child care subsidies.[10]

Demographic Comparisons

Our analyses revealed significant differences in several demographic variables between partnership and comparison parents. Partnering centers had a larger percentage of non-white parents than comparison centers (23 percent compared to 11 percent). There were also significant differences in the marital status of parents $X^2(1, n = 377) = 14.8364$, $p < .001$. Specifically, the percentage of single parents from partnering centers was 29 percent compared with 16 percent of comparison parents.

We created a new categorical variable to determine whether differences existed in the percentage of parents with a bachelor's degree or higher and found differences. Specifically, comparison parents in our sample were significantly more likely to report having a bachelor's or higher degree than partnership parents $X^2(1, n = 1699) = 30.85$, $p < .0001$. More partnership parents reported attending school or job training when compared with parents of children at comparison centers. Approximately 15 percent of parents at comparison centers reported

[10]Center directors reported that the percentage of children receiving subsidies was 50.5.

attending job training, compared with 24 percent of parents at partnership centers ($p < .0001$). See Appendix D for more information.

Partnership parents reported lower levels of income than comparison parents (see Table 4.1). Further, partnership parents were significantly more likely to report receiving child care subsidies than comparison parents $X^2(1, n = 1651) = 26.27, p < .0001$.[11] However, according to reported income, more parents were eligible for child care subsidies (47 percent) than reported using them (29 percent). Therefore, differences between the partnership and comparison groups may be due to self-response bias rather than to actual differences. There were no statistically significant differences in the number of hours worked per week by partnership parents and comparison parents ($M = 37.04$, $SD = 10.48$), $t(1459) = -0.13$, $p = .8938$.

Table 4.1 Percentage of Parents at Partnering (*n* = 820) and at Comparison Centers (*n* = 759) in Each Income Category

Income	Partnership	Comparison	χ^2
< $500 per month	5.98	4.74	1.18
$500 - $999	11.10	6.85	8.63**
$1,000 - $1,499	17.20	12.52	6.79**
$1,500 - $1,999	13.54	11.86	1.00
$2,000 - $2,499	10.98	10.28	0.20
> $2,500	41.22	53.75	24.85***

$^{-}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

[11] Director data: ($M = 50.53$, $SD = 28.74$); $t(323) = -2.10$, $p = .0369$.

Hours of Child Care

We asked parents to tell us the average number of hours per day and average number of days per week that their children attended the centers. Parents reported that their children attended the centers, on average, about seven hours per day ($M = 7.43$, $SD = 2.22$) and four days per week ($M = 4.25$, $SD = 1.07$). Statistically significant differences in the hours of care were reported between partnership parents and comparison parents $t(1513) = -6.59$, $p < .0001$. Differences also existed in the average number of days that children attended care, with partnership children attending more days than comparison children $t(1610) = -5.31$, $p < .0001$.

Reasons for Selecting a Child Care Center

Parents reported multiple reasons for selecting a child care center.[12] Seventy-two percent reported that they selected the center because the center provided quality care, 59 percent because it had good teachers, and 58 percent because the center was close to their home. Comparison parents were more likely to report that they had selected the center based on the quality of teachers and overall quality of care. Comparison parents also reported that the global quality of the care at the centers was higher than that reported by parents whose children attended partnership centers $t(1647) = 3.67$, $p < .0003$. Parents of children attending Head Start partnership centers were more likely than comparison parents to report that they selected the center because it offered Head Start services ($p < .0001$) or accepted child care subsidies ($p < .01$).

[12]We asked parents to select the three main reasons for choosing care. Parents were offered the following options: a) The center is close to my home; b) The center is affordable; c) The center is close to my work; d) The center had an opening for my child; e) The center has good teachers; f) The center provides quality care; g) The center accepts child care subsidies; h) The center provides Head Start services.

We found that approximately one quarter of parent surveys were from parents of children who attended religious-affiliated programs. Parents at religious-affiliated centers were more likely to be comparison parents than partnership parents $X^2(1, n = 1690) = 24.8996, p < .0001$. However, we did not examine religious affiliation as a reason for choosing a center.

Family Involvement at Child Care Centers

One of the potential outcomes of partnership is greater involvement of the families in the child care centers. We found that partnership parents were more likely than comparison parents to be offered parent involvement opportunities (see Table 4.2 below). According to child care center directors, parents of children attending partnering centers were more likely to be offered an opportunity to participate in parent workshops.

Table 4.2 Differences in Parental Involvement Opportunities Offered by Centers Based on Director Reports

Parent Opportunities	Partnership (*n* = 165)	Comparison (*n* = 183)	_²
Offers parent workshops	53.99	40.44	6.3577 *
Opportunities to volunteer in classroom	69.74	68.05	0.1065
Serve on parent advisory group	57.67	41.76	8.7088 **
Help parents set family goals	85.80	72.22	9.3660 **

–$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$

Furthermore, consistent with the director data, parents at partnering centers were more likely to report that they served on a parent advisory group ($p < .001$) and received help with family goals ($p < .05$). While there were no differences in reports from directors that the centers offered volunteer opportunities, parents at partnering centers reported that they spent significantly more time volunteering than comparison parents ($p < .05$).

Screenings, Referrals, and Services

- **Child-Focused Screenings, Referrals, and Services.** Chi-square analyses revealed that partnership center directors were more likely than comparison center directors to report providing all of the specific child screenings, referrals, and services that are required by the Head Start Program Performance Standards (see Table 4.3). Specifically, partnership directors were more likely to report providing screenings for children including vision, hearing, dental, mental health, and developmental. For example, 86 percent of partnership directors reported that they provided developmental screenings compared with 52 percent of comparison directors, 83 percent stated that they provided vision screening compared with 38 percent of comparison directors, and 80 percent reported that they provided hearing screening compared with 31 percent of comparison directors. Table 4.3 shows that the percentage of partnering centers that reported providing each specific screening, referral, or service to preschool-aged children was higher than the percentage of comparison centers. The differences in specific referrals and services offered by partnering and comparison centers are all statistically significant.

Table 4.3 Differences in Reports of Screenings, Referrals, and Services for Children Based on Director Reports

	Partnership (*n* = 165)	Comparison (*n* = 183)	χ^2
Child screenings			
Developmental Screening	86.06	52.51	44.86***
Vision screening	82.93	38.46	70.80***
Hearing screening	79.88	31.49	81.23***
Speech screening	77.44	41.34	45.97***
Mental health screening	68.13	37.78	31.26***
Dental screening	54.66	13.26	66.31***
Nutritional screening	40.74	15.25	27.60***
Lead screening	40.37	17.13	22.80***
Child referrals			
Medical referrals	52.80	32.78	13.96***
Dental referrals	50.62	20.56	33.96***
Mental health referrals	67.95 (n = 78)	50.79 (n = 63)	4.28*
Social service referrals	68.10	45.25	18.09***
Child services			
Physical therapy	32.70	16.11	12.78***
Speech therapy	67.48	34.81	36.63***

⁻$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$

Consistent with these reports, parents of children attending partnership centers were also more likely than comparison centers to report that their children received screenings and services. Specifically, parents were more likely to report that their children received developmental screenings ($p < .01$), vision screenings ($p < .001$), hearing screenings ($p < .001$), speech screenings ($p < .001$), and dental screenings ($p < .001$). Furthermore, parents at partnering centers were more likely to report that their children were offered physical therapy ($p < .001$) or speech therapy ($p < .001$). Parents of children at partnering and comparison centers were equally likely to report that their children received nutrition or lead screenings.

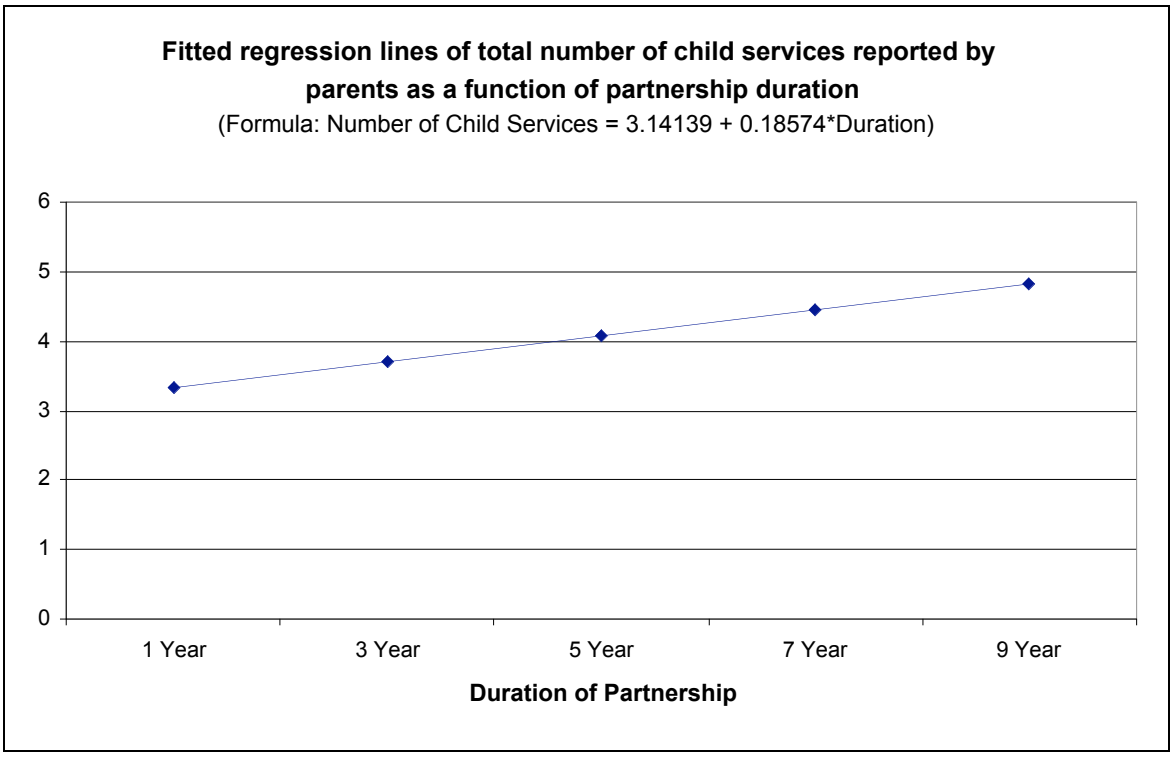
In addition to examining differences in the specific services, screenings, and referrals provided by partnership and comparison centers, we also examined differences in the total number that were offered. We found that partnership directors offered a greater number of screenings, referrals, and services than comparison directors. Independent samples t-test analysis revealed that the number (M = 5.24, SD = 2.34) of screenings directors of partnering centers reported offering to children is significantly higher than the number (M = 2.42, SD = 2.28) reported by non-partnering centers, $t(346) = -11.39$, $p < .0001$. Furthermore, the mean number of referrals and services is 2.67 (SD = 1.76), compared with 1.47 (SD = 1.60) for non-partnering centers, $t(346) = -6.64$, $p < .0001$.

Partnership parents also reported that their children received significantly more screenings, referrals, and services than comparison parents. Independent samples t-test analysis revealed that the number (M = 3.66, SD = 2.90) of screenings, services, and referrals received by children was significantly higher than the number (M = 1.86, SD = 1.91) reported by comparison parents, $t(1524) = -11.77$, $p < .0001$.

To examine whether the duration of the partnership was related to the provision of these screenings and services, we conducted regression analyses. Our analysis of child care center director data revealed that duration of partnership was not a statistically significant predictor of the number of screenings that directors reported providing, (r^2 = .0046), $F(1, 143) = 0.66$, $p = 0.4196$, and was not highly correlated with the number of referrals and services directors reported offering ($p = 0.3241$). However, regression analysis of parent data revealed that duration was significantly correlated with the number of child services parents

reported receiving. This correlation appeared even stronger when controlling for such parental characteristics as educational attainment, income, and receipt of child care subsidy.[13]

Figure 4.1 Child Services reported by Parents as a Function of Duration of Partnership



- **Parent Services and Supports.** In addition to asking directors and parents about the services for children, we asked about parent services and supports. Chi-square analyses revealed that directors of partnering centers were more likely to report offering parent services. Specifically, partnership directors were more likely to report offering parents a process for family goal setting ($p < .0001$), medical referrals ($p < .0001$), GED preparation ($p < .0001$), immigration services ($p < .001$), and adult literacy ($p < .0001$). Significant differences also existed between reports from partnership directors and comparison directors in terms of

[13]Educational attainment and income are strongly inversely correlated with the total number of child services.

offering social service referrals ($p < .0001$), parent workshops ($p < .05$), mental health referrals ($p < .0001$), employment referrals ($p < .0001$), or marriage counseling ($p < .001$). However, significant differences did not exist between partnering centers and comparison centers in terms of offering assistance with financial aid, housing assistance or referral, or transportation. Table 4.4 shows the percentage of centers that provided specific referrals or services to parents.

Table 4.4 Differences in Parent Referrals and Services Based on Director Reports

	Partnership (n = 165)	Comparison (n = 183)	χ^2
Parent Services			
Social service referrals	76.69	56.11	16.11***
Medical referrals	54.04	30.17	19.90***
Mental health referrals	61.88	36.67	21.55***
GED preparation	43.56	17.78	27.06***
English proficiency classes	25.15	6.11	24.12***
Immigration services	10.56	2.21	10.31**
Employment placement referrals	38.89	16.67	21.27***
Adult literacy	35.19	8.89	35.12***
Assistance obtaining food stamps	45.06	27.37	11.58***
Assistance with financial aid	46.01	36.11	3.47–
Marriage counseling	20.99	9.39	9.08**
Legal services referrals	27.78	13.89	10.10**
Energy/fuel assistance	38.89	18.89	16.79***
Processes for working on family issues/goals	50.92	30.00	15.61***

–$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$

Reports from parents were consistent with the reports from directors for most parent services and referrals. Partnership parents were significantly more likely to report receiving social service referrals ($p < .001$), mental health referrals ($p < .001$), employment referrals ($p < .001$), GED preparation ($p < .001$), English proficiency ($p < .05$), immigration services ($p < .001$), food stamp assistance ($p < .001$), and energy/fuel assistance ($p < .01$). However, while directors of partnering centers were more likely to report offering marriage counseling, parents reported no differences between partnering and comparison centers in marriage counseling services. Furthermore, while analysis of director data showed no differences in housing assistance offered by partnering and comparison centers, parents at partnering

centers were significantly more likely to report receiving such assistance ($p < .001$).

As with the child screenings, services, and referrals, we also analyzed the total number of services and referrals offered to parents. Independent t-test analyses revealed that directors of centers in partnership were more likely to provide parents with referrals and services than comparison directors $t(305) = -5.88$, $p < .0001$. Partnership center directors reported providing on average 5.65 ($SD = 4.62$) referrals/services to parents, compared with 3.05 ($SD = 2.00$) provided by comparison centers. Consistent with these findings, parents at partnering centers reported receiving significantly more services and referrals than parents at comparison centers ($p < .0001$).

Regression analyses of data reported by child care center directors revealed that duration of the partnership was somewhat correlated with the number of referrals and services offered to parents ($r^2 = .0213$), $p = .0799$. Furthermore, logistic regression analyses revealed that duration was correlated with director reports of a center's likelihood of offering some specific services and referrals to parents such as medical referrals ($p < .05$), mental health referrals ($p < .05$), GED preparation ($p < .05$), assistance with financial aid ($p < .05$), and energy/fuel assistance ($p < .05$).

Reports from parents were consistent with those of child care center directors. Specifically, analyses of parent data revealed a strong correlation between the number of parent services received and the duration of the partnership. Again, we found that this correlation appeared to be stronger when controlling for parental income, level of educational attainment, and receipt of child care subsidy.

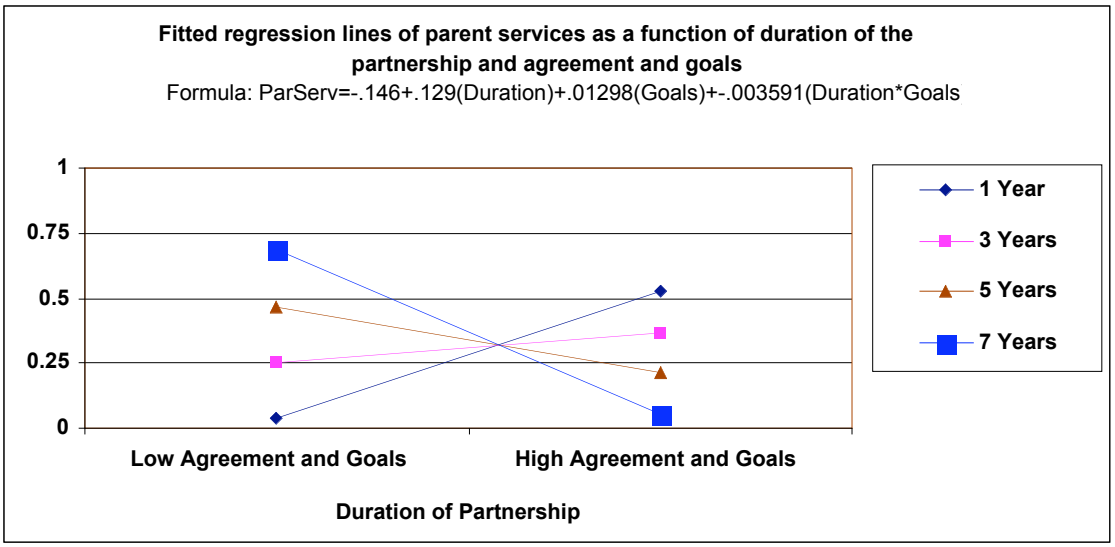
Table 4.5 Logistic Regression of Director Reports of Parent Referrals and Services Controlling For Duration of Partnership

Dependent variables	*B*	*SE B*	$_eB$
Parent Services			
Social service referrals	0.0566	0.1183	1.058
Medical referrals	0.2651	0.1077	1.304*
Mental health referrals	0.2450	0.1133	1.278*
GED preparation	0.2142	0.0997	1.239*
English proficiency classes	0.0816	0.1067	1.085
Immigration services	0.1430	0.1432	1.154
Employment placement referrals	0.0259	0.0974	1.026
Adult literacy	0.0902	0.0997	1.094
Assistance obtaining food stamps	0.0864	0.0964	1.090
Assistance with financial aid	0.2112	0.0997	1.235*
Marriage counseling	-0.1059	0.1207	0.900
Legal services referrals	0.1221	0.1033	1.130
Energy/fuel assistance	0.2098	0.1004	1.233*
Processes for working on family issues/goals	0.2874	0.1051	1.333**

$_{-}p < .10$ $^{*}p < .05$ $^{**}p < .01$ $^{***}p < .001$

We found a significant statistical interaction ($t = 4.56$), $p < .0001$ between duration of the partnership and the score on the "Agreement and Goals" scale when predicting parents' reports of services received. However, the association was low, explaining only 4 percent of the variation in parent services. While there was an increase in parent services as the score on the "Agreement and Goals" scale increased in the first two years of partnership, the impact associated with "Agreement and Goals" began to decline steadily after three years in partnership.

Figure 4.2 Parent Services as a Function of Duration of Partnership and Agreement

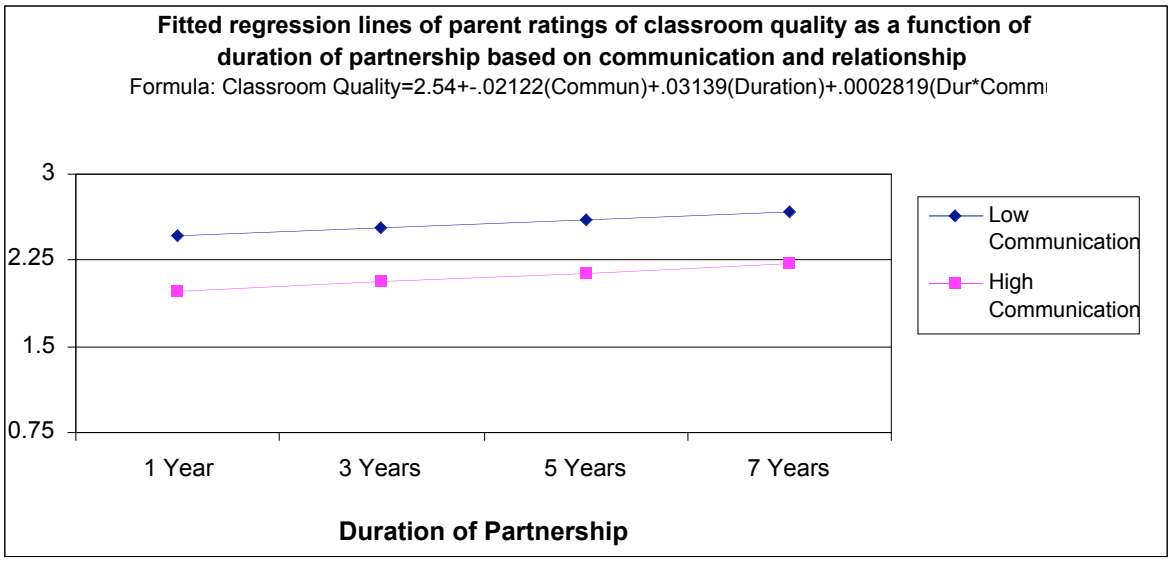


Satisfaction with Accessibility and Quality of Services

Partnership parents were significantly more likely to report high satisfaction with accessibility of services when compared with parents at non-partnering centers ($p < .0001$). Interestingly, even though parents at partnering centers were more likely to receive the services through public funds, no differences were reported in the quality of services received ($p = 0.4853$).

We found that for parents whose children attended partnership centers, ratings of classroom quality started slightly higher at the beginning of a partnership for centers with low communication and relationship, but there was a steady increase for centers with both low and high communication and relationship scores as the duration of the partnership increased. The association was low, however, explaining only 3 percent of the variation in parents' ratings of classroom quality ($t = 2.512$), $p < .05$.

Figure 4.3 Parent Ratings of Quality as a Function of Duration and Communication



DISCUSSION

Our research suggests that families attending partnering centers receive benefits such as services, referrals, and screenings that are not provided at non-partnering centers. Moreover, parents at partnership centers are more likely to be involved in their children's classrooms. Our findings also reveal significant differences between parents' experiences and demographics at the two types of centers and highlight several aspects of child care/Head Start partnerships that have relevancy for policymakers and researchers.

First, partnership parents are more likely to receive services for their children (e.g., developmental screenings, physical therapy, and speech therapy), as well as for themselves (e.g., GED preparation, parent workshops that contribute to children's optimal intellectual and physical development and families' self-sufficiency). Duration of partnership appears to be correlated with families' likelihood of receiving both kinds of services.

While our parent survey findings indicate that duration of partnership is predictive of services, screenings, and referrals to children, it is interesting to note that our director survey data does not reveal a statistically significant relationship between duration and services for children. This suggests that as partnerships become more established, parents may become more familiar with the center's offerings and more comfortable accepting provided services. Our findings concerning the correlation between duration of partnerships, likelihood of centers providing services and referrals to parents, and parent reports of receiving services may also be due to parents' growing familiarity with the available services and a better system of integrating services and referrals into parent-center relationships.

Second, our analyses reveal several differences in demographics between family populations at partnership and comparison centers. Parents at partnership centers are more likely to report lower incomes, more likely to be involved in job training, more likely to hold two or more jobs, more likely to be single parents, and more likely to be non-White. They are less likely to have bachelor's degrees.

These demographic differences, and especially our findings concerning partnership parents' education and income, are instructive to the ongoing study of child care quality. As policymakers consider options such as partnerships for bringing quality care to children and families, we must recognize differences in the populations we are comparing in studies. Further, as we move forward to conduct research on the links between partnerships and observed classroom quality, it is essential that we include information about the children's families that could confound the results.

CHAPTER 5 CONCLUSION AND DISCUSSION

We designed our study to examine prevailing theories about the nature and benefits of child care/Head Start partnerships that are primarily derived from qualitative research. We selected a set of three factors to investigate—the characteristics of and variations in child care/Head Start partnerships, the differences between partnership and comparison teachers, and the differences in services offered to children and families—because to date, these key elements of partnership have largely remained unexplored by quantitative researchers. By gathering and analyzing data in these areas, we sought to test the qualitative literature's findings and illuminate the relevancy of the assumptions made about the promise of partnerships to improve and expand services for children and families.

Our analyses substantiate much of the qualitative research on improvements for the beneficiaries of child care/Head Start partnerships—children, parents, and staff—and also provide new details about partnership arrangements and benefits. Below, we provide highlights of all of our key findings concerning the nature of partnerships and the relationship between partnering and desired outcomes.

- **Variation:** Our study confirms that variation exists in the types of child care centers engaged in partnership. Child care centers that engage in Head Start partnerships range from non-profit to for-profit, religious-affiliated to secular, large to small, urban to rural.
- **Population Served:** Our analyses reveal that partnering child care centers provide services not only to children from low-income families, but also provide child care to a large percentage of children from higher income families. As research has shown that school-aged low-income students served in economically diverse settings perform better than those in homogenous settings, this finding reveals an additional potential benefit of partnerships.

- **Resources:** Our data indicate that partnership centers do, indeed, receive resources from Head Start. These resources include funding, professional development, and additional materials and supplies. On average, partnership centers receive $3,600 dollars per child per year. Centers use this funding to purchase supplies such as art materials, to support teacher training, and to enhance teacher compensation packages. In addition to this funding, partnership centers receive professional development and training, paid staff, and additional materials and supplies from Head Start. These resources can help partnership centers meet Head Start's rigorous program performance standards. While the resources are related to the number of Head Start children attending the center, centers use the funds in a variety of ways that can improve early education experiences for every child. For example, all children can benefit from classrooms with enhanced equipment, such as science centers or bookshelves, and supplies or additional art and curriculum materials. Furthermore, all children have the potential to benefit from better-trained teachers.
- **Staff:** Our findings reveal that partnership is a strong and statistically significant predictor of offering teachers more professional development and training opportunities and better compensation packages. Our data also indicate that partnership is a statistically significant predictor of teachers' usage of structured curricula and standardized assessments.
- **Services:** Our analyses indicate that partnership is a statistically significant predictor of centers' provision of additional screenings, referrals, and services to children and families. This finding is especially compelling given that the final evaluation of the federally funded Comprehensive Child Development Program (CCDP)—a program funded in 1997 at a level of $15,768 dollars per family per year—found few differences in the services accessed by CCDP and non-participating control group families. That study found that control group

families were able to access many of the services offered by CCDP. For example, equal percentages of CCDP and control group families visited a doctor for checkups, received acute medical care, and received dental services. In contrast, our findings indicate that families served by partnership centers are more likely to have access to services than comparison families. Furthermore, regardless of income, parents at partnering centers are more likely to receive comprehensive services for their children, more parent involvement opportunities, and services and referrals for their families. Thus, it is possible for centers in partnership with Head Start to leverage the benefits of the partnership to enhance the quality of care for all children and families at the center. The size of the differences between partnering and comparison centers indicates that partnership with Head Start is an important factor in a center's likelihood of offering screenings, referrals, and services (U.S. Department of Health and Human Services/Administration for Children and Families/Child Care Bureau, n.d.).[14]

- **Agreement, Goals, and Benefits:** While our findings indicate that the existence of a partnership predicts certain benefits to child care centers, it appears that the nature of partnerships is important. Centers that develop strong agreements and have consistent goals with their partners, and who report good communication, are the most likely to report improved benefits. These findings have implications for Head Start and Child Care Development Fund (CCDF) policies. Over the past decade, federal leaders have encouraged partnerships between Head Start and child care centers. At the same time, states have devoted CCDF quality dollars to a range of activities with the goal of improving quality. Our research demonstrates that partnership with Head Start is related to specific quality improvements.

[14]This research and demonstration program—funded by the federal government—was designed to provide comprehensive services to low-income children and families. For additional information see: http://www.abtassociates.com/reports/ES-D19940018.pdf

Thus, leaders might consider the implications of this finding for policies related to CCDF quality funds. Policymakers could consider ways to strengthen partnership agreements and communication among partners as they consider ways to encourage the development of these factors in partnerships.

As policymakers seek ways to leverage improvements in child care, we hope that these findings will serve to inform their deliberations. Federal and state leaders issuing regulations and guidance to programs in partnership might consider one of our study's most important findings: partnership with Head Start brings additional resources to a child care center and increases the likelihood that the center will offer the screenings, referrals, and services that researchers suggest make a difference for low-income children and their families.

Our study also leads to specific questions for future research. While the findings appear promising, questions exist about whether observations would confirm the quality differences reported by the directors, teachers, and parents. Furthermore, questions remain about whether the reported improvements in teacher practices, along with the additional services provided to children and their families, lead to improvements in children's school readiness. To address these important questions, we will continue our longitudinal study. In the upcoming years, we will collect data from the sample of partnership centers and comparison centers using standardized observational tools. Furthermore, we will collect data from a sample of children attending these centers to determine if differences exist in children's school readiness.

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APPENDIX A: DIRECTOR SURVEY DATA

Table A1 Demographic Characteristics of Child Care Centers

	Round 1 (n=141)	Round 2 (n=113)	Round 3 (n=94)	Total (n=348)
Partnership Status (%)				
Partnership	55.3 (n=78)	41.6 (n=47)	42.6 (n=40)	47.4 (n=165)
Comparison	41.6 (n=63)	58.4 (n=66)	57.4 (n=54)	52.6 (n=183)
Urbanicity (%)				
Urban	40.4 (n=57)	38.1 (n=43)	42.6 (n=40)	40.2 (n=140)
Partnership	57.9 (n=33)	46.5 (n=20)	47.5 (n=19)	51.4 (n=72)
Comparison	42.1 (n=24)	53.5 (n=23)	52.5 (n=21)	48.6 (n=68)
Suburban	44.0 (n=62)	45.1 (n=51)	40.3 (n=38)	43.4 (n=151)
Partnership	53.2 (n=33)	35.3 (n=18)	36.8 (n=14)	43.0 (n=65)
Comparison	46.8 (n=29)	64.7 (n=33)	63.2 (n=24)	57.0 (n=86)
Small Town	6.4 (n=9)	8.0 (n=9)	7.5 (n=7)	7.2 (n=25)
Partnership	44.4 (n=4)	44.4 (n=4)	57.2 (n=4)	48.0 (n=12)
Comparison	55.6 (n=5)	55.6 (n=5)	42.8 (n=3)	52.0 (n=13)
Rural	9.2 (n=13)	8.9 (n=10)	9.6 (n=9)	9.2 (n=32)
Partnership	61.5 (n=8)	50.0 (n=5)	33.3 (n=3)	50.0 (n=16)
Comparison	38.5 (n=5)	50.0 (n=5)	66.7 (n=6)	50.0 (n=16)

Table A2 Comparison of Enrollment and Budget

	Partnership			Comparison				
	n	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Average enrollment	164	32.81	(18.81)	180	30.84	(27.59)	-0.78	(317)
Total enrollment[a]	87	38.17	(19.22)	120	38.78	(29.74)	0.18	(203)
Number of classrooms per center	165	2.32	(1.16)	182	2.31	(1.31)	-0.04	(345)
Child to teacher ratio	163	9.57	(2.59)	183	10.16	(2.88)	2.00*	(344)
Average annual budget	86	$416,414	($685,891)	89	$339,402	($375,231)	-0.92	(131)

Note. Analysis performed on three rounds of data.

[a]Round 2 and 3 data.

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

Table A3 Comparison of Organizational Type

	Partnership		Comparison			
	n	%	*n*	%	χ^2	(*df*)
For-Profit/Non-Profit Status[a]						
For-profit	45	57.69	40	64.52	0.64	(1)
Non-profit	33	42.31	22	35.48		
Faith-Based Status[a]						
Faith-based	11	14.10	15	24.19	2.33	(1)
Non-faith-based	67	85.90	47	75.81		

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 1 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A4 Comparison of Accreditation Status

	Partnership		Comparison			
	n	%	*n*	%	χ^2	(*df*)
Accreditation Status						
Accredited	31	19.02	21	11.86	10.05**	(2)
Not accredited	89	54.60	126	71.19		
Seeking accreditation	43	26.38	30	16.95		

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 1 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A5 Organizational Capacity Indicators for Child Care Centers

	Partnership		Comparison			
	n	%	*n*	%	χ^2	(*df*)
Organizational chart/ staffing plan	117	70.91	128	70.33	0.01	(1)
2001 / 2002 budget[a]	50	64.10	44	70.97	0.74	(1)
2003 / 2004 budget[b]	28	70.00	36	66.67	0.12	(1)
Staff handbook	161	97.58	172	94.51	2.11	(1)
Salary scales	96	58.18	96	52.75	1.03	(1)
Collective bargaining agreement	12	7.27	12	6.63	0.06	(1)
Strategic plan	67	40.61	68	37.78	0.29	(1)
Enrollment and policy information for parents	161	97.58	181	99.45	2.14	(1)
Job descriptions	148	89.70	167	91.76	0.44	(1)
Health insurance as a benefit to staff[c]	55	63.22	71	59.66	0.27	(1)
Current partnership with Head Start[c]	82	94.25	18	15.13	125.97***	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 1 data only. [b]Round 3 data only. [c]Round 2 and 3 data.
*p < .05, **p < .01, ***p < .001.

Table A6 Director Reported Characteristics of Children Attending Child Care Centers

	Partnership			Comparison				
Characteristic (%)	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Race/Ethnicity								
Black/African American	164	41.63	(37.02)	180	25.53	(28.40)	-4.49***	(305)
Hispanic	163	2.61	(6.27)	177	4.19	(6.87)	2.19*	(338)
White	164	52.68	(36.61)	178	65.29	(30.30)	3.45***	(317)
Asian	163	0.95	(2.04)	178	1.48	(3.57)	1.71	(286)
Other	160	1.93	(4.61)	173	2.24	(7.41)	0.47	(291)
Preschoolers receiving subsidy	154	54.03	(28.58)	171	47.38	(28.61)	-2.10*	(323)
Preschoolers with disabilities	161	3.33	(6.65)	171	4.82	(13.84)	1.26	(248)
English as Second Language	160	2.53	(8.90)	173	4.51	(11.26)	1.79	(323)
Preschoolers who receive Federal Head Start[a]	78	22.78	(28.52)	107	3.61	(10.13)	-5.68***	(91.3)
Preschoolers who receive State Head Start[a]	79	26.13	(28.13)	105	4.74	(14.55)	-6.17***	(109)
Preschoolers who attend 40+ hours/wk[b]	36	68.55	(27.60)	52	60.90	(28.58)	-1.25	(86)
Preschoolers who attend 25–39 hours/wk [b]	37	23.41	(24.43)	51	22.60	(23.88)	-0.16	(86)
Preschoolers who attend <25 hrs/wk[b]	37	5.00	(10.26)	52	13.72	(17.61)	2.94**	(84.1)

Note. Analysis performed on three rounds of data.
[a]Round 2 and 3. [b]Round 3 only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A7 Teacher Turnover as Reported by Directors

	Partnership			Comparison				
	n	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Total Teacher Turnover	160	2.47	(3.42)	181	1.66	(2.11)	2.60*	(258)
Of Teachers who left centers, percent who left:								
Voluntarily	115	79.14	(30.44)	114	81.66	(31.64)	0.61	(227)
Involuntarily	112	21.12	(30.70)	113	16.29	(30.48)	-1.18	(223)

Note. Analysis performed on three rounds of data.
*p < .05, **p < .01, ***p <.001.

Table A8 Differences in Parental Involvement Opportunities Offered by Centers Based on Director Reports

	Partnership		Comparison			
Opportunity	*n*	%	*n*	%	χ^2	*(df)*
Parent advisory committee	94	57.67	76	41.76	8.71**	(1)
Working with families on goals for children	139	85.80	130	72.22	9.37**	(1)
Parent workshops	88	53.99	74	40.44	6.36*	(1)
Parents volunteering in classroom	106	69.74	115	68.05	0.11	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
*p < .05, **p < .01, ***p < .001.

Table A9 Differences in Reports of Screenings, Referrals, and Services for Children Based on Director Reports

	Partnership		Comparison			
Service	*n*	%	*n*	%	χ^2	*(df)*
Screenings						
Vision screening[a]	136	82.93	70	38.46	70.80***	(1)
Hearing screening[a]	131	79.88	57	31.49	81.23***	(1)
Dental screening[a]	88	54.66	24	13.26	66.31***	(1)
Mental health observation & assessment[a]	109	68.13	68	37.78	31.26***	(1)
Developmental screening[a]	142	86.06	94	52.51	44.86***	(1)
Speech screening[a]	127	77.44	74	41.34	45.97***	(1)
Nutrition screening[a]	66	40.74	27	15.25	27.60***	(1)
Lead screening[a]	65	40.37	31	17.13	22.80***	(1)
Referrals & Services						
Medical referral[b]	85	52.80	59	32.78	13.96***	(1)
Dental referral[b]	82	50.62	37	20.56	33.96***	(1)
Social service referral[b]	111	68.10	81	45.25	18.09***	(1)
Mental health referral[c]	53	67.95	32	50.79	4.28*	(1)
Physical therapy[b]	52	32.70	29	16.11	12.78***	(1)
Speech therapy[b]	110	67.48	63	34.81	36.63***	(1)
Transportation[d]	4	10.26	11	20.37	1.71	(1)

Note. Percentages calculated from non-missing values from three rounds of data.

[a]Item included in the calculation of the Child Screening Score.

[b]Item included in the calculation of the Child Referral/Service Score.

[c]Round 1 data only. [d]Round 3 data only.

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

Table A10 Differences in Parent Referrals and Services Based on Director Reports

	Partnership		Comparison			
Service	*n*	%	*n*	%	χ^2	*(df)*
Social service referrals[a]	125	76.69	101	56.11	16.11***	(1)
Medical referrals[a]	87	54.04	54	30.17	19.90***	(1)
Mental health referrals[a]	99	61.88	66	36.67	21.55***	(1)
GED preparation[a]	71	43.56	32	17.78	27.06***	(1)
English proficiency classes[a]	41	25.15	11	6.11	24.12***	(1)
Immigration services[a]	17	10.56	4	2.21	10.31**	(1)
Employment placement referral[a]	63	38.89	30	16.67	21.27***	(1)
Adult literacy[a]	57	35.19	16	8.89	35.12***	(1)
Assistance obtaining Food Stamps[a]	73	45.06	49	27.37	11.58***	(1)
Assistance with financial aid[a]	75	46.01	65	36.11	3.47	(1)
Marriage counseling[a]	34	20.99	17	9.39	9.08**	(1)
Legal service referrals[a]	45	27.78	25	13.89	10.10**	(1)
Energy/fuel assistance[a]	63	38.89	34	18.89	16.79***	(1)
Processes for working on family issues/goals[a]	83	50.92	54	30.00	15.61***	(1)
Housing assistance or referral[b]	37	47.44	23	37.10	1.51	(1)
Transportation[c]	6	15.38	6	11.11	0.37	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Item included in the calculation of the Parent Referral/Service Score.
[b]Round 1 only. [c]Round 3 only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A11 Comparison of Parent and Children Service Scores

	Partnership (*n* = 165)		Comparison (*n* = 183)			
Item	*M*	*(SD)*	*M*	*(SD)*	*t*	*(df)*
Child Screening Score[a]	5.24	(2.34)	2.42	(2.28)	-11.39***	(346)
Child Referral/Service Score[b]	2.67	(1.76)	1.47	(1.60)	-6.64***	(346)
Parent Referral/Service Score[c]	5.65	(4.62)	3.05	(3.51)	-5.88***	(305)

Note. Analysis performed on three rounds of data.
[a]Child Screening Score is the total number of screenings offered to children (see *Table A6*). Maximum score = 8.
[b]Child Referral/Service Score is the total number of referrals/services offered to children (see *Table A6*). Maximum score = 5.
[c]Parent Referral/Service Score is the total number of referrals/services offered to parents (see *Table A7*). Maximum score = 14.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A12 Summary of Logistic Regression Analysis for Partnership Duration Predicting Director Reported Parent Services (*n = 143*)

	Partnership Duration		
Outcome	*B*	*SE B*	e^B
Social service referrals	0.06	0.12	1.06
Medical referrals	0.27	0.11	1.30*
Mental health referrals	0.25	0.11	1.28*
GED preparation	0.21	0.10	1.24*
English proficiency classes	0.08	0.11	1.09
Immigration services	0.14	0.14	1.15
Employment placement referrals	0.03	0.10	1.03
Adult literacy	0.09	0.10	1.10
Assistance obtaining food stamps	0.09	0.10	1.09
Assistance with financial aid	0.21	0.10	1.24*
Marriage counseling	-0.11	0.12	0.90
Legal service referrals	0.12	0.10	1.13
Energy/fuel assistance	0.21	0.10	1.23*
Processes for working on family issues and family goals	0.29	0.11	1.33**
Housing assistance or referrals[a]			
Transportation[a]	-0.45	0.48	0.64

Note. e^B = exponentiated *B*.
[a]*n* = 69. [b]*n* = 31.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A13 Comparison of Teacher Use of Child Assessments

	Partnership		Comparison		
Assessment	*n*	%	*n*	%	χ^2
High Scope CORE[a]	3	7.50	4	7.69	<0.01
Get it Got it Go![a]	8	20.00	6	11.54	1.25
Galileo[b]	51	58.62	17	14.53	43.65***
Creative Curriculum[a]	13	32.50	9	17.31	2.87
Center designed tools[b]	40	45.98	80	68.38	10.34**
Work samples[a]	16	40.00	15	28.85	1.26
No assessment tools[b]	2	2.30	9	7.69	2.85

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 3 data only. [b]Round 2 and 3 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table A14 Comparison of Teacher Use of Classroom Assessments

	Partnership		Comparison			
Assessment	*n*	%	*n*	%	χ^2	*(df)*
ELLCO[a]	2	2.56	3	2.86	0.01	(1)
ECERS[b]	3	9.68	3	7.50	0.11	(1)
NAEYC Self-Study[b]	22	70.97	14	35.00	9.04**	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
ELLCO = Early Language and Literacy Classroom Observation.
ECERS = Early Childhood Environment Ratings Scale.
NAEYC = National Association for the Education of Young Children.
[a]Round 2 and 3 data only. [b]Round 3 data only.
*p < .05, **p < .01, ***p < .001.

APPENDIX B: PARTNERSHIP SURVEY DATA

Table B1 Comparison of Urbanicity of Partnership Centers

Urbanicity (%)	Round 1 (n=75)	Round 2 (n=61)	Round 3 (n=54)	Total (n=190)
Urban	41.33 (n=31)	42.62 (n=26)	42.59 (n=23)	42.11 (n=80)
Active	41.33 (n=31)	43.40 (n=23)	43.59 (n=17)	43.48 (n=71)
Discontinued	n/a	37.50 (n=3)	40.00 (n=6)	39.13 (n=9)
Suburban	44.00 (n=33)	40.98 (n=25)	38.89 (n=21)	41.58 (n=79)
Active	44.00 (n=33)	39.62 (n=21)	38.46 (n=15)	39.13 (n=69)
Discontinued	n/a	50.00 (n=4)	40.00 (n=6)	43.48 (n=10)
Small Town	5.33 (n=4)	6.56 (n=4)	7.41 (n=4)	6.32 (n=12)
Active	5.33 (n=4)	7.55 (n=4)	10.26 (n=4)	8.70 (n=12)
Discontinued	n/a	0.00 (n=0)	0.00 (n=0)	0.00 (n=0)
Rural	9.33 (n=7)	9.84 (n=6)	11.11 (n=6)	10.00 (n=19)
Active	9.33 (n=7)	9.43 (n=5)	7.69 (n=3)	8.70 (n=15)
Discontinued	n/a	12.50 (n=1)	20.00 (n=3)	17.39 (n=4)

Note. Percent based on partnership sub-sample. See *Table A1* for urbanicity of total sample.

Table B2 Characteristics of Partnership

	n	*M*	Median	(SD)
Duration of partnership (years)	154	3.12	2.89	(1.80)
How established is partnership[a]	167	3.66	4.00	(1.22)
Number of months spent planning partnership	57	5.95	4.07	(6.70)
Number of meetings to develop agreement	90	2.63	2.50	(1.55)
Number of children receiving Head Start services	153	13.44	12.00	(8.39)
Percent of Head Start eligible children who changed status over the course of a year (fluctuation)	143	35.64	33.33	(23.58)

Note. Analysis performed on three rounds of non-missing data.

[a]Directors rated their perception of partnership establishment on a five-point scale where 1 = *just forming*, and 5 = *fully established*.

Table B3 Characteristics of Partnership Agreement

	n	%
Center has current agreement with Head Start	158	95.18
Agreement was mutually developed by center and Head Start partner	112	70.44
Agreement is regularly updated	149	96.13
Agreement is updated annually	136	92.52
Agreement specifies maximum number of children to receive Head Start services	114	76.00
Agreement has document describing roles and responsibilities of center and Head Start partner	149	93.13
Agreement has document describing partnership's goals	134	83.75
Agreement has document describing how to meet Head Start performance standards	126	75.90
Agreement has document describing communication with partner	120	76.92
Agreement has process for recruiting and enrolling Head Start children	127	77.44

Note. Percentages calculated from non-missing values from three rounds of data.

Table B4 Methods of Head Start Service Delivery

Head Start enhanced services are delivered to children. . .	*n*	%
In a separate Head Start classroom	4	10.26
In a mixed classroom	37	94.87
At Head Start sites with transportation provided	2	5.13
By center teachers at the Head Start site	2	5.13

Note. Percentages calculated from non-missing values from round three data. Percent sum is greater than 100 because some centers use multiple methods.

Table B5 Characteristics of Funding

	n	*M*	(SD)
Funding received from Head Start per year	69	$2,5342	($19,676)
Funding received from Head Start per child per year	81	$1,974	($769)

Note. Analysis performed on three rounds of non-missing data.

Table B6 Characteristics and Uses of Head Start Funding

	n	%
Head Start provides funding to center	152	92.12
Center uses Head Start funds for. . .		
Equipment	126	69.23
Bookshelves	58	45.67
Playground equipment	57	44.19
Tables and chairs	52	41.27
Dress-up materials	76	58.46
Science center materials	98	74.81
Pretend kitchen	79	60.31
Supplies	132	72.93
Paper	100	76.34
Curriculum materials	102	76.12
Art supplies	115	85.82
Books	111	82.22
Training	93	66.43
Enhancing teacher salaries	83	59.71
Paying salary of teacher or family service worker	64	38.79
Enhancing teacher benefits[a]	8	22.86

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 3 data only.

Table B7 Materials and Services that Head Start Provides to Center

Head Start provides. . .	*n*	%
Equipment[a]	36	50.00
Bookshelves	43	33.86
Playground equipment	20	15.87
Tables and chairs	35	27.78
Dress-up materials	30	23.81
Science center materials	49	39.20
Pretend kitchen	31	24.80
Supplies[a]	46	64.79
Paper	67	49.26
Curriculum materials	69	50.74
Art supplies	70	51.09
Books	80	59.70

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 1 data only.

Table B8 Characteristics of Head Start Training

Head Start provides. . .	*n*	%
Training	121	75.63
Trainings conveniently offered	81	62.31
CPR training[a]	26	50.98
Literacy training[a]	26	53.06
Parent involvement training[a]	30	60.00
Training on Head Start performance standards[a]	28	56.00
College courses or CDA classes[a]	19	38.00
All trainings offered to Head Start staff	83	59.71

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 1 data only.

Appendix C: TEACHER SURVEY DATA

Table C1 Comparison of Urbanicity of Child Care Parents

Urbanicity (%)	Round 1 (n=154)	Round 2 (n=149)	Round 3 (n=104)	Total (n=407)
Urban	35.06 (n=54)	35.57 (n=53)	38.46 (n=40)	36.12 (n=147)
Partnership	35.29 (n=36)	40.85 (n=29)	32.65 (n=16)	36.49 (n=81)
Comparison	34.62 (n=18)	30.77 (n=24)	43.64 (n=24)	35.68 (n=66)
Suburban	38.96 (n=60)	42.28 (n=63)	43.27 (n=45)	41.28 (n=168)
Partnership	38.24 (n=39)	38.03 (n=27)	51.02 (n=25)	40.99 (n=91)
Comparison	40.38 (n=21)	46.15 (n=36)	36.36 (n=20)	41.62 (n=77)
Small Town	14.29 (n=22)	10.07 (n=15)	12.50 (n=13)	12.29 (n=50)
Partnership	13.73 (n=14)	9.86 (n=7)	10.20 (n=5)	11.71 (n=26)
Comparison	15.38 (n=8)	10.26 (n=8)	14.55 (n=8)	12.97 (n=24)
Rural	11.69 (n=18)	12.08 (n=18)	5.77 (n=6)	10.32 (n=42)
Partnership	12.75 (n=13)	11.27 (n=8)	6.12 (n=3)	10.81 (n=24)
Comparison	9.62 (n=5)	12.82 (n=10)	5.45 (n=3)	9.73 (n=18)

Table C2 Comparison of Teacher Job Characteristics

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Hours worked per day	220	7.70	(1.28)	184	7.56	(1.50)	-1.00	(362)
Days worked per week[a]	118	4.95	(0.43)	131	4.89	(0.48)	-0.96	(247)
Hours worked per week[a]	118	37.72	(7.91)	131	37.19	(7.29)	-0.55	(247)
Weeks worked per year	200	49.62	(5.91)	168	48.46	(6.66)	-1.77	(366)
Classrooms taught	218	1.24	(0.52)	178	1.17	(0.44)	-1.44	(394)
Preschoolers taught in classroom	213	15.16	(7.17)	180	14.96	(6.59)	-0.22	(391)
Preschoolers receiving Head Start services[b]	40	5.75	(3.70)	10	2.80	(1.81)	-3.60**	(30)

Note. Analysis performed on three rounds of data.
[a]Round 2 and 3 data. [b]Round 3 data.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table C3 Percentage of Teachers at Partnering and Comparison Centers Receiving Specific Employee Benefits

	Partnership		Comparison			
Benefit	*n*	%	*n*	%	X^2	*(df)*
Paid vacation[a]	170	77.98	125	71.84	1.96	(1)
Paid sick leave[a]	124	60.19	79	46.75	6.76**	(1)
Paid maternity leave[a]	40	22.35	24	15.89	1.02	(1)
Paid family leave[a]	40	22.73	16	11.03	7.55**	(1)
Paid health insurance[a]	83	39.34	61	36.97	0.22	(1)
Paid dental insurance[a]	59	28.37	32	19.75	3.64	(1)
Tuition reimbursement[a]	67	35.08	24	15.79	16.16***	(1)
Retirement plan[a]	93	46.73	39	25.16	17.34***	(1)
Release time for training[a]	115	58.67	66	44.59	6.70**	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Item included in the calculation of the Teacher Benefits Score.
*p < .05, **p < .01, ***p < .001.

Table C4 Logistic Regression for Relationship Between Partnership Duration and Teacher Benefits (*n = 143*)

	Partnership Duration			
Outcome	*n*	*B*	*SE B*	e^B
Paid vacation	196	-0.14	0.10	0.87
Paid sick leave	186	0.14	0.09	1.15
Paid maternity leave	160	0.42	0.12	1.52***
Paid family leave	157	0.43	0.12	1.54***
Paid health insurance	190	0.16	0.09	1.17
Paid dental insurance	188	0.23	0.10	1.26*
Tuition reimbursement	171	0.23	0.10	1.26*
Retirement plan	178	0.33	0.10	1.40***
Release time for training	178	0.23	0.10	1.26*

Note. e^B = exponentiated *B*.
*p < .05, **p < .01, ***p < .001.

Table C5 Comparison of Teacher Benefits Score

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Teacher benefits score[a]	222	3.56	(2.65)	185	2.52	(2.23)	-4.29***	(405)

Note. Analysis performed on three rounds of data.
[a]Teacher benefits score is the total number of benefits received (see *Table C3*). Maximum score = 9.
*p < .05, **p < .01, ***p < .001.

Table C6 Comparison of Levels of Teacher Education

	Partnership		Comparison			
Educational Attainment	*n*	%	*n*	%	χ^2	*(df)*
CDA credential[a]	13	31.71	8	16.00	4.11	(1)
High school diploma	91	41.55	81	44.75	0.41	(1)
Trade license or certificate	31	14.16	17	9.39	2.13	(1)
Associate's in early childhood	45	20.55	39	21.55	0.06	(1)
Associate's in another field	12	5.48	9	4.97	0.05	(1)
Bachelor's in early childhood	17	7.76	10	5.52	0.79	(1)
Bachelor's in another field	19	8.68	22	12.15	1.30	(1)
Graduate degree in early childhood	1	0.46	0	0.00	0.83	(1)
Graduate degree in another field	3	1.37	3	1.66	0.06	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 3 data only.
*p < .05, **p < .01, ***p < .001.

Table C7 Comparison of Hours of Teacher Professional Development Received

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Hours of professional development received in the past year	180	29.27	(37.55)	162	20.18	(30.46)	-2.47*	(336)

Note. Analysis performed on three rounds of data.
*p < .05, **p < .01, ***p < .001.

Table C8 Comparison of Types of Teacher Professional Development Received

	Partnership		Comparison			
Professional Development	*n*	%	*n*	%	χ^2	*(df)*
Onsite workshops	137	68.84	105	63.25	1.27	(1)
Offsite workshops	182	87.08	116	68.64	19.05***	(1)
College courses	75	41.21	54	33.75	2.02	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
*p < .05, **p < .01, ***p < .001.

Table C9 Comparison of Teacher Perceptions of Training

	Partnership			Comparison				
Teacher Perception of. . .	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Training is effective	218	3.40	(0.53)	181	3.28	(0.61)	-2.24*	(397)
Satisfaction with amount of training	216	2.97	(0.77)	180	2.92	(0.77)	-0.65	(394)
Confidence in abilities, no training necessary	217	2.12	(0.77)	181	2.26	(0.79)	1.84	(396)

Note. Analysis performed on three rounds of data. Teachers were asked to rate their level of agreement on a four-point scale where 1 = *strongly disagree*, and 4 = *strongly agree*.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table C10 Linear Regression Analysis for the Relationship Between Partnership Duration and Teachers' Perception of the Effectiveness of Training

	Partnership Duration			
Outcome	*df (model, error)*	*B*	*SE B*	*F*
Teacher perception of effectiveness of training	(1,194)	0.06	0.02	7.10**

Note. $r^2 = 0.04$.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table C11 Comparison of Teachers in Each Category of "View of Job"

	Partnership		Comparison			
Perception of Job	*n*	%	*n*	%	χ^2	*(df)*
Chosen occupation	150	70.42	122	67.78	0.32	(1)
Stepping stone to related field	33	15.49	30	16.67	0.10	(1)
Stepping stone to K–12	36	16.90	23	12.78	1.30	(1)
Entry level job at this organization	4	1.88	2	1.11	0.38	(1)
Temporary employment	5	2.35	2	1.11	0.85	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table C12 Comparison of Teacher Experience

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Experience in child care (months)	215	93.58	(87.02)	181	85.75	(74.38)	-0.96	(394)
Length of employment at center (months)	220	60.24	(71.03)	182	54.60	(56.03)	-0.89	(399)

Note. Analysis performed on three rounds of data.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table C13 Comparison of Teacher Use of Curriculum

	Partnership		Comparison			
Curriculum	*n*	%	*n*	%	χ^2	*(df)*
No curriculum	5	2.30	14	7.82	6.54*	(1)
Teacher designed	103	47.47	124	69.27	19.07***	(1)
Creative Curriculum	63	29.03	36	20.11	4.16*	(1)
High Scope	21	9.68	3	1.68	11.03***	(1)
Heads Up Reading	6	2.76	5	2.79	<0.01	(1)
First Connections	2	0.92	1	0.56	0.17	(1)
High Reach[a]	8	6.90	10	7.87	0.08	(1)
West Ed[a]	0	--	0	--	--	(1)
Montessori[a]	5	4.31	1	0.79	3.12	(1)
Bright Beginnings[a]	1	0.86	7	5.51	4.12*	(1)
Step Curriculum[b]	4	3.96	1	1.92	0.45	(1)
Galileo[b]	34	33.66	1	1.92	19.60***	(1)
Other	50	23.04	35	19.55	0.71	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 2 and 3 data only. [b]Round 1 data only.
*p < .05, **p < .01, ***p < .001.

Table C14 Comparison of Teacher's Reports of Classroom Activities

	Partnership			Comparison				
Classroom Activity. . .	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Read to children	219	3.81	(0.44)	185	3.76	(0.46)	-1.13	(402)
Use structured curriculum	213	3.54	(0.80)	183	3.35	(0.97)	-2.15*	(354)
Review letters or words	219	3.64	(0.58)	184	3.68	(0.59)	0.61	(401)
Review names of colors	219	3.63	(0.57)	185	3.56	(0.61)	-1.25	(402)
Review number concepts or count	221	3.68	(0.52)	184	3.72	(0.53)	0.76	(403)
Give children science materials	220	3.37	(0.74)	185	3.25	(0.78)	-1.51	(403)
Give time in different play activities	220	3.91	(0.30)	185	3.90	(0.35)	-0.20	(403)
Give supply of age appropriate toys	221	3.88	(0.40)	185	3.88	(0.37)	-0.03	(404)
Give time outside	220	3.87	(0.40)	184	3.82	(0.50)	-1.04	(350)
Give art supplies	220	3.85	(0.46)	185	3.81	(0.45)	-0.98	(403)
Total score[a]	221	36.90	(3.21)	185	36.64	(3.54)	-0.77	(404)

Note. Teachers evaluated item based on a four-point scale where 1 = *never*, and 4 = *always*.
[a]Minimum = 10, Maximum = 40.
*p < .05, **p < .01, ***p < .001.

Table C15 Comparison of Teachers' Reports of Parent Involvement Activities

Parent Involvement Activity	Partnership n	Partnership M	Partnership (SD)	Comparison n	Comparison M	Comparison (SD)	t	(df)
Greet each parent	219	3.81	(0.47	184	3.80	(0.51)	-0.29	(401)
Involve parents in learning activities	215	3.30	(0.73)	184	3.23	(0.78)	-0.97	(397)
Meet with parents to discuss child's progress	215	3.03	(0.87)	181	2.84	(0.88)	-2.19*	(394)
Send home written communication to parents	216	3.10	(0.91)	182	3.16	(0.86)	0.64	(396)
Parents participate as helpers in classroom	217	2.17	(0.84)	180	1.94	(0.78)	-2.69**	(395)
Total score[a]	209	15.44	(2.50)	175	14.97	(2.60)	-1.79	(382)

Note. Teachers evaluated item based on a four-point scale where 1 = *never*, and 4 = *always*.
[a]Minimum = 5, Maximum = 20.
*p < .05, **p < .01, ***p < .001.

Table C16 Comparison of Teachers' Reports of Administrator Supervision Activities

Parent Involvement Activity	Partnership n	Partnership M	Partnership (SD)	Comparison n	Comparison M	Comparison (SD)	t	(df)
Receive guidance from director	213	3.33	(0.83)	179	3.13	(0.91)	-2.33*	(390)
Observe in classroom to assess practice	215	2.49	(0.95)	182	2.43	(0.91)	-0.58	(395)
Meet with teacher to give feedback regarding classroom teaching practice	214	2.63	(0.83)	179	2.47	(0.94)	-1.69	(391)
Discuss how to link curriculum to children's developmental needs	214	2.58	(0.91)	180	2.42	(0.97)	-1.71	(392)
Discuss strategies for developmentally appropriate teaching practice	215	2.62	(0.93)	177	2.49	(0.98)	-1.36	(390)
Discuss strategies to ensure a literacy-rich curriculum	213	2.57	(0.92)	177	2.34	(0.97)	-2.44*	(388)
Review teaching plans	212	2.44	(0.93)	177	2.34	(1.05)	-1.03	(387)
Total score[a]	202	18.76	(5.34)	170	17.64	(5.81)	-1.95	(370)

Note. Teachers evaluated item based on a four-point scale where 1 = *never* and 4 = *always*.
[a]Minimum = 7, Maximum = 28.
*p < .05, **p < .01, ***p < .001.

APPENDIX D: PARENT SURVEY DATA

Table D1 Comparison of the Urbanicity of Child Care Parents

Urbanicity (%)	Round 1 (n=737)	Round 2 (n=699)	Round 3 (n=254)	Total (n=1690)
Urban	34.87 (n=257)	30.04 (n=210)	39.37 (n=100)	33.55 (n=567)
Partnership	40.48 (n=168)	31.13 (n=99)	28.57 (n=38)	35.22 (n=305)
Comparison	27.64 (n=89)	29.13 (n=111)	51.24 (n=62)	31.80 (n=262)
Suburban	41.79 (n=308)	44.92 (n=341)	33.86 (n=86)	41.89 (n=708)
Partnership	37.11 (n=154)	35.53 (n=113)	43.61 (n=58)	37.53 (n=325)
Comparison	47.83 (n=154)	52.76 (n=201)	23.14 (n=28)	46.48 (n=383)
Small Town	12.48 (n=92)	15.74 (n=110)	16.14 (n=41)	14.38 (n=243)
Partnership	10.60 (n=44)	17.92 (n=57)	16.54 (n=22)	14.20 (n=123)
Comparison	14.91 (n=48)	13.91 (n=53)	15.70 (n=19)	14.56 (n=120)
Rural	10.85 (n=80)	9.30 (n=65)	10.63 (n=27)	10.18 (n=172)
Partnership	11.81 (n=49)	15.41 (n=49)	11.28 (n=15)	13.05 (n=113)
Comparison	9.63 (n=31)	4.20 (n=16)	9.92 (n=12)	7.16 (n=59)

Table D2 Comparison of Parent Demographic Characteristics

	Partnership		Comparison			
Characteristic	*n*	%	*n*	%	χ^2	(*df*)
Respondent's Relation to Child					0.93	(4)
Mother	779	92.52	746	91.76		
Father	38	4.51	37	4.55		
Grandparent	15	1.78	20	2.46		
Guardian	5	0.59	5	0.62		
Other	5	0.59	5	0.62		
Respondent's Race/Ethnicity					62.19**	(4)
Asian	5	0.59	3	0.37		
Black/African American	157	18.41	47	5.80		
Hispanic	12	1.41	13	1.60		
White	658	77.14	724	89.27		
Other	21	2.46	24	2.96		
Parent marital status					38.79***	(5)
Single	244	28.60	133	16.32		
Living with partner	34	3.99	33	4.05		
Married	461	54.04	538	66.01		
Divorced/Separated	96	11.25	96	11.78		
Widowed	6	0.70	3	0.37		
Other	12	1.41	12	1.47		
Parent Education					37.72***	(5)
No diploma	32	3.74	20	2.46		
High school diploma/GED	345	40.35	258	31.70		
Trade license/certificate	142	16.61	122	14.99		
Associate's degree	140	16.37	127	15.60		
Bachelor's degree	124	14.50	207	25.43		
Graduate degree	72	8.42	80	9.83		
Parents enrolled in school or job training	201	23.67	122	14.91	20.47***	(1)
Parent speaks language other than English	42	5.02	48	5.93	0.66	(1)
Parent has child with IEP	80	9.60	40	4.98	12.90***	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D3 Comparison of Parents' Monthly Income

	Partnership		Comparison			
Income Level (dollars/month)	*n*	%	*n*	%	χ^2	(*df*)
< 250	13	1.59	11	1.45	0.05	(1)
250 – 499	36	4.39	25	3.29	1.28	(1)
500 – 999	91	11.10	52	6.85	8.63**	(1)
1,000 – 1,499	141	17.20	95	12.52	6.79**	(1)
1,500 – 1,999	111	13.54	90	11.86	1.00	(1)
2,000 – 2,499	90	10.98	78	10.28	0.20	(1)
> 2500	338	41.22	408	53.75	24.85***	(1)
2,500 – 2,999[a]	38	9.09	43	9.49	0.04	(1)
3,000 – 3,499[a]	34	8.13	44	9.71	0.66	(1)
> 3,500[a]	116	27.75	161	35.54	6.08*	(1)
3,500 – 3,999[b]	11	9.17	7	6.48	0.56	(1)
4,000 – 4,499[b]	6	5.00	5	4.63	0.02	(1)
4,500 – 4,999[b]	2	4.67	7	6.48	3.48	(1)
> 5,000[b]	23	19.17	21	19.44	< 0.01	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 2 and 3 data only. [b]Round 3 data only.
*p < .05, **p < .01, ***p < .001.

Table D4 Comparison of Parents' Payment Method for Child Care

	Partnership		Comparison			
Method of Payment	*n*	*%*	*n*	*%*	χ^2	*(df)*
Employer	18	2.14	25	3.09	1.46	(1)
Head Start	44	5.24	8	0.99	24.41***	(1)
Child care subsidy	293	34.84	189	23.36	26.27***	(1)
Parent & family[a]	332	83.00	293	92.43	14.06***	(1)
Parent/guardian[b]	369	83.67	425	86.38	1.35	(1)
Parent's family[b]	13	2.95	19	3.86	0.58	(1)
Other	33	3.92	28	3.46	0.25	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 1 data only. [b]Round 2 and 3 data only.
*p < .05, **p < .01, ***p < .001.

Table D5 Comparison of Parents' Employment Status

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Number of jobs worked	761	1.08	(0.29)	710	1.06	(0.26)	-0.99	(1,468)
Hours worked per week	757	37.08	(10.58)	704	37.00	(0.40)	-0.13	(1,459)

Note. Analysis performed on three rounds of data.
*p < .05, **p < .01, ***p < .001.

Table D6 Comparison of Time Spent in Child Care

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Hours per day child attends	836	7.79	(1.90)	806	7.07	(2.46)	-6.59***	(1,513)
Days per week child attends	833	4.38	(1.01)	808	4.11	(1.12)	-5.31***	(1,610)

Note. Analysis performed on three rounds of data.
*p < .05, **p < .01, ***p < .001.

Table D7 Comparison of Enrollment in Centers with Religious Affiliation

	Partnership		Comparison			
	n	%	*n*	%	χ^2	(*df*)
Parents with children enrolled at centers with religious affiliation	169	19.52	247	29.98	24.90***	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
*p < .05, **p < .01, ***p < .001.

Table D8 Comparison of Parents' Reasons for Selecting Child Care Center

	Partnership		Comparison			
Reason	*n*	%	*n*	%	χ^2	(*df*)
Center is close to home	477	55.53	489	59.93	3.31	(1)
Center has good teachers	460	53.55	525	64.34	20.10***	(1)
Center accepts subsidies	157	18.28	111	13.60	6.80**	(1)
Center is affordable	245	28.52	196	24.02	4.37*	(1)
Center had opening for child	288	33.53	234	28.68	4.59*	(1)
Center provides quality care	587	68.41	622	76.32	13.03***	(1)
Center is close to work[a]	159	35.57	156	31.39	1.85	(1)
Center provides Head Start services[a]	81	18.12	29	5.84	34.51***	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 2 and 3 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D9 Comparison of Parents' Self-Reported Involvement in Center

	Partnership		Comparison			
Activity	*n*	%	*n*	%	χ^2	(*df*)
Process for working on goals for preschoolers[a]	74	63.79	27	68.27	0.49	(1)
Process for working on goals for families[a]	37	34.26	20	20.00	5.31*	(1)
Opportunity to participate on parent advisory committee	69	8.09	30	3.73	13.99***	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Round 3 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D10 Comparison of Parents Volunteering in the Classroom

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Number of times parents volunteer in the classroom (per year)	748	3.12	(18.47)	772	1.44	(10.44)	-2.15*	(1,189)

Note. Analysis performed on three rounds of data.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D11 Differences in Reports of Child Services Based on Parent Reports

	Partnership		Comparison			
Item	*n*	%	*n*	%	χ^2	(*df*)
Vision screening[a]	332	58.66	130	27.48	101.40***	(1)
Hearing screening[a]	358	61.94	158	32.24	93.63***	(1)
Speech screening[a]	378	66.90	208	40.86	73.23***	(1)
Dental screening[a]	263	47.30	104	21.85	72.50***	(1)
Health screening[a]	299	54.66	170	34.14	44.39***	(1)
Developmental screening[a]	582	85.71	488	78.84	10.58**	(1)
Health services[a]	140	27.08	44	9.07	54.13***	(1)
Speech therapy[a]	128	28.07	36	7.95	62.23***	(1)
Physical therapy[a]	72	16.33	16	3.44	42.85***	(1)
Head Start services	514	83.17	128	28.57	323.22***	(1)
Nutrition screening[b]	27	42.19	18	30.51	1.80	(1)
Lead screening[b]	17	26.98	11	18.64	1.20	(1)
Transportation[b]	35	35.35	36	36.73	0.04	(1)

Note. Percentages calculated from non-missing values from three rounds of data.
[a]Item included in the calculation of the Child Services Score. [b]Round 3 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D12 Comparison of Child Services Score

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Child Services Score[a]	865	2.95	(2.68)	824	1.64	(1.81)	-11.77***	(1,524)

Note. Analysis performed on three rounds of data.
[a]Child Services Score is the total number of services received (see *Table D11*). Maximum score = 9.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D13 Logistic Regression for the Relationship Between Partnership Duration and Services for Children

	Partnership Duration			
Outcome	*n*	*B*	*SE B*	e^B
Speech screening	516	0.17	0.06	1.19**
Health screening	500	0.12	0.06	1.13*
Lead screening[a]	48	0.68	0.28	1.98*
Health services	473	0.15	0.06	1.17*
Speech therapy	415	0.34	0.07	1.40***
Physical therapy	402	0.43	0.09	1.54***
Head Start services	564	0.18	0.07	1.20*

Note. Only significant findings reported, see *Table D11* for a complete list of items. e^B = exponentiated *B*.
[a]Round 3 data only.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D14 Linear Regression for the Relationship Between Partnership Duration and Child Services Score

	Partnership Duration			
Outcome	*df (model, error)*	*B*	*SE B*	*F*
Child Services Score[a]	(1, 765)	0.19	0.07	7.67**

Note. $r^2 = .01$.
[a]Child Services Score is the total number of services received (see *Table D11*).
*$p < .05$, **$p < .01$, ***$p < .001$.

Table D15 Differences in Reports of Parent Referrals/Services Based on Parent Reports

	Partnership		Comparison			
Item	*n*	%	*n*	%	χ^2	(*df*)
Information about health care services[a]	347	47.21	222	31.14	39.20***	(1)
Information about Head Start[a]	476	61.98	169	24.14	212.84***	(1)
Information about mental health services[a]	205	29.20	105	15.20	39.49***	(1)
Information about English classes[a]	70	10.70	46	6.86	6.14*	(1)
Information about adult education or training[a]	203	29.81	80	11.80	66.84***	(1)
Information about GED preparation[a]	113	17.17	31	4.67	53.24***	(1)
Information about employment services[a]	109	16.37	36	5.30	42.79***	(1)
Information about immigration services[a]	46	7.13	16	2.42	16.07***	(1)
Information about Food Stamps[a]	119	17.92	52	7.80	30.47***	(1)
Information about financial aid[a]	174	25.59	88	13.00	34.51***	(1)
Information about housing assistance[a]	109	16.37	26	3.89	57.05***	(1)
Information on parenting[a]	469	61.39	358	48.84	23.82***	(1)
Information on healthy marriage[a]	94	13.99	93	13.40	0.10	(1)
Information about social services[b]	121	27.94	82	17.08	15.53***	(1)
Information about legal services[c]	15	11.72	6	5.17	3.32	(1)
Information about energy/fuel assistance[c]	23	18.11	7	6.09	8.03**	(1)
Information about dental services[c]	39	30.71	21	18.10	5.18*	(1)
Transportation[c]	30	23.44	33	28.21	0.72	(1)

Note. Percentages calculated from non-missing values from three rounds of data.

[a]Item included in the calculation of the Parent Services Score. [b]Round 2 and 3 data only. [c]Round 3 data only.

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

Table D16 Comparison of Parent Services Score

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Parent Services Score[a]	824	3.08	(3.37)	775	1.71	(2.43)	-9.36***	(1,497)

Note. Analysis performed on three rounds of data.
[a]Parent Services Score is the total number of services received (see *Table D15*). Maximum score = 13.
*p < .05, **p < .01, ***p < .001.

Table D17 Logistic Regression for the Relationship Between Partnership Duration and Services for Parents

	Partnership Duration			
Outcome	*n*	*B*	*SE B*	e^B
Information about adult education or training	620	0.14	0.06	1.15*
Information about financial aid for school	620	0.15	0.06	1.16*
Information about parenting	695	0.11	0.05	1.12*

Note. Only significant findings reported, see *Table D15* for a complete list of items. e^B = exponentiated *B*.
*p < .05, **p < .01, ***p < .001.

Table D18 Linear Regression for the Relationship Between Partnership Duration and Parent Services Score

	Partnership Duration			
Outcome	*df (model,error)*	*B*	*SE B*	*F*
Parent Services Score[a]	(1, 751)	0.28	0.08	12.87***

Note. r^2 = .02.
[a]Parent Services Score is the total number of services received (see *Table D15*). Maximum score = 13.
*p < .05, **p < .01, ***p < .001.

Table D19 Comparison of Parent Perceptions of Accessibility and Satisfaction of Services and Overall Satisfaction with Center

	Partnership			Comparison				
Item	*n*	*M*	*(SD)*	*n*	*M*	*(SD)*	*t*	*(df)*
Parents' rating of how easy it is to obtain services[a]	745	3.08	(0.84)	632	2.90	(0.91)	-3.83***	(1,297)
Parents' rating of their satisfaction with the quality of services[a]	763	3.55	(0.68)	642	3.52	(0.73)	-0.70	(1,403)
Parents' rating of overall quality of child care center[b]	841	3.59	(0.58)	812	3.69	(0.53)	3.67***	(1,647)

Note. Analysis performed on three rounds of data.

[a]Parents rated each item on a four-point scale where 1 = *not very*, and 4 = *very*. [b]Parents rated this item on a four-point scale where 1 = *poor*, and 4 = *excellent*.

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

GLOSSARY

ACF (Administration for Children and Families): The branch of the U.S. Department of Health and Human Services that administers federally funded Child Care, Head Start, Community Services, Temporary Assistance for Needy Families (TANF), and Child Support programs. ACF programs are administered through 12 regional offices across the country.

Child Care and Development Fund (CCDF): Funding from the federal Department of Health and Human Services/ACF/Child Care Bureau, integrating multiple funding sources for child care activities across the country. CCDF programs provide services to children and help eligible families (low-income families, families receiving TANF, and those transitioning from public assistance) obtain child care in order to work or attend trainings/school. In addition, services may be provided to children in need of protective services. CCDF makes funds available through block grants to states, territories, and federally recognized tribes. Subsidized child care services are available to eligible families through child care certificates/vouchers or contracts with providers. States determine eligibility for CCDF services within federal limits and also set payment rates for providers and sliding fee scales that determine parent fees. States must ensure that low-income parents have equal access to providers and the same selection of providers as non-subsidized parents.

Child Care Bureau: A division of ACF, U.S. Department of Health and Human Services, which administers the Child Care and Development Fund (CCDF) to states, territories, and federally recognized tribes.

Continuity of Care: Programs that provide continuity of care offer early education services to children in a consistent location throughout the day and/or year, to ensure a stable and nurturing early learning environment. Such care is provided by a consistent set of caregivers, with little turnover throughout the day/year.

Early Childhood Education: Services provided by early childhood professionals who work with young children in many different settings such as: nonprofit and for-profit child care centers, family child care homes, Head Start programs, or prekindergarten (pre-K) classrooms.

Head Start: Since its founding in 1965, the Head Start program has delivered comprehensive and high quality services—early education, health, parent involvement, social services—designed to foster healthy development in low-income children. A child-focused program that has the overall goal of increasing the school readiness of young children in low-income families, Head Start serves 3- to 5-year-old children, pregnant women, and their families. The Head Start program is administered by the Head Start Bureau, the Administration on Children, Youth and Families (ACYF), Administration for Children and Families (ACF), Department of Health and Human Services (DHHS). Grants are awarded by the ACF Regional Offices and the Head Start Bureau's American Indian and Migrant Program Branches directly to local public agencies, private organizations, Indian Tribes, and school systems for the purpose of operating Head Start programs at the community level.

Head Start Bureau: Division of ACF, U.S. Department of Health and Human Services that administers the Head Start program. The Bureau develops and oversees regulations based on the Head Start Act, Head Start Program Performance Standards, and other legislation.

Head Start Program Performance Standards: Federal Head Start regulations that establish the agency programmatic functions, activities, and facilities required to meet the objectives and goals of the Head Start Program as they relate to children and their families. Revised standards were implemented in January 1998.

Home Visits: A core part of the parental involvement element of the Head Start program in which providers visit families' homes, allowing parents to learn about the needs of their children and about educational activities that can take place at home.

Partnership: An agreement between a Head Start agency and a child care center to jointly provide services to eligible families. While multiple definitions of partnership exist, the term is used narrowly in this study to refer to these formal arrangements, which are, for the most part, contractual in nature. These formal agreements define the resources that Head Start provides to the child care program and the services the child care program agrees to provide.

Partnership Agreement: A detailed, written document based on a jointly developed plan that describes the roles and responsibilities of each partner to blend/share resources and provide enhanced services to young children and their families.

Stakeholders: State level players that are involved in coordinating early education partnerships. Stakeholders can include leaders from welfare and education agencies, state child care administrators, pre-K directors, or large groups composed of state and local early education leaders and others appointed by governors.

Subsidy (or Child Care Assistance): Payments typically made by the state agency that administers CCDF funds to local child care providers to cover a portion of the total cost of child care for parents/children who meet state subsidy eligibility criteria. May be provided through contracts with providers, child care certificates, or cash payments to parents.

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