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# Child care for children with and without disabilities: The provider, observer, and parent perspectives

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**Abstract:** This three-phase study, part of a larger study conducted by the Midwest Child Care Research Consortium (MCCRC), investigated the characteristics of child care providers in inclusive and non-inclusive center-based classrooms and family child care homes, the observed quality of care in a subset of these programs, and families' perceptions of quality and satisfaction with child care services. A telephone survey of 2022 randomly selected Midwestern providers, 36% of whom provided inclusive services, revealed that inclusive providers rated themselves higher on most quality-related indicators. Inclusion status was related to observed quality in family childcare homes ( $n = 132$ ), with non-inclusive homes higher, while trends in the opposite direction were observed in preschool center-based classrooms ( $n = 112$ ) but not in infant/toddler center-based classrooms ( $n = 105$ ). Six percent of the 1325 parents surveyed reported parenting a child with a disability. These parents indicated less income, and more frequent changes in child care settings than other families, and reported the quality of their children's child care as good, particularly if center-based. Improved access to inclusive child care services and enhanced training opportunities related to serving children with disabilities and inclusion, especially for family child care providers, is recommended.

**Keywords:** child care, quality and inclusive settings, children with disabilities, parent perceptions, early childhood workforce

The Individuals with Disabilities Education Act (IDEA, 1997; reauthorized as the Individuals with Disabilities Education Improvement Act in 2004) mandates that children with disabilities be educated in the least restrictive environment. For school-aged children, this mandate has led to the clearly targeted goal of enrolling 90% of children with disabilities in general education classes for 80% or more of the school day (U.S. Department of Education, 1998). For young children, however, defining a parallel goal is more complex because service delivery settings for young children often must extend beyond the school to include a variety of the child's natural environments including community-based child care settings (Sandall, McLean, & Smith, 2000). Furthermore, early intervention services for children under 3 years of age must address the needs of the family as well as the individual children.

Since the majority of young children (60%) have all parents working (U.S. Census Bureau, 2005), child care settings are a likely focus of inclusion efforts. However, the percentage of young children with disabilities who participate in child care settings is not known. The most relevant data available suggest that only half of all preschool children (3–5 years old) who receive special education participate in inclusive educational or caregiving settings

of any kind (e.g., Head Start programs, part-day nursery schools, and child care programs), and that only 34% of these children receive early childhood special education services (ECSE) in these settings (U.S. Department of Education, 1998). The figure for children birth to age three is not reported (U.S. Department of Education, 2002). The widespread needs for child care and for increased opportunities for young children with disabilities to be included in community-based settings combine to make child care an obvious avenue to provide needed services to young children with disabilities. This paper describes existing child care services in four Midwestern states and investigates their current and potential abilities to meet the needs of young children with disabilities and their families.

## 1. Workforce and quality issues affecting inclusion

Effectiveness of special education services depends on caregivers' abilities to meet the instructional needs of young children with disabilities by planning for and embedding naturalistic teaching strategies within daily routines and activities (Halle, 1998, Odom, 2000 and Warren, 1998). Thus, successful inclusion depends on proper training and consultative support for child care providers. Quality of instruction and care is intertwined with overall quality of the setting and characteristics of the educators, especially in child care settings. For example, researchers have shown that better educated providers offer better quality care, have higher wages, and tend to care for children whose parents pay higher tuition across child care settings (Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000), including inclusive settings (Buysse, Wesley, Bryant, & Gardner, 1999).

Across the country, the average quality of center-based child care services is mediocre (Helburn & Howes, 1996; Love, Schochet, & Mechstrom, 1996), with one major study finding only 14% of preschool and 8% of infant-toddler classrooms to be of good quality (Cost, Quality and Child Outcomes Study Team, 1995). Likewise, a decade-old study of family child care homes found only 9% to provide good quality care and 35% to provide care judged to be inadequate (Kontos, Howes, Shinn, & Galinsky, 1995). The troubling overall quality of American child care increases the challenge of ensuring that children with disabilities experience the excellent interventions and classroom supports they need. Nonetheless, two studies suggest that the overall quality in inclusive preschool settings may be somewhat better than that observed in segregated settings (Buysse et al., 1999; La Paro, Sexton, & Snyder, 1998), though in neither study was a representative sample of child care settings examined or comparisons made of inclusive versus non-inclusive child care in centers or family child care homes.

Low education and training requirements for providers contribute to the troubling quality of American child care. Many researchers have found that higher levels of preparation correlate positively with better quality child care services (Burchinal, Howes, & Kontos, 2002; Kontos et al., 1995 and Love et al., 1996; Whitebook, Howes, & Phillips, 1990) and more positive outcomes for children enrolled in child care centers (Burchinal, Lee, & Ramey, 1989; Burchinal et al., 2000; Cost, Quality and Child Outcomes Study Team, 1995; Howes, Phillips, & Whitebook, 1992; Phillips, McCartney, & Scarr, 1987), as well as in child care homes (Clarke-Stewart, Vandell, Burchinal, O'Brien, & McCartney, 2002). The same associations between caregiver preparation and child care quality hold true for inclusive preschool settings, where ratings of global quality have been found to be substantially higher in child care classrooms where teachers have bachelor's degrees or child care credentials (Buysse et al., 1999). Yet education and training levels remain low, and few states require a bachelor's degree for providers. In 1990, approximately half of teachers in child care centers had college degrees (Willer et al., 1991), but when considering all child care staff members, a fairly low percentage (approximately 15%) of individuals providing care for young children held bachelor's degrees (Fuller & Strath, 2001). One-third of regulated child care home providers do not have any specific training in child development (Kisker, Hofferth, Phillips, & Farquhar, 1991).

Additional obstacles to quality inclusive care arise from providers' gaps in specific training. Lack of specific training related to disabilities is associated with more negative attitudes toward inclusive services (Jeon & Peterson, 2003; Mulvihill, Shearer, & Van Horn, 2002; Stoiber, Gettinger, & Goetz, 1998), and providers themselves identify lack of knowledge as a barrier to caring for young children with disabilities (Dinnebeil, McInerney, Fox, & Juchartz-Pendry, 1998; Rafferty & Griffin, 2005; Wolery, Huffman, et al., 1994). However, information about teacher qualifications and child care quality in inclusive settings is lacking. Educators and policymakers need a better description of the child care workforce serving children with disabilities and the quality of care offered in inclusive compared to non-inclusive settings to best meet the needs of young children and families.

## 2. Family choice and child care satisfaction

Families of children with disabilities face many challenges in finding care as they confront issues beyond the lack of time and knowledge common to all families (Honig, 2002). For example, they may experience difficulties in securing access to appropriate services (Warfield & Hauser-Cram, 1996), financial resources to pay for them, and information to analyze program quality (McWilliam et al., 1995; Peck, Carlson, & Helmsetter, 1992; Wesley, Buysse, & Tyndall, 1997). Parents of children with disabilities frequently worry about the attitudes of providers and other children and parents toward their child, large child–staff ratios and class sizes, and inadequate training for child care providers or inadequate time for the individualized instruction their children need (Bailey & Winton, 1987; Guralnick, 1994; Rafferty & Griffin, 2005). Indeed, they have many realistic concerns (Dinnebeil et al., 1998 and Mulvihill et al., 2002; Wolery, Martin, et al., 1994; Wolery, Venn, et al., 1994), and the shortage of trained personnel can make it harder for parents of children with disabilities to locate appropriate programs to serve their children (Barnett, Frede, Hasbrouch, Spain, & Yarosz, 1997).

Availability and costs are prevailing considerations that guide parental choices for out-of-home care arrangements regardless of a child's disability status (Davidson, 1990). In general, there is a growing trend among all parents toward more use of center-based care because of the early education offerings in such environments (Allen, 1998), especially for children over age three (Early & Burchinal, 2001). Yet, studies of parental child care choices generally have not focused on specific, subgroup preferences (Davidson, 1990 and Honig, 2002), so little is known about what factors influence parents of young children with disabilities.

Children with disabilities tend to enter child care later than do their peers without disabilities (Warfield & Hauser-Cram, 1996); however, it is not known how specific parental preferences affect this trend. Mothers of children with disabilities have more erratic employment patterns than do other mothers and some even report work-place discrimination (Lloyd, 2003). The irregular employment schedules and stress experienced by families of children with disabilities may dictate greater need for flexible, low-cost care (Honig, 2002) and result in use of informal care arrangements and/or poor quality child care (Booth & Kelly, 1998; Smith, 2002) similar to the patterns used by low-income families (Phillips & Adams, 2001).

There have been limited studies on parental satisfaction with child care services, particularly among parents of children with disabilities. In general, parents of young children report being satisfied with their child care arrangements (Cryer, Tietze, & Wessels, 2002; King Teleki & Buck-Gomez, 2002; McWilliam et al., 1995). However, among low-income parents, those who have young children with disabilities tend to be less satisfied with their child care arrangements and have more concerns about their children's safety than do those whose children are developing typically (Wall, Kisker, Peterson, Carta, & Jeon, in press). Much remains to be learned about how the families of children with disabilities choose child care environments or how well those environments serve their needs.

In sum, there is lack of research investigating providers and global child care quality in inclusive settings comparing with those in non-inclusive settings, as well as a void in examining the perspectives among parents of children with disabilities. This study seeks to answer questions about who provides care for young children within inclusive child care settings, what the observed quality of that care is, and how parents of children with disabilities perceive child care. The study rests on the assumption that in order for inclusive services to meet children's needs, such services must be available and of high quality and, in addition, meet families' needs and preferences.

## 3. Method

This research was nested within a larger study conducted by the Midwest Child Care Research Consortium (MCCRC), which included representatives from state universities, state agencies that regulate or provide technical assistance to child care providers, and the Gallup Organization. A major goal of the MCCRC was to describe child care workforce characteristics and quality in Iowa, Kansas, Missouri, and Nebraska that could serve as a baseline against which to measure the effects of subsequent regulation change and quality-enhancement efforts (Raikes et al., 2003). The overall project was not designed as an in-depth study of child care for children with disabilities; however, the large size and representative nature of the sample created an opportunity to learn about the prevalence and quality of child care settings that include children with disabilities.

Within the constraints imposed by the framework of the larger project, this study seeks to address three major questions: (1) What are the characteristics of child care providers who do and do not serve children with disabilities?

(2) What is the observed quality of care in inclusive versus non-inclusive settings? (3) What do parents of children with and without disabilities report regarding their expectations for and satisfaction with their child care services? The answers may provide evidence about whether child care settings have become, or are on the road to becoming, sites that promote the participation of young children with disabilities.

### *3.1. Data collection procedures*

#### *3.1.1. Provider survey*

State lists of licensed and subsidy-receiving providers comprised the initial pool of 39,473 child care providers. The sampling plan was designed to accommodate the total number of stratifying variables [state, subsidy receipt, and type of care (center-based infant–toddler, center-based preschool, licensed family child care, registered family child care, and license-exempt family child care)] and achieve a minimum sample cell size of 40, which exceeds the normal curve assumption for statistical significance testing. Subsidy receipt refers to payments made by states to reimburse providers for child care services for families who meet specific income guidelines. Licensed family child care homes receive regular inspection visits to ensure that state regulations are met; registered homes are monitored and require registration but not inspection; the license-exempt category represents the least-regulated form of care, generally referred to as informal care. In addition, license-exempt center-based child care providers were drawn in Missouri, and in all states the population of Early Head Start/Head Start child care partners was sampled. Letters to inform child care providers about the study and encourage their participation were widely distributed by state agencies, and articles describing the study and encouraging participation were included in state early childhood newsletters.

A sample of 2496 providers was selected at random (following sample stratification for state, type of care, and subsidy receipt). Trained interviewers from the Gallup Organization called the selected child care providers between April and August of 2001. When contacted by Gallup, the individual who answered the telephone was informed about the study and asked to identify a child care provider whose last name began with a certain (randomized) letter; or to answer the phone call him/herself if he/she was the only provider at the number. Once a center or family home had been drawn to participate in the study, a seven-call callback design was followed to ensure integrity of the random design.

The calling procedure yielded 2022 [Iowa (408), Kansas (589), Missouri (517), and Nebraska (508)] completed interviews with eligible providers (full-time child care providers serving children from birth through kindergarten age in center and home-based settings). The response rate for eligible participants was 81%; 99% of the non-participants were registered or license-exempt family home providers and of these, 80% of the non-participation was due to a telephone barrier (e.g., answering machine or answering service, did not answer the phone, the line was busy, or the respondent was not available at the time of the planned callback across the seven-call call-back design of the study). Nearly all potential respondents who were not interviewed did not have working telephone numbers; the overall refusal rate was negligible (<2% of all persons contacted; 3% for family child care providers). At the end of the phone interview, providers were asked if they would be willing to be contacted again for more in-depth study; 87% of the providers said they would be willing to be re-contacted, ranging from a high of 95% of center-based providers to 70% of license-exempt family providers.

#### *3.1.2. Program observations*

State university researchers contacted willing providers, selected at random, for follow-up observations, and 349 providers were observed in their child care settings (center-based classrooms or family homes). Each observation took 2–3 h to complete the appropriate instruments. In addition, the observer conducted a short Administrator Interview with the center director or home child care provider that included one question about whether, in that particular calendar month, the center or home had served any child with a verified disability. These observations were conducted June through October, 2001, an average of 6 months (range 3–9) after the telephone surveys. Observed providers were also asked if they were willing to be contacted again for follow-up surveys or interviews with the parents of children they served.

#### *3.1.3. Parent survey*

Observed providers still working in the same position were invited to help with the next stage of the research by distributing surveys to parents of the children in their care. Providers were sent the packets of surveys along with a posted form for parents to sign once they had returned their surveys. Parents completed the survey at home and mailed

it directly to Gallup in a postage-paid envelope. At weekly intervals, reminder calls were made to providers to ensure the 50% rate of return that was achieved. The parent surveys were collected between November, 2001 and April, 2002, approximately 6–9 months after the program observations.

### *3.2. Sample*

#### *3.2.1. Provider survey*

Providers completing the survey worked in infant/toddler center-based classrooms ( $n = 436$ ), preschool center-based classrooms ( $n = 460$ ), licensed family child care homes ( $n = 449$ ), registered family child care homes ( $n = 287$ ), license-exempt family child care homes ( $n = 260$ ), and Early Head Start/Head Start child care partnership programs that could be either homes or centers ( $n = 130$ ). The vast majority (99%) of these child care providers were female. With respect to inclusion, 728 providers [36% of the total (173 infant–toddler center-based providers, 275 preschool center-based providers, and 280 family child care providers)] were categorized as inclusive. They are referred to as “inclusive” providers if they or their administrators reported caring for at least one child with a verified disability during that calendar month.

#### *3.2.2. Program observations*

Observations and Administrative Interviews were collected in 349 settings [Iowa (72), Kansas (93), Missouri (101), and Nebraska (83)]. This sample consisted of 105 infant/toddler center-based providers of whom 54 (51%) worked in inclusive centers; 112 preschool center-based providers of whom 58 (52%) worked in inclusive facilities, and 132 family child care providers of whom 31 (24%) included children with disabilities. These inclusion rates compare to the following percentages from the larger telephone provider survey as follows: 32% of infant/toddler providers, 52% of preschool providers, and 31% of family child care providers. Thus, inclusive preschool center-based providers were not biased in the observation sample, but inclusive infant/toddler center-based providers were overrepresented and inclusive family child care providers were underrepresented (sometimes as several family providers said, because they felt the observation might upset a child with special needs in a small home setting).

#### *3.2.3. Parent survey*

Surveys were received from 1325 parents [Iowa (367), Kansas (260), Missouri (442), Nebraska (256)]. Of this total, 80 parents (6%) reported that their child in the observed child care setting had a verified disability [infant/toddler (24), preschooler (35), kindergartener (12), or school-ager (9) based on kindergarten eligibility age in fall 2002]. The breakdown of children without disabilities was slightly younger; 53% of this subgroup were infants/toddlers compared to 30% of the sample of children with disabilities. Thirteen-percent of parents reported having a kindergarten or school-age child without disabilities, compared to 26% who reported having a child with a disability. This is consistent with the finding that children with disabilities tended to begin child care services later than children without disabilities. In addition, early intervention services for infants and toddlers with disabilities are often provided within home settings. As children with disabilities become eligible for preschool services, they commonly transition into center-based care environments, where they are likely continue through kindergarten and the primary grades.

### *3.3. Instruments and measures*

#### *3.3.1. Provider survey*

Members of the MCCRC collaborated to design the telephone survey which was comprised of 28 general questions, eight demographic questions and one open-ended question. One question asked whether, in the current month, the provider served any children with verified disabilities. In the survey development process, items were selected if (1) they or related items had been found to predict observed quality or child outcomes in previous studies, (2) they were related to features of the labor force in other studies, or (3) they captured specific quality-enhancement efforts undertaken in one or more of the four states.

#### *3.3.2. Program observations*

Quality of care was measured using the following instruments. First, the Caregiver Interaction Scale (CIS; Arnett, 1989) was used in all programs. In this investigation, reliability for the overall scale was  $\alpha = .71$ . In addition, the

Infant/Toddler Environment Rating Scale (ITERS; Harms, Cryer, & Clifford, 1990) was used for observations of infant/toddler center-based classrooms, the Early Childhood Environment Rating Scale—Revised Edition (ECERS-R; Harms, Cryer, & Clifford, 1998) for preschool center-based classrooms, and the Family Day Care Rating Scale (FDCRS; Harms & Clifford, 1989) for regulated and unregulated child care homes. A score of 5–7 on any of these three environment scales is considered an indication of “good” quality care, whereas a score of 1–3 is considered “poor” quality, and a score between 3 and 5 is categorized as “minimal” or “mediocre” quality. The Cronbach’s  $\alpha$  for the overall observed quality measures varied from  $\alpha = .81$  to  $.91$  across these measures. Reliabilities of the subscales for each quality measure varied from  $\alpha = .60$  to  $.94$ .

Careful attention was paid to inter-rater agreement to ensure congruence of data between sites and across time. A train the trainer model was implemented with two trained individuals from each state serving as “gold standard” observers. These “gold standard” observers attained inter-rater agreement within one point on at least 85% of items during training on the CIS and all three environmental rating scales (ITERS, ECERS-R, FDCRS). They then took responsibility for coordinating observer training and monitoring inter-rater agreement within their respective states. Within-state observers attained agreement within one point on at least 85% of the items with the “gold standard” observers during training, following procedures recommended by one of the authors (T. Harms, personal communication, 2000). Inter-rater agreement checks were made to maintain high standards within each state throughout the data collection period (within every six observations made with a particular instrument or at least every 6 months).

### 3.3.3. Parent survey

The parent survey consisted of 48 questions that addressed topics related to child care access, affordability, and satisfaction; subsidy use; reasons for own child care choice; costs; perceived quality; perceived provider characteristics; number of arrangements and hours the child spends in child care; as well as parent’s education, employment, work schedule, and income. Some questions were drawn from previous studies (Emlen, 1998; Neal, Chapman, Emlen, & Ingersoll-Dauton, 1993; Thornburg & Fuger, 2003).

Parents rated the importance of several quality-related aspects of caregiver–child interaction, the physical environment, safety, and learning opportunities when choosing their current child care provider or the type of care using a 5-point scale where 1 represented “not at all important” and 5 represented “extremely important.” The Cronbach’s  $\alpha$  for this scale was  $\alpha = .92$ . Parents were also asked to rate the overall quality of their child’s current care using a 7-point scale by rating “A+ for Perfect” (score of 7) to “F for Awful” (score of 1). Ten questions regarding parental stress related to their child care services and working conditions (e.g., I have had difficulty finding the child care I want, I rely on my caregiver to be flexible about my hours) were rated on a 5-point scale ranging from “1 for almost never true” to “5 for almost always true”. Overall levels of stress were calculated by averaging all items. The Cronbach’s  $\alpha$  for these ten items was  $\alpha = .56$ .

## 4. Findings

The results of this study are reported in terms of provider characteristics as self-reported in the telephone interview, observed quality ratings, and parent survey data. Data were analyzed in relation to inclusion status (inclusive versus non-inclusive settings), type of care (center versus family child care home), and the interaction between inclusion status and type of care since type of child care is related to child care quality (Early & Burchinal, 2001; NICHD Early Child Care Research Network, 1996). Effect size estimates are included in the text and tables for several analyses; effect sizes are considered moderate if  $d = .50$ – $.70$  and large if  $d = .80$  or greater (Cohen, 1988). Data were not analyzed by state because of limitations in sample size. Individual state policy briefs are available at <http://ccfl.unl.edu/projects/cprojects/ecp/mwrcr.html>

### 4.1. Provider survey

#### 4.1.1. Examination of provider characteristics

Providers were compared in terms of age, income, experience, education and training, and work motivation (see Table 1 and Table 2). For these analyses, infant/toddler and preschool center-based providers were combined because preliminary analyses showed that infant/toddler and preschool center-based providers were not statistically significantly different except in the area of education. Univariate analyses of variance and post hoc pair-wise comparisons were

Table 1  
Description of child care providers, by inclusion status and types of care

	Inclusion status			Type of care				
	Non-inclusive (%) (n = 1294)	Inclusive <sup>a</sup> (%) (n = 728)	Odds ratio (OR), 95% confidence interval (CI)	Effect size estimate (d) <sup>b</sup>	Center (%) (n = 964)	Family home <sup>a</sup> (%) (n = 1062)	Odds ratio (OR), 95% confidence interval (CI)	Effect size estimate (d) <sup>b</sup>
Five or more years experience	43.7	44.4	1.20, (0.65, 2.22)	.01	31.8	55.0	2.58 <sup>***</sup> , (1.47, 4.54)	.47
Annual income of at least \$20,000	13.7	20.6	1.77, (0.81, 3.88)	.18	17.6	14.9	1.00, (0.46, 2.15)	.07
CDA	9.8	18.9	1.01, (0.45, 2.24)	.26	17.7	8.9	0.26 <sup>**</sup> , (0.11, 0.62)	.26
Specific child development training	58.5	73.9	2.84 <sup>**</sup> , (1.30, 6.18)	.33	76.1	51.8	0.57, (0.29, 1.15)	.51
First aid training in last 2 years	80.3	89.1	1.40, (0.56, 3.47)	.25	88.8	78.7	0.43 <sup>*</sup> , (0.20, 0.91)	.28
CPR training in last 2 years	77.7	89.7	1.33, (0.53, 3.33)	.33	88.7	76.0	0.31 <sup>**</sup> , (0.15, 0.67)	.34
Bachelor's degree or higher	12.5	19.9	1.10, (0.51, 2.33)	.20	22.3	8.7	0.27 <sup>***</sup> , (0.12, 0.60)	.38
Teaching certificate	8.3	17.4	1.43, (0.61, 3.34)	.28	17.9	5.8	0.23 <sup>**</sup> , (0.10, 0.61)	.39
Membership NAEYC or NAFCC	15.5	26.6	1.41, (0.71, 2.80)	.27	25.3	14.2	0.44 <sup>*</sup> , (0.22, 0.89)	.28
EHS/HS partnership site	9.2	4.7	1.00, (0.32, 3.12)	.18	6.8	5.9	0.48, (0.15, 1.51)	.04

Note. Interaction effects were not statistically significant.

<sup>a</sup> Higher coded group.

<sup>b</sup> Computed from  $\phi$  coefficients (Cohen, 1988).

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .



used to examine differences in provider characteristics represented by continuous variables (such as age, training hours, and motivation), while logistic regression analyses were used to compare provider characteristics measured by dichotomous variables.

Inclusive providers ( $M = 37.02$ ,  $S.D. = 11.64$ ) were found to be slightly younger than non-inclusive providers ( $M = 39.56$ ,  $S.D. = 12.67$ ),  $F(1, 2004) = 4.25$ ,  $p < .05$ ,  $d = .21$ . Inclusive and non-inclusive providers did not receive different levels of income (few earned over \$20,000 annually), but they differed with respect to training. Inclusive providers were more likely to report specific child development training, and they reported a greater number of training hours ( $M = 39.19$ ,  $S.D. = 45.86$ ) (e.g., videos, in-person training by center directors, workshops or in-service sessions, internet-based sessions, or teleconferencing) across a 1-year period than did non-inclusive providers ( $M = 23.39$ ,  $S.D. = 29.80$ ),  $F(1, 1907) = 80.78$ ,  $p < .001$ , a moderate effect size,  $d = .50$ .

With respect to work motivation, statistically significant main effects for inclusion status were found for viewing one's job as a career or profession and for viewing it as a job with a paycheck with inclusive providers higher on the former and lower on the latter. However, the effect sizes are small. For viewing one's job as a personal calling, a statistically significant interaction effect was found between inclusion status and type of care that modifies the statistically significant main effects found for both inclusion status and type of care (see Table 2); again the effect size is small. Post hoc pair-wise comparisons revealed that three groups, center-based inclusive providers ( $M = 4.50$ ,  $S.D. = .09$ ), center-based non-inclusive providers ( $M = 4.46$ ,  $S.D. = .08$ ), and family inclusive providers ( $M = 4.30$ ,  $S.D. = .14$ ) agreed that their job was a personal calling statistically significantly more often than did family non-inclusive providers ( $M = 4.07$ ,  $S.D. = .04$ ). Thus, family non-inclusive providers indicated a less professional orientation toward their work than did the other three groups, who did not differ from one another.

#### 4.2. Program observations

The program observation data were analyzed to compare the quality of services in inclusive versus non-inclusive settings. Because different measures were used for infant/toddler center-based classrooms, preschool center-based classrooms, and family child care homes, direct statistical comparisons cannot be made across different types of care. Table 3 presents mean scores, standard deviations, and the t-values for ITERS, ECERS-R, FDCRS, and CIS scales, as well as the effect sizes for those subscales where there were statistically significant differences based on inclusion status. Among infant/toddler center-based providers, the ITERS Total Score and subscale scores were not statistically significantly different for inclusive versus non-inclusive providers. For preschool center-based providers, all comparisons favored inclusive providers with the Total Score and three subscales showing t-test differences at the

Table 2  
Work motivation of providers, by inclusion status and type of care

I view my job as ...	Inclusion status (I)					Type of care (C)					(I × C)	
	Inclusive ( <i>n</i> = 728)		Non-inclusive ( <i>n</i> = 1259)			Center ( <i>n</i> = 964)		Family home ( <i>n</i> = 1057)				
	<i>M</i> (S.D.)	<i>M</i> (S.D.)	<i>F</i>	d.f.	<i>d</i> <sup>a</sup>	<i>M</i> (S.D.)	<i>M</i> (S.D.)	<i>F</i>	d.f.	<i>d</i> <sup>a</sup>	<i>F</i>	d.f.
A personal calling	4.40 (0.92)	4.27 (1.08)	7.85**	1, 2006	.20	4.48 (0.85)	4.19 (1.15)	36.07***	1, 2006	.33	3.89*	1, 2006
A career or profession	4.36 (1.08)	4.09 (1.31)	19.96***	1, 2018	.26	4.378 (1.08)	4.08 (1.35)	25.70***	1, 2018	.30	n.s.	n.s.
A job with a paycheck	2.70 (1.58)	2.99 (1.63)	13.75***	1, 2016	.21	2.72 (1.63)	2.98 (1.60)	12.17***	1, 2016	.20	n.s.	n.s.
A stepping stone to a related career or profession	3.15 (1.57)	3.03 (1.59)	n.s.	n.s.	.19	3.48 (1.49)	2.70 (1.57)	113.14***	1, 2014	.54	n.s.	n.s.
A way of helping a family member, neighbor	3.44 (1.62)	3.56 (1.54)	n.s.	n.s.	.12	3.32 (1.60)	3.66 (1.52)	21.25***	1, 2018	.24	n.s.	n.s.

Note. Judgments were made on a 5-point scale (1, strongly disagree; 5, strongly agree).

<sup>a</sup> Effect size estimate based on Cohen's *d*.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

$p < .10$  level, but small effect sizes. For family child care home providers, in contrast, all comparisons favored non-inclusive providers, with  $t$ -tests of mean differences on two FDCRS subscales (Space and Furnishings, and Language and Reasoning) statistically significant at the  $p < .05$  level and with moderate effect sizes. The CIS (Arnett, 1989) was included as an additional measure of provider interaction quality. There were no statistically significant differences between overall sensitivity ratings (including positive, punitive, permissive, and detachment subscales) for inclusive versus non-inclusive providers overall. Again, effect sizes were small.

### 4.3. Parent surveys

#### 4.3.1. Family characteristics

In order to understand parental choice and satisfaction, it is helpful to consider the characteristics of parents who participated in the investigation. The majority of respondents were mothers (92%), and 72% were from two-parent families. Their average annual income and education were \$47,766 (S.D. = \$21,918) and 14.4 years (S.D. = 2.0), respectively. Nearly all respondents were working [full-time outside the home (73%), part-time outside the home (16%), or full-time at home (3%)].

Parent survey data were analyzed initially using  $t$ -tests to facilitate comparison of two groups: parents of children with disabilities and those of children without disabilities. Although these groups did not differ in years of education, there were several between-group differences in terms of employment and compensation, use of child care services, and perspectives on child care. Parents who had children with disabilities tended to have less income ( $M = \$41,238$ , S.D. = 22,438) than those who had children without disabilities ( $M = \$48,237$ , S.D. = 21,837),  $t(1272) = -2.71$ ,  $p = .007$  (two-tailed) despite the fact that they were likely working more hours ( $M = 39.37$ , S.D. = 6.38) than were parents of children without disabilities ( $M = 37.22$ , S.D. = 8.82),  $t(83) = 2.63$ ,  $p = .01$  (two-tailed). However, parents of children

Table 3  
Differences in observed quality between inclusive and non-inclusive child care programs

Observations of infant–toddler, preschool, and family homes	Inclusive ( $M$ (S.D.))	Non-inclusive ( $M$ (S.D.))	$t$	$d$
ITERS Total Score (infant–toddler) <sup>a</sup>	4.39 (1.09)	4.16 (1.00)	−1.11	
Space and Furnishings	4.84 (1.02)	4.46 (1.20)	−1.81	
Personal Care Routines	4.48 (1.30)	4.15 (1.27)	−1.33	
Listening and Talking	4.72 (4.51)	4.20 (1.49)	−1.83	
Activities	4.02 (1.28)	3.74 (1.29)	−1.12	
Interaction	5.34 (1.49)	4.84 (1.68)	−1.67	
Program Structure	4.94 (1.60)	4.75 (1.43)	−0.65	
Parents and Staff	3.64 (1.41)	3.68 (1.32)	−1.12	
ECERS-R Total Score (preschool) <sup>b</sup>	4.64 (1.04)	4.24 (1.14)	−1.93 <sup>+</sup>	.37
Space and Furnishings	4.84 (1.02)	4.43 (1.19)	−1.81 <sup>+</sup>	.37
Personal Care	4.91 (1.25)	4.51 (1.43)	−1.57	
Language and Reasoning	4.72 (1.51)	4.18 (1.49)	−1.83 <sup>+</sup>	.36
Activities	3.77 (1.28)	3.39 (1.25)	−1.63	
Interaction	5.34 (1.49)	4.82 (1.68)	−1.67 <sup>+</sup>	.33
Program Structure	4.84 (1.64)	4.40 (1.65)	−1.41	
Parents and Staff	4.80 (1.23)	4.43 (1.25)	−1.57	
FDCRS Total Score (family home) <sup>c</sup>	3.90 (1.28)	4.36 (1.32)	1.74 <sup>+</sup>	.35
Space and Furnishings	3.59 (1.42)	4.31 (1.46)	2.43 <sup>*</sup>	.49
Basic Care	3.88 (1.52)	4.08 (1.59)	0.62	
Language and Reasoning	3.78 (1.60)	4.58 (1.68)	2.35 <sup>*</sup>	.48
Learning Activities	3.75 (1.38)	4.11 (1.44)	0.22	
Social Development	4.25 (1.25)	4.59 (1.30)	0.19	
Adult Needs	5.01 (1.48)	5.31 (1.41)	0.32	
Caregiver Interaction Scale (Arnett)	3.42 (0.48)	3.39 (0.48)		

All tests are two-tailed: <sup>+</sup> $p < .10$ , <sup>\*</sup> $p < .05$ , <sup>\*\*</sup> $p < .01$ , <sup>\*\*\*</sup> $p < .001$ .

<sup>a</sup> ITERS inclusive ( $n = 54$ ), non-inclusive ( $n = 51$ ).

<sup>b</sup> ECERS-R inclusive ( $n = 58$ ), non-inclusive ( $n = 54$ ).

<sup>c</sup> FDCRS inclusive ( $n = 31$ ), non-inclusive ( $n = 101$ ).

with disabilities paid lower fees per hour of child care ( $M = \$1.97$ ,  $S.D. = 1.63$ ) than did parents of children without disabilities ( $M = \$2.62$ ,  $S.D. = 2.23$ ),  $t(1290) = -2.50$ ,  $p = .013$  (two-tailed), perhaps due to the fact that they were more likely to receive child care subsidies.

Children with disabilities started experiencing child care later ( $M = 16.61$  months,  $S.D. = 20.23$ ) than did those without disabilities ( $M = 9.32$  months,  $S.D. = 13.27$ ),  $t(68) = 2.89$ ,  $p < .001$  (two-tailed). However, there was no difference between the two groups in terms of hours per week they were enrolled in any type of child care ( $M = 36.05$ ,  $S.D. = 13.96$ ),  $t(1307) = .70$ ,  $p = .49$  (two-tailed). Overall though, children with disabilities had experienced more different child care arrangements across a variety of types of care since they started participating in child care ( $M = 2.76$ ,  $S.D. = 2.00$ ) than had those children without disabilities ( $M = 2.19$ ,  $S.D. = 1.84$ ),  $t(87) = 2.51$ ,  $p = .014$  (two-tailed). Children with disabilities were more likely to receive subsidized care than were those without special needs [ $\chi^2(1, N = 1310) = 9.34$ ,  $p = .002$ ].

Parents also answered questions regarding stress related to their child care services and working conditions. Analyses of covariance (ANCOVA) were employed to examine mean differences for stress overall, as well as for each individual item based on child's disability status or type of care while controlling for family income. Results indicated that parents of children with disabilities were more likely to report high levels of stress related to child care services ( $M = 2.18$ ,  $S.D. = .75$ ) than were those of children without disabilities ( $M = 2.00$ ,  $S.D. = .55$ ),  $F(1, 1222) = 4.01$ ,  $p = .04$  (two-tailed). There was no interaction effect between disability status and type of care though parents with higher incomes reported lower levels of stress than did those with lower incomes,  $F(1, 1222) = 131.80$ ,  $p < .001$ . Examination of individual items revealed that parents of children with disabilities were more likely to report feeling they were "on their own" in raising their child ( $M = 2.4$ ,  $S.D. = 1.73$ ) than were those whose children were typically developing ( $M = 1.71$ ,  $S.D. = 1.41$ ),  $F(1, 1217) = 9.17$ ,  $p < .01$ , and those who used family child care homes ( $M = 4.24$ ,  $S.D. = 1.01$ ) were more likely to report that their provider was flexible regarding hours for care than were those that used center-based child care ( $M = 3.96$ ,  $S.D. = 1.18$ ),  $F(1, 1216) = 4.87$ ,  $p < .01$ . Parents who used center-based care ( $M = 3.61$ ,  $S.D. = 1.25$ ) were more likely to report that "there are good choices for child care where I live" than were those who used family child care ( $M = 3.25$ ,  $S.D. = 1.25$ ),  $F(1, 1218) = 11.50$ ,  $p < .001$ .

#### 4.3.2. Perspectives on choosing child care

Parents rated their perceptions of the importance of a variety of quality-related factors when choosing their current child care providers. Overall, the majority of these items were rated as important by all parents (range = 4.04–4.85). Analyses of variance (ANOVA) were employed to examine whether perceptions regarding the importance of these factors differed for parents of children with and without disabilities. There was not an interaction between child disability status and type of care in regard to parents' perspectives on the importance of these factors in choosing child care. Not surprisingly, parents of children with disabilities rated the provider's willingness to accept subsidy and willingness to enroll children with disabilities, as well as training or credentials, accreditation, and turnover rate as more important than did those of children without disabilities (see Table 4). However, parents of children without disabilities rated the provider's acceptance of infants as more important than did parents of children with disabilities. This result is consistent with the finding that children with disabilities were typically enrolled in child care at older ages than were children without disabilities. Other factors considered important when choosing child care showed statistically significant differences between type of care despite the fact that there were not overall familial demographic differences between parents of children enrolled in center-based care versus family child care homes.

#### 4.3.3. Parental satisfaction with child care

Parents also rated the quality of their child(ren)'s current child care services and responded to most questions in similar ways regardless of disability status or type of care. Overall, these quality ratings were quite high ( $M = 4.45$ ,  $S.D. = .44$ ), and differences in summative ratings between parents of children with and without disabilities were not statistically significant. However, there were score differences on individual items of the child care quality rating dependent on a child's disability status, their type of care, or the interaction of these categories (see Table 5). Interaction effects indicate that parents of children with disabilities enrolled in center-based care rated their providers higher on giving children individual attention, providing safe and secure care, and greeting each individual than did parents of children with disabilities enrolled in family child care homes (see Table 6). Parents of children with disabilities

attending centers were less concerned about too many children in the care of providers than were parents of children with disabilities in family home settings.

Parents' ratings of the overall quality of their child's current care were at or above "C for Fair" (score of 4). Parents of children who had disabilities enrolled in center-based care rated the overall quality of their child's care slightly higher than did parents of children with disabilities enrolled in family child care homes; among parents of children without disabilities, those with children enrolled in family child care homes rated the overall quality of their child's care higher than did those whose children were enrolled in center-based care.

## 5. Discussion

This three-phase study included telephone interviews with a large, random sample of child care providers, observed quality ratings of a subset of providers interviewed, and surveys from parents of children in a subset of the observed

Table 4  
Mean (S.D.) and analyses of variance (ANOVA) for parents' ratings of the importance in choosing childcare

Items (importance in choosing child care)	Child disability				Type of care			
	No ( <i>M</i> (S.D.))	Yes ( <i>M</i> (S.D.))	<i>F</i>	d.f.	Family Home ( <i>M</i> (S.D.))	Center ( <i>M</i> (S.D.))	<i>F</i>	d.f.
Training/credentials	4.33 (0.78)	4.57 (0.64)	6.23*	1, 1271			n.s.	
Accreditation	4.02 (1.05)	4.31 (0.91)	4.18*	1, 1260			n.s.	
Acceptability of subsidy	2.14 (1.49)	2.63 (1.69)	6.74**	1, 1254			n.s.	
Turnover rate	3.97 (0.98)	4.18 (0.81)	4.82*	1, 1268			n.s.	
Acceptance of children with disability	2.49 (1.31)	3.53 (1.40)	34.81***	1, 1254			n.s.	
Acceptance of infants	3.43 (1.70)	2.67 (1.68)	9.26**	1, 1236			n.s.	
Child-caregiver ratio			n.s.		4.05 (0.93)	4.28 (0.86)	10.40***	1, 1269
Similar values to parent's			n.s.		4.56 (0.67)	4.35 (0.76)	5.16*	1, 1270
Language/ethnicity			n.s.		3.00 (1.35)	2.60 (1.26)	8.64**	1, 1265
Someone known/trust			n.s.		4.55 (0.75)	4.26 (0.87)	8.74**	1, 1266
Discipline/guidance style			n.s.		4.33 (0.77)	4.15 (0.80)	4.47*	1, 1263
Stimulating activities			n.s.		4.49 (0.66)	4.62 (0.55)	4.00*	1, 1259
Emphasizing creativity			n.s.		4.07 (0.95)	4.24 (0.83)	3.93*	1, 1264

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

Table 5  
Analyses of variance (ANOVA) for parents' ratings of childcare quality

Items	Child disability (D)		Type of care (C)		D × C	
	<i>F</i>	d.f.	<i>F</i>	d.f.	<i>F</i>	d.f.
Formal parent conference	6.99**	1, 1236	n.s.		n.s.	
Reading/looking books	n.s.		12.02***	1, 1265	n.s.	
Creative activity	n.s.		6.32*	1, 1268	n.s.	
Interesting place	n.s.		5.74*	1, 1260	n.s.	
High turnover rate	n.s.		4.39*	1, 1266	n.s.	
Too many children in care	n.s.		n.s.		7.57**	1, 1263
Individual attention	n.s.		n.s.		7.93**	1, 1263
Safe/secure	n.s.		n.s.		6.11*	1, 1264
Greeting	n.s.		n.s.		6.00*	1, 1264
Overall quality (7-point)	n.s.		n.s.		5.79*	1, 1267

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

programs. A number of contextual considerations are important when interpreting findings and discussing implications. First, a strength of this study is that the research team was more successful than most in sampling providers from all forms of child care across multiple states which gives high confidence that the sample is representative of the provider population. The sample is most representative at the level of the provider survey, slightly less so at the observational level and less so still at the level of the parent survey, given that fewer providers agreed to participate with each subsequent round of data collection. However, careful attention was paid to observer training and monitoring, giving high confidence that resulting data are reliable. While the surveyed parents were nested within observed programs, and therefore, may not be representative of all parents using child care, the percentage of respondents parenting children with disabilities is similar to overall percentages among parents of young children.

The study was part of a larger investigation that did not intentionally focus on children with disabilities but was a unique opportunity to gather important data on this population. The definition of “inclusion,” therefore, is less specific than in investigations that target children with special needs, and our data do not indicate the degree of inclusion in each setting (e.g., what percentage of children were identified as having a disability). Another limitation of the study is our lack of information about how well the needs of children with disabilities were being met.

Table 6  
Descriptive statistics for parents' ratings of childcare quality

Items	Type of care	Child disability		Marginal mean ( <i>M</i> (S.D.))
		No ( <i>M</i> (S.D.))	Yes ( <i>M</i> (S.D.))	
Formal parent conference <sup>b</sup>	Family home	2.97 (1.45)	3.72 (1.32)	3.02 (1.45)
	Center	2.97 (1.52)	3.32 (1.49)	2.99 (1.52)
	Marginal mean	2.97 (1.50)	3.42 (1.45)	
Reading/looking books <sup>a</sup>	Family home	4.04 (1.02)	3.67 (0.97)	4.02 (1.02)
	Center	4.27 (0.93)	4.36 (0.91)	4.27 (0.93)
	Marginal mean	4.21 (0.96)	4.19 (0.96)	
Creative activity <sup>a</sup>	Family home	4.24 (0.91)	4.11 (0.83)	4.23 (0.90)
	Center	4.43 (0.79)	4.49 (0.75)	4.43 (0.97)
	Marginal mean	4.38 (0.83)	4.40 (0.78)	
Interesting place <sup>a</sup>	Family home	4.35 (0.78)	4.22 (0.81)	4.35 (0.78)
	Center	4.50 (0.71)	4.56 (.68)	4.50 (0.71)
	Marginal mean	4.46 (0.73)	4.48 (0.72)	
High turnover rate <sup>a</sup>	Family home	1.44 (0.98)	1.53 (0.80)	1.44 (0.97)
	Center	1.83 (1.09)	1.76 (1.12)	1.83 (1.09)
	Marginal mean	1.73 (1.07)	1.71 (1.06)	
Too many children in care <sup>c</sup>	Family home	1.67 (1.02)	2.22 (1.17)	1.70 (1.03)
	Center	1.99 (1.11)	1.71 (1.00)	1.97 (1.10)
	Marginal mean	1.90 (1.09)	1.83 (1.06)	
Individual attention <sup>c</sup>	Family home	4.26 (0.80)	3.76 (1.03)	4.24 (0.82)
	Center	4.08 (0.86)	4.25 (0.78)	4.09 (0.86)
	Marginal mean	4.13 (0.85)	4.14 (0.84)	
Safe/secure <sup>c</sup>	Family home	4.74 (0.63)	4.39 (0.98)	4.72 (0.65)
	Center	4.66 (0.60)	4.72 (0.52)	4.66 (0.60)
	Marginal mean	4.68 (0.90)	4.45 (0.82)	
Greeting <sup>c</sup>	Family home	4.59 (0.86)	4.11 (1.08)	4.56 (0.88)
	Center	4.43 (0.91)	4.56 (0.70)	4.44 (0.90)
	Marginal mean	4.48 (0.90)	4.45 (0.82)	
Overall quality (7-point) <sup>c</sup>	Family home	6.17 (0.71)	5.88 (0.60)	6.16 (0.70)
	Center	5.99 (0.68)	6.17 (0.75)	6.00 (0.68)
	Marginal mean	6.04 (0.69)	6.11 (0.73)	

<sup>a</sup> Significant main effect of type of care (C).

<sup>b</sup> Significant main effect of child disability (D).

<sup>c</sup> Significant interaction (C × D).

The measures of observed quality employed (especially for the ECERS-R) have been linked to other measures of child care quality and to children's outcomes in general (Bryant, Burchinal, Lau, & Sparling, 1994; Dunn, 1993; Peisner-Feinberg et al., 2001 and Whitebook et al., 1990). Comparisons are reported with the caveat that of the observational measures used, only the ECERS-R has extensive evidence supporting its appropriateness for use in culturally diverse and inclusive programs (Harms & Riley, 2005). In two large national studies, the ECERS-R (or ECERS) has been found to predict child outcomes: Cost, Quality and Outcomes study of children in community child care centers (Peisner-Feinberg et al., 2001); and Family and Child Experiences Survey (FACES) of children in Head Start programs (Administration of Children, Youth, and Families, 2003). However, all three of the Environment Rating Scales were designed to address diversity and inclusion through a number of indicators that require non-stereotyping, respect for differences in materials offered to children, and provision for children with disabilities. For example, the ECERS-R contains one key item devoted exclusively to inclusion of children with disabilities (item 37) and has specific criteria regarding inclusion in 11 other items (Harms & Riley, 2005). Certainly, however, even a classroom scored as high in overall quality may not meet the needs of a specific child (e.g., a child with a disability).

### *5.1. Characteristics of child care providers*

Despite these limitations, the convergence of findings from each wave of data collection may increase the credibility of and interest in several of the key findings. The first aim was to describe the child care providers who do and do not serve children with disabilities across four Midwestern states.

Our findings show that inclusive providers had more specific child development training and training hours over the previous 1-year period than non-inclusive providers. These findings are important as they replicate past research that has shown that specific training is correlated with increased skill and confidence among inclusive early care and education providers (Dinnebeil et al., 1998; Jeon & Peterson, 2003; Mulvihill et al., 2002 and Stoiber et al., 1998). Also, the findings on education and training complement our other findings that inclusive providers have a more professional orientation toward their work. They were more likely than non-inclusive providers to see their work as a personal calling or a career and less likely to see it as merely a job with a paycheck. These findings are encouraging in suggesting that children served in inclusive child care settings in these four Midwestern states might be likely to be enrolled in higher quality child care than children in non-inclusive settings as they have providers with more experience, education, and professional orientation.

It is important to note, however, that inclusion status was not as strong a predictor of provider characteristics related to child care quality as was type of care. Center-based providers had higher levels of education and more training than family child care home providers, which is consistent with earlier studies (Fuller & Strath, 2001) even though they were younger and were less likely to report having had 5 or more years of experience working with children (see Table 1). Likewise, center-based providers were more likely than family child care providers to hold a professional orientation (see Table 2). It is unclear if the differences based on type of care are simply a reflection of where providers choose to work or indicative of differences that can be facilitated via a "culture of quality" (Raikes et al., 2005) often more readily available to center-based providers. This notion is supported by previous researchers who have highlighted that quality of care can be enhanced via strong leadership (Whitebook et al., 1990) and supportive supervision and mentoring (Howes, James, & Ritchie, 2003).

### *5.2. Observed quality of child care settings*

The second aim of the study was to learn about the observed level of quality of care in inclusive and non-inclusive settings. Examination of environmental rating scales revealed that infant/toddler classrooms were not statistically significantly different for inclusive versus non-inclusive programs. However, inclusive preschool classrooms were slightly higher on observed quality ratings than non-inclusive classrooms, while non-inclusive family child care homes were slightly higher on observed quality than inclusive family child care homes and statistically significantly higher on two subscales of the FDCRS. The findings from preschool classrooms are consistent with those of past researchers who also found better quality in inclusive classrooms (Buysse et al., 1999). Marginally significant differences related to observed quality are reported in this investigation for the purpose of highlighting a trend in the data, and support future research in this area. However, the current study was not designed to compare quality of care between inclusive versus non-inclusive environments; further investigations with well-designed research methods and specific focus on quality of care delivered to different subsets of children (with and without disabilities) are needed.

For example, it is impossible to discern from our data whether any of the children with disabilities were receiving of-  
ficially sanctioned ECSE services (e.g., dictated by an Individualized Education Plan or Individualized Family Ser-  
vice Plan) in their settings. However, findings from the larger MCCRC study revealed consistently high levels of  
quality among community child care providers working in partnership with Head Start/Early Head Start programs  
(Raikes et al., 2003) providing some encouragement that collaborative work between these partners and ECSE pro-  
grams could be a fruitful effort to promote inclusive child care. Such expansion could serve the needs of children and  
families, as well as strengthen the entire early care and education system by increasing opportunities for training and  
supportive collegial relationships between individuals trained in various disciplines.

### *5.3. Parental perspectives on child care*

Finally, the third aim of our study was to better understand parental perspectives on child care selection and qual-  
ity among parents of children with and without disabilities. Parents of children with disabilities tended to have less  
income than did those whose children did not have disabilities even though they were likely working longer hours.  
Our data suggest that the subsidy systems in the four states are reaching the families of children with disabilities, as  
these families were more likely to report having their child care services subsidized and paying lower hourly fees  
than those of children without disabilities. Despite this important subsidy resource, however, parents of children with  
disabilities reported higher levels of stress related to their child care services and working conditions even after con-  
trolling for income and type of care. Another important finding related to parental stress was the fact that as a group,  
children with disabilities experienced more different child care arrangements even though their first experience of  
child care services started at later ages than was true among children without disabilities. These findings reflect those  
of earlier researchers who found that parents reported having great difficulty finding appropriate care for their chil-  
dren with disabilities (Warfield & Hauser-Cram, 1996).

Results of this study showed that, in general, parents rated the quality of their children's care quite high; this is  
similar to findings of earlier researchers (Cryer et al., 2002). Additionally, the current study revealed that their child's  
disability status related to only a few differences in parental perspectives on quality-related issues (e.g., importance  
of provider training/credentials, provider turnover rate, accreditation, acceptance of subsidy) when choosing a child  
care setting. Interestingly, looking at the parental reports on quality of their child's services, this study revealed that  
parents of children with disabilities reported the quality of child care services differently from those of children with-  
out disabilities depending on their child's type of care. Parents of children who had disabilities and were enrolled in  
center-based care rated the overall quality of their children's care slightly higher than did parents of children with dis-  
abilities who were enrolled in family child care homes; among parents of children without disabilities, parents whose  
children were enrolled in center-based care rated the overall quality as slightly lower than did parents with children  
enrolled in family child care homes. These parental ratings paralleled the results of observed program quality.

Results of the current parent survey do need to be interpreted with caution because the sample of parents who  
have children with disabilities is much smaller than that of parents who have children without disabilities. Little  
is known, particularly of parents' perspectives regarding child care services for young children with special needs;  
therefore, this study serves as an exploratory base from which future investigators can draw.

### *5.4. Conclusions and implications*

While the current study replicates findings of past researchers indicating that overall, child care quality is medio-  
cre, these findings offer some points of encouragement to the field of early care and education. Specifically, providers  
who had training related to child development were more likely to be working in inclusive settings than in non-inclu-  
sive settings. Previous studies have found relations between provider training and quality of child care (Buysse et al.,  
1999, Norris, 2001 and Phillips et al., 2000). Additionally, providers who perceived their job as a personal calling or  
a career rather than a job with a paycheck were more likely to be working in inclusive settings. Whereas several in-  
vestigators have found that providers' knowledge and beliefs about child development is related to child care qual-  
ity (Buysse, Skinner, & Grant, 2001; Buysse et al., 1999), little research examining the relations between providers'  
work motivation or professional orientation and quality of child care has been done.

Though inclusive care has long been advocated (Division of Early Childhood, 1993, reaffirmed 1998), these ef-  
forts must continue. Findings indicate that child care settings are a promising location to promote the participation  
of young children with disabilities, but more work needs to be done. Our findings suggest that observed quality is  
slightly, though not statistically significantly higher in inclusive center-based preschool classrooms, and that inclu-

sive providers are generally more professionally prepared than their non-inclusive counterparts; both are factors that ultimately should contribute to overall child well-being. Our findings indicate that children with disabilities experienced multiple types of care which is likely related to a lack of availability of appropriate child care arrangements. Surely, this situation contributes to the stress these families experience. Unfortunately, assuming that the slightly higher quality care observed in inclusive preschool classrooms is available for younger children with disabilities, especially infants and toddlers, is not entirely appropriate. Continued advocacy for increased availability and flexibility of good quality services in inclusive settings is needed and might help minimize the stress these parents experience.

This study advances knowledge about the child care available to young children who have disabilities, the providers who work in these settings, and parental perspectives on child care, areas about which much is yet to be learned. Future research must include innovative methods and in-depth study to increase understanding of the complex and interrelated factors that contribute to child care quality, professional preparation and commitment of providers, stability and compensation of providers, and families' decisions about child care. Researchers should also address the percentage of children who have disabilities, as well as the nature of children's disabilities, enrolled in different types of care, and the relation these factors may have to quality and parental (and child) satisfaction. The information from this research should help center-based and family child care home providers more appropriately meet families' needs. In addition, it should enhance efforts to provide appropriate training and support to child care providers, to inform policy makers about the efficacy of quality improvement efforts, and to strengthen child care services overall.

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