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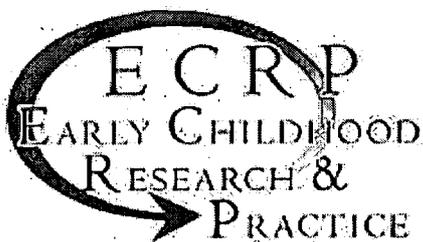
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ABSTRACT

In 1987, the National Association for the Education of Young Children published "Keeping Current in Child Care Research: An Annotated Bibliography," by Carollee Howes, which reviewed child care research through 1987. In 1999, the Center for Early Education and Development updated the original review to include studies from 1987 to 1999. This update was created for participants in the second Annual Minnesota Child Care Research conference: Welfare Reform and the Lives of Children. The update is organized in the same format as the original bibliography. The first four sections review research that continues to address questions raised in the 1970s: Will child care attendance be harmful to the child? What benefits do children receive from child care? Can child care serve as an effective intervention program in the short and long term? For example, included are recent data from the Abecedarian project, a longitudinal study begun in 1972 detailing the effectiveness of child care as an intervention for at-risk children. The next five sections of the update highlight studies that address research questions begun in the 1980s: What features distinguish high- from low-quality child care? What are the effects of age of entry, length of day, and total time in child care? What is the relation between family factors and child care? These sections include information from several well-known studies that have greatly influenced how we think about child care, such as the Cost, Quality, and Outcomes Study; the Florida Quality Improvement Study; and the National Child Care Staffing Study. Finally, new sections were created in the update for studies on family child care and on inclusive settings. These two areas have been studied extensively since 1987, with enough research to warrant separate sections for each. (HTH)

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Keeping Current in Child Care Research Annotated Bibliography: An Update

Deborah Ceglowski & Chiara Bacigalupa
University of Minnesota

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Introduction

In 1987, the National Association for the Education of Young Children published *Keeping Current in Child Care Research: An Annotated Bibliography*, by Carollee Howes. This valuable resource reviewed child care research through 1987. In 1999, the Center for Early Education and Development updated the original review to include studies from 1987 to 1999. This update was created for participants in the second Annual Minnesota Child Care Research Conference: Welfare Reform and the Lives of Children. We believe, however, that a wider audience will find this update useful.

This update is organized in the same format as the original bibliography. The first four sections review research that continues to address questions raised in the 1970s: Will child care attendance be harmful to the child? What benefits do children receive from child care? Can child care serve as an effective intervention program in the short and long term? For example, we include recent data from the Abecedarian project, begun in 1972. This longitudinal study details the effectiveness of child care as an intervention for at-risk children.

The next five sections highlight studies that address research questions begun in the 1980s. What features distinguish high- from low-quality child care? What are the effects of age of entry, length of day, and total time in child care? What is the relation between family factors and child care? These sections include information from several well-known studies that have greatly impacted how we think about child care, such as the Cost, Quality, and Outcomes Study; the Florida Quality Improvement Study; and the National Child Care Staffing Study.

Finally, we created new sections for studies on family child care and inclusive settings. These two areas have been studied extensively since 1987, with enough research that a separate section for each seemed warranted.

Most of the research in our update continues to examine questions posed earlier, yet new questions continue to emerge. For example, just when those in the early childhood field have begun to feel more confident about what constitutes high-quality child care (low staff turnover, high-quality teacher-child interactions, safe and healthy environments, etc.), many people have begun to notice that parents often disregard the advice of child care experts. Thus, we are beginning to ask questions such as: What do parents actually look

for when they choose child care? How well is the current child care system meeting the needs of parents, especially single mothers, who are leaving welfare? It is our hope that this update will provide a comprehensive look at what we have learned about child care so far, so that early childhood professionals will use that information to continue searching for answers to both the old and the new questions.

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Attachment

Reference	Sample Description	Measures	Results
Belsky & Rovine (1988)	Data from 2 longitudinal studies of infant and family development were combined and analyzed 149 infants (90 males) Ages 12 and 13 months 20 or more hours of care per week Working class and middle class SES Married parents	Interviews Strange Situation	1. Infants exposed to 20 or more hours of care per week were more likely to be classified as insecurely attached to the mother and to avoid the mother on reunion than were infants in care fewer than 20 hours per week.
Lamb, Sternberg, & Prodromidis (1992)	Data from 13 studies were combined and analyzed 897 infants (493 males) and their mothers Ages 11 to 24 months Mothers averaged 32.6 hours of paid work per week	Strange Situation	1. Secure attachments were significantly more common among infants in exclusive maternal care. 2. Insecure attachments were significantly more common among those infants assessed after 15 months of age and among those who entered care between 7 and 12 months of age, rather than before. 3. Extent of nonmaternal care was not significantly associated with attachment classifications.
NICHD Early Child Care Research Network (1997)	1,153 mothers and their babies chosen from among 31	Assessment of Infant Security Attachment	1. Use of non-maternal care did not make a significant difference in children's attachment security.

<p>hospitals in 9 states</p> <p>24% ethnic minority</p> <p>14% single mothers</p>		<p>Strange Situation</p> <p>Attitude toward Maternal Employment Questionnaire</p> <p>Infant Temperament Questionnaire</p> <p>NEO Personality Inventory</p> <p>Center for Epidemiological Studies Depression Scale</p> <p>Infant Toddler HOME Scale</p> <p>Observational Record of the Caregiving Environment</p>	<p>2. Infants were less likely to be secure when low maternal sensitivity/responsiveness was combined with poor-quality child care, more than minimal amounts of child care, or more than one care arrangement.</p> <p>3. Boys who were in many hours of care and girls who were in minimal hours of care were somewhat less likely to be securely attached.</p>
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References: Attachment

Belsky, J., & Rovine, M. J. (1988). Nonmaternal care in the first year of life and the security of infant-parent attachment. *Child Development*, 59(1), 157-167. [EJ 367 881](#).

Lamb, M. E., Sternberg, K. J., & Prodromidis, M. (1992). Nonmaternal care and the security of infant-mother attachment: A reanalysis of the data. *Infant Behavior and Development*, 15(1), 71-83.

NICHD Early Child Care Research Network. (1997). The effects of infant child care on infant-mother attachment security: Results of the NICHD Study of Early Care. *Child Development*, 68(5), 860-879. [EJ 552 805](#).

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Social Development

Reference	Sample Description	Measures	Results
Andersson (1989)	119 Swedish children from their first year up to the age of 8 Ages 3 and 4 years at start of study	Cognitive measures Social competence	1. Children entering day care at an early age performed significantly better on cognitive tests and received more positive ratings from their teachers in terms of school achievement and social-personal attributes than did children entering day care at later ages and those in home care. 2. The author hypothesizes that two factors contribute to these positive results: Sweden's policy of providing for parents to stay home with children for the first 6 months of their lives and the generally high quality of Swedish day care.
Deater-Deckard, Pinkerton, & Scarr	141 mothers, 140 caregivers, and 72	Early Childhood Environmental Rating Scale	1. Average center quality was low.

(1996)	<p>teachers</p> <p>Majority European American</p> <p>84% two-parent families</p>	<p>Infant/Toddler Environmental Rating Scale</p> <p>Parenting Stress Index</p> <p>Marshall Emotional Support Scale</p> <p>Parental Discipline Interview</p> <p>EAS Temperament Scale</p>	<p>2. Indicators of center quality were generally unrelated to mother and teacher ratings of behavioral adjustment (although there was some indication that teachers with more training experienced fewer conduct problems).</p>
Dunn (1993)	<p>60 children in 30 classrooms in 24 centers</p> <p>90% White, 10% African American</p> <p>Middle SES</p> <p>77% two-parent families</p> <p>Ages 3 to 5 years</p>	<p>Observational assessment, staff interviews, and questionnaires to measure classroom quality</p> <p>Direct assessment, teacher ratings, and child achievement tests to measure child outcomes</p>	<p>1. Children with married parents and those attending centers that offered less variety and more guidance were rated as better socially adjusted.</p> <p>2. Children attending centers that provided more total limits had higher levels of complex social play.</p> <p>3. Child:staff ratio and group size did not predict children's social and cognitive development.</p>
Hestenes, Kontos, & Bryan (1993)	<p>60 children in 26 centers (30 classrooms)</p> <p>Range of SES</p> <p>Race/ethnicity data not provided</p> <p>Ages 3 to 5 years</p>	<p>Observational assessment of classroom quality</p> <p>Direct assessment of child outcomes</p>	<p>1. Low levels of classroom engagement by teachers predicted more intense negative affect among children.</p> <p>2. Children whose teachers showed high levels of classroom engagement displayed more intense positive affect (temperament and child demographics were controlled).</p>
Holloway & Reichhart-Erickson (1988)	<p>55 children attending 15 day care centers and nursery school (30 boys)</p> <p>4% African American, 94% White, 2% Asian</p> <p>Mostly middle SES</p>	<p>Three scales from the Early Childhood Observation Instrument: Teacher-Child Interaction, Child-Child Interaction, and Physical Environment</p> <p>Child social problem solving was measured using an adapted procedure by Spivack & Shure</p>	<p>1. Children engaging in high-quality interactions with teachers and children attending centers with lower child:teacher ratios scored higher on test of social reasoning skills.</p> <p>2. In centers that were</p>

	<p>91% two-parent families</p> <p>Age 4 years</p>		<p>better able to accommodate groups of varying sizes, had smaller classes, and offered a variety of age-appropriate materials, children scored higher on test of social reasoning skills.</p> <p>3. In centers with a more spacious layout, children spent more time in focused, solitary play and less time observing.</p> <p>4. Quality indicators were not significantly related to negative or positive social interactions with peers.</p>
Howes & Hamilton (1993)	<p>72 children (48 at follow-up)</p> <p>5 centers (and one large family day care home) at start</p> <p>54 centers over course of study</p> <p>14% African American, 61% White, 25% Hispanic or Asian</p> <p>67% middle SES</p> <p>Ages 1 to 2 years</p> <p>Follow-up at ages 4 to 5 years</p>	<p>Observational assessment of quality</p> <p>Direct assessment of child outcomes</p>	<p>1. Children having more changes in teachers were rated as lower in positive and gregarious behaviors and higher in social withdrawal and aggression.</p> <p>2. Children who had secure teacher-child relationships (or relationships that changed in a positive direction) had more positive, gregarious, and prosocial interactions with their peers and were less withdrawn and aggressive.</p> <p>3. Changes in children's child care center or setting were not related to children's social competence with peers.</p>
Howes, Phillips, &	414 children	Waters and Deane Attachment	1. Children cared for

<p>Whitebook (1992)</p>	<p>21% African American, 73% White</p> <p>SES includes subsidized children care centers and children of wealthy families</p> <p>Ages 15 to 54 months</p>	<p>Q-set</p> <p>Early Childhood or Infant/Toddler Environmental Rating Scale</p> <p>Peer Play Scale</p>	<p>in classrooms meeting Federal Interagency Day Care Requirements (FIDCR) ratios were more likely to be in classrooms rated good or very good in caregiving and activities. They were more likely to be securely attached to teachers and were more competent with peers.</p> <p>2. Children in classrooms meeting FIDCR groups size were more likely to be in classrooms rated higher in classroom activities. They were more likely to orient to both adults and peers and were more competent with peers.</p> <p>3. Children in classrooms rated higher on "appropriate caregiving" were more likely to be classified as secure.</p> <p>4. Children in classrooms rated higher on "developmentally appropriate activities" were more likely to be both adult and peer oriented.</p>
<p>Howes, Smith, & Galinsky (1995)</p>	<p>880 children in 150 centers</p> <p>Range of SES and urban/rural settings in FL</p> <p>Ages 10 months to 5 years</p>	<p>Director interviews</p> <p>Arnett Scale of Caregiver Sensitivity</p> <p>Howes Involvement Scale</p> <p>Early Childhood Environmental Rating Scale</p> <p>Infant/Toddler Environmental Rating Scale</p> <p>Revised Howes Peer Play Scale</p> <p>Howes Object Play Scale</p>	<p>1. Changing child:teacher ratio requirements for infants from 6:1 to 4:1, and for toddlers from 8:1 to 6:1, resulted in more complex child play both with peers and objects, more secure attachment to caregivers, greater adaptive language proficiency, and fewer behavior problems (including aggression, anxiety, and</p>

		<p>Adaptive Language Inventory</p> <p>Preschool Behavior Questionnaire</p>	<p>hyperactivity).</p> <p>2. Children in classrooms meeting professional standards for child:teacher ratios engaged in more elaborate peer play and had higher adaptive language scores, compared with children in classrooms with higher child:teacher ratios.</p> <p>3. Children in classrooms that improved by shifting to teachers with CDA credentials or CDA equivalency had the largest increase in complexity of peer play and security of caregiver attachment. Children in classrooms with college-educated teachers who had early childhood training engaged in more complex peer play, had a more secure attachment with their caregiver, and had higher adaptive language scores.</p> <p>4. After changes, teachers were more sensitive, positive, and responsive with children.</p> <p>5. After changes, children evidenced more secure attachment and were rated as having fewer behavior problems.</p>
Kontos (1991)	100 children in 10 centers (5 urban/nonprofit, 3 urban/profit, 1 rural/nonprofit, and 1	<p>Child Development Program Evaluation-Indicator Checklist</p> <p>Caregiver Observation Form</p>	<p>1. Both family background and child care quality predicted children's development.</p>

	rural/profit) 53 male Ages 3 to 5 years	Early Childhood Environmental Rating Scale Slosson Intelligence Test Test of Early Language Development Adaptive Language Inventory Preschool Behavior Questionnaire Classroom Behavior Inventory	2. Child care quality variables were significant predictors of social adjustment and marginal predictors of sociability.
McCartney et al. (1997)	120 centers from MA, VA, and GA 718 infants, toddlers, and preschoolers	Parental Modernity Scale Perceived work-family interference Parenting stress interference Assessment Profile for EC Programs Early Childhood Environmental Rating Scale Infant/Toddler Environmental Rating Scale Waters Attachment Q-set Social behavior observations	1. Few associations between teacher-child interaction and social outcomes were noted. 2. Teacher-child interactions were associated with social bids by preschoolers and toddlers. 3. Higher work-family interference was associated with poorer social outcomes. 4. Children in nonprofit centers had better social outcomes on some measures.
Peisner-Feinberg & Burchinal (1997) (Part of Cost, Quality, and Outcomes Study)	828 children in CA, CT, CO, and NC (52% boys) One-third ethnic minorities Two-thirds two-parent families	Early Childhood Environmental Rating Scale Early Childhood Observation Form Adult Involvement Scale Peabody Picture Vocabulary Test-Revised Attitudes/perceptions of competence Student-Teacher Relationship Scale	1. There is a positive relation between child care quality and children's cognitive and socio-emotional outcomes. 2. Stronger positive effects of child care outcomes were observed for children from more at-risk backgrounds. 3. There was no evidence that children from more advantaged families were buffered from the effects of poor-quality care.
Peisner-Feinberg, Clifford, Culkin, Howes, & Kagan (1999)	By second grade, 418 children from the original Cost, Quality, and	Early Childhood Environmental Rating Scale Caregiver Interaction Scale	1. Children in higher-quality child care centers performed better on

	<p>Outcomes Study</p> <p>51% boys</p> <p>30% children of color</p>	<p>UCLA EC Observation Form</p> <p>Adult Involvement Scale</p> <p>Instructional Environment Observation Scale (Second Grade)</p> <p>Student-Teacher Relationship Scale</p> <p>Peabody Picture Vocabulary Test-Revised</p> <p>Woodcock-Johnson Tests of Achievement-Revised</p> <p>Inventory of Classroom Behavior</p> <p>Teacher Assessment of Social Behavior</p> <p>Parent surveys</p>	<p>measures of cognitive skills and social skills.</p> <p>2. Quality of care continued to affect development at least through kindergarten and, for many, through second grade.</p> <p>3. Children who were at-risk were more sensitive to the negative effects of poor-quality care, and received more benefits from high-quality care. These benefits were sustained through second grade.</p> <p>4. The quality of the classroom affects cognitive skills, and the teacher-child relationship influences social skills.</p> <p>5. Children who attended higher-quality child care had better cognitive and social skills in second grade, even after taking into account kindergarten and second-grade classroom experiences.</p> <p>6. Children who experienced more positive classroom climates in child care had better relationships with peers in second grade.</p>
<p>Phillips, McCartney, & Scarr (1987)</p>	<p>166 families in 9 centers in Bermuda</p> <p>Ages 36 to 68 months</p>	<p>Early Childhood Environmental Rating Scale</p> <p>Director interviews of classroom characteristics, ratios, caregiver training, director experience, etc.</p>	<p>1. Overall quality, caregiver-child verbal interactions, and director experience were each highly predictive of children's social development in child care.</p>

		Classroom Behavior Inventory Preschool Behavior Questionnaire Parent as Educator Interview	2. Family background characteristics were also significantly predictive of several social outcomes.
Vandell & Corasaniti (1990)	236 predominantly middle class 8-year-olds 84% White, 8% Black, 3% Asian American 72% two-parent families State with minimal child care standards	Retrospective parental recollections Teacher ratings of social, emotional, and academic functioning Classroom sociometric ratings Children's self-ratings Academic grades Conduct grades Standardized test scores	1. Children with more extensive child care experiences since infancy were rated as having poorer peer relationships, work habits, and emotional health. 2. Extensive infant care was associated with poorer academic and conduct report card grades and lower standardized test scores.
Vandell, Henderson, & Wilson (1988)	20 White, middle-class 4-year-olds and 8-year-olds (same sample over a 4-year period) in 6 day care centers of varying quality	Observational assessment of classroom quality Direct and videotaped assessment of children Maternal, peer, and observer ratings of child behavior	1. Children in higher-quality day care were rated as more socially competent, had fewer unfriendly peer interactions, were happier, and received fewer shy nominations from peers. 2. Significant continuity of behaviors was found from age 4 to age 8. 3. Having positive interactions with adults at age 4 was significantly correlated with ratings of empathy, social competence, and peer acceptance at age 8.

References: Social Development

Andersson, B. E. (1989). Effects of public day-care: A longitudinal study. *Child Development*, 60(4), 857-866. [EJ 398 179](#).

Deater-Deckard, K., Pinkerton, R., & Scarr, S. (1996). Child care quality and children's behavioral adjustment: A four-year longitudinal study. *Journal of Child Psychology and*

Psychiatry, 37(8), 937-948.

Dunn, L. (1993). Proximal and distal features of day care quality and children's development. *Early Childhood Research Quarterly*, 8(2), 167-192. [EJ 467 475](#).

Hestenes, L., Kontos, S. & Bryan, Y. (1993). Children's emotional expression in child care centers varying in quality. *Early Childhood Research Quarterly*, 8(3), 295-307. [EJ 474 786](#).

Holloway, S. D., & Reichhart-Erickson, M. (1988). The relationship of day care quality to children's free-play behavior and social problem-solving skills. *Early Childhood Research Quarterly*, 3(1), 39-53. [EJ 369 341](#).

Howes, C., & Hamilton, C. E. (1993). The changing experience of child care: Changes in teachers and in teacher-child relationships and children's social competence with peers. *Early Childhood Research Quarterly*, 8(1), 5-32. [EJ 461 737](#).

Howes, C., Phillips, D. A., & Whitebook, M. (1992). Thresholds of quality: Implications for the social development of children in center-based child care. *Child Development*, 63(2), 449-460. [EJ 443 501](#).

Howes, C., Smith, E., & Galinsky, E. (1995). *The Florida child care quality improvement study: Interim report*. New York: Families & Work Institute. [ED 388 408](#).

Kontos, S. J. (1991). Child care quality, family background, and children's development. *Early Childhood Research Quarterly*, 6(2), 249-262. [EJ 431 704](#).

McCartney, K., Scarr, S., Rocheleau, A., Phillips, D., Abbot-Shim, M., Eisenberg, M., Keefe, N., Rosenthal, S., & Ruh, J. (1997). Teacher-child interaction and child care auspices as predictors of social outcomes in infants, toddlers, and preschoolers. *Merrill-Palmer Quarterly*, 43(3), 426-450. [EJ 554 325](#).

Peisner-Feinberg, E. S., & Burchinal, M. R. (1997). Relations between preschool children's child care experiences and concurrent development: The Cost, Quality, and Outcomes Study. *Merrill-Palmer Quarterly*, 43(3), 451-477. [EJ 554 326](#).

Peisner-Feinberg, E. S., Clifford, R. M., Culkin, M., Howes, C., & Kagan, S. L. (1999). The children of the Cost, Quality, and Outcomes Study go to school. Chapel Hill, NC: Frank Porter Graham Child Development Center, NCEDE. [ED 449 883](#).

Phillips, D., McCartney, K., & Scarr, S. (1987). Child-care quality and children's social development. *Developmental Psychology*, 23(4), 537-543. [EJ 361 532](#).

Vandell, D. L., & Corasaniti, M. A. (1990). Variations in early child care: Do they predict subsequent social, emotional, and cognitive differences? *Early Childhood Research Quarterly*, 5(4), 555-572. [EJ 423 544](#).

Vandell, D. L., Henderson, K. V., & Wilson, K. S. (1988). A longitudinal study of children with day-care experience of varying quality. *Child Development*, 59(5), 1286-1292. [EJ 380 599](#).



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Cognitive Development

Reference	Sample Description	Measures	Results
Andersson (1989)	119 Swedish children from their first year up to the age of 8 years Ages 3 and 4 years at start of study	Cognitive measures Social competence	1. Children entering day care at an early age performed significantly better on cognitive tests and received more positive ratings from their teachers in terms of school achievement and social-personal attributes than did children entering day care at later ages and those in home care. 2. The author hypothesizes that two factors contribute to these positive results: Sweden's policy of providing for parents to stay home with children for the first 6 months of their lives, and the generally high quality of Swedish day care.
Burchinal, Roberts, Nabors, & Bryant (1996)	79 African American children attending centers in 2 small adjacent southeast cities 69% of families were under 185% of federal poverty 68% headed by a single parent	Bayley Scales of Infant Development Sequenced Inventory of Communication Development Communication and Symbolic Behavior Scales	1. Child care quality was positively correlated with cognitive development, language development, and communication skills.

		<p>Infant/Toddler Environmental Rating Scale</p> <p>Early Childhood Environmental Rating Scale</p> <p>HOME for Infants</p>	<p>2. Process measures of quality of care independently related to the infant's cognitive development.</p> <p>3. Infant:adult ratio independently related to the infant's overall communication skills.</p>
<p>Caughy, DiPietro, & Strobino (1994)</p>	<p>867 children from the National Longitudinal Survey of Youth (464 boys)</p> <p>47% non-Black/non-Hispanic; 34% Black; 19% Hispanic</p> <p>Ages 5 to 6 years</p>	<p>HOME Scale (shortened version)</p> <p>Peabody Individual Achievement Test</p>	<p>1. Children from "impoverished home environments" who attended day care during the first 3 years of life scored higher on reading recognition tests and math tests.</p> <p>2. The effects on reading scores were greatest for children who began day care before the age of 1.</p> <p>3. The effects on math scores were greatest for children in center care.</p>
<p>Dunn (1993)</p>	<p>60 children in 30 classrooms in 24 centers</p> <p>90% White, 10% African American</p> <p>Middle SES</p> <p>77% two-parent families</p> <p>Ages 3 to 5 years</p>	<p>Observational assessment, staff interviews, and questionnaires to measure classroom quality</p> <p>Direct assessment, teacher ratings, and child achievement tests to measure child outcomes</p>	<p>1. Children attending classrooms with higher overall quality and whose caregivers had a child-related college major and less experience in the center scored higher on a test of intelligence.</p> <p>2. Child:staff ratio and group size did not predict children's social and cognitive development.</p>
<p>Howes, Smith, & Galinsky (1995)</p>	<p>880 children in 150 centers</p> <p>Range of SES and urban/rural settings in FL</p> <p>Ages 10 months to 5 years</p>	<p>Director interviews</p> <p>Arnett Scale of Caregiver Sensitivity</p> <p>Howes Involvement Scale</p>	<p>1. Gains in intellectual and emotional development continued to improve from 1994.</p>

		<p>Early Childhood Environmental Rating Scale</p> <p>Infant/Toddler Environmental Rating Scale</p> <p>Revised Howes Peer Play Scale</p> <p>Howes Object Play Scale</p> <p>Adaptive Language Inventory</p> <p>Preschool behavior questionnaire</p>	<p>2. Children were more actively engaged and spent more time learning than they did in 1992 and 1994.</p> <p>3. Teachers were overall more responsive. Teacher sensitivity and classroom quality did not increase or decrease.</p>
<p>Peisner-Feinberg & Burchinal (1997)</p> <p>(Part of Cost, Quality, and Outcomes Study)</p>	<p>828 children in CA, CT, CO, and NC (52% boys)</p> <p>One-third ethnic minorities</p> <p>Two-thirds two-parent families</p>	<p>Early Childhood Environmental Rating Scale</p> <p>Early Childhood Observation Form</p> <p>Adult Involvement Scale</p> <p>Peabody Picture Vocabulary Test-Revised</p> <p>Attitudes/Perceptions of Competence</p> <p>Student-Teacher Relationship Scale</p>	<p>1. There is a positive relation between child care quality and children's cognitive and socioemotional outcomes.</p> <p>2. Stronger positive effects of child care outcomes were observed for children from more at-risk backgrounds.</p> <p>3. There was no evidence that children from more advantaged families were buffered from the effects of poor-quality care.</p>
<p>Peisner-Feinberg, Clifford, Culkin, Howes, & Kagan (1999)</p>	<p>By second grade, 418 children from the original Cost, Quality, and Outcomes Study</p> <p>51% boys</p> <p>30% children of color</p>	<p>Early Childhood Environmental Rating Scale</p> <p>Caregiver Interaction Scale</p> <p>UCLA Early Childhood Observation Form</p> <p>Adult Involvement Scale</p> <p>Instructional Environment Observation Scale (Second Grade)</p> <p>Student-Teacher Relationship Scale</p>	<p>1. Children in higher-quality child care centers performed better on measures of cognitive skills and social skills.</p> <p>2. Quality of care continued to affect development at least through kindergarten and, for many, through second grade.</p> <p>3. Children who were at-risk were more sensitive to the</p>

		<p>Peabody Picture Vocabulary Test-Revised</p> <p>Woodcock-Johnson Tests of Achievement-Revised</p> <p>Inventory of Classroom Behavior</p> <p>Teacher Assessment of Social Behavior</p> <p>Parent surveys</p>	<p>negative effects of poor-quality care and received more benefits from high-quality care. These benefits were sustained through second grade.</p> <p>4. The quality of the classroom affects cognitive skills, and teacher-child relationship influences social skills.</p> <p>5. Children who attended higher-quality child care had better cognitive and social skills in second grade, even after taking into account kindergarten and second-grade classroom experiences.</p> <p>6. Children who experienced more positive classroom climates in child care had better relationships with peers in second grade.</p>
<p>Vandell & Corasaniti (1990)</p>	<p>236 predominantly middle-class 8-year-olds</p> <p>84% White, 8% Black, 3% Asian American</p> <p>72% two-parent families</p> <p>State with minimal child care standards</p>	<p>Retrospective parental recollections</p> <p>Teacher ratings of social, emotional, and academic functioning</p> <p>Classroom sociometric ratings</p> <p>Children's self-ratings</p> <p>Academic grades</p> <p>Conduct grades</p> <p>Standardized test scores</p>	<p>1. Children with more extensive child care experiences since infancy were rated as having poorer peer relationships, work habits, and emotional health.</p> <p>2. Extensive infant care was associated with poorer academic and conduct report card grades and lower standardized test scores.</p>
<p>Whitebook, Howes, & Phillips (1989) (National Child Care</p>	<p>227 day care centers</p> <p>High, middle, and low SES families</p>	<p>Early Childhood Environmental Rating Scale and Infant/Toddler Environmental Rating</p>	<p>1. Child care staff education and work environments affect quality of services</p>

Staffing Study)	1,309 teachers/staff were interviewed, and 260 children were assessed	Scale Scale of Staff Sensitivity Child Assessments of Waters and Deane Attachment Q-set and the Howes Peer Play Scale Feagans and Farran Adaptive Language Inventory Peabody Picture Vocabulary	children receive. 2. Children in lower-quality centers were less competent in language and social development.
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References: Cognitive Development

Andersson, B. E. (1989). Effects of public day care: A longitudinal study. *Child Development*, 60(4), 857-866. [EJ 398 179](#).

Burchinal, M. R., Roberts, J. E., Nabors, L. A., & Bryant, D. M. (1996). Quality of center child care and infant cognitive and language development. *Child Development*, 67(2), 606-620. [EJ 523 402](#).

Caughy, M. O., DiPietro, J. A., & Strobino, D. M. (1994). Day-care participation as a protective factor in the cognitive development of low income children. *Child Development*, 65(2), 457-471. [EJ 483 925](#).

Dunn, L. (1993). Proximal and distal features of day care quality and children's development. *Early Childhood Research Quarterly*, 8(2), 167-192. [EJ 467 475](#).

Howes, C., Smith, E., & Galinsky, E. (1995). *The Florida child care quality improvement study: Interim report*. New York: Families & Work Institue. [ED 388 408](#).

Peisner-Feinberg, E. S., & Burchinal, M. R. (1997). Relations between preschool children's child care experiences and concurrent development: The Cost, Quality, and Outcomes Study. *Merrill-Palmer Quarterly*, 43(3), 451-477. [EJ 554 326](#).

Peisner-Feinberg, E. S., Clifford, R. M., Culkin, M., Howes, C., & Kagan, S. L. (1999). The children of the Cost, Quality, and Outcomes Study go to school. Chapel Hill, NC: Frank Porter Graham Child Development Center, NCEDL. [ED 449 883](#).

Vandell, D. L., & Corasaniti, M. A. (1990). Variations in early child care: Do they predict subsequent social, emotional, and cognitive differences? *Early Childhood Research Quarterly*, 5(4), 555-572. [EJ 423 544](#).

Whitebook, M., Howes, C., & Phillips, D. (1989). *Who cares: Child care teachers and the quality of care in America: Final report of the National Child Care Staffing Study*. Oakland, CA: Child Care Employee Project. [ED 323 031](#).



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Child Care as Early Intervention

Reference	Sample Description	Measures	Results
Frank Porter Graham Child Development Center (1999) (Abecedarian Project)	Same sample from original study (above), followed through 1999	Language and cognitive tests Demographic data	<p>1. Young adults who received early educational intervention had significantly higher mental test scores from toddlerhood through age 21 than did those who were not in a treatment group.</p> <p>2. Enhanced language skills probably increased the effects of intervention on cognitive skills.</p> <p>3. Reading achievement scores were higher among those who received intervention. The differences between groups remained through age 21.</p> <p>4. Medium effects were seen for math achievement.</p> <p>5. Those who were treated were more likely to be in school at age 21.</p> <p>6. 35% of treatment group graduated from a 4-year college; 14% in control group graduated from a 4-year college.</p> <p>7. Intervention group</p>

			members were an average of 1 year older when their first child was born.
Ramey & Campbell (1991) (Abecedarian Project)	Approximately 90 children identified as being at-risk for academic underachievement Mostly African American	Wechsler Preschool and Primary Scale of Intelligence (at 60 months) Wechsler Intelligence Scale for Children-Revised (at 78 and 96 months) Academic achievement tests (in elementary grades) Classroom Behavior Inventory Child Behavior Checklist	1. Positive effects of intervention were reported on children's intellectual competence and academic achievement (reading and math). Less grade retention was also reported. 2. No significant effects were found in parents' perceptions of behavior. 3. These positive effects were proportional to the amount of intervention received.
Schweinhart, Barnes, Weikart, Barnett, & Epstein (1993) (The High/Scope Perry Preschool Study through Age 27)	123 children from African American families in Ypsilanti, MI (includes control with no preschool experience) Annual assessment from Ages 3 to 11 years Ages 14 to 15 years Age 19 years Age 27 years 4.9% cases missing	Demographic data	At age 27, program group had: 1. Significantly higher monthly earnings. 2. Significantly higher percentage of home ownership and second car ownership. 3. Significantly higher level of schooling completed (71% completed 12th grade or higher). 4. Significantly lower percentage receiving social services. 5. Significantly fewer arrests.
Wasik, Ramey, Bryant, & Sparling (1990)	64 infants judged to be at-risk for delayed development (assigned to three groups: child development center plus family education, family education, and control group)	Bayley Scales of Infant Development (at 6, 12, and 18 months) Stanford-Binet Intelligence Test (at 24, 36, and 48 months) McCarthy Scales of Children's Abilities (at 30, 42, and 54 months) HOME Inventory	1. After assessment at 6 months, subsequent scores on developmental assessments were greater for children in the child care plus family education group than in the other two groups.

	(Although the quality of the Frank Porter Graham Child Development Center was not assessed, this program is widely considered to be a high-quality program)	
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Specific Indicators of Child Care Quality

Reference	Sample Description	Indicators	Measures	Results
Arnett (1989)	<p>59 caregivers in 22 centers in Bermuda</p> <p>Children were preschool age</p> <p>Level 1: no training</p> <p>Level 2: two training courses</p> <p>Level 3: four-course Bermuda College training program</p> <p>Level 4: 4-year college education in ECE or related subject</p>	Caregiver training	<p>Paternity Modernity Scale (childrearing attitudes)</p> <p>Caregiver Interaction Scale</p>	<p>1. Training is related to attitudes and behavior of caregivers. Training is related to less authoritarian child-rearing attitudes, and more positive interaction style, less punitiveness, less detachment.</p> <p>2. Caregivers with Level 4 training were distinct from the other three groups—they were least authoritarian, highest in interaction factors, less punitive, and less detached.</p>
Gallagher, Rooney, & Campbell (1999)	<p>Licensing requirements in NC, CO, CT, and CA</p> <p>Results of the Cost, Quality, and Child Outcomes Study</p>	State licensing requirements		<p>1. State regulations focus more on child protection than they do on enhancing child development.</p> <p>2. Child care regulations do not match what we tend to call "quality."</p>
Ghazvini & Readdick (1994)	12 child care centers	Parent-caregiver communication	Parental Perceptions of	1. Caregivers rated all forms of

	subsidized and nonsubsidized centers		Communication Questionnaire Early Childhood Environmental Rating Scale	parent-caregiver communication as more important and occurring more frequently than did parents. 2. Frequency of parent-caregiver communication and quality of child care were positively correlated.
Howes (1997) (Analysis of Cost, Quality, and Outcomes Study, and Florida Quality Improvement Study)	Study 1: 655 full-day classrooms in CA, CO, CT, and NC; 760 children Study 2: 410 classrooms in FL; 820 children	Adult:child ratio Teacher background	Study 1: Teacher reports, Classroom Interaction Scale, Adult Involvement Scale, PPVT, WJ-R Study 2: Teacher reports, Adult Involvement Scale, Revised Peer Play Scale	1. Teachers with the most education were the most effective. 2. In the CQO Study, classrooms that complied with professional standards had more effective teachers and more positive child outcomes. 3. No interactive effects between ratio and teacher background were found.
Howes & Norris (1997)	100 family child care homes observed originally 28 providers who did enroll additional children were revisited	Group size Age mix	Family Day Care Environmental Rating Scale	1. Providers were similar in environmental quality scores before and after adding 2 additional school-age children. 2. Providers were rated as less sensitive on the post-enrollment visit. 3. Provider and children's activities were similar on the two visits.
Kontos, Howes, & Galinsky (1996)	130 family providers and 112 comparison providers in CA, TX, and NC Providers in study group received training	Provider training	Provider demographics Interviews Arnett Scale of Provider Sensitivity Adult Involvement	1. Providers who seek training are not substantially different in quality of care offered. 2. Training can have a modest positive effect on several

			Scale	aspects of quality and intentionality.
Love, Ryer, & Faddis (1992)	112 volunteer classrooms that were randomly assigned to staff:child ratios of 1:8, 1:9, and 1:10	Adult:child ratios Teacher training DAP Caregiver behavior	Family Day Care Rating Scale Classroom interview Staff characteristics interview Program director interview Assessment Profile for Early Childhood Programs Arnett Scale of Caregiver Behavior Preschool Classroom Snapshot Developmental Practices Inventory Child Stress Behavior Instrument Behavior Problem Index	1. Increasing staff ratios from 1:8 to 1:9 or 1:10 did not have a measurable effect on program quality. 2. Classrooms with higher ratings on structure variables had instructional activities and caregiver-child interactions that were more developmentally appropriate, and there was less crying and fighting observed among children. 3. In classrooms that were more developmentally appropriate, caregivers were more attentive and encouraging, less harsh and critical, and less detached in their interactions with children. 4. There was less stress behavior among children when caregivers were rated as being attentive and encouraging. 5. There was some evidence that caregivers with higher levels of EC training implemented more developmentally appropriate classrooms.
NICHD Early Child Care Research Network (1996)	576 infants in centers, child care homes, in-home sitting	Adult:child ratio Type of care	Observational Record of the Caregiving Environment	1. Caregivers were rated as providing more positive caregiving when

	<p>arrangements, with grandparents, and with fathers</p> <p>Age 6 months</p>	<p>Caregiver beliefs</p> <p>Environment</p>	<p>(developed by NICHD)</p> <p>HOME Inventory</p> <p>Assessment Profile for Early Childhood Programs</p> <p>Caregiver interviews and questionnaires</p>	<p>group sizes and child:adult ratios were smaller and when caregivers held less authoritarian beliefs about child rearing.</p> <p>2. In addition, small group size, and safe, clean, and stimulating physical environments were consistently associated with positive caregiving behaviors in each setting.</p>
Olenick (1989)	<p>204 classrooms in 100 centers in CA</p> <p>One-third subsidized programs</p>	<p>Adult:child ratios</p> <p>Training</p> <p>Work environment</p>	<p>Early Childhood Environmental Rating Scale</p> <p>Indirect costs</p> <p>Direct costs</p>	<p>1. Quality is affected by cost factors.</p> <p>2. Programs that allocate resources to staff are most likely to be high-quality programs.</p>
Phillipsen, Burchinal, Howes, & Cryer (1997)	<p>224 infant/toddler and 509 preschool classrooms</p> <p>Nonprofit and for-profit</p> <p>4 states: CA, CO, CT, and NC</p>	<p>State regulations</p> <p>Profit/nonprofit</p> <p>Caregiver characteristics</p> <p>Work environment</p>	<p>Early Childhood Environmental Rating Scale</p> <p>Infant/Toddler Environmental Rating Scale</p> <p>Caregiver Interaction Scale</p> <p>Teacher Involvement Scale</p>	<p>1. Overall, process quality (children's interactions with materials and adults) was higher in states with more stringent child care regulations, nonprofit centers, and preschool classrooms.</p> <p>2. In infant/toddler classrooms, process quality was higher in classrooms with moderately experienced and better paid teachers, and more experienced directors.</p> <p>3. In preschool classrooms, process quality was higher in classrooms with teachers with more education, a moderate amount of experience, and higher wages.</p>

<p>Scarr, Eisenberg, & Deater-Deckard (1994)</p>	<p>120 classrooms in each of 3 states (GA, VA, and MA)</p> <p>Ages less than 12 months to 60 months</p> <p>21% African American, 73% White</p> <p>Roughly equal groups of infants, toddlers, and preschoolers</p>	<p>Work environment, ratios, group size</p>	<p>Infant/Toddler Environmental Rating Scale</p> <p>Early Childhood Environmental Rating Scale</p> <p>Assessment Profile for Preschool Programs</p> <p>Waters & Deane Attachment Q-set</p> <p>Peer Play Scale (revised)</p>	<ol style="list-style-type: none"> 1. Highest wage paid to a teacher was best indicator of process quality. 2. Ratios, group sizes, and staff turnover were less well correlated with process quality. 3. More than 80% of classrooms had some appropriate caregiving and activities. 4. Children in better-quality classrooms were more securely attached to teachers and more competent with peers. 5. Variations in quality correlated with structural variables such as group size and ratios.
<p>Whitebook, Howes, & Phillips (1989)</p> <p>(National Child Care Staffing Study)</p>	<p>227 day care centers</p> <p>High, middle, and low SES families</p> <p>1,309 teachers/staff were interviewed, and 260 children were assessed</p>	<p>Staff characteristics such as training and education, wages, and work environment</p>	<p>Early Childhood Environmental Rating Scale</p> <p>Infant/Toddler Environmental Rating Scale</p> <p>Scale of Staff Sensitivity</p> <p>Child assessments of Waters & Deane Attachment Q-set</p> <p>Howes Peer Play Scale</p> <p>Feagans and Farran Adaptive Language Inventory</p> <p>Peabody Picture Vocabulary</p>	<ol style="list-style-type: none"> 1. Child care staff education and work environments affect quality of services children receive. 2. The most important predictor of quality of care received among adult work environment variables is staff wages. 3. Better-quality centers are more likely to be operated as nonprofits, accredited by NAEYC, and located in states with higher-quality standards.
<p>Whitebook, Howes, & Phillips (1998)</p>	<p>158 samples from original sample</p>	<p>Work environment</p>	<p>Telephone interviews with</p>	<ol style="list-style-type: none"> 1. Child care teaching staff

(National Child Care Staffing Study)			directors	<p>continue to earn unacceptably low wages, even in a sample of relatively high-quality centers.</p> <p>2. Increased public funding is rarely targeted to quality improvements (and so has not resulted in better wages or lower staff turnover).</p> <p>3. Child care centers continue to experience high turnover.</p> <p>4. Centers with lower turnover were rated higher in quality.</p> <p>5. Although health coverage has improved, majority of centers still offer limited or no health coverage.</p>
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References: Specific Indicators of Child Care Quality

Arnett, J. (1989). Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology, 10*(4), 541-552.

Gallagher, J. J., Rooney, R., & Campbell, S. (1999). Child care licensing regulations and child care quality in four states. *Early Childhood Research Quarterly, 14*(3), 313-333. [EJ 630 034](#).

Ghazvini, A. S., & Readdick, C. A. (1994). Parent-caregiver communication and quality of care in diverse child care settings. *Early Childhood Research Quarterly, 9*(2), 207-222. [EJ 493 682](#).

Howes, C. (1997). Children's experiences in center-based child care as a function of teacher background and adult:child ratio. *Merrill-Palmer Quarterly, 43*(3), 404-425. [EJ 554 324](#).

Howes, C., & Norris, D. J. (1997). Adding two school age children: Does it change quality in family child care? *Early Childhood Research Quarterly, 12*(3), 327-342. [EJ 561 598](#).

Kontos, S., Howes, C., & Galinsky, E. (1996). Does training make a difference to quality

in family child care? *Early Childhood Research Quarterly*, 11(4), 427-445. [EJ 550 957](#).

Love, J. M., Ryer, P., & Faddis, B. (1992). *Caring environments: Program quality in California's publicly funded child development programs*. Portsmouth, NH: RMC Research.

NICHD Early Child Care Research Network. (1996). Characteristics of infant child care: Factors contributing to positive caregiving. *Early Childhood Research Quarterly*, 11(3), 269-306. [EJ 534 662](#).

Olenick, M. (1989). *Early childhood environment quality and costs in the United States*. Paper presented at the American Educational Research Association Annual Conference, San Francisco, CA.

Phillipsen, L. C., Burchinal, M. R., Howes, C., & Cryer, D. (1997). The prediction of process quality from structural features of child care. *Early Childhood Research Quarterly*, 12(3), 281-303. [EJ 561 596](#).

Scarr, S., Eisenberg, M., & Deater-Deckard, K. (1994). Measurement of quality in child care centers. *Early Childhood Research Quarterly*, 9(2), 131-151. [EJ 493 678](#).

Whitebook, M., Howes, C., & Phillips, D. (1989). *Who cares: Child care teachers and the quality of care in America: Final report of the National Child Care Staffing Study*. Oakland, CA: Child Care Employee Project. [ED 323 031](#).

Whitebook, M., Howes, C., & Phillips, D. (1998). *Worthy work, unlivable wages: The National Child Care Staffing Study, 1988-97*. Washington, DC: Center for the Child Care Workforce. [ED 419 614](#).

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Effects of Overall Child Care Quality

Reference	Sample Description	Quality Index	Measures	Results
Cost, Quality, and Child Outcomes Study Team (1995)	826 children in 181 centers Age 4 Centers in CA, CO, CT, and NC 15% African American, 68% White, 6% Hispanic, 4% Asian 63% of mothers have less than a bachelor's degree	Ratios Staff education and training Staff wages Experience of administrators Early Childhood Environmental Rating Scale Infant/Toddler Environmental Rating Scale	Early Childhood Environmental Rating Scale Infant/Toddler Environmental Rating Scale Staff questionnaires (from National Child Care Study) Caregiver Interaction Scale Teacher Involvement Scale Peabody Picture Vocabulary Test Woodcock-Johnson Tests of Achievement-Revised Classroom Behavior Inventory Student-Teacher Relationship Scale Attitudes/Perceptions of Competence Scale	1. Quality correlated with higher child:staff ratios, staff education, and experience of administrator. 2. Wages, education, and specialized training most important in differentiating between poor-, mediocre-, and good-quality centers. 3. Higher classroom quality index was associated with positive greater receptive language ability, higher premath skills, more advanced social skills, and more positive self-perceptions. 4. Effect of quality on receptive language was greater for minority children. 5. States with better licensing

				standards had fewer poor-quality centers. 6. Quality was poor to mediocre in nearly half of infant/toddler rooms; parents overestimated quality of care.
Howes (1988)	75 children enrolled in laboratory elementary school 12% African American, 69% White, 12% Hispanic, 6% Asian Mother's median education level = 14 years 70% two-parent families Child care experience at age 4: follow-up at first grade	Observational measures of classroom quality	Observational measures of classroom quality Teacher ratings of child outcomes	1. For girls, stable child care arrangements predicted academic skills, controlling for family characteristics. 2. For boys, stable arrangements and high-quality care predicted academic skills, controlling for family characteristics. 3. For both boys and girls, high-quality care predicted enhanced school skills and low behavior problems.
Howes & Smith (1995)	840 children 435 girls Center-based Ages 10 to 70 months 66% White, 34% African American 150 centers in FL	Early Childhood Environmental Rating Scale Infant/Toddler Environmental Rating Scale Teacher education and training	Attachment Q-set Early Childhood Environmental Rating Scale Infant/Toddler Environmental Rating Scale	1. Quality was minimally adequate. 2. Classrooms with more educated and trained teachers had higher Infant/Toddler Environmental Rating Scale and Early Childhood Environmental Rating Scale scores. 3. Children's cognitive activity is enhanced in classrooms rich in creative play activities and staffed by teachers who engage children in positive

				social interaction.
Kontos & Keyes (1999)	60 children (26 male) in 3 programs Middle to upper-middle SES Majority European American 6 non-native English speakers (fluent)	DAP criteria Teacher education	Observations via scan sampling Howes Involvement Scale	1. The probability of children engaging in complex interactions with objects and peers was related to classroom factors rather than to child characteristics. 2. Teacher interaction had no main effects on children's interactions with objects or peers.
Peisner-Feinberg, Clifford, Yazejean, Culken, Howes, & Kagan (1998)	Subsample from Cost, Quality, and Outcomes Study 826 children in year 1 560 children in year 2 448 children in year 3 One-half boys One-third ethnically diverse	Early Childhood Environmental Rating Scale Caregiver Interaction Scale UCLA Early Childhood Observation Form Adult Involvement Scale	Early Childhood Environmental Rating Scale Caregiver Interaction Scale UCLA Early Childhood Observation Form Adult Involvement Scale Peabody Picture Vocabulary Test-Revised Woodcock-Johnson Tests of Achievement-Revised Classroom Behavior Inventory Student-Teacher Relationship Scale	1. Children in better-quality child care have better cognitive and social outcomes. 2. These benefits apply to all children. 3. These benefits do last through the early school years.
Phillips, Scarr, & McCartney (1987)	166 children in 9 centers 78% Black Bermudians, 22% White	Staff:child ratios Director experience Caregiver	Early Childhood Environmental Rating Scale Interviews	1. Children in higher-quality care were rated by their parents as more considerate and sociable.

<p>Bermudians</p> <p>68% two-parent families</p> <p>85% spent most of work week in day care by age 2 years</p> <p>Ages 3 to 5½ years</p> <p>3-month study, each center visited 3 times</p>	<p>turnover</p> <p>Child-adult verbal interactions</p>	<p>Assessment of child-adult verbal interactions</p> <p>Peabody Picture Vocabulary Test-Revised</p> <p>Preschool Language Assessment Instrument</p> <p>Preschool Behavior Questionnaire</p> <p>Classroom Behavior Inventory</p> <p>Parent questionnaires</p> <p>Parent as Educator Interview</p>	<p>2. Children in higher-quality care were rated by their teachers as more intelligent, more task oriented, and more anxious.</p> <p>3. Quality of care was predictive of verbal intellectual functioning.</p> <p>4. Age of entry and time in day care were poor predictors of children's development.</p> <p>5. Amount of adult-child verbal interaction was a strong predictor of positive child outcomes.</p> <p>6. Director experience was a strong predictor of positive child outcomes.</p> <p>7. Verbal intelligence and language development was affected by staff:child ratios.</p>
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References: Effects of Overall Child Care Quality

Cost, Quality, and Child Outcomes Study Team. (1995). *Cost, quality, and child outcomes in child care centers, technical report*. Denver: Department of Economics, Center for Research in Economics and Social Policy, University of Colorado. [ED 386 297](#).

Howes, C. (1988). Relations between early child care and schooling. *Developmental Psychology*, 24(1), 53-57. [EJ 367 899](#).

Howes, C., & Smith, E. W. (1995). Relations among child care quality, teacher behavior, children's play activities, emotional security, and cognitive activity in child care. *Early Childhood Research Quarterly*, 10(4), 381-404. [EJ 516 735](#).

Kontos, S., & Keyes, L. (1999). An ecobehavioral analysis of early childhood classrooms. *Early Childhood Research Quarterly*, 14(1), 35-50. [EJ 586 523](#).

Peisner-Feinberg, E., Clifford, R., Yazejean, N., Culken, M., Howes, C., & Kagan, S. (1998). *The longitudinal effects of child care quality: Implications for kindergarten success*. Presentation at the American Educational Research Association Annual Meeting, San Diego, CA.

Phillips, D. A., Scarr, S., & McCartney, K. (1987). Dimensions and effects of child care quality: The Bermuda study. In D. A. Phillips (Ed.), *Quality in child care: What does research tell us?* (pp. 43-46). Washington, DC: National Association for the Education of Young Children.

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Effects of Age of Entry

Reference	Sample Description	Age of Entry	Measures	Results
Andersson (1989)	119 Swedish children from their first year up to the age of 8 years Ages 3 and 4 years at start of study	6 months or older	Cognitive measures Social competence	1. Children entering day care at an early age performed significantly better on cognitive tests and received more positive ratings from their teachers in terms of school achievement and social-personal attributes than did children entering day care at later ages and those in home care. 2. The author hypothesizes that two factors contribute to these positive results: Sweden's policy of providing for parents to stay home with children for the first 6 months of their lives and the generally high quality of Swedish day care.
Caughy, DiPietro, & Strobino (1994)	867 children from the National Longitudinal Survey of Youth (464 boys) 47% non-Black/non-Hispanic; 34% Black; 19% Hispanic Ages 5 to 6 years	Under age 1	HOME scale (shortened version) Peabody Individual Achievement Test	1. Children from "impoverished home environments" who attended day care during the first 3 years of life scored higher on reading recognition tests and math tests.

				2. The effects on reading scores were greatest for children who began day care before the age of 1.
Howes (1990)	80 children (same children examined in Howes & Olenick (1986)) 8 centers 9% African American, 74% White, 13% Hispanic, 1% Asian 76% two-parent families Ages 3 to 7 years (were 1½ to 3 years old in 1986)	Infancy	Observational assessment and caregiver reporting of classroom quality measures Direct assessment and parent and teacher ratings of child outcomes	1. Preschool children attending high-quality centers engaged in more social pretend activities, displayed more "positive affect" relative to angry and distressed behavior, and were rated by teachers as having sociable relations with peers. 2. Kindergarten children who entered lower-quality centers as infants were rated by teachers as more distractible, less task oriented, and less considerate compared with children who entered higher-quality centers as infants. 3. Among children enrolled as infants, child care quality (teacher socialization practices) best predicted child outcomes; among children enrolled as toddlers or preschoolers, family socialization practices best predicted child outcomes.

References: Effects of Age of Entry

Andersson, B. E. (1989). Effects of public day-care: A longitudinal study. *Child Development, 60*(4), 857-866. [EJ 398 179](#).

Caughy, M. O., DiPietro, J. A., & Strobino, D. M. (1994). Day-care participation as a protective factor in the cognitive development of low income children. *Child Development, 65*(2), 457-471. [EJ 483 925](#).

Howes, C. (1990). Can the age of entry into child care and the quality of child care predict adjustment in kindergarten? *Developmental Psychology*, 26(2), 292-303. [EJ 409 102](#).

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Effects of Child's Total Experience in Child Care

Reference	Sample Description	Measures	Results
Bryant, Lau, Burchinal, & Sparling (1994)	145 Head Start children, 146 parents, and 32 teachers	Early Childhood Environmental Rating Scale DAP questionnaire for teachers Home Screening Questionnaire Kaufman Assessment Battery for Children Preschool Inventory Vineland Communication Domain Adaptive Social Behavior Inventory	1. 9% of classrooms met criteria for "good" on Early Childhood Environmental Rating Scale. 2. 71% of homes found to be "suspect," indicating little developmental stimulation. 3. No relationship between teacher variables and classroom quality were found. 4. Classroom quality did predict child outcomes on K-ABC Mental Processing and Achievement batteries and on the PSI measuring preacademic skills. 5. Teacher rating of child behavior was not related to quality of classroom or home environments.
Clarke-Stewart, Gruber, & Fitzgerald (1994)	150 (at the beginning of study) children in a variety of child care and home settings	Observations of home and child care settings Interviews with parents and	1. Children at home and children in day care had completely different experiences

	<p>84 boys</p> <p>Ages 24 to 48 months</p>	<p>caregivers</p> <p>Children's cognitive and social development</p>	<p>during the day.</p> <p>2. Children who were in child care centers were consistently more advanced in their development than were children who stayed home with mothers.</p> <p>3. These advances were in cognitive development, social development, independence, dinnertime obedience, compliance requests, and social interactions with peers.</p> <p>4. Children who spent more time in day care were most advanced in several areas, although this relationship was more complex.</p> <p>5. Aspects of high-quality day care that seemed to be important in predicting development were structured learning opportunities, adult:child ratio and class size, opportunities to interact with other children, and a stimulating physical setting.</p>
Epstein (1999)	<p>109 Head Start classrooms</p> <p>72 public school early childhood classrooms</p> <p>110 private, nonprofit early childhood classrooms</p>	<p>Teacher interviews</p> <p>Arnett Global Rating Scale</p> <p>Early Childhood Environmental Rating Scale</p> <p>High/Scope Program Quality Assessment</p>	<p>1. Program quality in public schools was generally higher than other settings, especially in areas of teacher affect, motor development, and opportunities for plan and review.</p>

	<p>Two-thirds High/Scope</p> <p>200 children</p> <p>58% single-parent families</p> <p>33% African American, 6% Latino American, 4% Middle Eastern American, 1% Native American</p> <p>Ages 3 to 5 years</p>	<p>High/Scope Child Observation Record</p> <p>Development Indicators for Assessment of Learning-Revised (DIAL-R)</p>	<p>2. The average level of program quality in all three settings was high (higher than in other current studies).</p> <p>3. Center-based programs receiving subsidies are capable of operating at good or better levels of quality.</p>
Field (1991)	<p>Study 1: 28 children, 5 to 8 years, middle SES</p> <p>Study 2: 56 children (11.5 average age), middle SES</p> <p>Heterogeneous samples of race/ethnicity (including African American, White, Hispanic)</p>	<p>Child variables: self-drawing, Piers-Harris Self-Esteem, Internalizer/Externalizer, Behavior Rating Scale</p> <p>Parent/teacher variables: Internalizer/Externalizer, demographics</p> <p>Quality Indicators:</p> <p>For infants: separate sleep and play areas, teacher:infant ratio of 1:4</p> <p>For toddlers: play areas, outdoor play, preschool prep curriculum, ratio of 1:5</p> <p>For both: highly educated, stable teachers, with a positive atmosphere and high teacher morale</p>	<p>1. Study 1: Amount of time spent in full-time center care was positively correlated to the number of friends and extracurricular activities of the children. More time in the center was positively related to parents' ratings of the children's emotional well-being, leadership, popularity, attractiveness, and assertiveness, and negatively related to aggressivity.</p> <p>2. Study 2: The more time spent in high-quality day care, the higher teachers rate children on emotional well-being, attractiveness, and assertiveness. The more time spent in high-quality day care, the more these children showed physical affection during peer interactions, were more often assigned to gifted programs, and received higher math grades.</p>
Howes, Olenick, & Der-Kiureghian (1987)	<p>30 kindergarten children (19 boys) attending one after-school program</p>	<p>Sociometric interview</p> <p>Behavior observation, including child-teacher and child-peer interactions</p>	<p>1. Children who attended the after-school program were more likely to be nominated as friends.</p>

	One-third from single-parent families 15% special needs		2. The after-school experiences of these children were both complementary and continuous with their experiences in school.
Kontos (1991)	100 children in 10 centers Predominantly White Range of SES and urban/rural families 57% two-parent families Ages 3 to 5 years	Child Development Program Evaluation-Indicator Checklist Caregiver Observation Form Early Childhood Environmental Rating Scale Slosson Intelligence Test Test of Early Language Development Adaptive Language Inventory Preschool Behavior Questionnaire Classroom Behavior Inventory	1. Family background variables were significantly related to several measures of children's cognitive and language development. 2. Overall quality (a measure of a minimum level of quality) predicted better social adjustment scores and fewer behavior problems among children, controlling for family background and child care experience. 3. Age of entry into child care and duration of the child care experience were not significant predictors of child development outcomes.

References: Effects of Child's Total Experience in Child Care

Bryant, D. M., Lau, L. B., Burchinal, M., & Sparling, J. J. (1994). Family and classroom correlates of Head Start children's developmental outcomes. *Early Childhood Research Quarterly*, 9(3-4), 289-310. [EJ 495 302](#).

Clarke-Stewart, K. A., Gruber, C. P., & Fitzgerald, L. M. (1994). *Children at home and in day care*. Mahwah, NJ: Lawrence Erlbaum Associates. [ED 385 343](#).

Epstein, A. S. (1999). Pathways to quality in Head Start, public school, and private non-profit early childhood programs. *Journal of Research in Childhood Education*, 13(2), 101-119. [EJ 610 250](#).

Field, T. (1991). Quality infant day-care and grade school behavior and performance. *Child Development*, 62(4), 863-870. [EJ 436 394](#).

Howes, C., Olenick, M., & Der-Kiureghian, T. (1987). After-school child care in an elementary school: Social development and continuity of programs. *Elementary School*

Journal, 88(1), 93-103. [EJ 359 904](#).

Kontos, S. J. (1991). Child care quality, family background, and children's development. *Early Childhood Research Quarterly*, 6(2), 249-262. [EJ 431 704](#).

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Relations between Family and Child Care

Reference	Sample Description	Measures	Results
Cryer & Burchinal (1997)	100 programs in CA, CO, NC, and CT (50 for profit, 50 nonprofit) 2,407 responses to preschool parent questionnaire and 727 responses to infant/toddler questionnaire Parents were mostly White (81%) and middle SES	Early Childhood Environmental Rating Scale Infant/Toddler Environmental Rating Scale Parent-adapted versions of Early Childhood Environmental Rating Scale and Infant Toddler Environmental Rating Scale Classroom observers	1. Parents gave high importance to scores for all aspects of care, with higher scores for interactions and health and safety items. 2. Parents gave their children's quality of care significantly higher ratings than did observers. 3. Easy to monitor aspects of care were rated more closely by observers and parents. 4. As parental values increased for an aspect of care, the difference between parent and observer quality scores increased.
Ghazvini & Readdick (1994)	12 child care centers Subsidized and nonsubsidized centers	Parental Perceptions of Communication Questionnaire Early Childhood Environmental Rating Scale	1. Caregivers rated all forms of parent-caregiver communication as more important and occurring more frequently than did parents. 2. Frequency of parent-caregiver communication and quality of child care were positively correlated.
Hofferth, Brayfield, Deich, & Holcomb (1991)	4,400 parents or guardians of children under the age of 13 (including families using care by relatives)	Telephone interviews	1. Quality was the characteristic most often cited in selecting their current arrangement.

	<p>312 providers</p> <p>National sample</p>		<p>2. Parents cited provider-related aspects of quality as being the most important factor in choosing care.</p> <p>3. 96% of parents were either very satisfied or satisfied with their current arrangement.</p> <p>4. Families who desired a change cited quality as the reason and most often wanted to switch to a center or preschool.</p>
<p>Holloway & Reichhart-Erickson (1989)</p>	<p>55 children from 15 programs (32 boys)</p> <p>52 Caucasian, 2 Black, and 1 Asian American</p> <p>Age 4 years</p>	<p>Adapted version of Spivack and Shure's problem-solving procedure</p> <p>Observations</p> <p>Teacher ratings of social competence</p> <p>Early Childhood Classroom Observation Scale</p>	<p>1. Mothers of socially competent children expected earlier acquisition of developmental skills.</p> <p>2. Socially competent children attended programs with smaller classes and higher-quality caregiver-child interactions.</p> <p>3. Mothers who expected early acquisition of developmental skills and those of higher SES tended to place their children in higher-quality child-care settings.</p> <p>4. Caregiver-child interactions and group size contributed independently to children's social competence (controlling for home variables).</p>
<p>Kontos, Howes, Shinn, & Galinsky (1995)</p>	<p>820 mothers, 225 children, and 226 providers in CA, TX, and NC</p>	<p>Arnett Scale of Caregiver Sensitivity</p>	<p>1. Parents and providers agreed on most important elements: child safety, parent-provider</p>

	<p>42% White, 23% African American, 31% Hispanic</p> <p>Heterogeneous social classes and maternal educational levels</p> <p>81% 2-parent families</p> <p>Ages 10 months to 5 years</p>	<p>Howes Involvement Scale</p> <p>Family Day Care Rating Scale</p> <p>Waters & Deane Attachment Q-set</p> <p>Smilansky's Cognitive Play Scale</p> <p>Limit Setting Measure</p> <p>Block & Block Child Rearing Attitudes Scale</p> <p>Adult Work Environment</p> <p>Providers' Perceptions of Quality</p>	<p>communication about child, warm relationship between provider and child.</p> <p>2. 41% of mothers cited cost or convenience as important in their choice (often second).</p> <p>3. 91% of mothers would choose the same provider again.</p> <p>4. Children with more educated mothers and more responsive caregivers engaged in more high-level object play.</p> <p>5. Higher global quality was related to more object play, more high-level object play, and better child attachment security. However, higher global quality was related to less high-level peer play.</p> <p>6. Neither family background characteristics nor child care characteristics predicted children's language development or social adjustment.</p> <p>7. Maternal working conditions and number of hours worked were unrelated to all aspects of children's development.</p>
Schliecker, White, & Jacobs (1991)	<p>100 children in 10 centers</p> <p>Predominantly White</p> <p>Range of SES</p> <p>63% two-parent families</p> <p>Age 4 years</p>	<p>Observational assessment of classroom quality</p> <p>Direct assessment of child outcomes</p>	<p>1. Day care quality (measured dichotomously) and socioeconomic status (a combined measure of income, occupation, education, and family structure) both significantly predicted vocabulary comprehension.</p> <p>2. Day care quality may be particularly important for single-parent, female-headed households.</p>
Smith & Hubbard (1988)	<p>60 children, as well as their parents and teachers in New Zealand</p>	<p>Daily parent records</p> <p>Interviews of parents and staff</p>	<p>1. When staff talked more with parents, and the relationship was warm and balanced, children talked</p>

	41 to 60 months old	<p>Rating scales for parents on parent-staff communication</p> <p>Observations of children's behavior</p> <p>Child-parent interactions</p> <p>Child-teacher interactions</p> <p>Child-peer interactions</p>	<p>more with their teachers.</p> <p>2. Staff ratings of reciprocity and positive relationships with parents were related positively to child adjustment.</p> <p>3. More talk between teachers and parents was related to fewer negative interactions between children and their peers.</p>
Sonenstein & Wolf (1991)	382 AFDC mothers with children under 6 in Boston, Charlotte, and Denver, in 1983	<p>Staff:child ratios</p> <p>Teacher training in child development</p> <p>Ratings by mothers on caregiver experience, learning opportunities for children, adequacy of supervision, discipline, safety, the ability to meet emotional needs of child, child feelings about caregiver, child's happiness, convenience, dependability, and cost</p>	<p>1. Mother's ratings resulted in no particular arrangement looking superior.</p> <p>2. Convenient hours and adequate adult supervision were valued for preschoolers.</p> <p>3. Low adult:child ratios and convenience were valued for children under 3 years old.</p> <p>4. Child learning opportunities, happiness, and lower levels of caretaker experience were important for older preschoolers.</p> <p>5. Type of care used was not directly associated with satisfaction.</p>

References: Relations between Family and Child Care

Cryer, D., & M. Burchinal. (1997). Parents as child care consumers. *Early Childhood Research Quarterly*, 12(1), 35-58. [EJ 551 027](#).

Ghazvini, A. S., & Readdick, C. A. (1994). Parent-caregiver communication and quality of care in diverse child care settings. *Early Childhood Research Quarterly*, 9(2), 207-222. [EJ 493 682](#).

Hofferth, S. L., Brayfield, A., Deich, S., & Holcomb, P. (1991). *National Child Care Survey, 1990*. Washington, DC: Urban Institute Press.

Holloway, S., & Reichhart-Erickson, M. (1989). Child-care quality, family structure, and maternal expectations: Relationship to preschool children's peer relations. *Journal of*

Applied Developmental Psychology, 10(3), 281-298.

Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press. [ED 390 536](#).

Schliecker, E., White, D. R., & Jacobs, E. (1991). The role of day care quality in the prediction of children's vocabulary. *Canadian Journal of Behavioural Science*, 23(1), 12-24.

Smith, A. B., & Hubbard, P. M. (1988). The relationship between parent/staff communication and children's behaviour in early childhood settings. *Early Childhood Development and Care*, 35, 13-28. [EJ 385 967](#).

Sonenstein, F. L., & Wolf, D. A. (1991). Satisfaction with child care: Perspectives of welfare mothers. *Journal of Science Issues*, 47(2), 15-31.

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Family Child Care

Reference	Sample Description	Measures	Results
Fischer & Eheart (1991)	177 family day care providers (59 unlicensed) 1 non-English speaking	Telephone interviews Family Day Care Rating Scale	1. Training, affiliation with support networks, and years of schooling explain 69.82% of variations in caregiving practices. 2. Overall quality of care in family day care was low.
Goelman & Pence (1987)	105 children in 53 centers and 52 family day care providers Predominantly White (Canadian) SES varied 50% two-parent families Approximate ages 3 to 4 years (ages not provided)	Observational assessment and parent ratings of classroom quality Direct assessment of child outcomes (language, peer interactions)	1. Among children attending center-based care, quality of care did not predict language development scores. 2. Children in center-based care engaged in more high-quality "information activities" than did children in family day care. 3. However, for children in family day care, the amount of "information activities" was not related to quality. 4. Children attending high-quality family day care homes had higher average scores for language development than did children attending lower-quality family day care homes.
Howes & Stewart (1987)	55 children in 55 family day care homes	Observational assessment of family day care quality	1. More changes of family day care provider were

	<p>Heterogeneous social classes and parent educational levels (including 18% low SES)</p> <p>82% two-parent families</p> <p>Ages 11 to 30 months</p>	<p>Direct assessment and observer ratings of child outcomes</p>	<p>associated with lower-level play with objects and peers.</p> <p>2. For boys, earlier child care entry and fewer changes in provider were also associated with higher-level play with objects.</p> <p>3. Higher overall quality of care was related to higher levels of competent play with adults and with objects. For girls, the relationship was also significant for higher-level play with peers.</p>
Kontos (1994)	<p>57 children and 30 family day care providers</p> <p>Middle SES</p> <p>82% two-parent families</p> <p>Ages 2½ to 4 years</p>	<p>Childrearing Practices Report</p> <p>Questionnaire on Social Support</p> <p>Cognitive Play Scale</p> <p>Peabody Picture Vocabulary Test-Revised</p> <p>Howes Peer Play Scale</p> <p>Classroom Behavior Inventory</p> <p>Family Day Care Rating Scale</p>	<p>1. Children in family day care homes that were rated at a higher level of overall quality were significantly less likely to engage in simple cognitive and social play, were rated as significantly more sociable, and scored higher in receptive vocabulary, controlling for maternal education, caregiver experience, and conditions of caregiving.</p> <p>2. Children in higher-quality family day care homes who had mothers with more education and caregivers with less experience were rated as significantly more sociable.</p> <p>3. Children in higher-quality family day care homes who had mothers with a higher level of education scored higher in receptive vocabulary.</p>
Kontos, Howes, Shinn, & Galinsky (1995)	<p>820 mothers, 225 children, and 226 providers in CA, TX, and NC</p>	<p>Arnett Scale of Caregiver Sensitivity</p> <p>Howes Involvement Scale</p>	<p>1. Parents and providers agreed on most important elements: child safety, parent-provider</p>

	<p>42% White, 23% African American, 31% Hispanic</p> <p>Heterogeneous social classes and maternal educational levels</p> <p>81% 2-parent families</p> <p>Ages 10 months to 5 years</p>	<p>Family Day Care Rating Scale</p> <p>Waters & Deane Attachment Q-set</p> <p>Smilansky's Cognitive Play Scale</p> <p>Limit Setting Measure</p> <p>Block & Block Child Rearing Attitudes Scale</p> <p>Adult Work Environment</p> <p>Providers' perceptions of quality</p>	<p>communication about child, warm relationship between provider and child.</p> <p>2. Provider sensitivity and responsiveness correlated with children being more attached to the caregiver.</p> <p>3. Higher-quality providers committed to work seek learning opportunities, plan, seek out other providers, are regulated, have more children, charge more, and use standard business practices.</p> <p>4. Children who spent more time with their caregiver, were cared for in homes with more children per adult, and had caregivers who used more responsive interactions engaged in greater amount of play with objects; children with more educated mothers and more responsive caregivers engaged in more high-level object play.</p> <p>5. Larger group size and child:staff ratios were related to more peer play.</p> <p>6. Higher global quality was related to more object play, more high-level object play, and better child attachment security. However, higher global quality was related to less high-level peer play.</p> <p>7. Neither family background characteristics nor child care characteristics predicted children's language development or social adjustment.</p>
<p>Kontos, Howes, Shinn, & Galinsky (1997)</p>	<p>186 child care providers to African American, European American, and</p>	<p>Provider demographics</p> <p>Arnett Scale of Provider</p>	<p>1. Providers for moderate-income children were rated as more</p>

	<p>Latino children</p> <p>More than half of children were from very-low-income or low-income families</p>	<p>Sensitivity</p> <p>Adult Involvement Scale</p> <p>Family Day Care Rating Scale</p> <p>Howes Peer Play Scale (revised)</p> <p>Object Play Scale</p>	<p>sensitive than providers for very-low-income children.</p> <p>2. Latino children were more uninvolved with objects and watched more television than did European American children.</p> <p>3. The majority of children were cared for by a provider in the same ethnic group.</p>
<p>Kontos, Hsu, & Dunn (1994)</p>	<p>60 caregivers in 30 classrooms and 24 child care centers</p> <p>117 children (55 boys, 60 in centers)</p> <p>Ages 30 to 60 months</p>	<p>Group size and adult:child ratio</p> <p>Childrearing Practices Report</p> <p>Adult-child interactions</p> <p>Early Childhood Environmental Rating Scale</p> <p>Family Day Care Rating Scale</p> <p>2 cognitive play scales</p> <p>Slosson Intelligence Test</p> <p>Peer Play Scale</p> <p>Classroom Behavior Inventory-Preschool</p>	<p>1. There were significant differences in structure, process, and global quality characteristics between family day care homes and child care centers.</p> <p>2. There were no differences in children's level of sociability between center care and home care.</p> <p>3. Variations in caregiver training and how they interact with children make a difference to children's cognitive and social competence.</p>

References: Family Child Care

Fischer, J. L., & Eheart, B. K. (1991). Family day care: A theoretical basis for improving quality. *Early Childhood Research Quarterly*, 6(4), 549-563. [EJ 441 878](#).

Goelman, H., & Pence, A. R. (1987). Effects of child care, family, and individual characteristics on children's language development: The Victoria Day Care Research Project. In D. Phillips (Ed.), *Quality in child care: What does the research tell us? Research Monographs of the National Association for the Education of Young Children* (pp. 43-56). Washington, DC: NAEYC.

Howes, C., & Stewart, P. (1987). Child's play with adults, toys, and peers: An examination of family and child-care influences. *Developmental Psychology*, 23(3), 423-430. [EJ 355 917](#).

Kontos, S. (1994). The ecology of family day care. *Early Childhood Research Quarterly*, 9(1), 87-110. [EJ 489 929](#).

Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press. [ED 390 536](#).

Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1997). Children's experiences in family child care and relative care as a function of family income and ethnicity. *Merrill-Palmer Quarterly*, 43(3), 386-403. [EJ 554 323](#).

Kontos, S., Hsu, H., & Dunn, L. (1994). Children's cognitive and social competence in child care centers and family day-care homes. *Journal of Applied Developmental Psychology*, 15(3), 387-411.

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Child Care in Inclusive Settings

Reference	Sample Description	Measures	Results
Buyse, Wesley, Bryant, & Gardner (1999)	180 child care centers in 12 regions of NC	Early Childhood Environmental Rating Scale	<p>1. 34% of the early childhood programs reported enrolling at least one child with disabilities.</p> <p>2. Inclusive programs scored significantly higher on the Early Childhood Environmental Rating Scale than did noninclusive programs</p> <p>3. Teacher education, professional experience, and teacher self-ratings of knowledge and skill were predictors of global program quality.</p>
File & Kontos (1993)	<p>28 children in 6-12 center classrooms</p> <p>50% had mild or moderate cognitive and/or speech and language delays</p> <p>Ages 2½ to 6 years</p>	<p>Observational Assessment of Quality</p> <p>Direct assessment of child outcomes</p>	<p>1. Positive teacher interactions with children were related to a higher level of children's social play.</p> <p>2. Less teacher involvement in routine activities, less watching, less support of cognitive play, and more overall teacher uninvolved were also related to higher levels of social play.</p> <p>3. Children's experiences with their teachers were not related to their level of cognitive play.</p>

La Paro, Sexton, & Snyder (1998)	58 community-based early childhood settings with at least one child with disabilities	Early Childhood Environmental Rating Scale	1. Segregated and inclusive settings highly similar on global DAP ratings.
	29 segregated/29 inclusive	Classroom Practices Inventory (CPI)	2. Levels of quality moderately good in both types of settings.
	Ages 3 to 5 years	Teacher Beliefs Scale (TBS)	
		Instructional Activities Scale	

References: Child Care in Inclusive Settings

Buyse, V., Wesley, P., Bryant, D., & Gardner, D. (1999). Quality of early childhood programs in inclusive and noninclusive settings. *Exceptional Children*, 65(3), 301-314. [EJ 593 058](#).

File, N., & Kontos, S. (1993). The relationship of program quality to children's play in integrated early intervention setting. *Topics in Early Childhood Special Education*, 13(1), 1-18. [EJ 462 491](#).

La Paro, K., Sexton, D., & Snyder, P. (1998). Program quality characteristics in segregated and inclusive early childhood settings. *Early Childhood Research Quarterly*, 13(1), 151-167. [EJ 569 114](#).

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Barnett, W. S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *Future of Children*, 5(3), 25-50. EJ 523 962.

Belsky, J. (1988). The "effects" of infant day care reconsidered. *Early Childhood Research Quarterly*, 3(3), 235-272. ED 290 561.

Blau, D. M. (Ed.). (1991). *The economics of child care*. New York: Russell Sage Foundation. ED 401 025.

Booth, A. (Ed.). (1992). *Child care in the 90s: Trends and consequences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Frank Porter Graham Center. (1997). Quality in child care centers. *Early Childhood Research & Policy Briefs*, 1(1). ED 417 827. Available: <http://www.fpg.unc.edu/~ncedl/PDFs/brief11.pdf>

Gomby, D. S., Larner, M. B., Stevenson, C. S., Lewit, E. M., & Behrman, R. W. (1995). Long term outcomes of early childhood programs: Analysis and recommendations. *Future of Children*, 5(3), 6-24. EJ 523 961.

Hayes, C. D., Palmer, J. L., & Zaslow, M. J. (Eds.). (1990). *Who cares for America's children? Child care policy for the 1990s*. Washington, DC: National Academy Press. ED 319 523.

Love, J. M. (1998). Quality in child care centers. *Education Digest*, 63, 51-53.

Phillips, D. A. (1987). *Quality in child care: What does the research tell us?* Washington, DC: National Association for the Education of Young Children.

Scarr, S. (1998). American child care today. *American Psychologist*, 53(2), 95-108.

Scarr, S., & Eisenberg, M. (1993). Child care research: Issues, perspectives, and results. *Annual Review of Psychology*, 44, 613-644.

Whitebook, M., Howes, C., & Phillips, D. (1989). Research report. Who cares? Child care teachers and the quality of care in America. *Young Children*, 45(1), 41-45. [EJ 399 536](#).

Zaslow, M. J. (1991). Variation in child care quality and its implications for children. *Journal of Social Issues*, 47(2), 125-138.

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