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INFANT AND TODDLER CHILD CARE QUALITY

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The Research-to-Policy Connections series summarizes current research on key topics in child care and early education and discusses implications for policymakers. The first three briefs in this series focus on early care and education for children under age 3—infants and toddlers—in the United States:

- ▶ *Infant and Toddler Child Care Arrangements*
- ▶ *Infant and Toddler Child Care Quality*
- ▶ *Impact of Training and Education for Caregivers of Infants and Toddlers*

Overview

With over half the nation's infants and toddlers in regular, nonparental child care,* the quality of that care is a priority concern for policymakers. Many studies show that high-quality child care supports the positive social, emotional, and cognitive development of young children.¹ The research summarized in this policy brief identifies factors that tend to predict higher quality within arrangement types—family child care, center care, and relative care—and describes the range of quality found in each type.

Although different studies measure child care quality in different ways, many researchers group quality measures into two categories, *structural* and *process*. Both examine factors that support the responsive and reliable relationships with caregivers so essential for the healthy development of infants and toddlers. Structural measures—child-staff ratio and group size, caregivers' general education and specialized training, their tenure and income—look at aspects of arrangements that support positive child-adult relationships and child development. Process measures directly examine children's experiences, including caregivers' interactions with the children—their attention, warmth, and responsiveness. Though less direct, structural factors are less costly for researchers to study than process factors, which require direct observations. Unlike process factors, structural factors can be regulated by policymakers.

Many instruments are used to measure quality in infant and toddler child care arrangements (see the Resources Section for a list of frequently used ones). Most are designed to examine the *global* quality of child care arrangements—producing a composite rating based on observations of routines, practices, facilities, and equipment—and utilize both process and structural measures. Some are more exclusively composed of process measures. Researchers continue to develop new measures and instruments in this young field of inquiry.

Key Findings

What do we know about predictors and levels of quality in infant and toddler child care across all types of care arrangements?

- ▶ Across all nonmaternal settings (fathers, grandparents, in-home sitters, child care homes, and centers), the comprehensive National Institute of Child Health and Human Development (NICHD) Study of Early Child Care found lower child-adult ratios and group sizes to be the strongest predictors of positive (i.e., sensitive, warm, responsive, and cognitively stimulating) infant caregiving.

Other predictors of positive infant caregiving were nonauthoritarian beliefs about child rearing and clean, safe, uncluttered physical environments with developmentally appropriate toys and learning materials.² The NICHD study also found positive toddler caregiving more likely when child-adult ratios and group sizes were smaller and when physical learning environments were cleaner, safer, less cluttered, and more developmentally

* See Research-to-Policy Connections No. 1, *Infant and Toddler Child Care Arrangements*.

appropriate. As toddlers approached 36 months of age, caregiver characteristics—non-authoritarian child rearing beliefs, more formal education, more experience in child care—gained strength as predictors.³

- ▶ The NICHD Study found that, across all nonparental settings (grandparents, in-home sitters, child care homes, and centers) in the United States, positive caregiving was highly characteristic for only 9 percent of toddlers, somewhat characteristic for 30 percent, somewhat uncharacteristic for 53 percent, and highly uncharacteristic for 8 percent.⁴

What factors tend to predict quality in different types of infant and toddler care arrangements?

Family Child Care Homes

- ▶ Regulation
 - *Most studies examining the quality of family child care have not broken out findings for infants and toddlers.* In a number of studies of family child care for children of all ages, operating with a license has been a predictor of quality.⁵
- ▶ Group Size
 - One recent family child care study included a focus on toddlers and gave greater weight to younger children in calculating group size.* Using this weighted measure, lower group size predicted higher quality, while total number enrolled had no effect.⁶
 - Other studies of family child care without a focus on a particular age have yielded mixed findings on the relationship between group size and quality. Larger group size has been shown to have a negative,⁷ positive,⁸ and no⁹ relationship to quality.
- ▶ Education and Training
 - The study with a toddler focus found that higher levels of caregiver formal education, specialized training, and recent child-related training predicted higher quality care.¹⁰
 - For family child care in general, provider self reports of education and training have been consistently related to higher quality.¹¹ However, evaluations of training programs have shown mixed findings on their effectiveness in increasing quality.¹² **
- ▶ Professional Commitment to Career
 - The study focusing on family child care for toddlers did not find a relationship between professional commitment to child care as a career and quality,¹³ while studies of family child care for children of all ages have found a positive relationship between the two.¹⁴

Child Care Centers

- ▶ In infant classrooms, higher quality has been found to be predicted by:
 - lower child-adult ratio,¹⁵
 - smaller group size,¹⁶

* For example, one child under age 2 equaled about two children ages 3-6 and three children over age 6.

** See Research-to-Policy Connections No. 3, *Impact of Training and Education for Caregivers of Infants and Toddlers*.

- higher levels of education,¹⁷
 - specialized early childhood education and child development training,¹⁸
 - higher staff wages,¹⁹
 - caregiver experience,²⁰ and
 - more years on staff at current center.²¹
- ▶ Similarly, in toddler classrooms, higher quality has been found to be predicted by:
- lower child-adult ratio,²²
 - smaller group size,²³
 - higher levels of education,²⁴
 - specialized early childhood education and child development training,²⁵ and
 - higher wages.²⁶

Relative Care

- ▶ To date there is little research on factors influencing the quality of relative care. One study that found lower quality ratings for relative than for (regulated and unregulated) nonrelative homes suggested the lower ratings were related to the lower incomes, smaller support networks, fewer training experiences, and weaker commitments to child care as a career of relatives in their sample.²⁷

What do we know about levels of quality in different types of infant and toddler child care arrangements?

Family Child Care Homes

- ▶ A wide range of quality is found in family child care, with little care near the top of the range.
- The presence of infants in family child care does not affect quality,²⁸ although high proportions of babies have been associated with lower quality care.²⁹
 - One study of family child care for children of all ages—by nonrelatives and relatives—found good quality care in 12 percent of regulated family child care homes, adequate care in 75 percent, and inadequate care in 13 percent. Among unregulated, nonrelative homes, good quality care was found in 3 percent, adequate care in 47 percent, and inadequate care in 50 percent.³⁰

Child Care Centers

- ▶ There is also a great range of quality in center care for infants and toddlers, which is more likely to be of low quality than center care for preschoolers. *Across studies, there is no common terminology to describe the various levels of quality.*³¹
- One study found care of good/developmentally appropriate quality in just over 8 percent of infant/toddler classrooms, as compared to nearly 24 percent of preschool classrooms. Medium/mediocre quality care was found in 51 percent of infant/toddler classrooms and poor quality in over 40 percent. In preschool classrooms, medium/mediocre care was found in 66 percent and poor quality in 10 percent.³²

Relative Care

- ▶ A wide range of quality is also found in relative care. *Findings on quality levels in relative care are mixed, in part because different studies have used different instruments. Several used instruments initially designed to measure quality in regulated settings. Future researchers will have available a new assessment instrument designed specifically for use with relatives caring for infants and toddlers and preschool children, the Child Care Assessment Tool for Relatives. (See Resources, below.)*
 - The study cited above of family child care for children of all ages by relatives and nonrelatives—using an instrument created for use in regulated homes*—found good quality care in 1 percent of relative homes, adequate care in 30 percent, and inadequate care in 69 percent.³³
 - In contrast, the NICHD study—using an instrument designed for use across settings**—observed higher quality care for infants by grandparents than by family child care homes or child care centers.³⁴

How does quality differ by income level?

- ▶ For infants in family child care homes, the quality of the caregiving environment was lower for those living in poverty than for higher-income children.³⁵
- ▶ For infants in child care centers, quality was higher for those living in poverty than for children living in near poverty—between 100 and 200 percent of the federal poverty level.³⁶

Considerations for Policymakers

- ▶ Efforts to enhance quality need to be directed to each care type serving infants and toddlers. There is too little high-quality care in each arrangement type.
- ▶ Lower numbers of infants and toddlers in family child care homes, lower child-adult ratios, and smaller group sizes in centers' infant/toddler classrooms lead to quality. It is important to evaluate family child care and center licensing regulations in light of these findings.
- ▶ For infant caregivers, and even more often for toddler caregivers, specialized caregiver training in early care and education is associated with higher quality. Regulations should include training requirements, and training activities should be made available both to regulated and nonregulated caregivers, tailored to each arrangement type. (See Research-to-Policy Connections No. 3, *Impact of Training and Education for Caregivers of Infants and Toddlers*, for a summary of research on the kinds of training most likely to produce changes in caregiver practice.)
- ▶ General education of caregivers is also associated with higher quality and should be considered when evaluating licensing regulations.

* Among the instruments used in the Quality in Family Child Care and Relative Care study was the Family Day Care Rating Scale. See Instruments, below.

** Instruments used in the NICHD Study of Early Child Care included the Observational Record of the Caregiving Environment. See Resources, below.

- ▶ In family child care, regulation is a predictor of quality.
- ▶ The quality of care arrangements for children living in poverty and near poverty and facing the greatest developmental risks needs particular attention.

Resources

Instruments

Arnett Caregiver Interaction Scale*

www.childcareresearch.org/location/ccrca278

Assessment Profile for Early Childhood Programs

www.childcareresearch.org/location/ccrca4197

Child Care Assessment Tool for Relatives

www.bankstreet.edu/ICCC/

Family Day Care Rating Scale

www.childcareresearch.org/location/ccrca292

Home Observation for Measurement of the Environment

www.childcareresearch.org/location/ccrca463

Infant/Toddler Environment Rating Scale

www.childcareresearch.org/location/ccrca294

Observational Record of the Caregiving Environment*

www.childcareresearch.org/location/ccrca2980

* Instruments composed primarily of process measures.

Endnotes

1. Vandell, D. L., & Wolfe, B. (2002). *Child care quality: Does it matter and does it need to be improved?* Madison: University of Wisconsin-Madison, Institute for Research on Poverty. <www.childcareresearch.org/location/ccrca2144>
2. 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. <www.childcareresearch.org/location/ccrca589>
3. NICHD Early Child Care Research Network. (2000). Characteristics and quality of child care for toddlers and preschoolers. *Applied Developmental Science*, 4(3), 116-135. <www.childcareresearch.org/location/ccrca2460>
4. See NICHD Early Child Care Research Network (2000), in endnote 3.
5. Pence, A. R., & Goelman, H. (1991). The relationship of regulation, training, and motivation to quality of care in family day care. *Child & Youth Care Forum*, 20(2), 83-101. <www.childcareresearch.org/location/ccrca2760>
- Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press. <www.childcareresearch.org/location/ccrca2627>
- Bordin, J. A., Machida, S., & Varnell, H. (2000). The relation of quality indicators to provider knowledge of child development in family child care homes. *Child & Youth Care Forum*, 29(5), 323-341. <www.childcareresearch.org/location/ccrca578>
6. Clarke-Stewart, K. A., Vandell, D. L., Burchinal, M., O'Brien, M., & McCartney, K. (2002). Do regulable features of child-care homes affect children's development? *Early Childhood Research Quarterly*, 17(1), 52-86. <www.childcareresearch.org/location/ccrca365>
7. Clarke-Stewart, K. A., Gruber, C. P., & Fitzgerald, L. M. (1994). *Children at home and in day care*. Hillsdale, NJ: Lawrence Erlbaum. <www.childcareresearch.org/location/ccrca6257>
- See NICHD Early Child Care Research Network (2000), in endnote 3.
8. See Pence & Goelman (1991), and Kontos et al. (1995), in endnote 5.
9. Peisner-Feinberg, E., Bernier, K., Bryant, D., & Maxwell, K. (2000). *Family child care in North Carolina*. Chapel Hill: University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center. <www.childcareresearch.org/location/ccrca460>
- Burchinal, M., Howes, C., & Kontos, S. (2002). Structural predictors of child care quality in child care homes. *Early Childhood Research Quarterly*, 17(1) 87-105. <www.childcareresearch.org/location/ccrca1305>
- Marshall, N. L., Creps, C. L., Burstein, N. R., Cahill, K. E., Robeson, W. W., Wang, S. Y., Keefe, N., Schimmenti, J., & Glantz, F. B. (2003). *Massachusetts family child care today: A report of the findings from the Massachusetts cost and quality study*. Wellesley, MA: Wellesley Centers for Women. <www.childcareresearch.org/location/ccrca2965>
10. See Clarke-Stewart et al. (2002), in endnote 6.
11. Weaver, R. H. (2002). Predictors of quality and commitment in family child care: Provider education, personal resources, and support. *Early Education & Development*, 13(3) 265-282. <www.childcareresearch.org/location/ccrca1734>
- See Pence & Goelman (1991), Kontos et al. (1995), and Bordin et al. (2000), in endnote 5.
- See Clarke-Stewart et al. (1994), in endnote 7.
- See Peisner-Feinberg et al. (2000), Burchinal et al. (2002), and Marshall et al. (2003), in endnote 9.
12. DeBord, K., & Sawyers, J. (1996). The effects of training on the quality of family child care for those associated with and not associated with professional child care organizations. *Child & Youth Care Forum*, 25(1) 7-15. <www.childcareresearch.org/location/ccrca1565>
- Kontos, S., Howes, C., & Galinsky, E. (1996). Does training make a difference to quality in family child care? *Early Childhood Research Quarterly*, 11(4), 427-445. <www.childcareresearch.org/location/ccrca526>
13. See Clarke-Stewart et al. (2002), in endnote 6.
14. See Pence & Goelman (1991), in endnote 5.
- See Weaver (2002), in endnote 11.

See Kontos et al. (1996), in endnote 12.

15. 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. <www.childcareresearch.org/location/ccrca489>.

Phillips, D., Mekos, D., Scarr, S., McCartney, K., & Abbott-Shim, M. (2001). Within and beyond the classroom door: Assessing quality in child care centers. *Early Childhood Research Quarterly*, 15(4), 475-496. <www.childcareresearch.org/location/ccrca576>

Marshall, N. L., Creps, C. L., Burstein, N. R., Roberts, J., Glantz, F. B., & Robeson, W. W. (2004). *The cost and quality of full-day year-round early care and education in Massachusetts: Infant and toddler classrooms*. Wellesley, MA: Wellesley Centers for Women. <www.childcareresearch.org/location/ccrca5695>

See NICHD Early Child Care Research Network (1996), in endnote 2.

16. See NICHD Early Child Care Research Network (1996), in endnote 2.

See Marshall et al. (2004), in endnote 15.

17. See NICHD Early Child Care Research Network (1996), in endnote 2.

See Phillipsen et al. (1997), in endnote 15.

18. See Phillips et al. (2001), in endnote 15.

19. See Phillipsen et al. (1997), and Phillips et al. (2001), in endnote 15.

20. See NICHD Early Child Care Research Network (1996), in endnote 2.

21. See Marshall et al. (2004), in endnote 15.

22. See NICHD Early Child Care Research Network (2000), in endnote 3.

See Phillipsen et al. (1997), in endnote 15.

23. See Phillips et al. (2001), in endnote 15.

24. See Phillipsen et al. (1997), and Marshall et al. (2004), in endnote 15.

25. See Phillips et al. (2001), in endnote 15.

26. See Phillipsen et al. (1997), and Phillips et al. (2001), in endnote 15.

27. See Kontos et al. (1995), in endnote 5.

28. See Peisner-Feinberg et al. (2000), in endnote 9.

29. See Burchinal et al. (2002), in endnote 9.

30. See Kontos et al. (1995), in endnote 5.

31. Glantz, F. B., & Layzer, J. (2000). *The cost, quality, and child outcomes study: A critique*. Cambridge, MA: Abt Associates. <www.childcareresearch.org/location/ccrca172>

32. Helburn, S., Culkin, M. L., Morris, J., Mocan, N., Howes, C., Phillipsen, L., Bryant, D., Clifford, R., Cryer, D., Peisner-Feinberg, E., Burchinal, M., Kagan, S. L., & Rustici, J. (1995). *Cost, quality, and child outcomes in child care centers: Public report*. Denver: University of Colorado, Department of Economics. <www.childcareresearch.org/location/ccrca1459>

33. See Kontos et al. (1995), in endnote 5.

34. See NICHD Early Child Care Research Network (1996), in endnote 2.

35. NICHD Early Child Care Research Network. (1997). Poverty and patterns of child care. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (pp. 100-131). New York: Russell Sage Foundation. <www.childcareresearch.org/location/ccrca929>

36. See NICHD Early Child Care Research Network (1997), in endnote 35.