

Child Care Quality: How and Why It Matters for Children's Development

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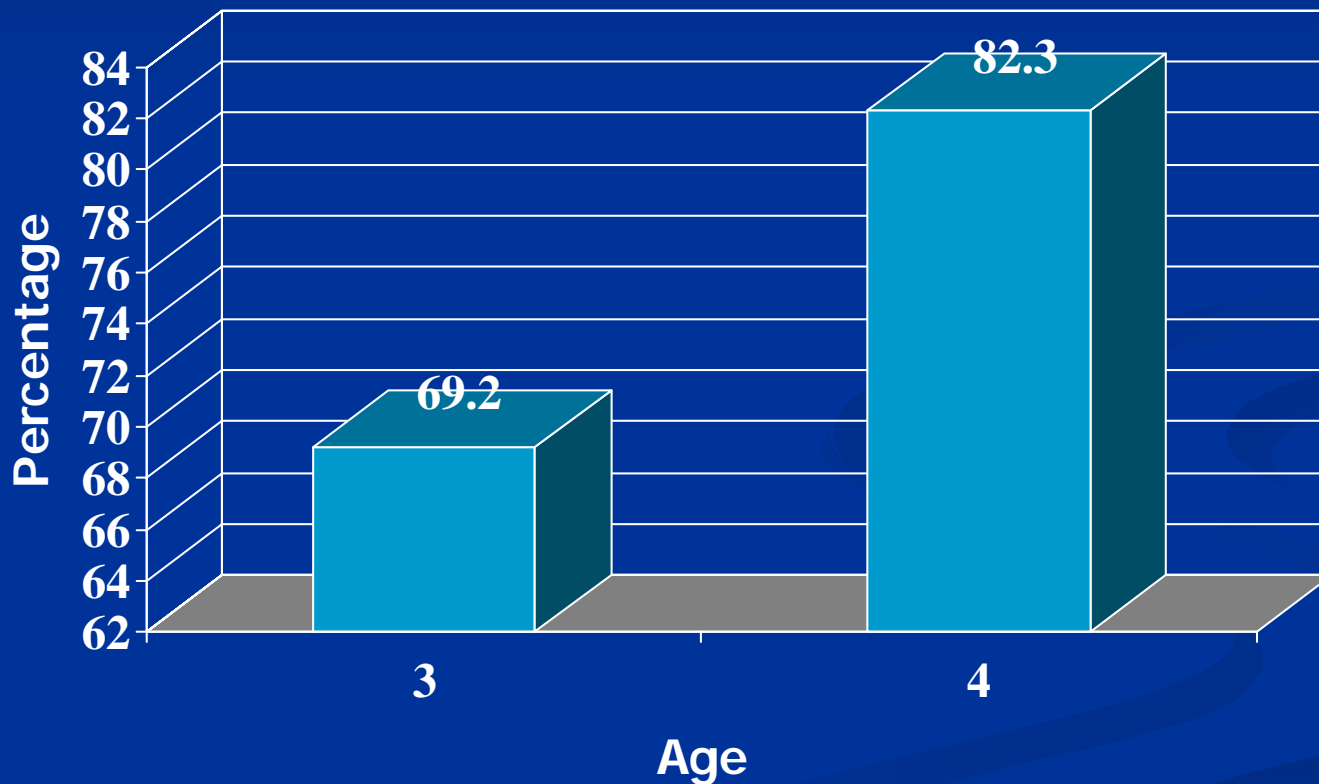


Young Children's Child Care Experiences

- The quality of early experience matters for children's development and well-being
- Extensive child care experience has increasingly become the norm throughout infancy and preschool years in the U.S.
- How do variations in the quality of child care experience make a difference in children's lives?



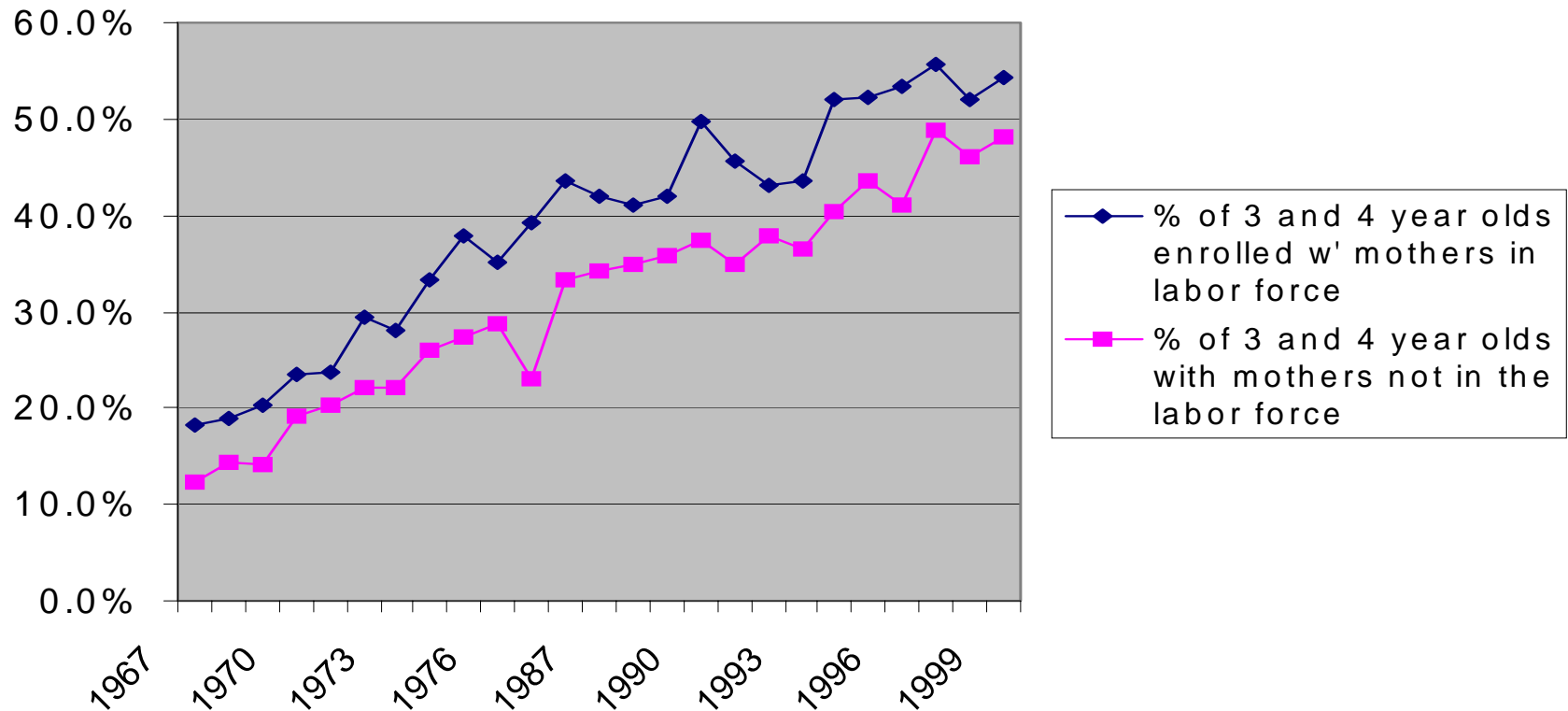
By age three, most children are now cared for outside of the home in the United States



SOURCE: National Center for Education Statistics, (2001). *National Household Education Survey of 1999 Data Files*.

Child care is used by stay-at-home moms and by employed moms

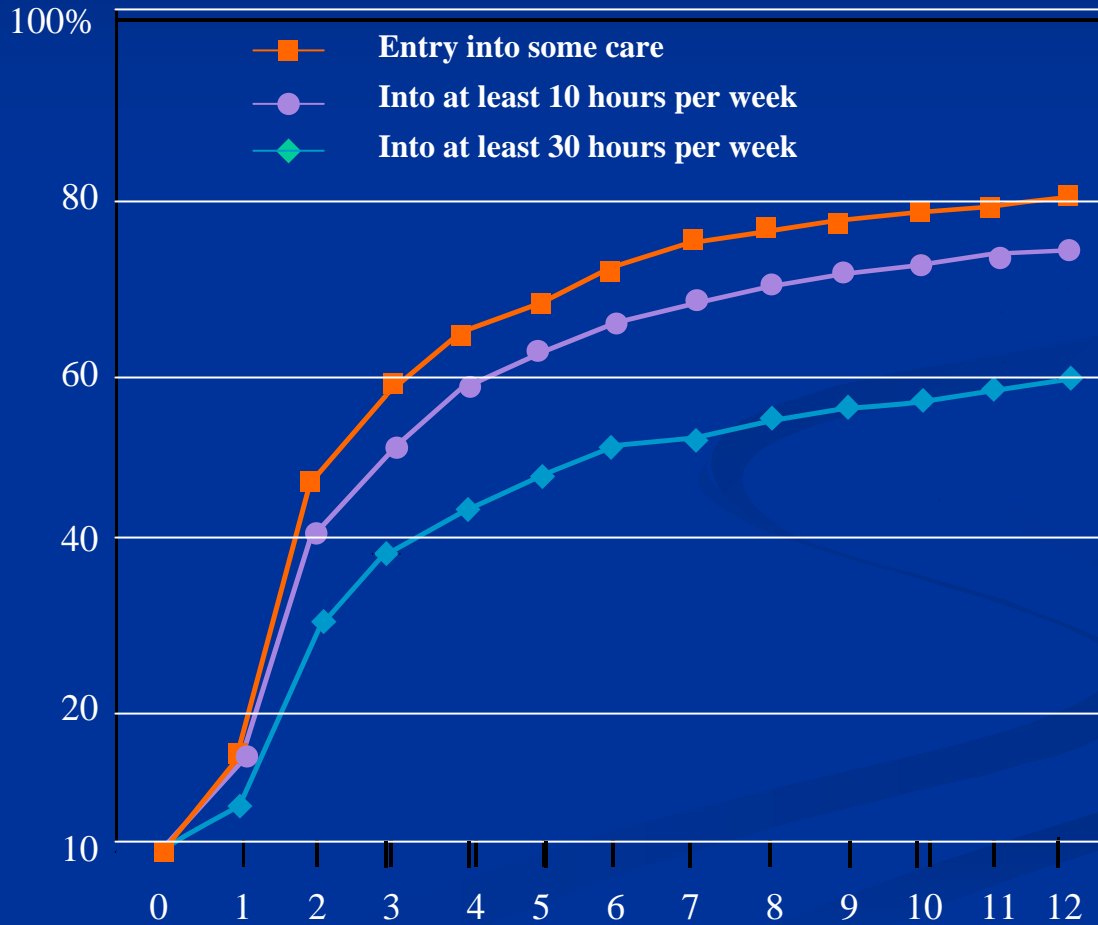
Enrollment at Ages 3 and 4 by Mothers' Labor Force Status



Source: W. Steven Barnett, National Institute for Early Education Research (www.nieer.org)

Child care experiences start at very young ages for many children

Age of Entry Into Child Care (in months)



Dimensions of Child Care Quality

- Structural features of quality
 - Caregiver characteristics
 - Process features of quality
 - Experiences with caregivers and other children
 - Opportunities for cognitive, social, linguistic stimulation
 - Opportunities with materials
 - Quality of caregiver-child relationship
 - Parent-caregiver partnership
- } **Regulable features**

What, why, and how?

- Pathways of influence:
 - Structure → Process
 - Process → Outcomes
 - Structure → Outcomes
 - Structure → Process → Outcomes
- Does quality of child care *affect* child outcomes?
 - Do we have evidence for *causal* relations?
- Does quality of child care matter for some children more than others?

Challenges to the study of how child care quality matters

- Defining child care quality
 - Limits to measurement tools
- Multiple features of child care experience
 - Quantity, quality, type, multiple arrangements
- Reliance on descriptive, correlational studies rather than experimentation
- Difficulties discerning processes of influence
- Sample constraints and limitations

Conceptual and methodological advances in the study of child care

- Large-scale studies
- Validation of measurement tools
- Child-focused observations of environmental qualities
- Methodological techniques to address confounds
- Longitudinal studies

Large, multisite U.S. studies

- National Institute of Child Health and Human Development (NICHD) Study of Early Child Care
- Cost, Quality, and Outcomes Study
 - Peisner-Feinberg et al. (2001)
- Family and Relative Care Study
 - Kontos, Howes, Shinn, & Galinsky (1995)
- National Day Care Study
 - Roupp, Travers, Glantz, & Coelen (1979)
- Child-Care Staffing Study
 - Howes, Phillips, & Whitebook (1992)
- Welfare, Children, & Families: Three City Study
 - www.jhu.edu/~welfare

The NICHD Study of Early Child Care and Youth Development

<http://rti.org/secc>



NICHD Early Child Care Research Network

Virginia Allhusen	University of California: Irvine	Lyz Jaeger	St. Joseph's University
Mark Appelbaum	University of California: San Diego	Deborah Johnson	Michigan State University
Jay Belsky	Birkbeck College, University of London	Jean Kelly	University of Washington
Cathryn L. Booth	University of Washington	Bonnie Knoke	Research Triangle Institute
Robert Bradley	University of Arkansas at Little Rock	Nancy Marshall	Wellesley College
Celia Brownell	University of Pittsburgh	Kathleen McCartney	Harvard University
Peg Burchinal	University of North Carolina at Chapel Hill	Fred Morrison	University of Michigan
Bettye Caldwell	University of Arkansas at Little Rock	Phil Nader	University of California: San Diego
Susan Campbell	University of Pittsburgh	Marion O'Brien	University of North Carolina at Greensboro
Alison Clarke-Stewart	University of California: Irvine	Margaret Tresch Owen	University of Texas-Dallas
Martha Cox	University of North Carolina at Chapel Hill	Ross Parke	University of California: Riverside
Sarah L. Friedman	NICHD	Chris Payne	University of North Carolina at Greensboro
Willard Hartup	University of Minnesota	Deborah Phillips	Georgetown University
Ty Hartwell	Research Triangle Institute	Robert Pianta	University of Virginia
Kathryn Hirsh-Pasek	Temple University	Suzanne Randolph	University of Maryland, College Park
Aletha Huston	University of Texas-Austin	Wendy Robeson	Wellesley College
		Susan Spieker	University of Washington
		Deborah Lowe Vandell	University of Wisconsin- Madison
		Marsha Weinraub	Temple University

Purpose of the NICHD Study of Early Child Care

How do variations in child rearing, *at home and in child care*, relate to development?

- Social
- Emotional
- Cognitive
- Language
- Growth
- Health & Illness

The NICHD Study



Centre of Excellence for Early Childhood Development
Regina, SK - June 2-4, 2005

Key Elements of the NICHD Study of Early Child Care

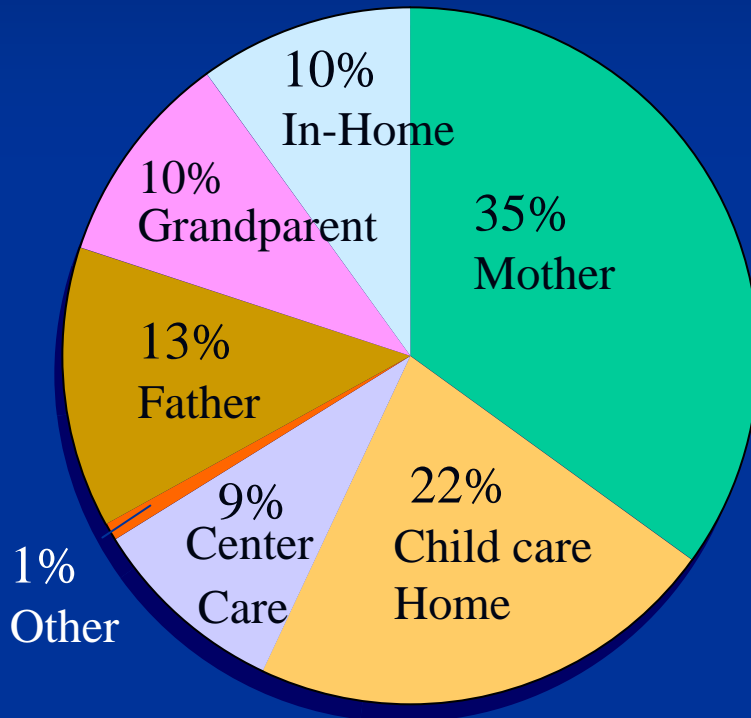
- Large sample from sites throughout the U.S.
 - ($n = 1,364$ at recruitment; 1,216 at 36 mos.; 1,033 at 3rd grade)
- Diverse sample
 - Children of color (24%)
 - Mothers with less than high school education (11%)
 - Single-parent households (14%)
 - Socioeconomic diversity (~30% poor or near-poor)
- Longitudinal measures of quality, amount, and type of child care
- Extensive family measures measured longitudinally
- Multiple child outcomes measured by multiple methods

Family “Selection Factors”

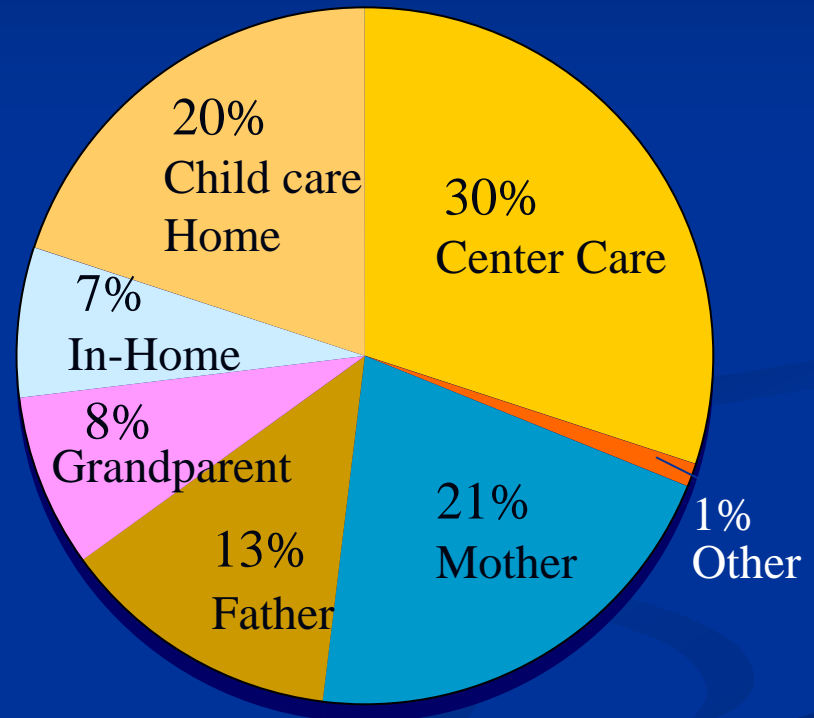
- Links between families and child care hinder our ability to draw conclusions about how child care quality matters
 - Families make decisions about their children’s child care experiences
 - Families’ resources and situations influence children’s child care experiences
 - Families can be affected by child care
- Causal relations difficult to determine

Choices and circumstances are associated with use of different types of care

6 Months of Age



36 Months of Age



The “selection effects problem”

- Are “effects” of child care a product of selection effects?
- **Family confounds**—is use of higher quality care associated with family characteristics?
 - Higher education
 - Higher income
 - More responsive parents
 - Less authoritarian, more child-centered parents
- **Child confounds**—are more competent, less difficult children given better care?

Determining how child care quality matters

- Techniques used to reduce bias
 - Experimental manipulations
 - Include family and child measures as covariates
 - Measure trajectories of child functioning over time
 - Examine effects of child care on *change* in child functioning with controls for earlier level of functioning
 - Controls for omitted variables

Selection Variables Controlled in NICHD Study of Early Child Care

- Site of data collection (Boston, Little Rock, Topeka,...)
- Mother's education
- Child race/ethnicity
- Child gender
- Household structure (1 vs. 2 parent)
- Family income-to-needs ratio, poverty
- Maternal depressive symptoms
- Quality of maternal sensitivity
- Quality of home environment

Quality of Child Care in the NICHD Study of Early Child Care

- Observational Ratings of Caregiving Environment (ORCE)
 - 6, 15, 24, 36, and 54 months
 - Child-focused ratings
 - Behavior frequencies of caregiver and child behaviors and qualitative ratings of caregivers with child
 - Four 44-minute observations across 2 days
- Structural features observed
- Caregiver questionnaires and interviews

Regulable Features of Care

- Easy to monitor indicators
- Consistently related to process-quality indicators
 - Ratio
 - Group size
 - Caregiver education
 - Caregiver training in early childhood education
- American Public Health Association structural and caregiver guidelines

NICHD Study ORCE

- Higher observational ratings indicated caregivers were:
 - Sensitive to child behavior
 - Cognitive stimulating
 - Warm and positive
 - Not emotionally detached
 - Fostering exploration



Quality of Child Care in the U.S.

	NICHD Observed	Extrapolated to U.S.
Observed Caregiving (4-pt scale):		
<u>Poor</u> (< 2 pts)	6%	8%
<u>Fair</u> (2 to < 3 pts)	51%	53%
<u>Good</u> (3 to < 3.5 pts)	32%	30%
<u>Excellent</u> (> 3.5 pts)	11%	9%

Does Quality of Care Matter?

- Child functioning in the child care setting
- Child functioning outside of the child care setting
- Longer-term child outcomes



How Quality Matters: Behavior in Child Care

- More sensitive and positive care and lower ratios
 - Happier and more securely attached to their child care providers
 - More prosocial and positively engaged with peers
- More art, blocks, & dramatic play opportunities
 - More cognitively competent free play
- Caregivers with college degrees and more training
 - More cognitively competent free play

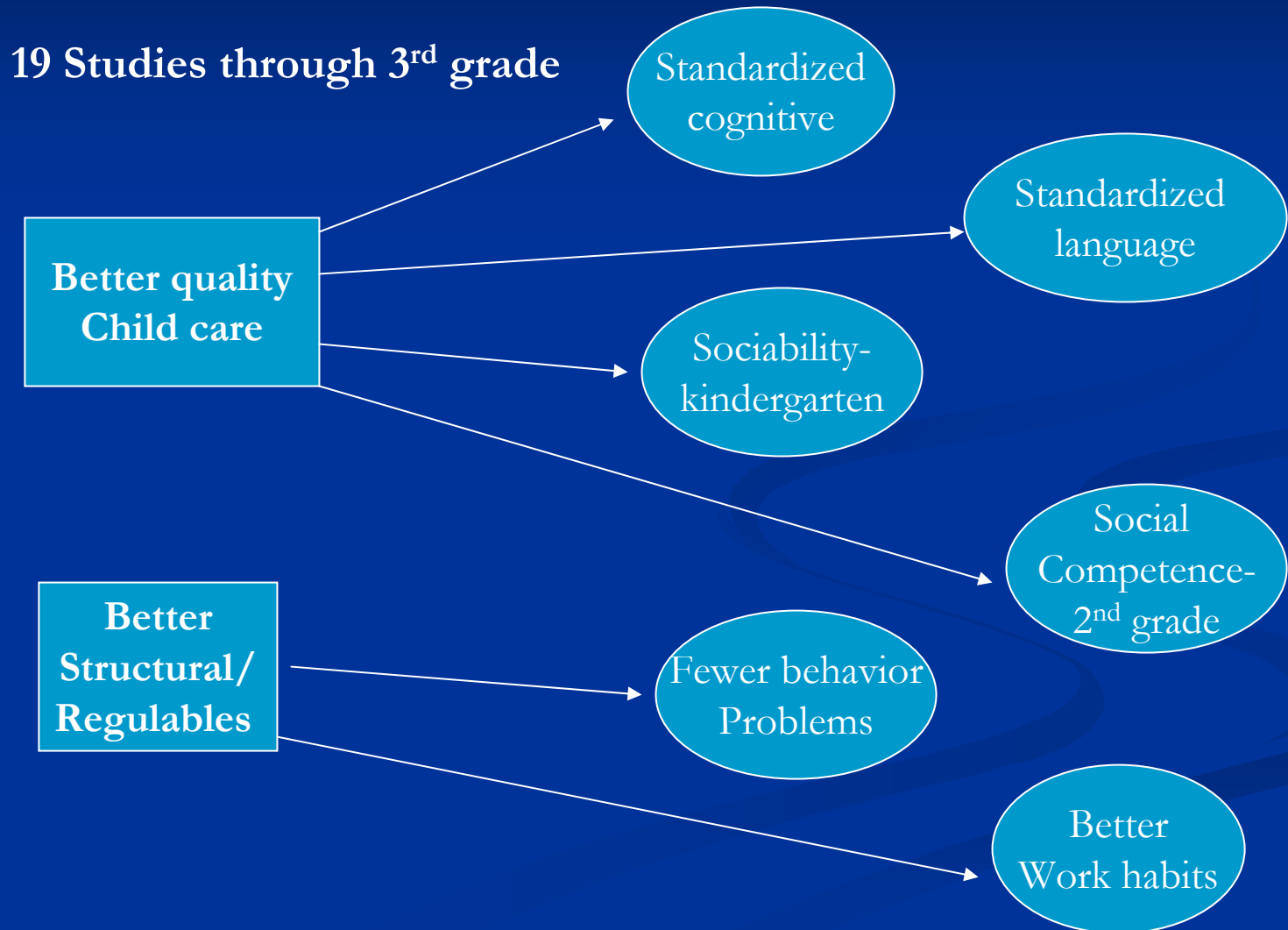
How Quality Matters: Cognitive and Social Development outside the child care setting

- 24 studies: Benefits for current behavior related to process quality
 - Controlling for family and child background factors
 - Higher language and cognitive tests
 - Fewer behavior problems
 - More social competence
- Benefits of structural/regulable features
 - Fewer behavior problems & more positive social beh
 - Higher school readiness and language comprehension

How Quality Matters: Meeting recommended standards of care

- Meeting standards makes a difference
- 3 year olds in centers that met none of the recommended standards of the American Public Health Association
 - 14 points below mean of norming sample on Bracken Basic Concepts Scale (school readiness)
- 3 year olds in centers that met all four standards
 - 2 points above mean of norming sample on Bracken

How Quality Matters: Longer-term Outcomes

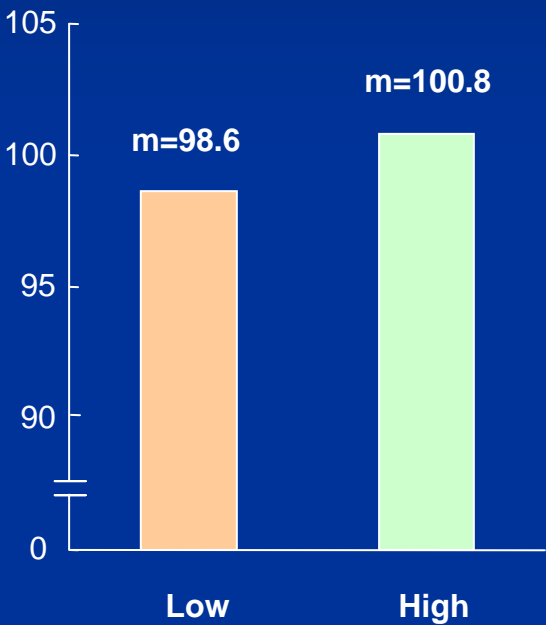


Quality Matters: How much?

- **Moderated effects—added risk and buffering effects**
 - When mothers were less sensitive, lower quality added risk to development of secure infant-mother attachment
 - When mothers depressed, higher quality care related to more positive child engagement with mother
- **Estimates are likely conservative**
 - Smaller range of quality observed in studies
 - Unregulated care more likely to refuse observation
 - More troubled families drop out of longitudinal studies
 - Controlling for selection effects may control too much

Child Care Quality vs Parenting Quality: Pre-Academic Skills @ 4 1/2

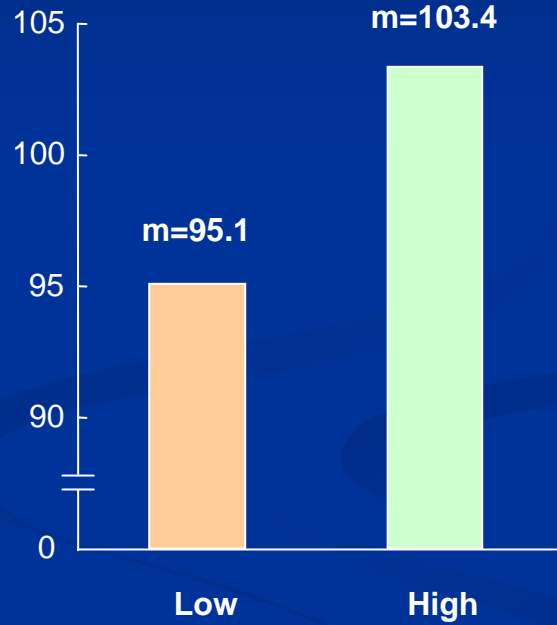
Pre-academic Skills



Child Care Quality

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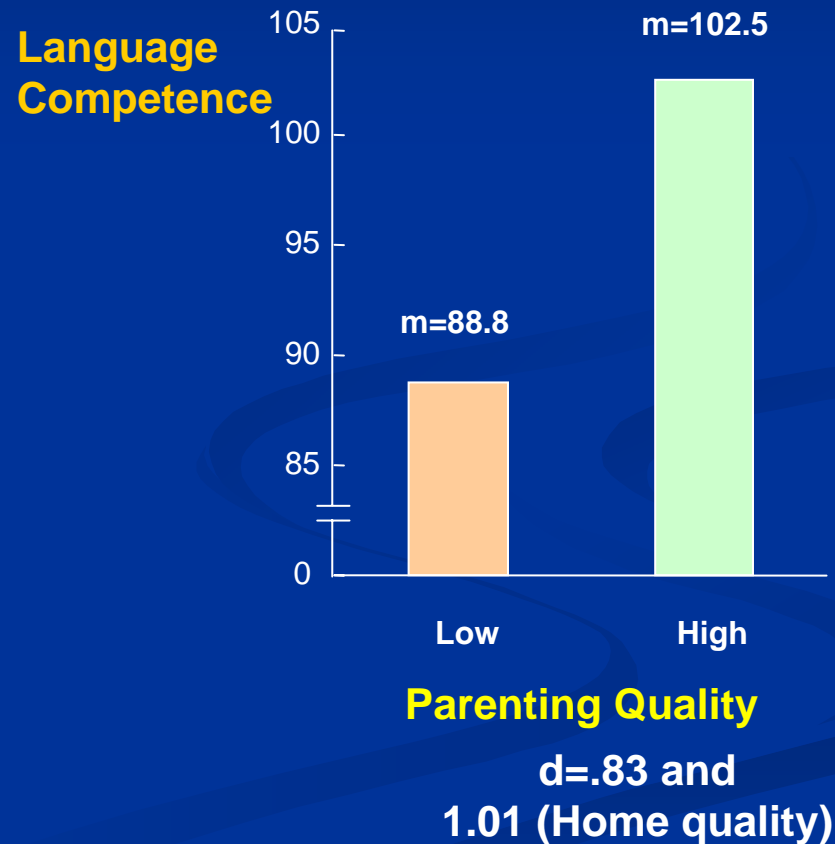
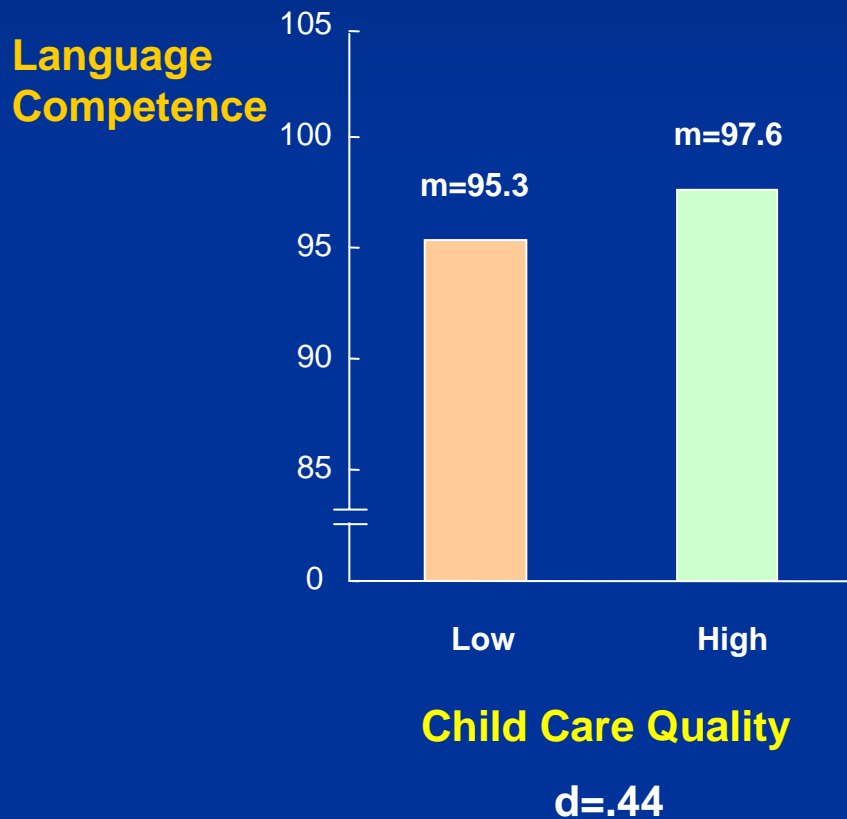
Pre-academic Skills



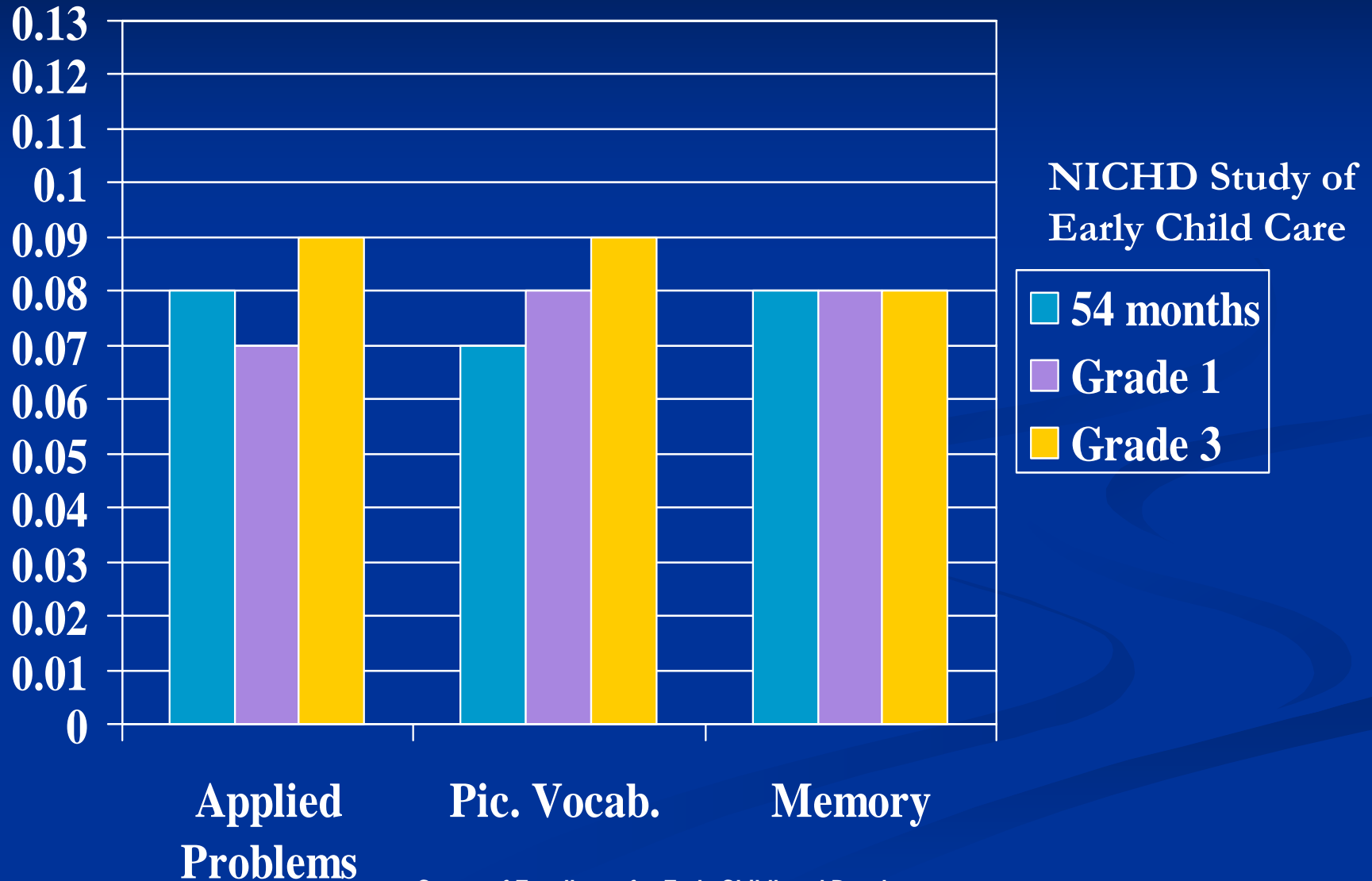
Parenting Quality

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Child Care Quality vs. Parenting Quality: Language Competence @ 4 1/2



Effect Sizes Over Time Associated with Child Care Quality



Conclusions

- Substantial progress in understanding how child care quality matters for children's development
 - Studies of large and diverse samples
 - Reliable and valid measures of child care quality
 - Analytic strategies that minimize bias in findings
 - Multitude of child developmental outcomes studied
 - Consistent effects of quality of care
 - Effects modest but meaningful

Next Steps

- Are developmental effects discernable throughout middle childhood or into adolescence?
- Do different effects emerge as child gets older?