

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

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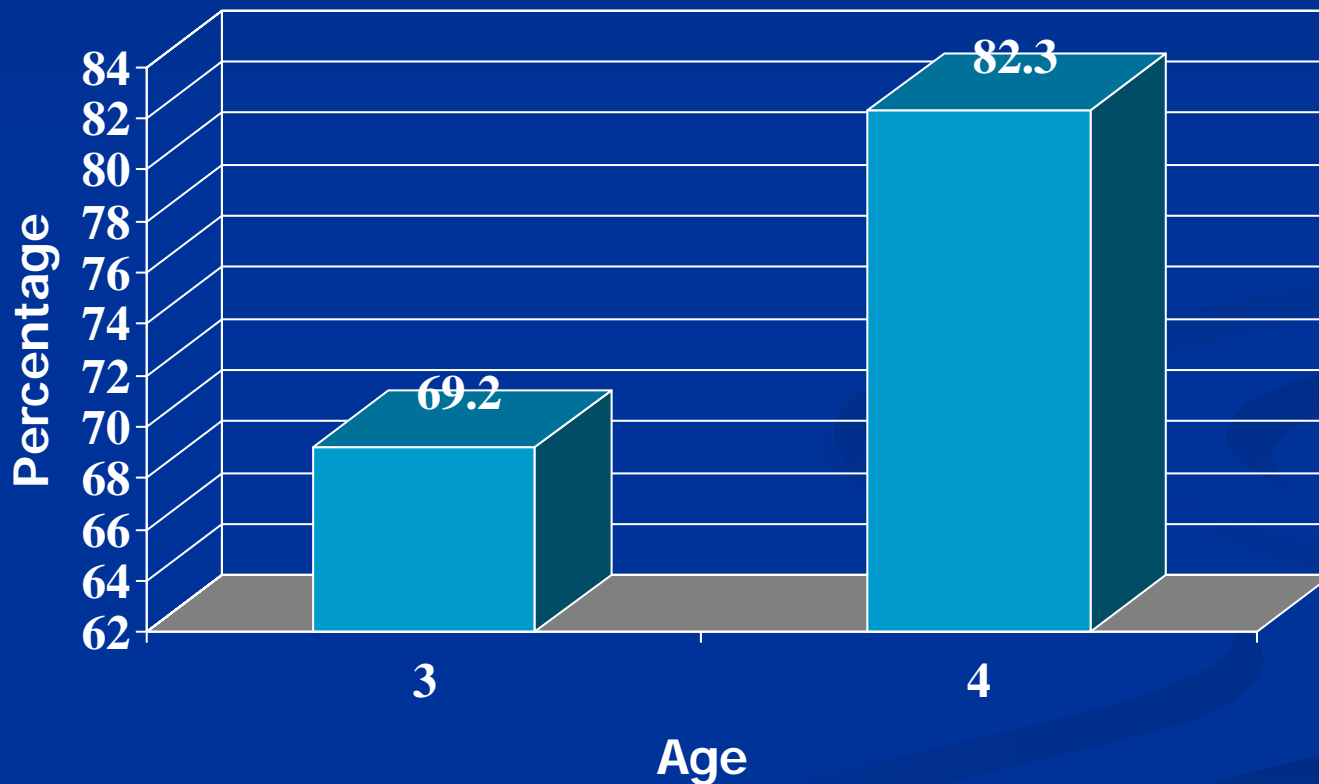


# Young Children's Child Care Experiences

- 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?



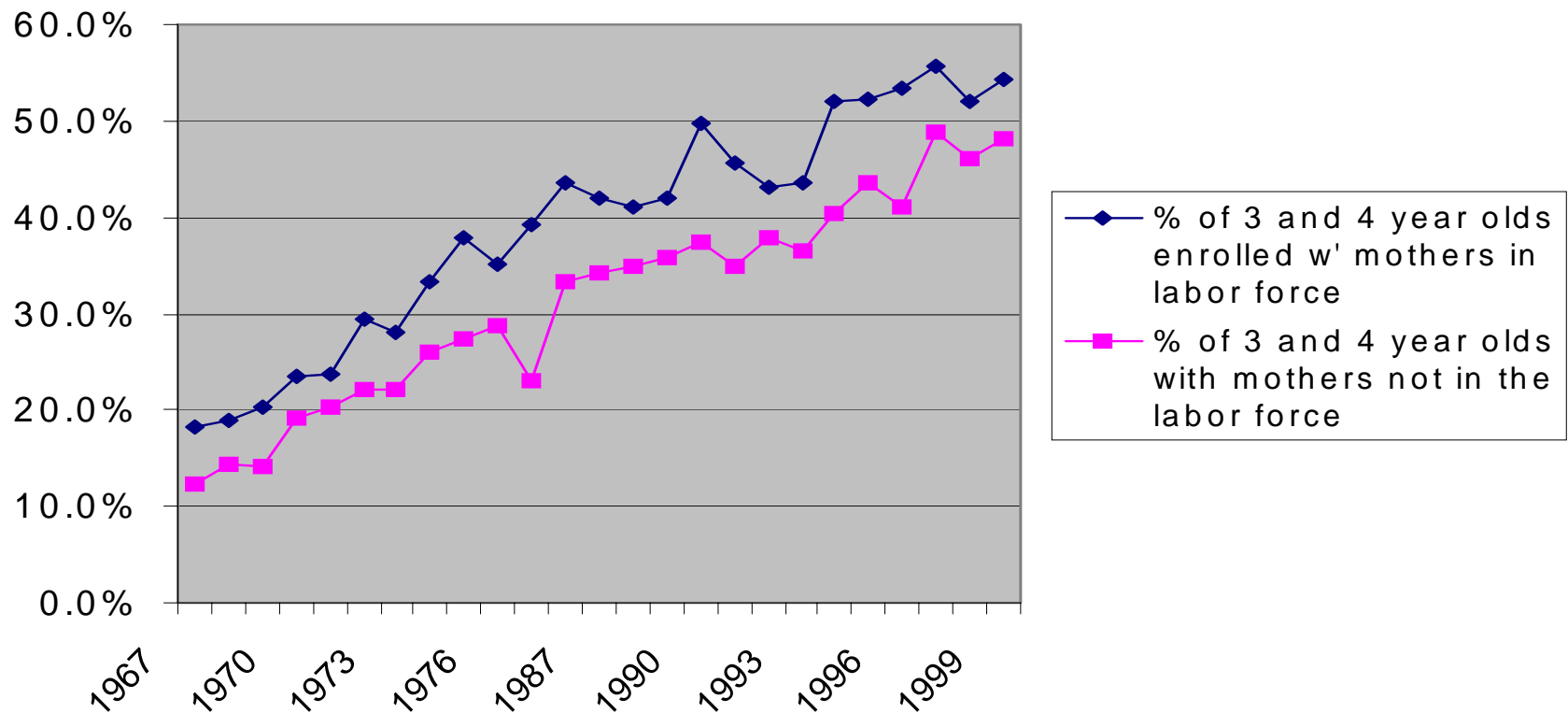
# By age three, most children are now cared for outside of the home in the United States



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

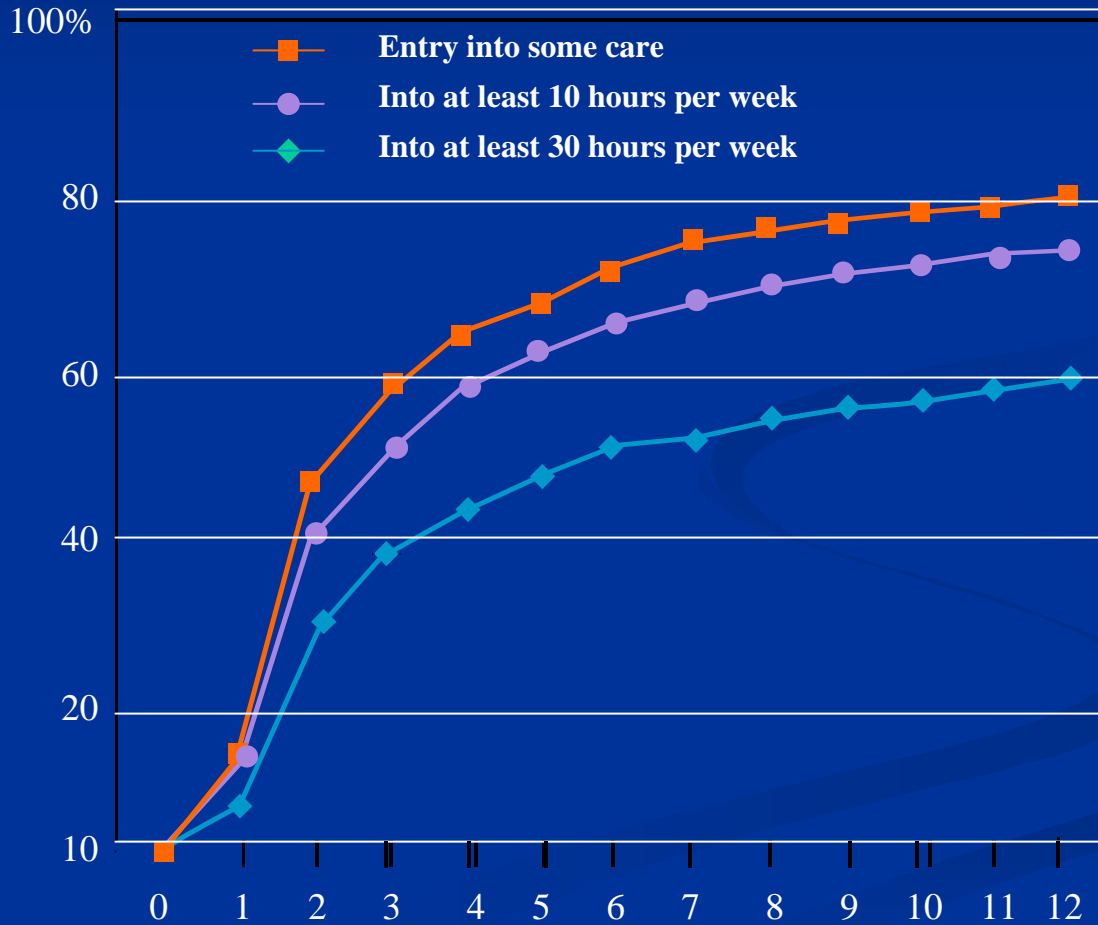
Enrollment at Ages 3 and 4 by Mothers' Labor Force Status



Source: W. Steven Barnett, National Institute for Early Education Research ([www.nieer.org](http://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](http://www.jhu.edu/~welfare)

# The NICHD Study of Early Child Care and Youth Development

<http://rti.org/secc>



# NICHD Early Child Care Research Network

<b>Virginia Allhusen</b>	University of California: Irvine	<b>Lyz Jaeger</b>	St. Joseph's University
<b>Mark Appelbaum</b>	University of California: San Diego	<b>Deborah Johnson</b>	Michigan State University
<b>Jay Belsky</b>	Birkbeck College, University of London	<b>Jean Kelly</b>	University of Washington
<b>Cathryn L. Booth</b>	University of Washington	<b>Bonnie Knoke</b>	Research Triangle Institute
<b>Robert Bradley</b>	University of Arkansas at Little Rock	<b>Nancy Marshall</b>	Wellesley College
<b>Celia Brownell</b>	University of Pittsburgh	<b>Kathleen McCartney</b>	Harvard University
<b>Peg Burchinal</b>	University of North Carolina at Chapel Hill	<b>Fred Morrison</b>	University of Michigan
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<b>Alison Clarke-Stewart</b>	University of California: Irvine	<b>Margaret Tresch Owen</b>	University of Texas-Dallas
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<b>Willard Hartup</b>	University of Minnesota	<b>Deborah Phillips</b>	Georgetown University
<b>Ty Hartwell</b>	Research Triangle Institute	<b>Robert Pianta</b>	University of Virginia
<b>Kathryn Hirsh-Pasek</b>	Temple University	<b>Suzanne Randolph</b>	University of Maryland, College Park
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		<b>Susan Spieker</b>	University of Washington
		<b>Deborah Lowe Vandell</b>	University of Wisconsin- Madison
		<b>Marsha Weinraub</b>	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

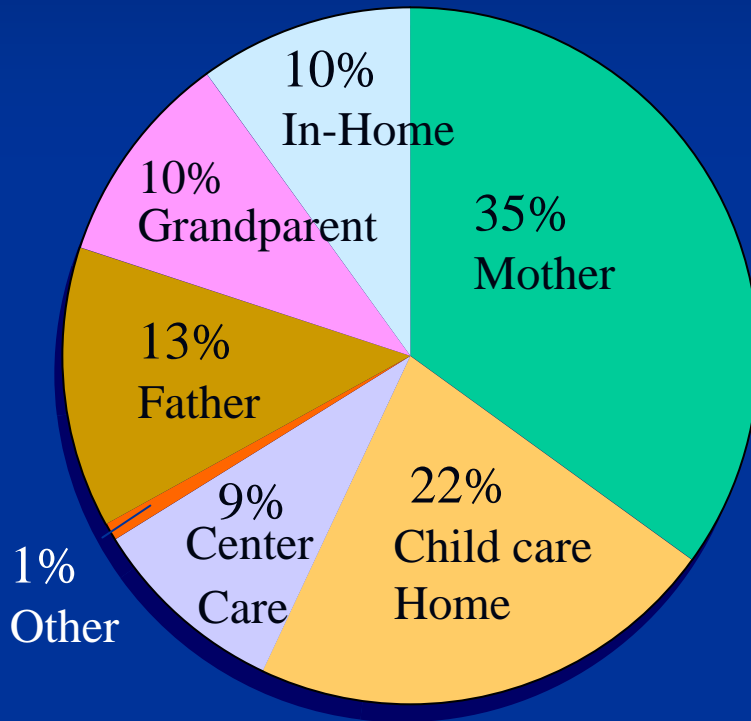
- Large sample from sites throughout the U.S.
  - ( $n = 1,364$  at recruitment; 1,216 at 36 mos.; 1,033 at 3<sup>rd</sup> grade)
- Diverse sample
  - Children of color (24%)
  - Mothers with less than high school education (11%)
  - Single-parent households (14%)
  - Socioeconomic diversity (~30% poor 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”

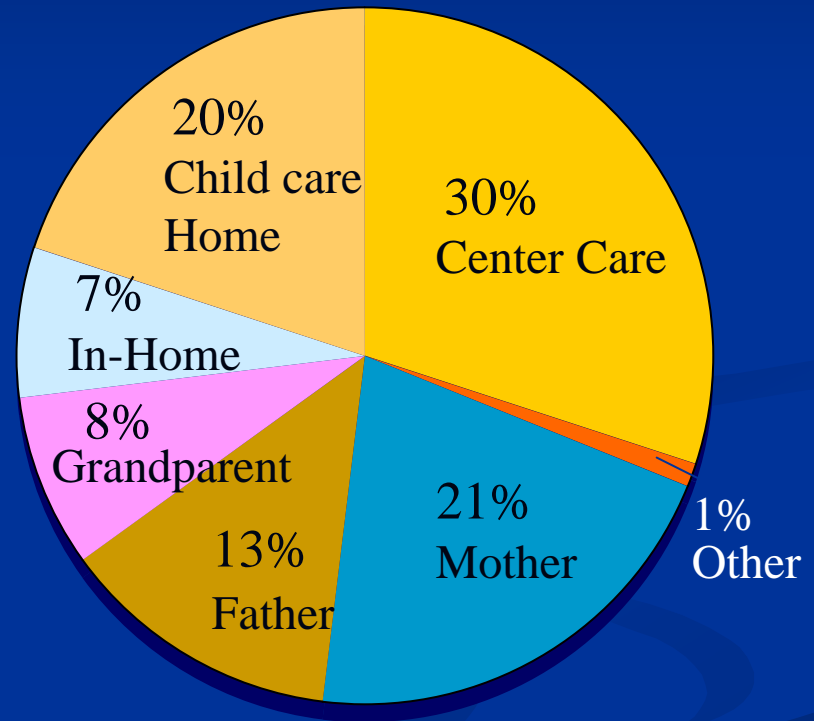
- Links between families and child care hinder our ability to draw conclusions about how child care quality matters
  - Families make decisions about their children’s child care experiences
  - Families’ resources and situations influence children’s child care experiences
  - Families can be affected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

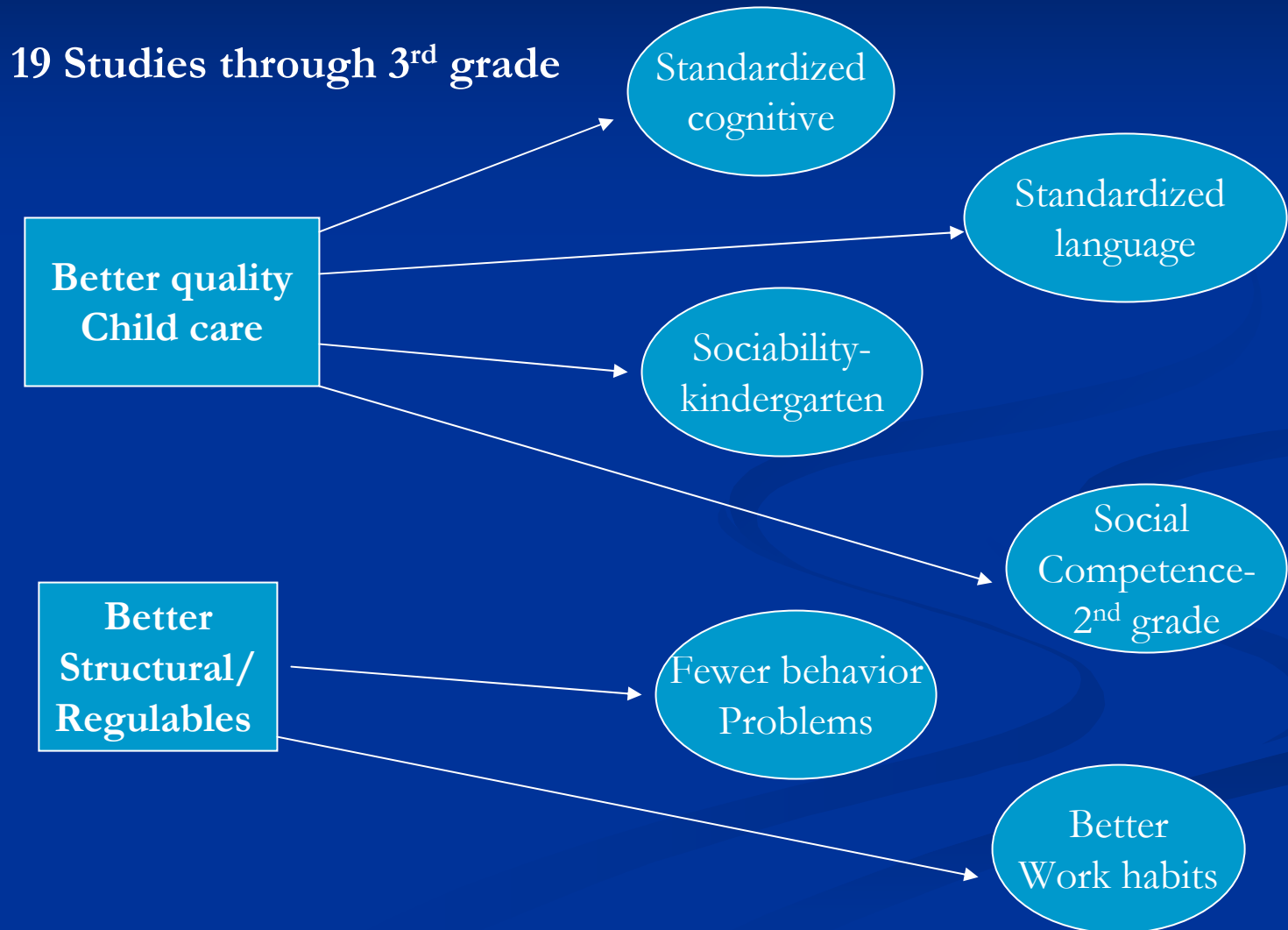
# How Quality Matters: Cognitive and Social Development outside the child care setting

- 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

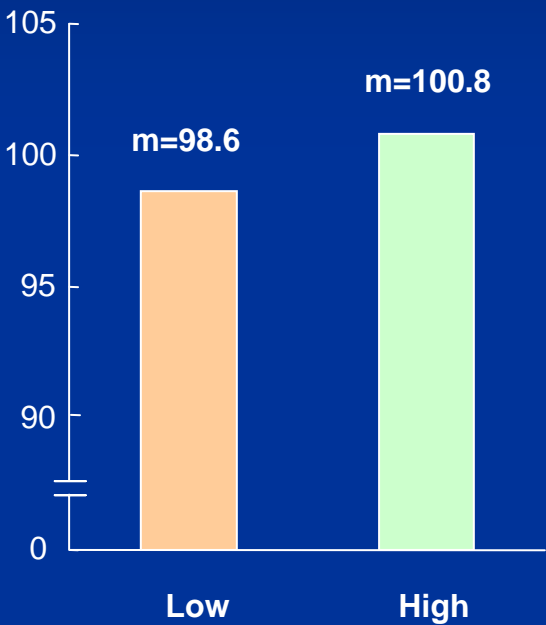


# Quality Matters: How much?

- **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

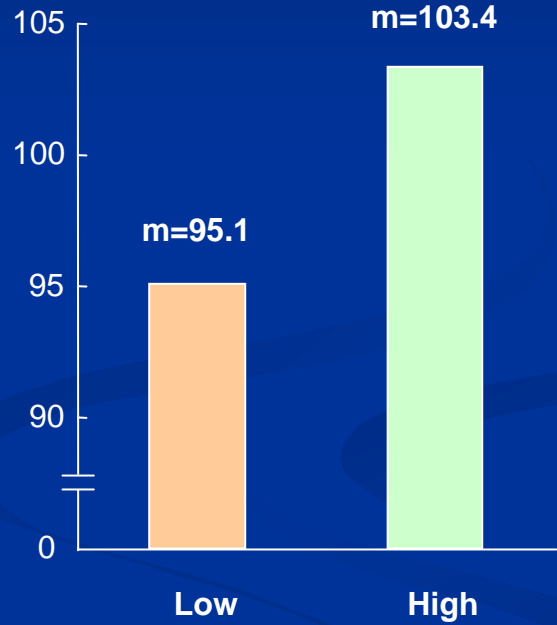
**Pre-academic Skills**



**Child Care Quality**

**d=.39**

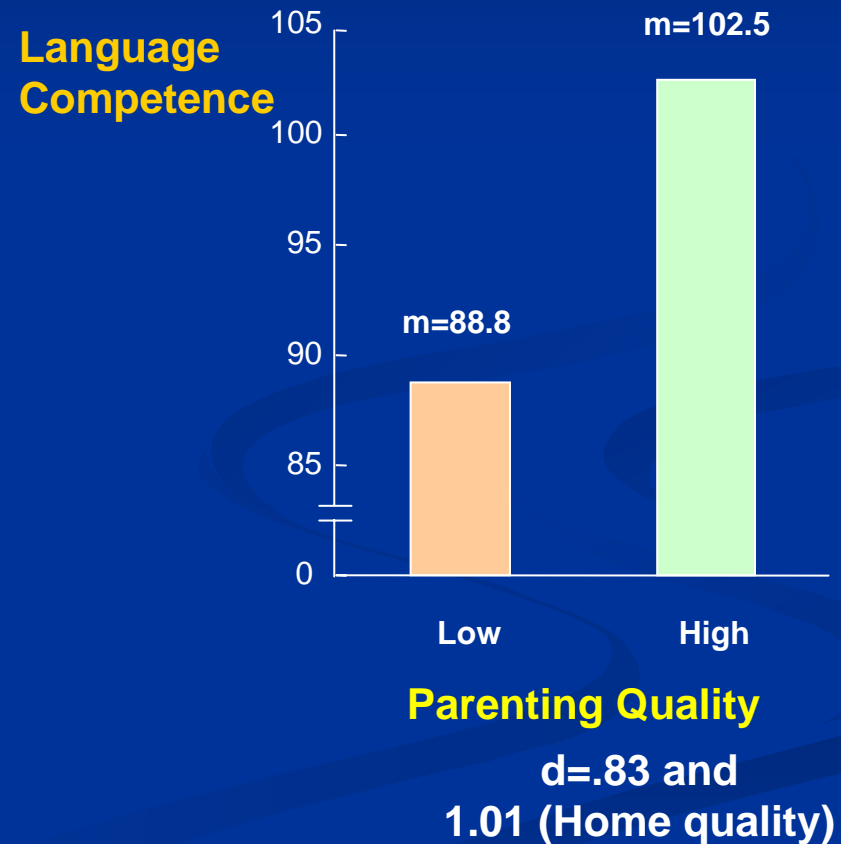
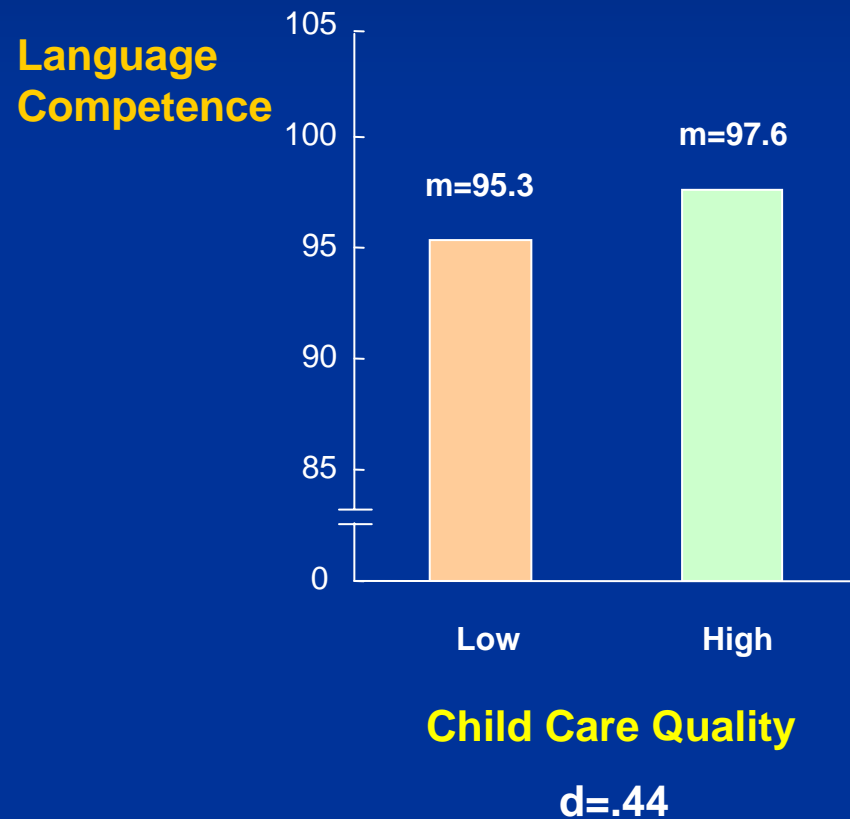
**Pre-academic Skills**



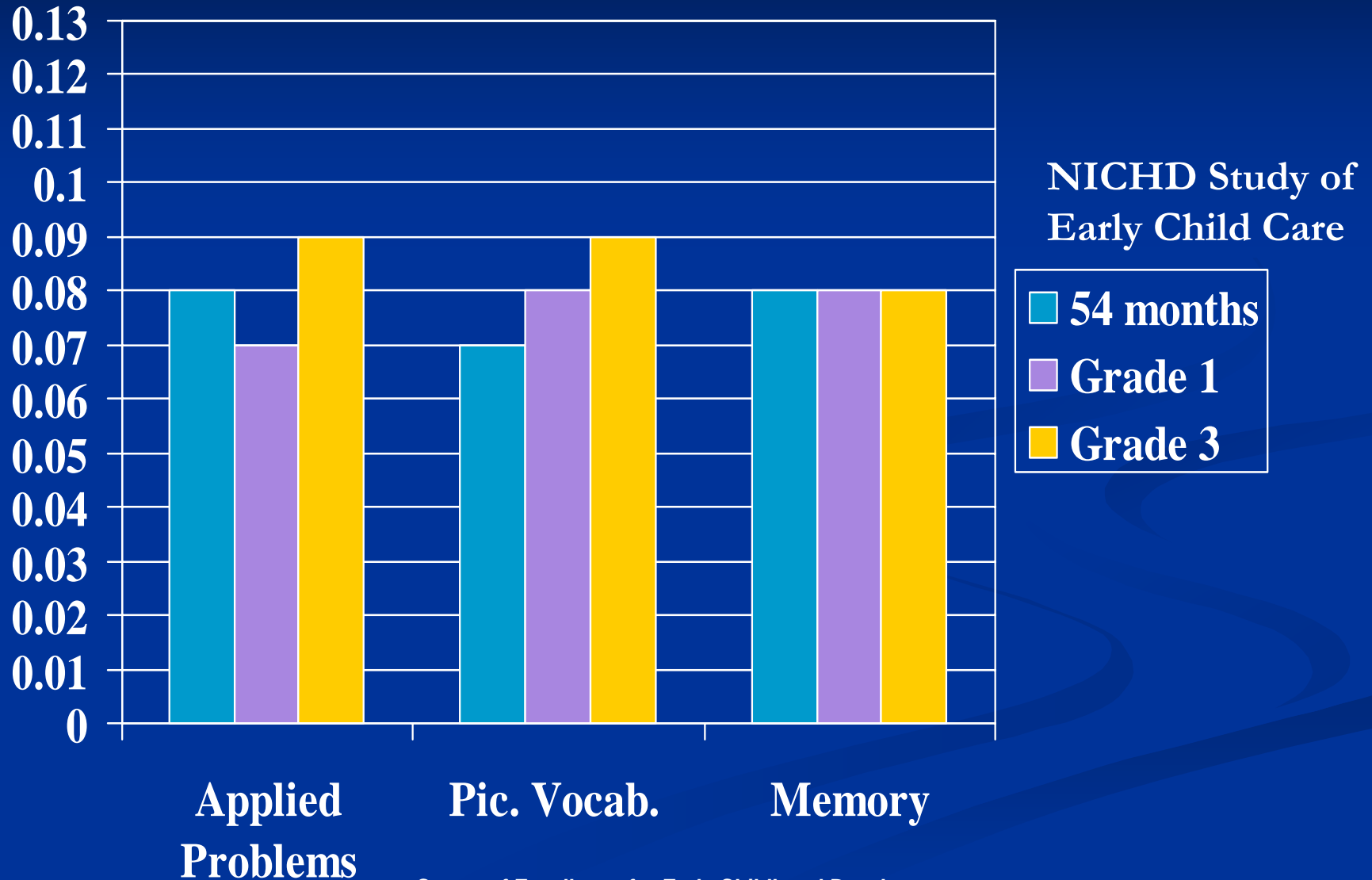
**Parenting Quality**

**d=.83**

# 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?