

# Child Care for Low Income Working Families: The Relation between Quality and Child Outcomes

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## Abstract

Indiana is a state where a high proportion of child care programs are exempt from licensing and in which many child care spending decisions are made at the community level. Indiana child care regulations allow child care ministries (i.e., center-based programs sponsored by churches) to operate without a state license. Yet there has been no systematic investigation of the quality of this relatively unregulated type of care.

In this presentation, we examine linkages between child care characteristics and children's developmental status. This presentation addresses two questions: (1) Does child care quality vary in regulation status (licensed vs. unlicensed)? (2) How is the quality level of child care that low-income working families use related to children's assessed cognitive and social outcomes?

## Research Problem

I. Does child care quality vary by regulation status and child age?

II. How is the quality level of child care that low-income working families use associated with children's assessed cognitive and social outcomes?

## Participants

### Criteria:

- Annual family income less than \$35,000
- Head of household working (employed, going to school, or in job training) at least half time
- Family having a child (6 mos – 6 yrs) enrolled in a out-of-home for at least 15 hours per week

### Description:

- N = 307 low-income working families of young children and their child care providers in 4 Indiana communities: St. Joseph (n = 78), Marion (n = 76), Allen (n = 76), Lake (n = 77)
- % of the families fell below federal poverty level
- Child mean age = 40 mos.
- 152 boys, 153 girls
- Child race: African American (59%), European American (23.5%), Other (12.7%)
- Only 25.7% living with fathers

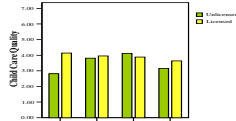
## Data Collection

- 4 urban counties in Indiana: St. Joseph (South Bend), Marion (Indianapolis), Allen (Fort Wayne), Lake (Gary, Hammond, E. Chicago)
- Recruitment:
  - Government agency offices (e.g., WIC)
  - Public places (e.g., public libraries)
  - Adult schools (e.g., GED classes)
- 2½ hour observation in child care setting to assess structural and process quality of the setting
- Assessment of child's cognitive and social development
- Parent survey
  - Demographic information
  - Rating scales on their child's cognitive and socio-emotional development
- Child care providers survey
  - Demographic information
  - Rating scales on the target child's cognitive and socio-emotional development

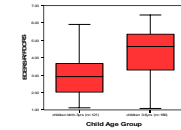
## Measures

- Younger Children (6–35mos; n=121)
  - Cognitive Outcomes
    - Mullen Scales of Early Learning (Mullen, 1995)
  - Social Outcomes
    - Brief Infant/Toddler Social and Emotional Assessment (BITSEA; Briggs-Gowan & Carter, 2001)
- Older Children (3–6yrs; n=186)
  - Cognitive Outcomes
    - Peabody Picture Vocabulary Test III (PPVT-III; Dunn & Dunn, 1997)
    - Family And Child Experiences Survey – social awareness task, color name, & counting (FACES research team, modified from Mason & Stewart, 1989)
    - Classroom Behavior Inventory – academic competence subscale (CBI; Schaefer & Edgerton, 1978)
  - Social Outcomes
    - CBI – extroversion & considerateness subscales
    - Social Competence and Behavior Evaluation (SCBE-30 items; LaFreniere & Dumas, 1996)

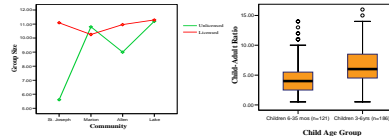
## Global Quality: Children in Licensed Child Care Settings Received Higher Quality Care than Children in Unlicensed Settings



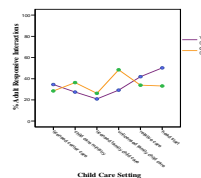
## Global Quality: Older Children Received Higher Quality Care than Infants and Toddlers



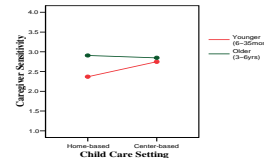
## Structural Quality: Group Size was Higher in Licensed Child Care Settings vs. Unlicensed Settings except Marion County; Child-Adult Ratio was Higher for Older Children than for Infants and Toddlers



## Process Quality: For Younger Children, Adults interacted more responsively in Child Care Centers and Head Start than in Licensed Family Child Care and Child Care Ministries



## Process Quality: Caregiver Sensitivity was Higher for Younger Children than for Older Children



## Child Outcome Composite Variables

For older children's outcomes, Principal Component Analysis was used to create composite variables:

### Cognitive Outcomes

- Composite 1 – PPVT-III, FACES 3 tasks
- Composite 2 – CBI academic competence (parent & provider reports)

### Social Outcomes

- Composite 3 – CBI extroversion & considerateness (parent & provider reports)
- Composite 4 – SCBE (parent & provider reports)

## Relations between Child Care Quality and Child Outcomes

Quality Variables	Cognitive Competence	
	Infants/Toddlers (Mullen)	Older Children (Composite 1)
ECERS-R/FDCRS	.33**	.39**
Group Size		.25**
Child-Adult Ratio		
Adult Responsive Interactions		
CIS (Arnett)	.28**	.18*

\* p < .05, \*\* p < .01

## Regressions Predicting Child Outcomes Using Quality Variables

Younger Children's Cognitive Competence					
Predictors	B	SE B	Std. Beta	t	R-square
Intercept	-3.48	.58		-6.06***	
Child Age in Months	.05	.01	.48	7.13***	
MOTHER EDUCATION	.07	.06	.07	1.13	.35
ECERS-R/FDCRS	.19	.07	.27	2.97**	
Group Size	-.01	.01	-.04	-.48	
CIS (Arnett)	-.02	.18	-.01	-.12	

Older Children's Cognitive Competence					
Predictors	B	SE B	Std. Beta	t	R-square
Intercept	56.16	9.16		6.13***	
Child Age in Months	-.06	.18	-.03	-.32	
Mother Education	3.87	1.57	.22	2.47*	.17
ECERS-R/FDCRS	3.3	1.75	.24	1.88	
Group Size	.25	.41	.06	.60	
CIS (Arnett)	3.28	3.22	.14	1.02	

\* p < .05, \*\* p < .01, \*\*\* p < .001

## Conclusions

- Overall, children from low-income working families in licensed child care settings received higher quality care than in unlicensed settings.
- Infants and toddlers received lower quality care than preschool-age children in general, and in center-based programs.
- Average group sizes varied considerably across counties in unlicensed care settings, ranging from more than 10 children in one community to less than 6 in another.
- Group size in licensed care settings were generally higher than in unlicensed care settings.
- Child-adult ratio was higher for preschool-aged children than for infants and toddlers.
- The percentage of adult responsive interactions did not differ between age groups overall. However, younger children experienced adult responsive interactions more often in licensed child care centers and Head Start programs than in licensed family child care and child care ministries.
- Children's cognitive outcomes were significantly and moderately associated with quality variables for both younger and older children including global quality, group size, and caregiver sensitivity. Social outcomes were not related to any of the quality variables.
- Community contexts and types of child care are potentially important variables when addressing child care quality and child outcomes.