Children and Families in Diverse Settings

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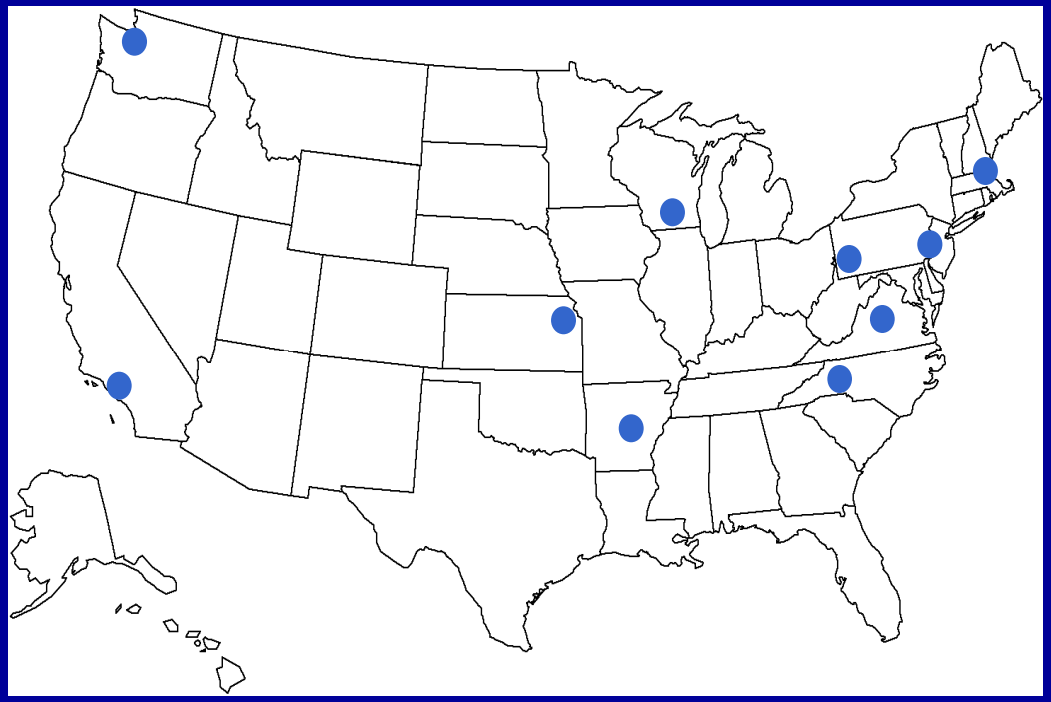
Overview

- Examine three large studies
  - NICHD SECCYD (1991-1997)
  - NHES 1997, 2001, 2005
  - NCEDL Pre-Kindergarten Evaluation (2001,2003)
- Describe associations between child care experiences and child outcomes
- Report descriptive statistics about proportion of children in diverse settings and identify family predictors of type, amount, and quality of care

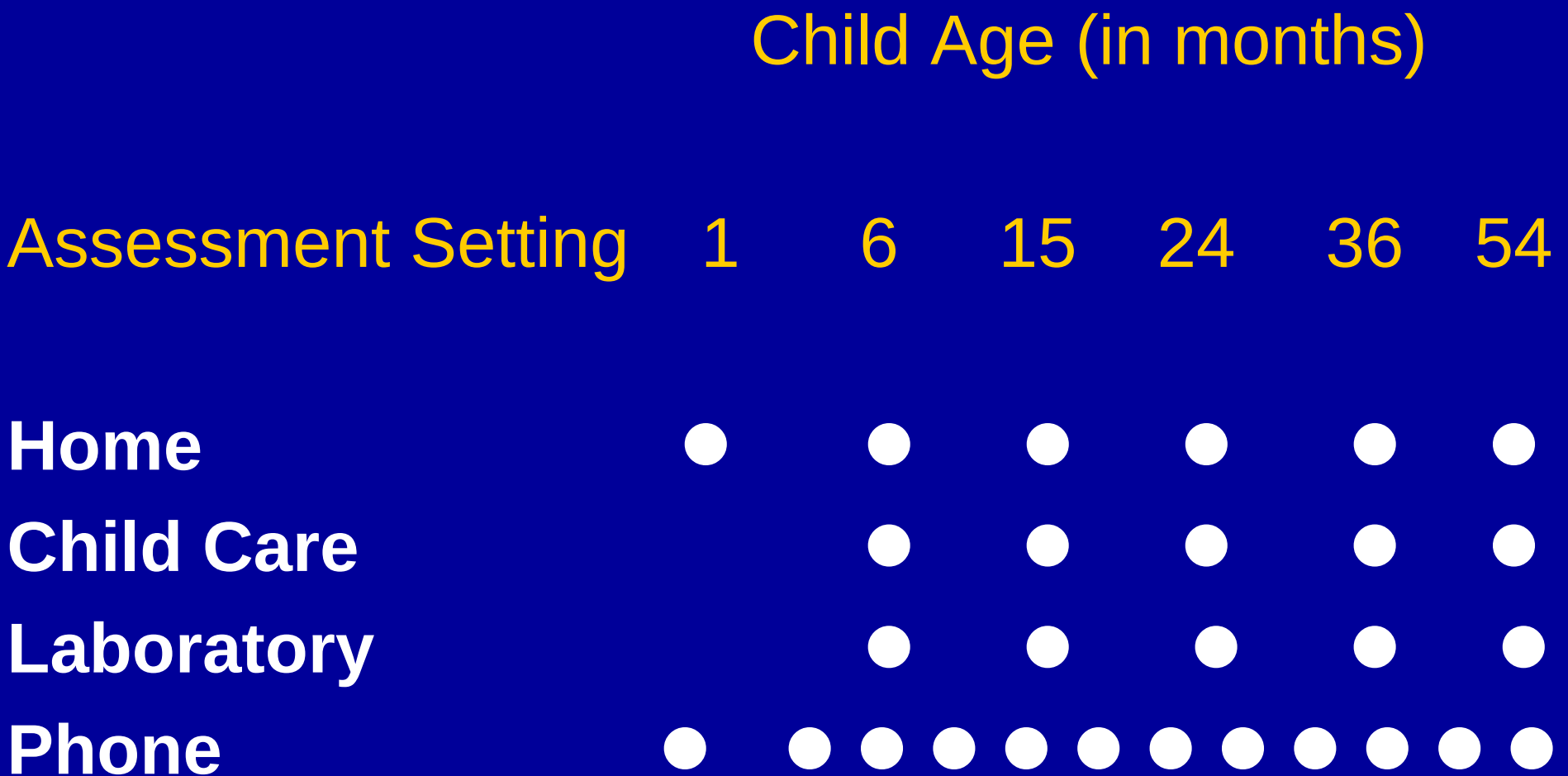
NICHD Study of Early Child Care and Youth Development- Sample

- **1,364 eligible births occurring during 1991**
- **Sampling designed to assure adequate representation of major socio-demographic niches**
- **Ten data collection sites**
- **24 hospitals**

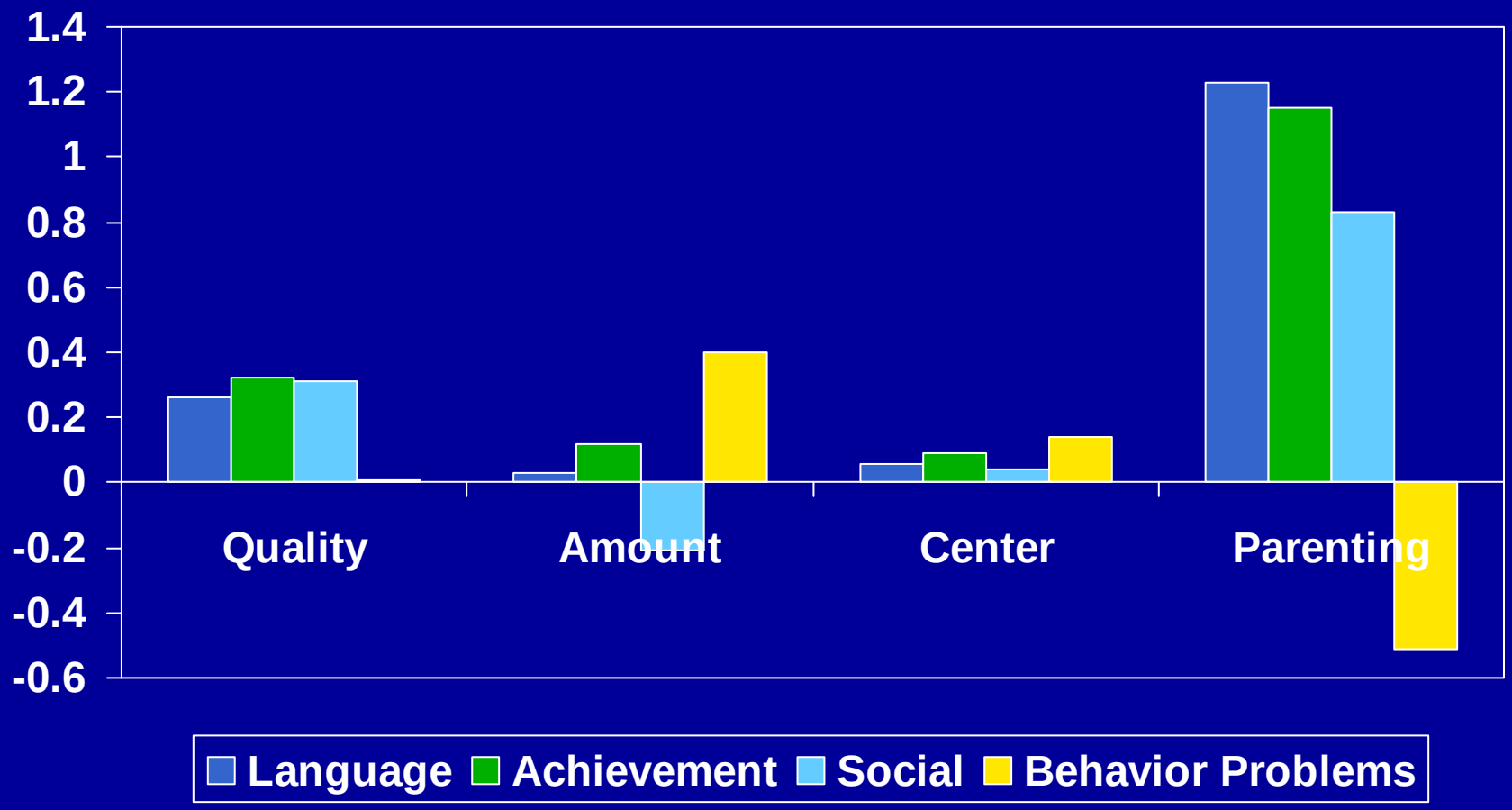
Location of participating families



Schedule of Assessments



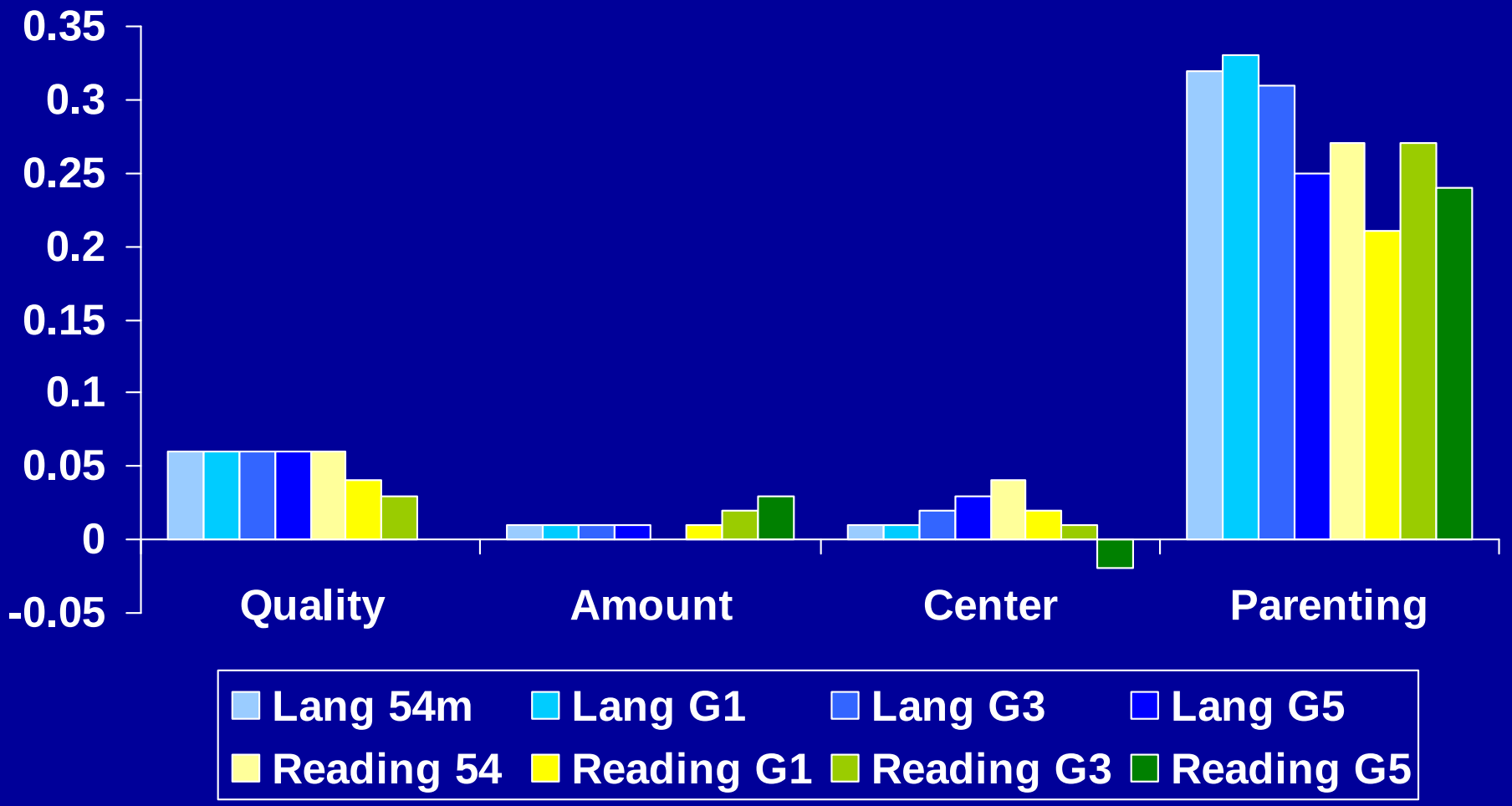
Child Care and 54m Outcomes- Standardized Mean Differences



Adjusting for site, gender, ethnicity, family income, maternal education and depression

Child Care and Longitudinal Outcomes

effect sizes computed from regression coefficients



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Child Care and Longitudinal Outcomes

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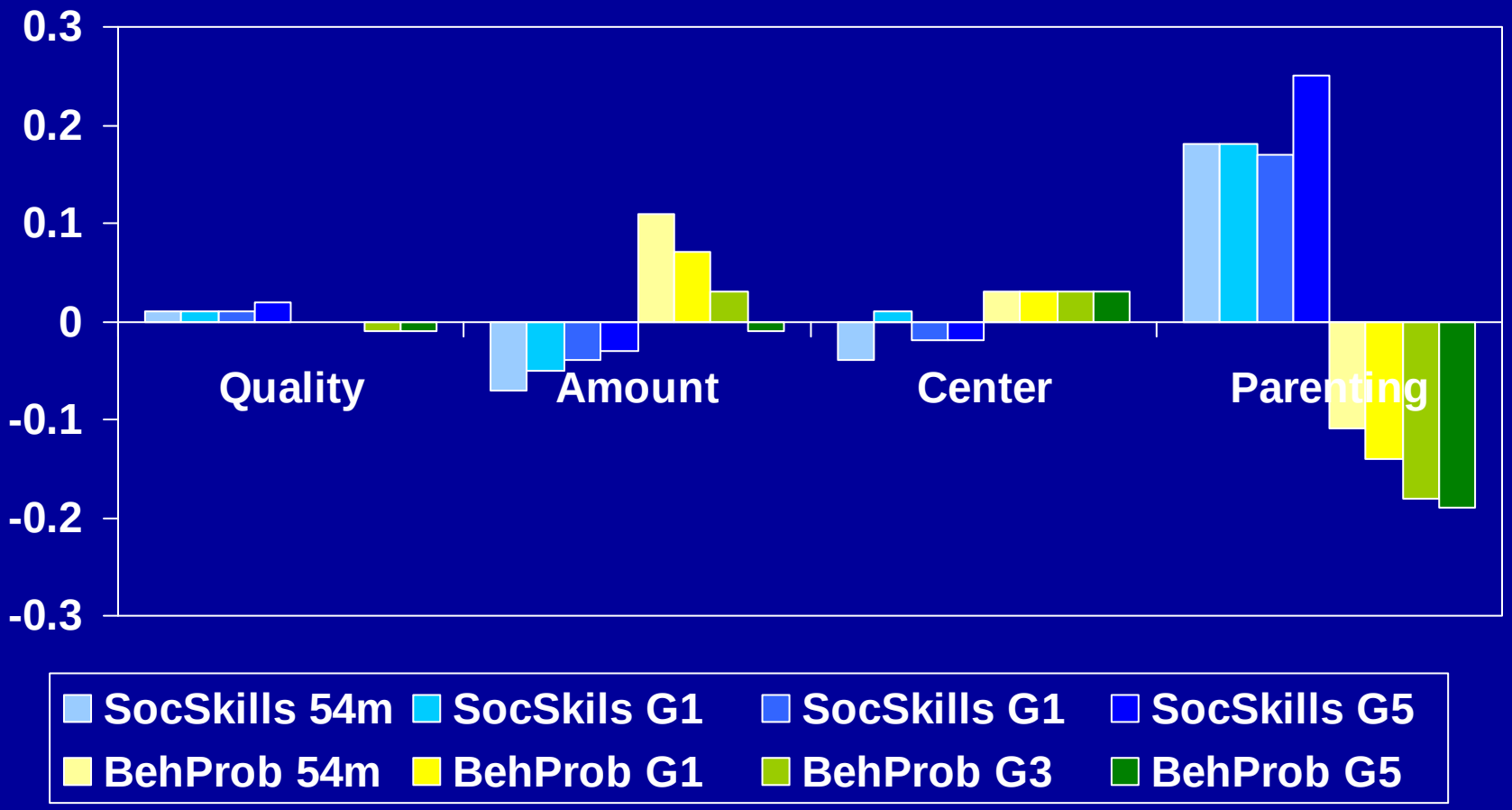
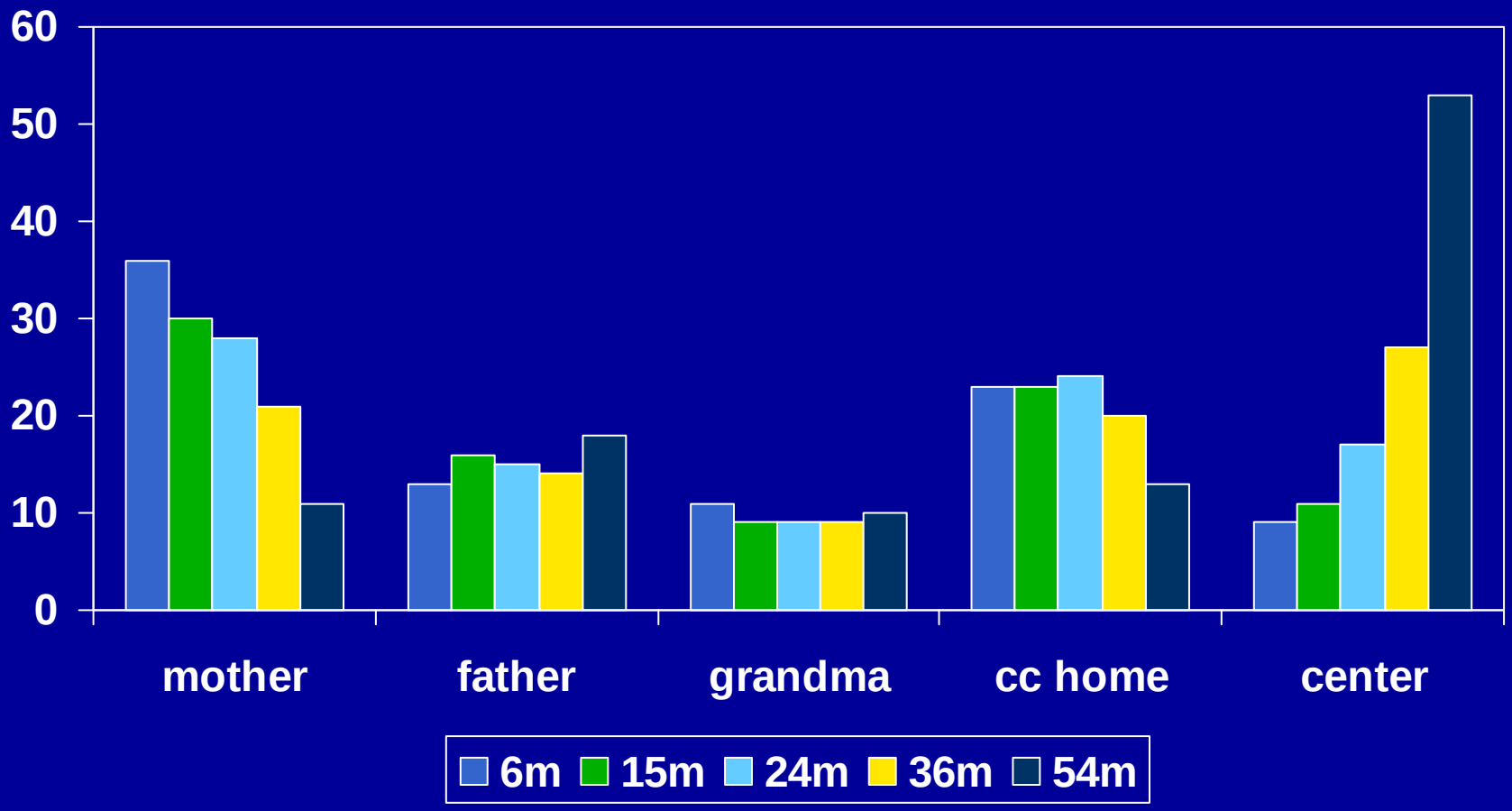


Adjusting for site, gender, ethnicity, family income, maternal education and depression

NICHD SECCYD – Type of Care by Age (1992-1997)

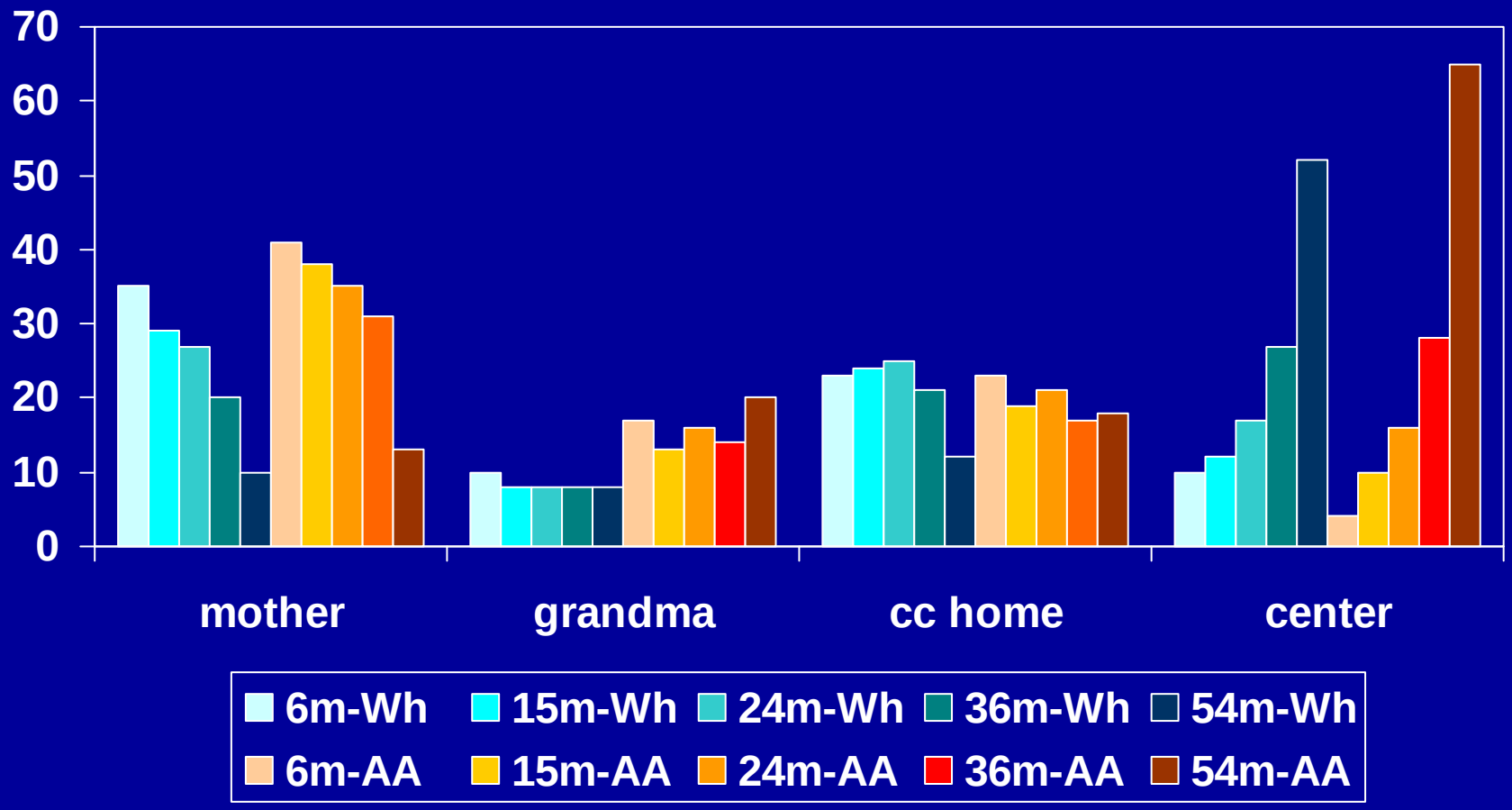


10 or more hours/week per setting aside from mother care, multiple settings per child

Diversity – Families and Child Care

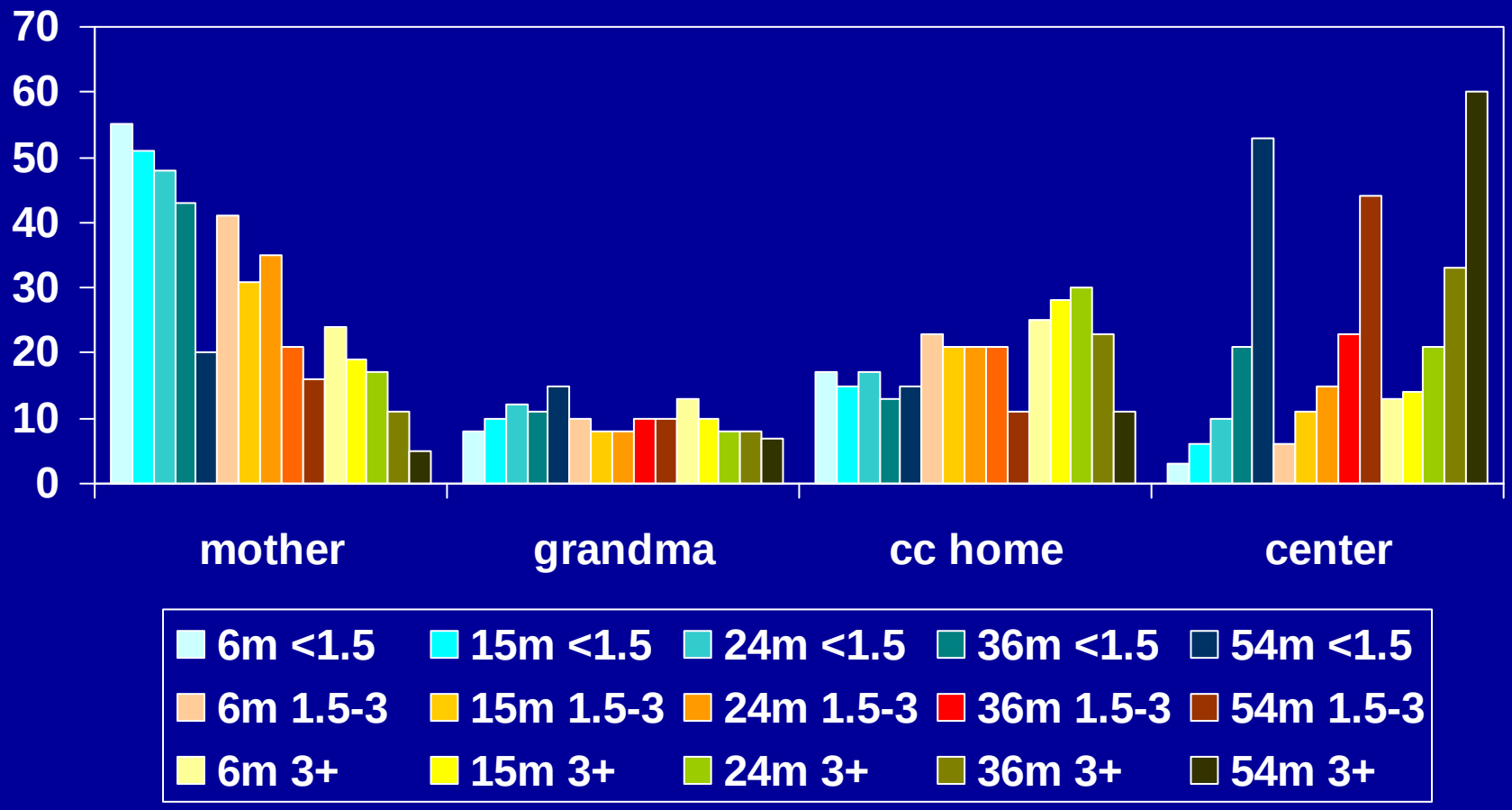
- Predictors of type of care
  - Age
    - decrease in exclusive maternal care
    - increase in center care
  - Ethnicity
    - In infancy – AA children more likely to be with mother or grandparent
    - At PreK – AA children more likely to be in a center
  - Income
    - Less income – more likely to be in maternal care
    - More income – more likely to be in a center or child care home

NICHD SECCYD – Ethnicity and Type of Care



10 or more hours/week per setting aside from mother care, multiple settings per child

NICHD SECCYD – Family Income and Type of Care



10 or more hours/week per setting aside from mother care, multiple settings per child

Predicting Use of Center Care

	6m (9%)	15m (11%)	24m (17%)	36m (27%)	54m (53%)
Male	1.55	1.25	.90	1.02	.96
Ethnic	ns	ns	ns	Ns	W<AA*
Income	1.14***	1.09***	1.12***	1.18***	1.13***
M educ	1.08	1.10*	1.09*	1.08*	1.10**
Partner	.74	.67	.45**	.40***	.59**

Odds ratios are listed, * p<.05; **p<.01; ***p<.001, controlling for site

Predicting Use of Child Care Homes

	6m (23%)	15m (24%)	24m (24%)	36m (20%)	54m (13%)
Male	1.04	.94	.97	1.10	.93
Ethnic	ns	ns	ns	ns	ns
Income	1.05	1.07**	1.05	1.01	1.00
M educ	1.07*	1.05	1.06	1.03	1.02
Partner	.48***	.53**	.53**	.69*	.52**

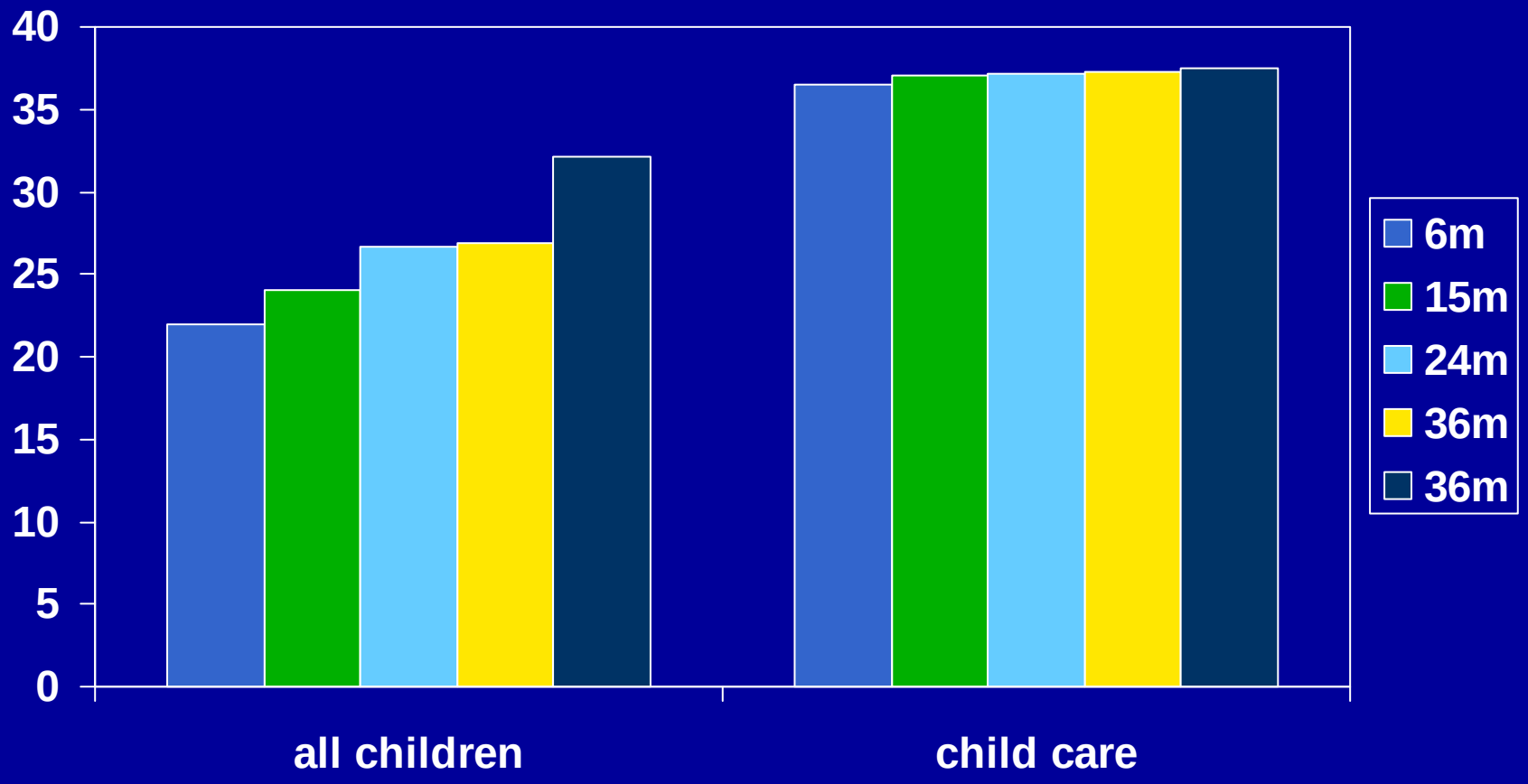
Odds ratios are listed. * p<.05; **p<.01; ***p<.001, controlling for site

Predicting Exclusive Maternal Care

	6m (36%)	15m (30%)	24m (28%)	36m (21%)	54m (11%)
Male	.93	1.02	1.15	.91	1.03
Ethnic	ns	ns	ns	ns	ns
Income	.78***	.77***	.74***	.67***	.62***
M educ	.90***	.91**	.91**	.89**	.95
Partner	3.03**	1.85**	2.12***	2.43***	1.89*

Odds ratios are listed, * p<.05; **p<.01; ***p<.001, controlling for site

Hours per Week of Child Care



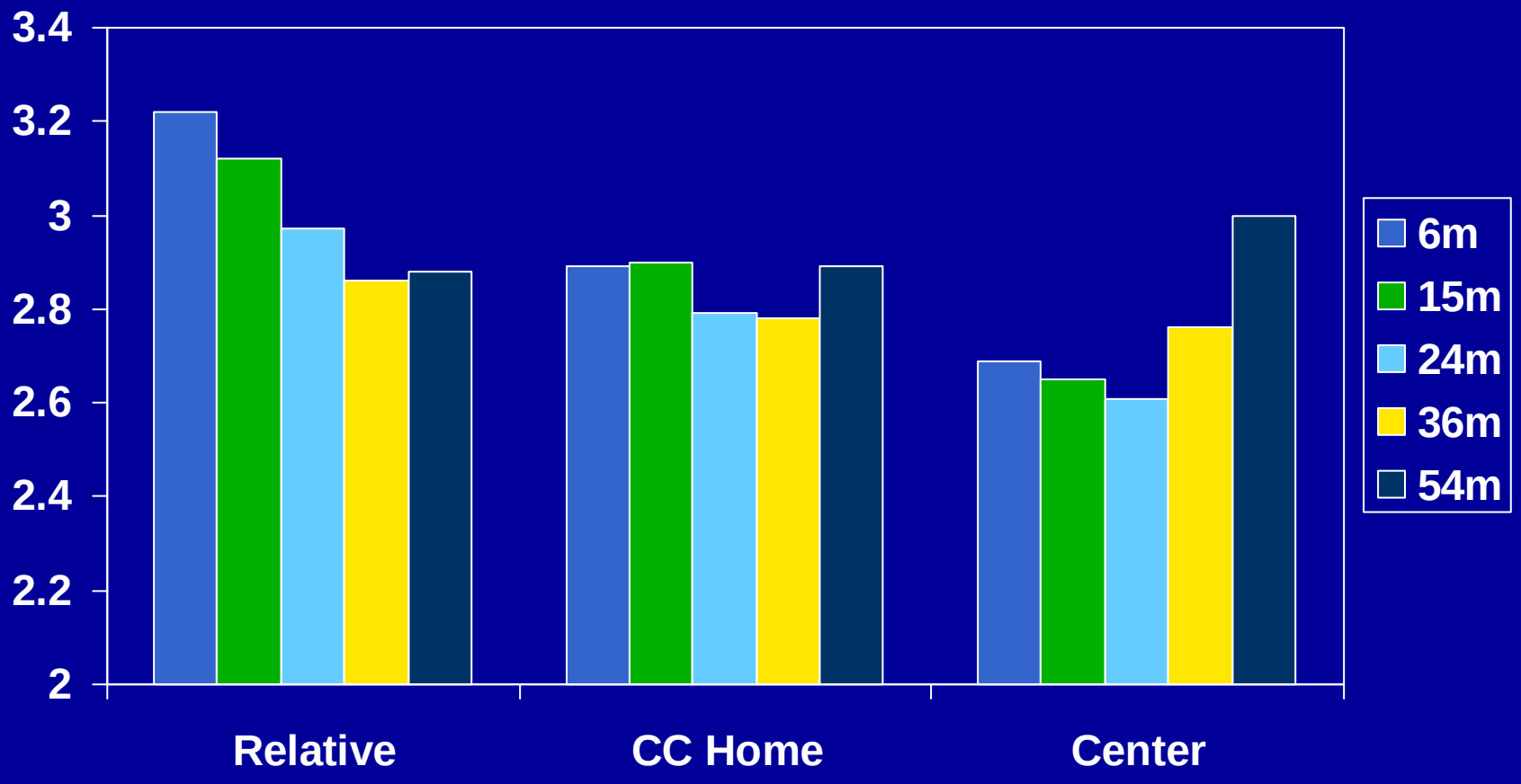
For “all”: N=1130-1315 and SD~20;
For CC: N=782-956 and SD~13

Predicting Amount of Care

	6m	15m	24m	36m	54m
Male	-.04	.02	-.02	-.01	.02
Ethnic	W,H<AA	W<AA,H	W,H<AA	ns	W<AA,H
Income	.10***	.12***	.08***	.09***	.02
M educ	-.06	-.05	-.07	-.09**	-.02
Partner	.00	-.01	-.08***	-.13***	-.06
Center	.27***	.25***	.32***	.36***	.37***
CC Home	.35***	.30***	.29***	.36***	.37***

Includes children with 10 or more hours of child care
Standardized Coefficients are listed, * p<.05; **p<.01; ***p<.001, controlling for site

Child Care Quality



N ranges from about 600 to 900; SD ~ .5

Predicting Quality of Care

	6m	15m	24m	36m	54m
Male	.04	-.13***	-.04	-.03	-.01
Ethnic	Ns	AA,H<W*	AA<W***	AA<W***	ns
Income	.08	.09*	.12**	.05	.03
M educ	.06	.08	.15***	.11**	.09*
Partner	.06	.05	.03	-.02	.10**
Hrs/Wk	-.05	-.01	-.03	-.10**	-.16***
Center	-.35***	-.33***	-.33***	-.10*	.04
CC Home	-.22***	-.15***	-.15***	-.07	.02

Standardized Coefficients are listed, * p<.05; **p<.01; ***p<.001, controlling for site

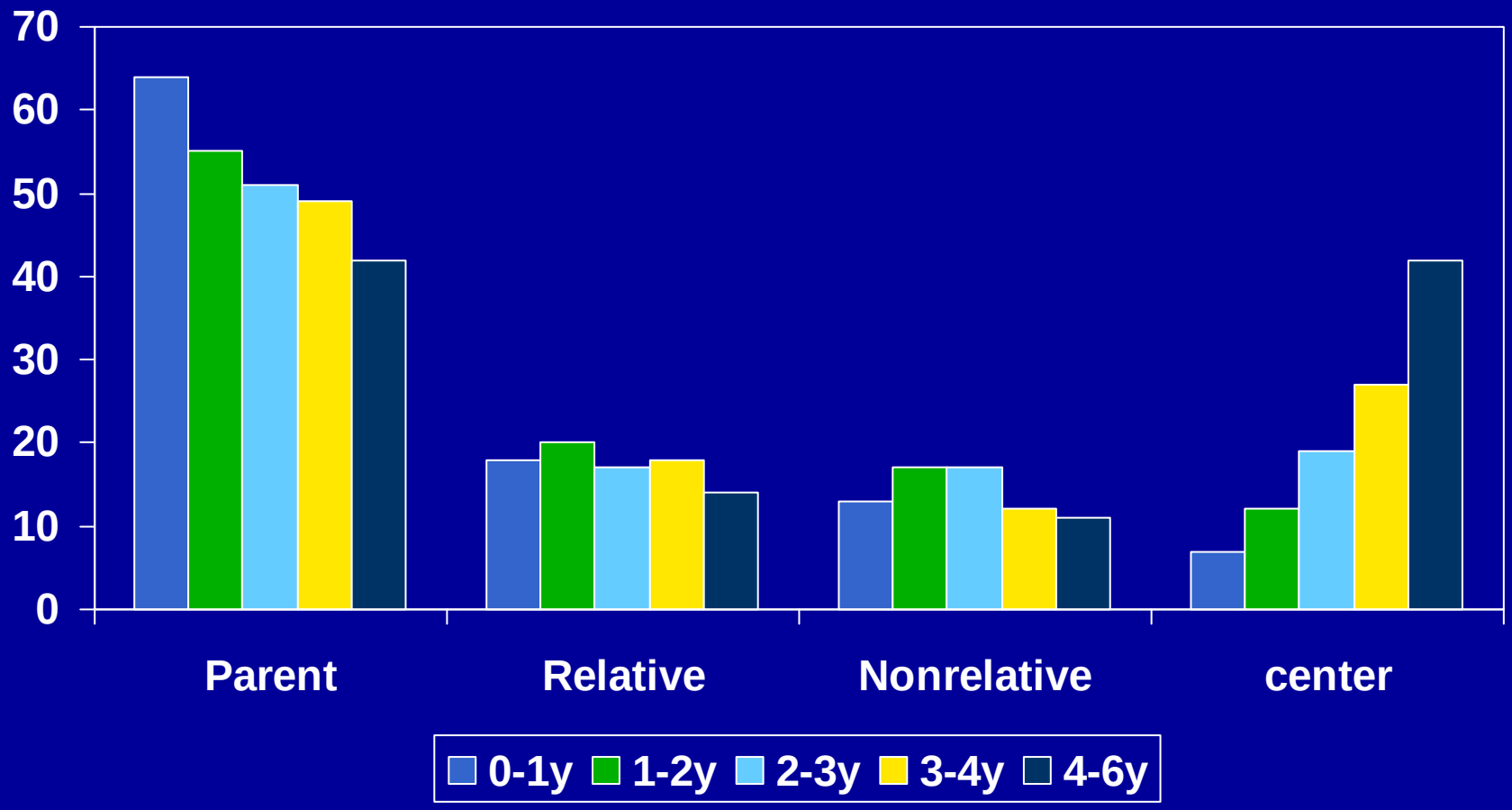
Quality: Income x Type Differences

- Looked at whether quality of care in different types of care varied depending on income (defined by poverty threshold):
- CC homes and grandparent:
  - Very low (0-1.5)< lower (1.5-3) < higher (>3)
- CC center – different pattern
  - 6 & 15m center lower < very low < high
  - 24, 36, 54 center – little difference in quality related to income

National Household Educational Survey

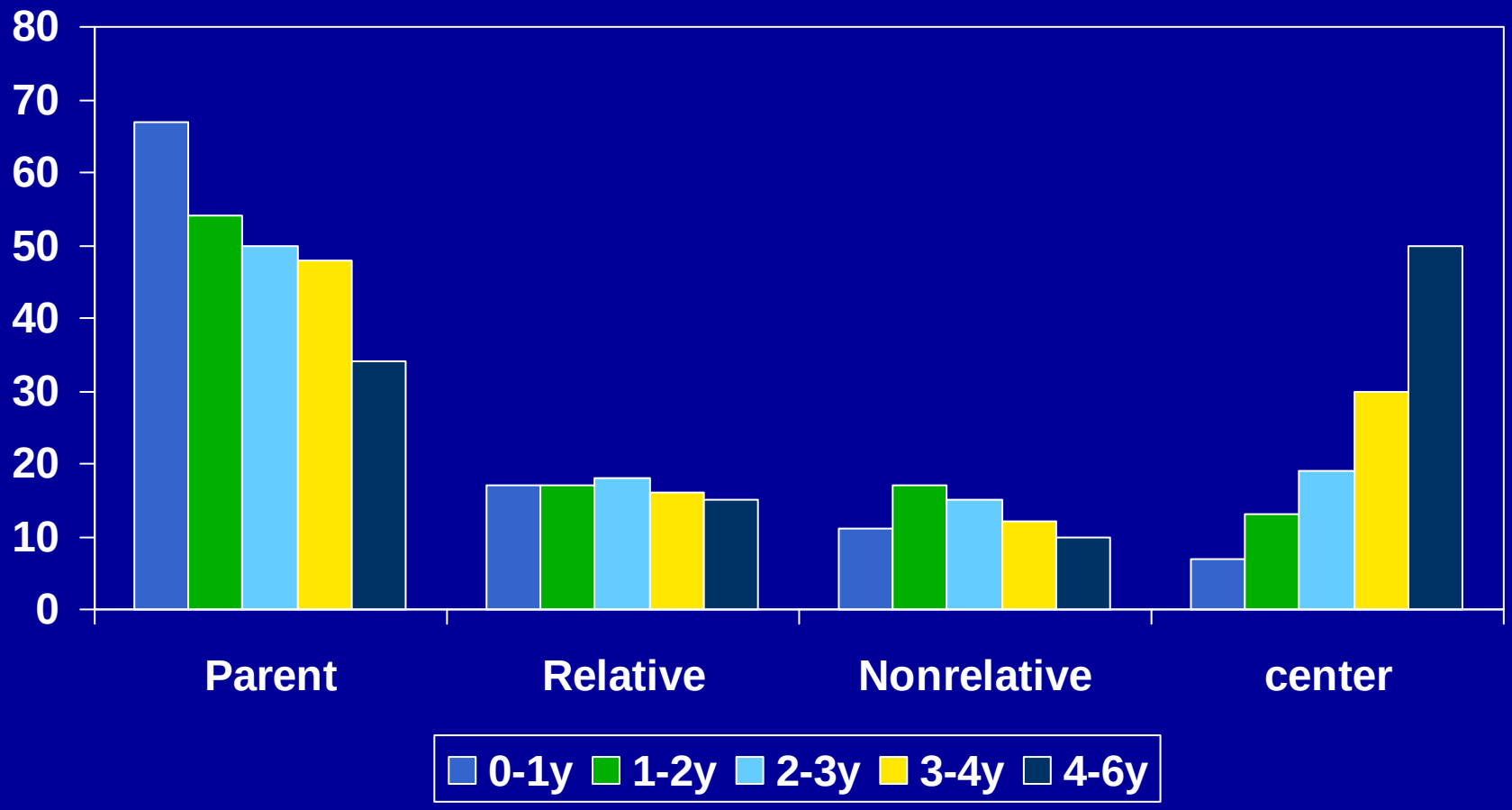
- Cross-sectional nationally representative sample
- Asked about child care in 1996, 2000, 2004
- We divided children based on age (0-1, 1-2, 2-3, 3-4, 4-6 years-of-age) and looked at type of care (present for at least 5 hours) and hours of child care per week

NHES – Type of Care by Age (1998)



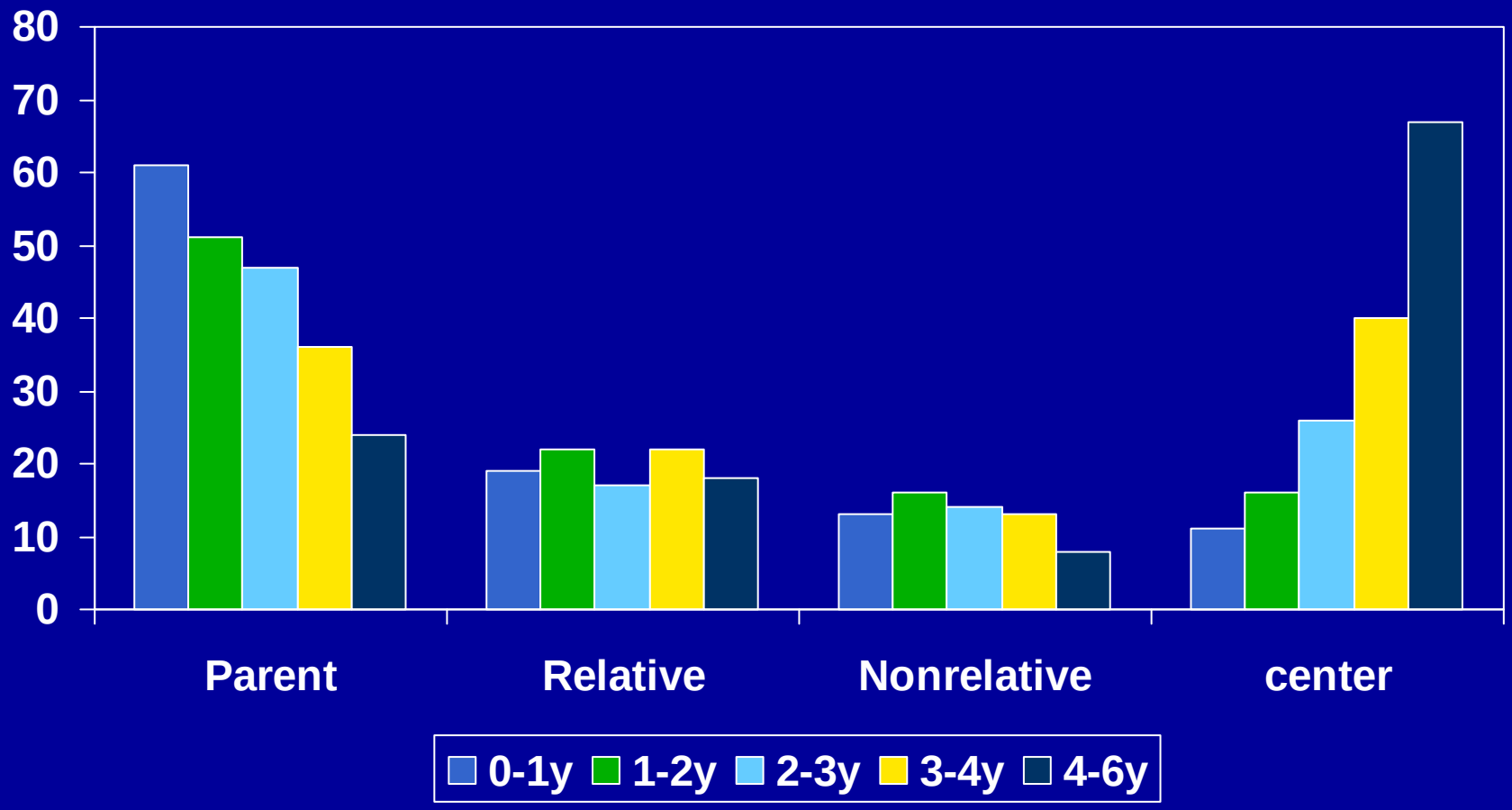
Parent care if less than10 hours of child care per week, 5 hours/week other setting

NHES – Type of Care by Age (2000)



Parent care if less than10 hours of child care per week, 5 hours/week other setting

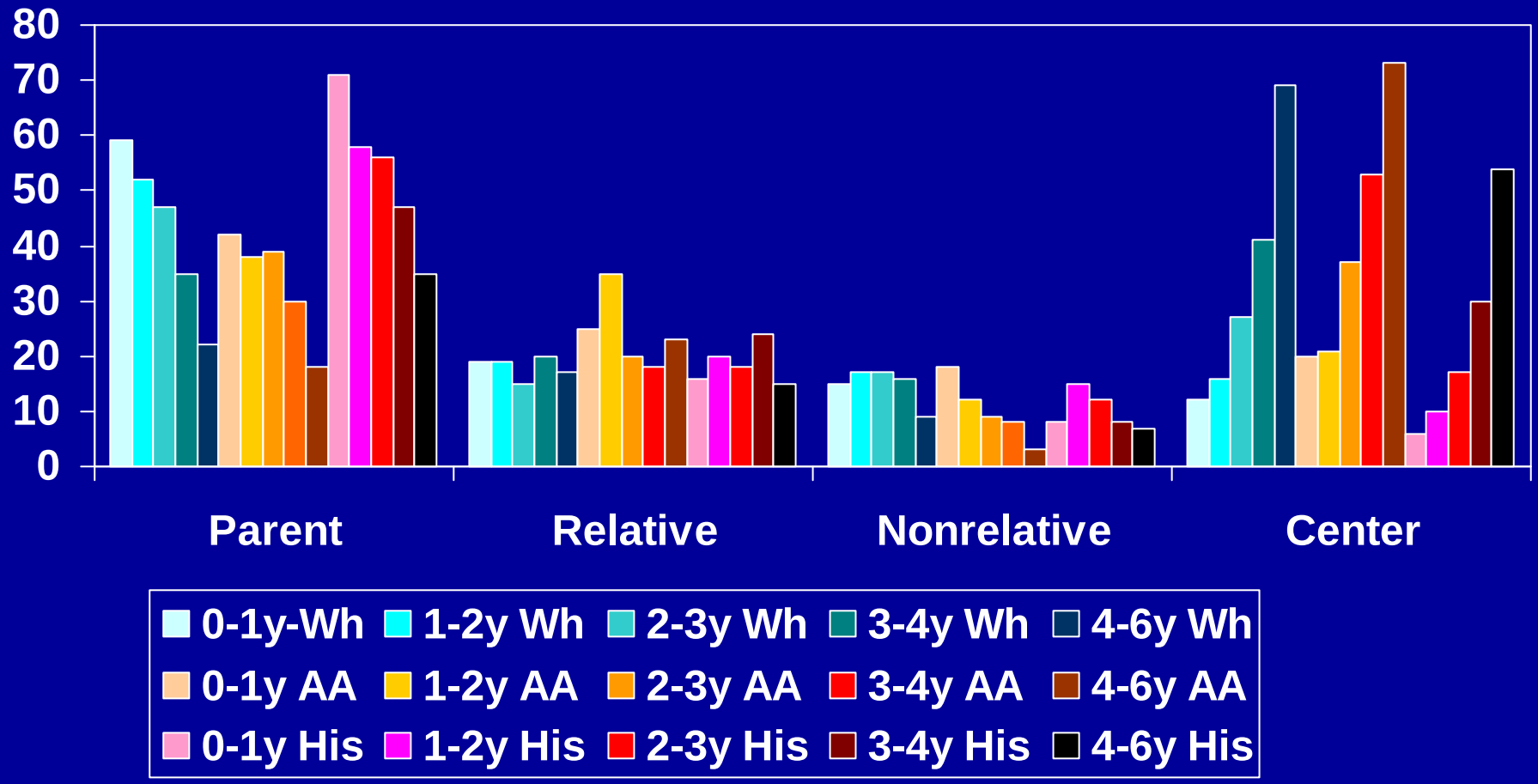
NHES – Type of Care by Age (2005)



NHES 2005

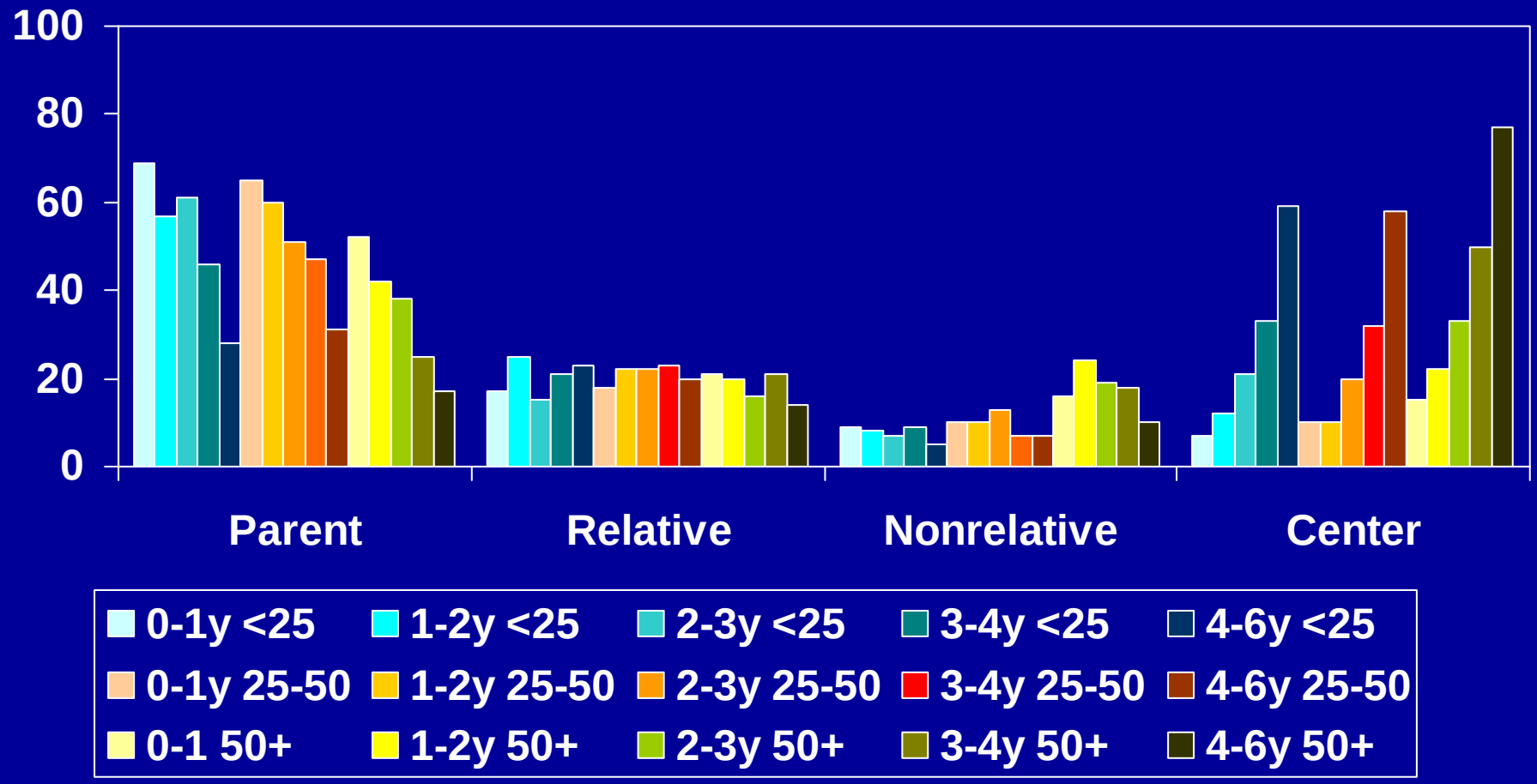
- Predicting type of care (similar pattern)
  - Age
    - Parental care most frequent for infants, decreases wage
    - Center care increases with age
  - Ethnicity
    - African American children use more child care and Hispanic children use less child care, especially center care
  - Income
    - Higher income children use more child care, especially center care

NHES 2005 Ethnicity and Type of Care



5 or more hours/week per setting aside from mother care, multiple settings per child

NHES 2005 Income and Type of Care



5 or more hours/week per setting aside from mother care, multiple settings per child

Predicting Center Care

	0-1y (11%)	1-2y (16%)	2-3y (26%)	3-4y (40%)	4-6y (67%)
Male	1.23**	1.40**	.97	.89**	1.55***
Ethnic	AA< O < W<H	AA< O < W<H	AA< O < W<H	AA< O,W,H	AA< O,W<H
Income	1.09**	1.14**	1.09**	1.08**	1.09**
M educ	1.21***	1.06*	1.16***	1.15***	1.15***
Partner	.45***	.38***	.37***	.68***	.63***

Odds ratios are listed, * p<.05; **p<.01; ***p<.001

Predicting Relative Care

	0-1y (19%)	1-2y (16%)	2-3y (15%)	3-4y (14%)	4-6y (18%)
Male	.99	.82***	.91**	1.02	1.06**
Ethnic	AA<O, W<H	AA<O, W,H	AA<H< W < O	W,H< AA,O	W,AA< O,H
Income	1.06***	.98	1.02	1.08***	.96**
M educ	.98	1.13***	1.00	.94**	1.04**
Married	.52***	.44**	.72***	.38***	.38***

Odds ratios are listed, * p<.05; **p<.01; ***p<.001

Predicting Nonrelative Care

	0-1y (13%)	1-2y (16%)	2-3y (14%)	3-4y (13%)	4-6y (8%)
Male	.80**	.77**	1.15**	1.43**	1.18**
Ethnic	O<AA< W<H	O<H< W<AA	O < W, H < AA	O <W< H < AA	O<W< H < AA
Income	1.05***	1.31***	1.09**	1.09**	1.09**
M educ	1.18***	1.14***	1.09**	1.15**	1.02
Married	.44***	.62***	.84***	.25***	.53***

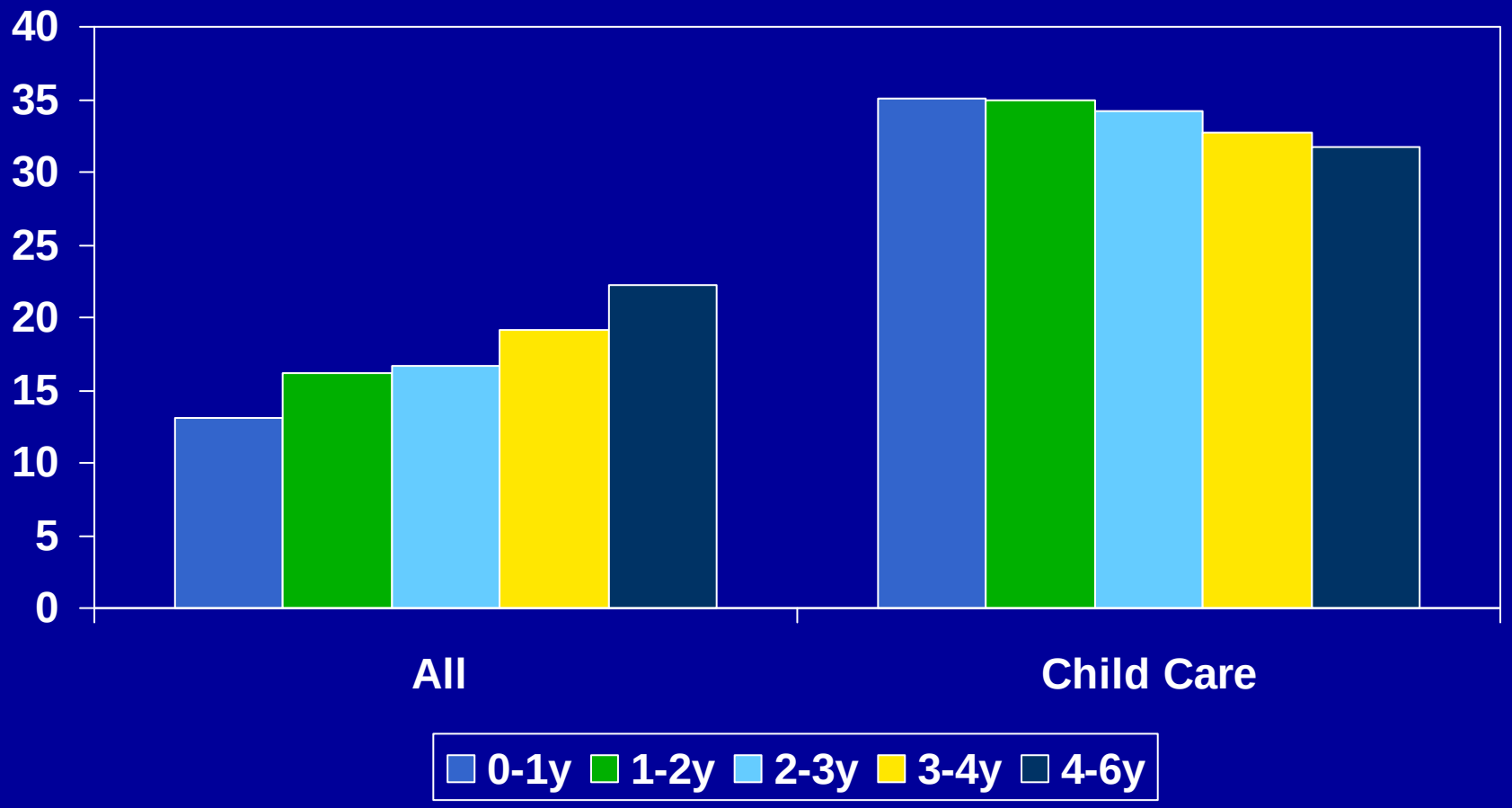
Odds ratios are listed, * p<.05; **p<.01; ***p<.001

Predicting Exclusive Maternal Care

	0-1y (61%)	1-2y (51%)	2-3y (47%)	3-4y (36%)	4-6y (24%)
Male	1.02	1.09***	.99	.97	.67***
Ethnic	AA,O> W>H	AA,O> W,H	AA>O, W>H	AA>O, W>H	AA>O, W>H
Income	.91***	.89***	.89***	.86***	.94***
M educ	.92***	.87***	.87***	.90***	.87**
Married	2.54***	2.84***	2.84***	3.84***	2.06***

Odds ratios are listed, * p<.05; **p<.01; ***p<.001, controlling for site

NHES 2004 Hours/Week of Child Care



Includes children in care for 10 or more hours/week; SD ~ 19 for ALL and 15 for CC

Predicting Amount of Care$^{\tau}$

	0-1y	1-2y	2-3y	3-4y	4-6y
Male	-.12*	-.05	-.07	.02	-.03
Ethnic	Ns	AA<H, O,W.	Ns	AA<H, O,W	AA<H, O,W
Income	-.04	.11*	.09	-.03	.08*
M educ	-.04	-.04	.00	-.01	.12***
M Married	-.02	-.04	-.18***	-.15***	-.28***
Center	.28***	.14**	.25***	.06	-.06*
CC Home	.18***	.07	.17***	.29***	.15***

τIf in care for 10+ hrs/wk;

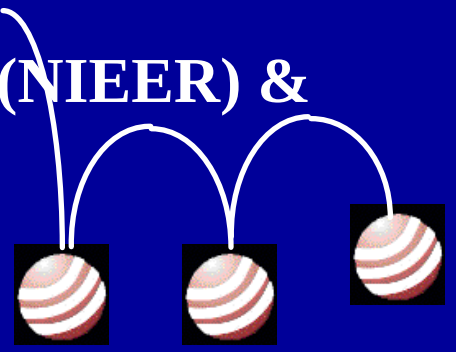
τStandardized Coefficients are listed, * p<.05; **p<.01; ***p<.001

Diversity – Families and Child Care

- Looked at Ethnicity x Income interactions
  - Type of care
    - Center: none
    - Relative: Hispanic – income more of a negative predictor
    - Nonrelative: Other – income more of a negative predictor. African American – income more of a positive predictor
    - Parental Care: African American – income more of a negative predictor
  - Amount of care
    - African American – income more of a negative predictor

Multi-State Study of Pre-Kindergarten & Study of State-Wide Early Education Programs (SWEEP)

Funded by the:
U.S. Department of Education,
National Institute for Early Education Research (NIEER) &
The Foundation for Child Development



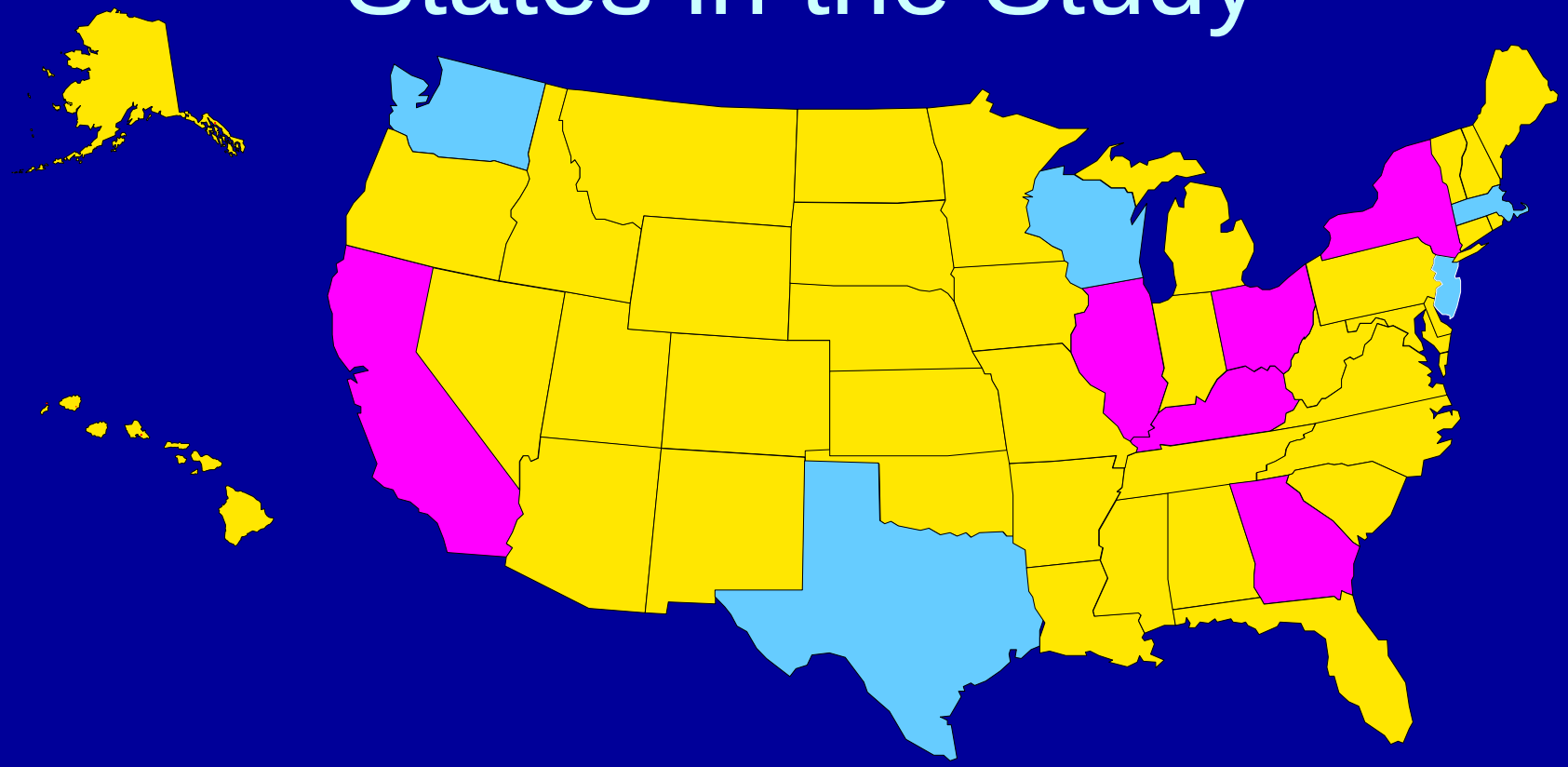
Sampling Strategy

- Site Selection- States must have mature Pre-K program that served a substantial number of children
  - Multi-State
    - 6 states: 40 school/centers selected randomly, per state, stratified by: teacher credentials (BA vs. no BA), in school vs. non-school, and full/part day
  - SWEEP:
    - 5 states: aimed for 100 school/centers selected randomly, per state (no stratification)
- Class Selection - 1 classroom selected randomly

  n ~ 750 classes
- Child Selection - 4 4-year-old children per class selected randomly (half girls)

  N ~ 3000 children

States in the Study



Multi-State Study of Pre-K

California, Illinois, Kentucky, Ohio, Georgia, & New York

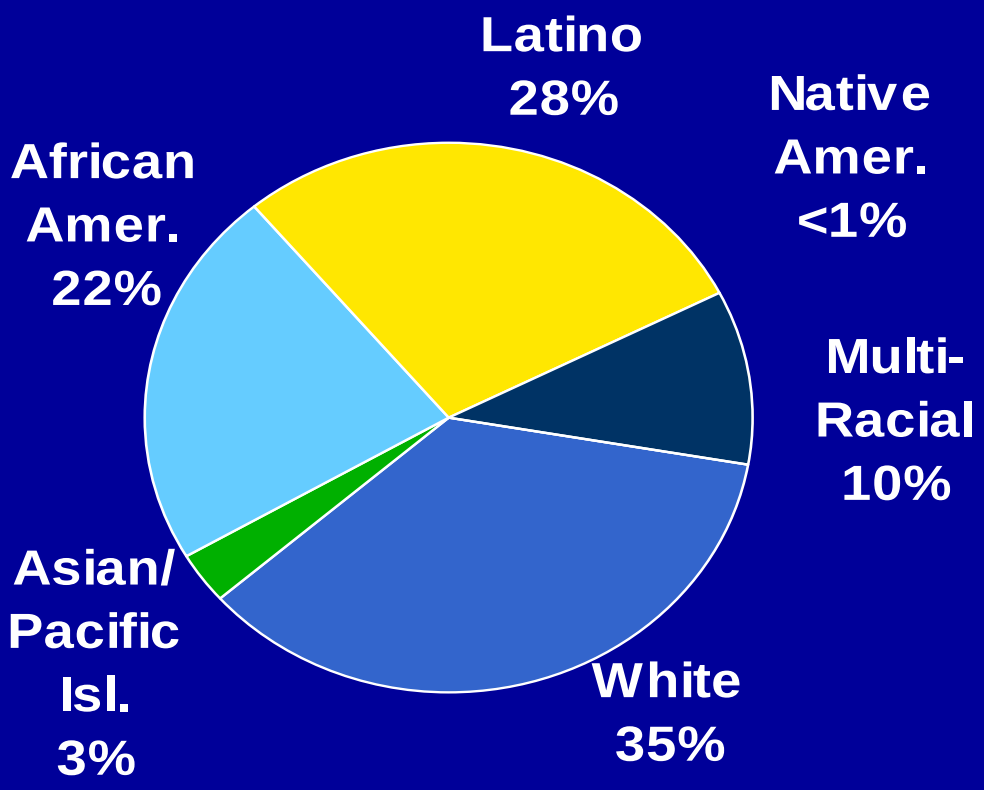
SWEEP

Massachusetts, New Jersey, Texas, Washington, & Wisconsin

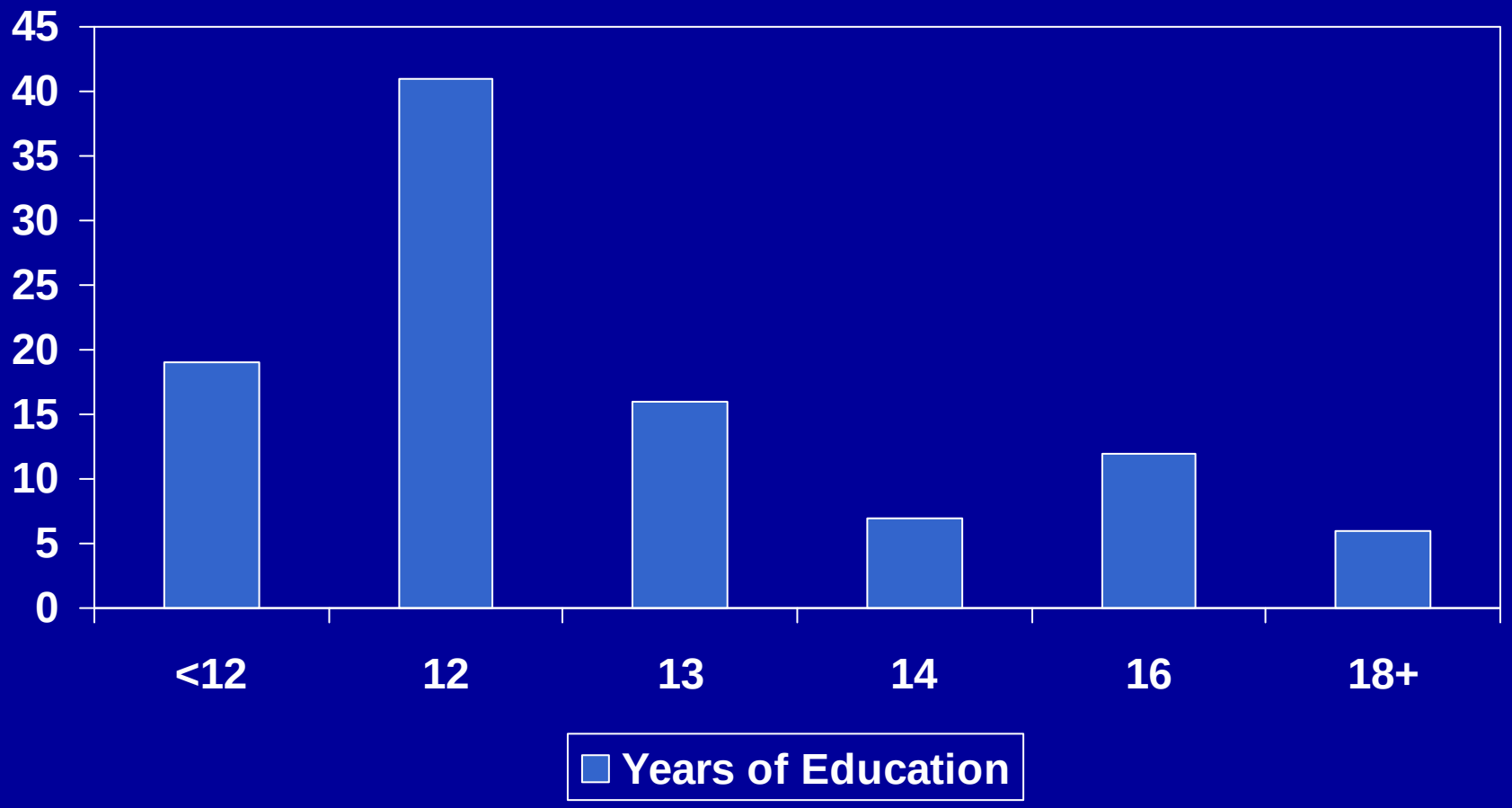
Pre-Kindergarten Classrooms

- Teacher education
  - MA or higher 22%
  - BA 58%
  - AA 15%
  - CDA only 14%
  - HS <1%
- State Teaching Certification 57%
- Location - Public School 53%

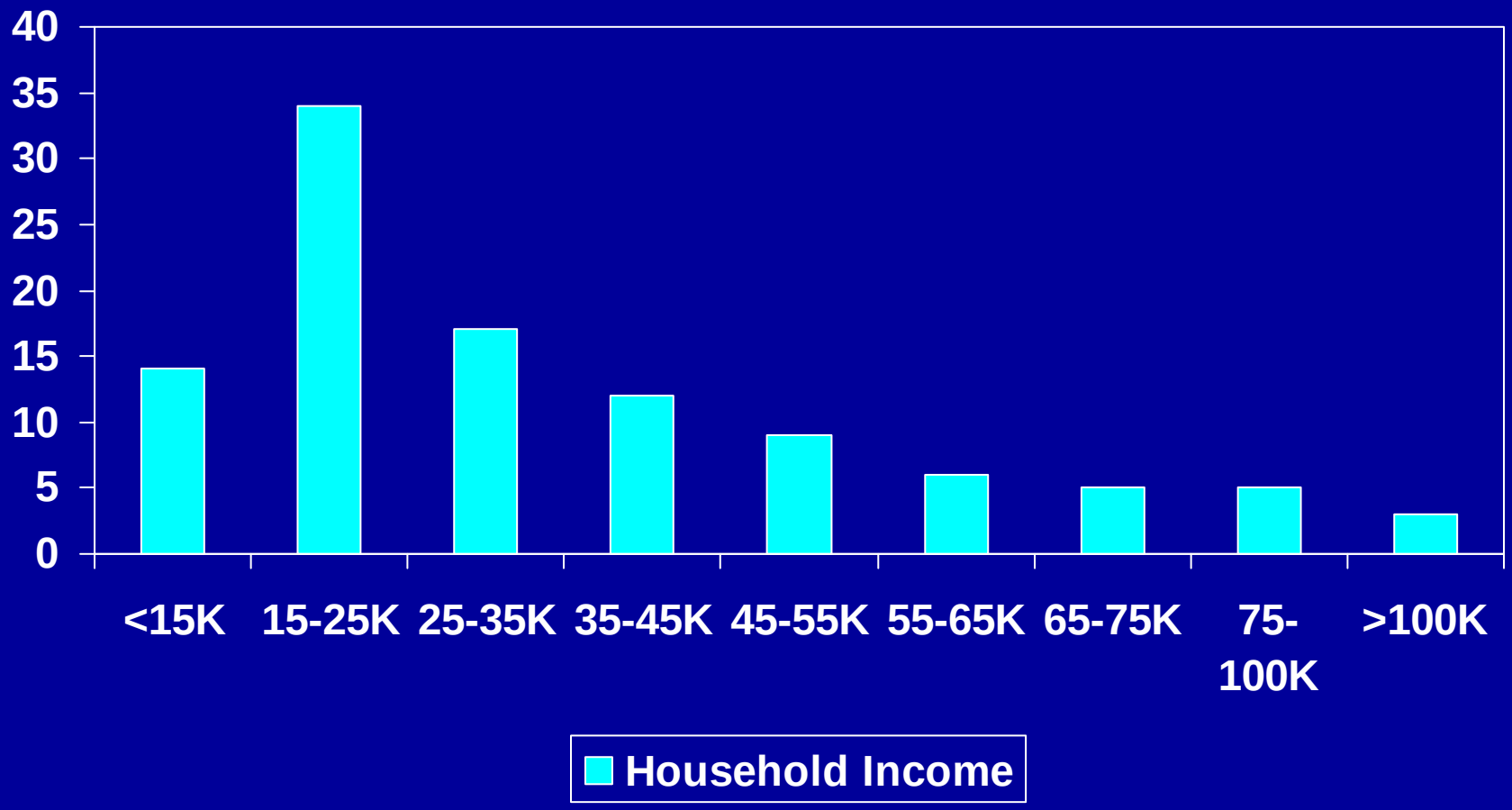
Child Race/Ethnicity



Maternal Education



Family Income



Gains in pre-academic skills after controlling for family characteristics

Language and Literacy

	Receptive PPVT	Expressive OWLS	Rhyming	Naming Letters	Teacher Ratings
n	699	683	691	695	780
Gain	2.63***	3.42***	1.27***	4.96***	.67***
(SE)	(.52)	(.47)	(.15)	(.31)	(.04)
d	.19	.28	.49[a]	.58[a]	.83[a]

Note*** p<.001

analyses include site, maternal education, poverty, gender as covariates.

[a] not adjusted for normative gains over time

Gains in pre-academic skills after controlling for family characteristics

Mathematics and social skills

		Applied Problems	Naming Numbers	Social Competence	Behavior Problems
n		685	695	795	792
Gain	B	2.44***	2.28***	.13***	-.03
	(SE)	(.54)	(.15)	(.03)	(.02)
	d	.18	.59[a]	.18	-.06

Note*** p<.001

analyses include site, maternal education, poverty, gender as covariates.

[a] not adjusted for normative gains over time

Predicting Gains during PK Year from PK Teacher Sensitivity

- ECERS Teaching and Interactions
  - Phonemic awareness r_p =.09*
  - Social competence r_p =.08*
- CLASS Emotional Climate
  - Social competence r_p =.06*
  - Behavior Problems r_p =-.07*

Note these two dimensions showed highest correlation, r=.73

analyses include site, maternal education, poverty, gender as covariates.

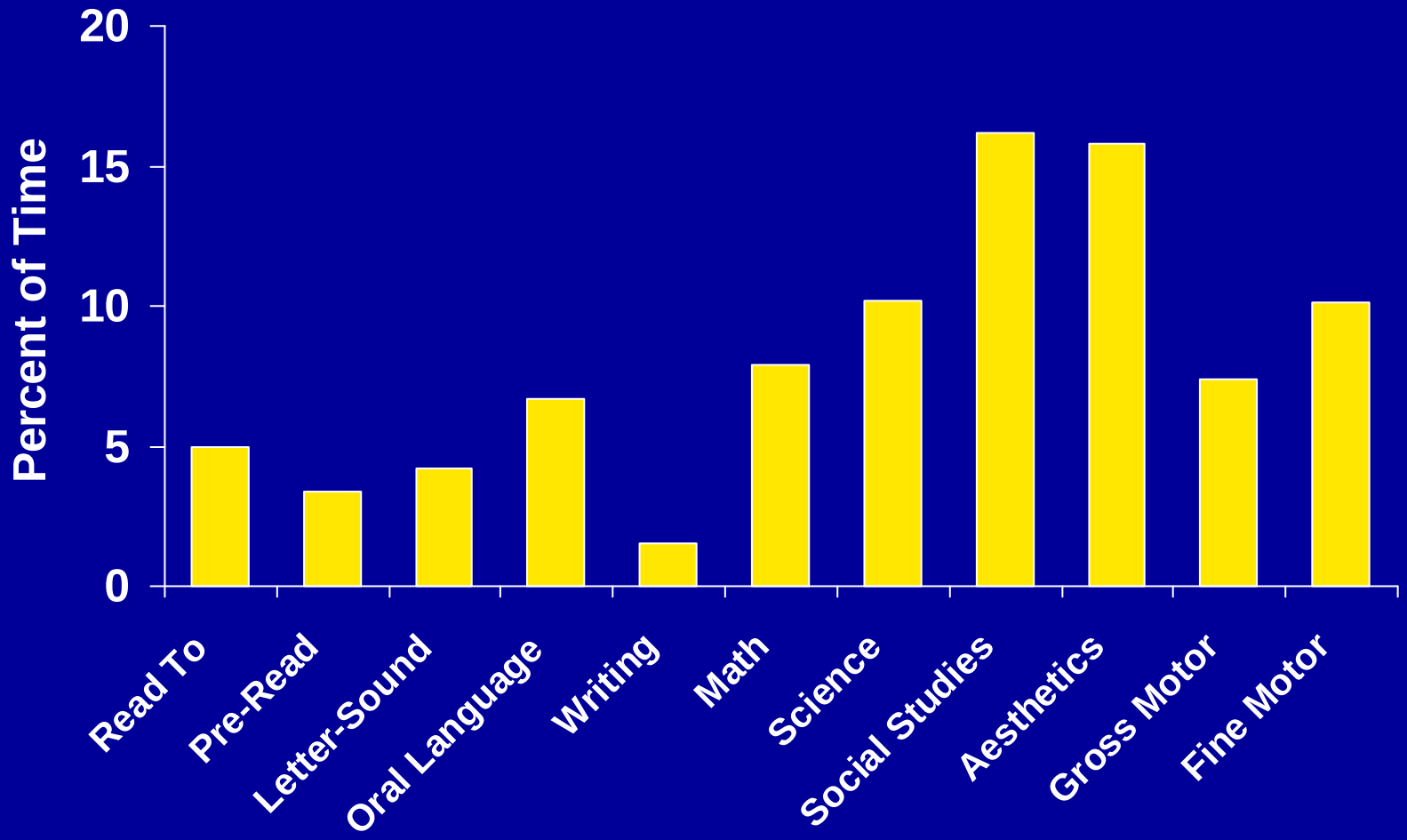
Predicting Gains during PK Year from PK Instruction

- CLASS Instructional Climate
  - Receptive language r_p =.07*
  - Expressive language r_p =.07*
  - Phonemic awareness r_p=.10**
- ECERS Provisions for Learning
  - None

Note * p<.05, ** p< .01

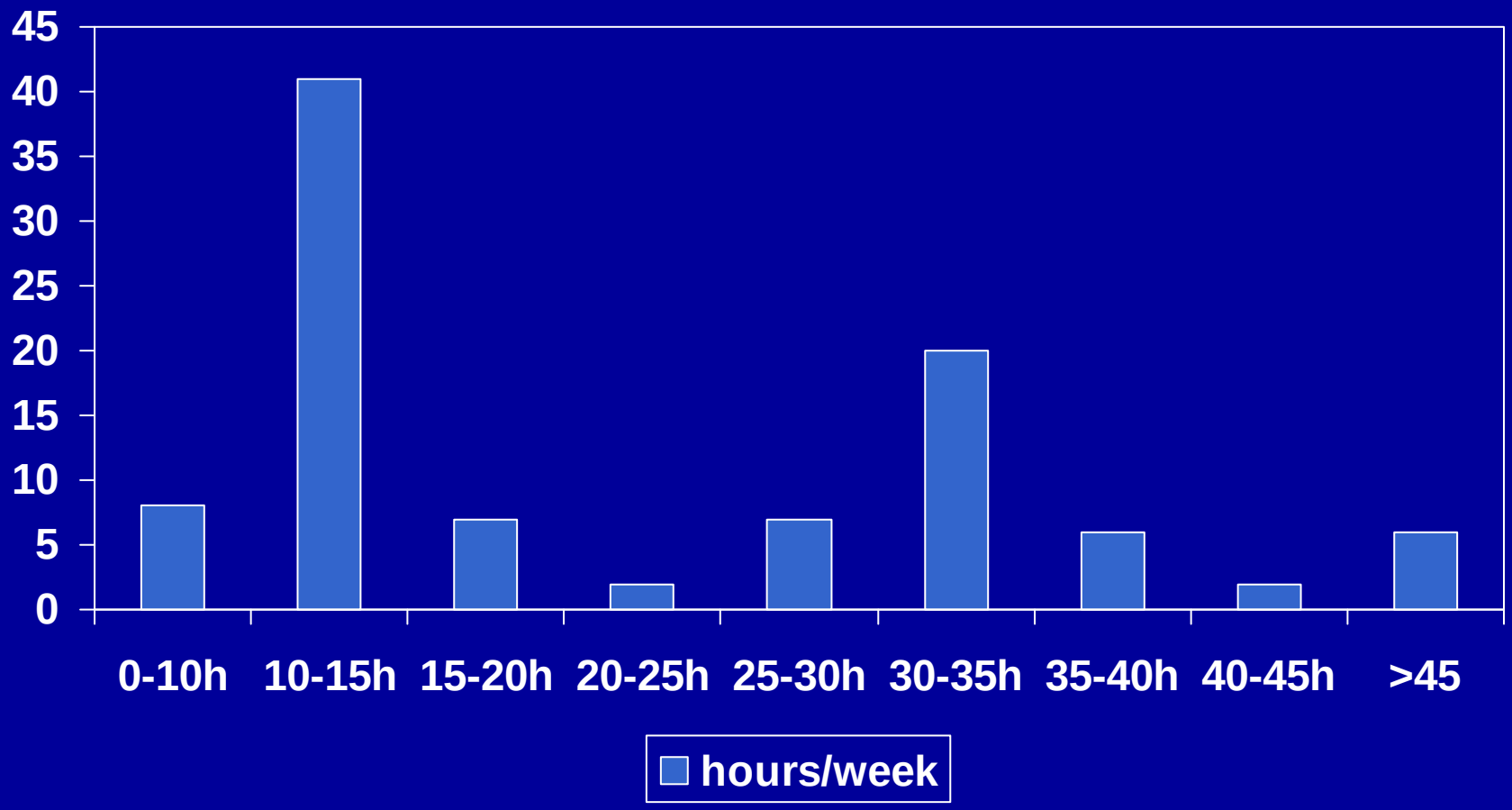
analyses include site, maternal education, poverty, gender as covariates.

Pre-K Child Activities



Children were not engaged in any of these activities 42% of the time.

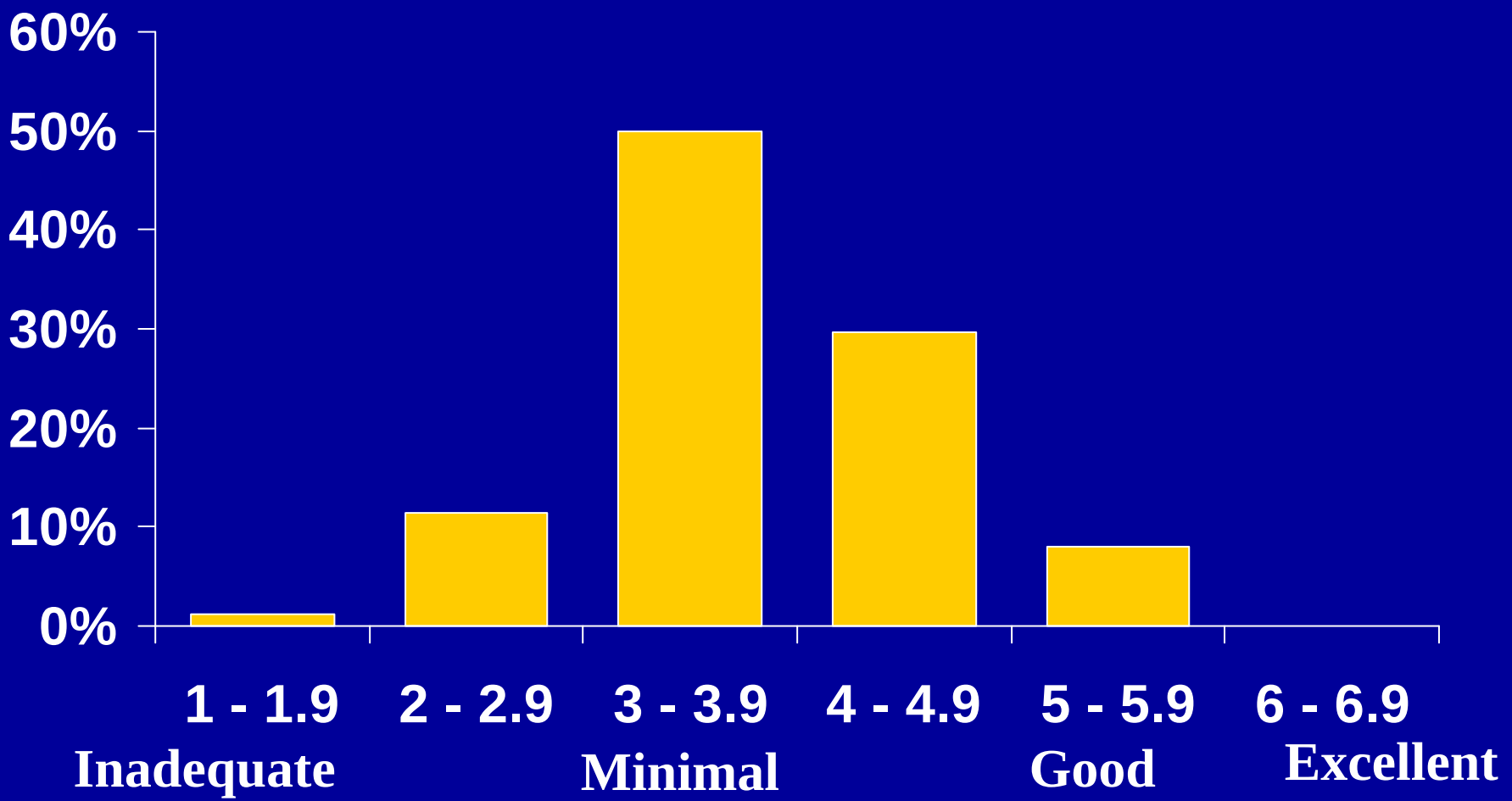
Hours per Week for a Child



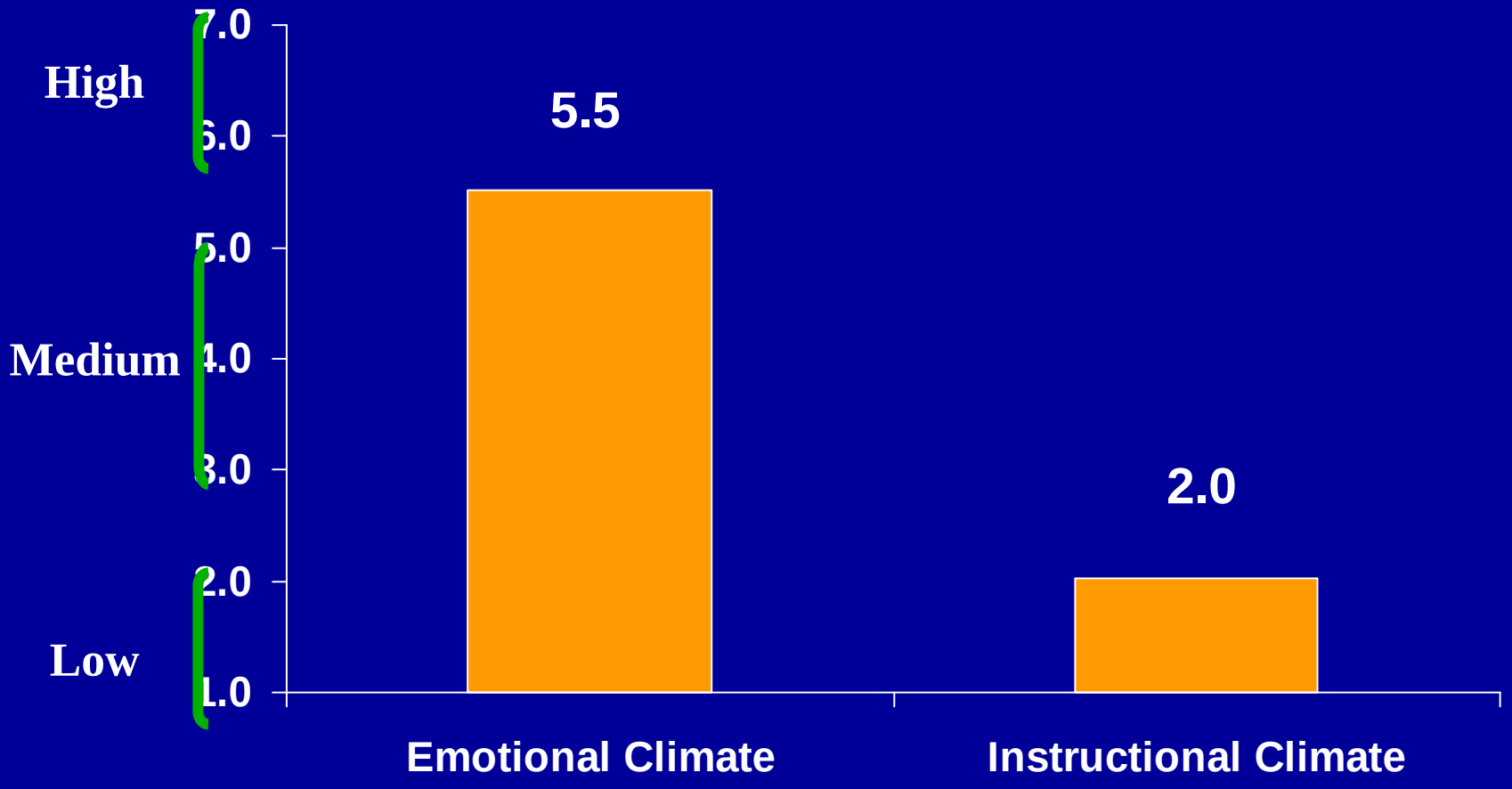
Predicting Hours of Care

	B
Male	-.01
Ethnicity	AA > H > O > W
Income	-.18***
Mat. Education	.07***
Married	-.01

Pre-K ECERS-R Distribution



CLASS Factor Scores



Predicting Quality

	ECERS-R	CLASS Emotional	CLASS Instructional
Male	.00	.00	-.01
Ethnicity	AA< W,H,O	AA< W,H,O	ns
Income	.17***	.24***	.19***
Mat. Education	.03	.00	.02
Married	.03	.03*	.04*
Hours/Wk	.06***	-.14***	.03

Diversity – Families and Child Care

- Looked at Ethnicity x Income interactions
  - Amount of care
    - None
  - Quality of Care
    - Income is more positive predictor of sensitivity (ECERS-R and CLASS Emotional Climate) for African American and Hispanic children than other children

Conclusions

- Wide diversity in type, amount, and quality of child care
  - Older children are more likely to be in center care and less likely to be cared for exclusively by parents
  - Families with more income are more likely to use all types of child care, more care, and higher quality care
    - Center care for infants higher for very poor than lower income families in SECCYD
  - African American families are more likely to use parental care (adjusting for demographic characteristics) and experience lower quality care when they use child care
    - Income is less strongly related to amount and more strongly related to quality for African-American families

Conclusions

- Child care quality, quantity, and type are modestly related to some outcomes
  - Limited evidence that associations stronger for at risk children