

# HTKS Performance Among Low Income, Ethnic Minority Preschoolers

Margaret O'Brien Caughy, Sc.D.  
University of Texas School of Public Health

Margaret Tresch Owen, Ph.D.  
Nazly Hasanizadeh

Ana-Maria Mata-Otero, Ph.D.

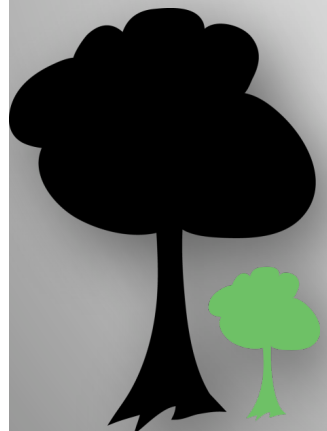
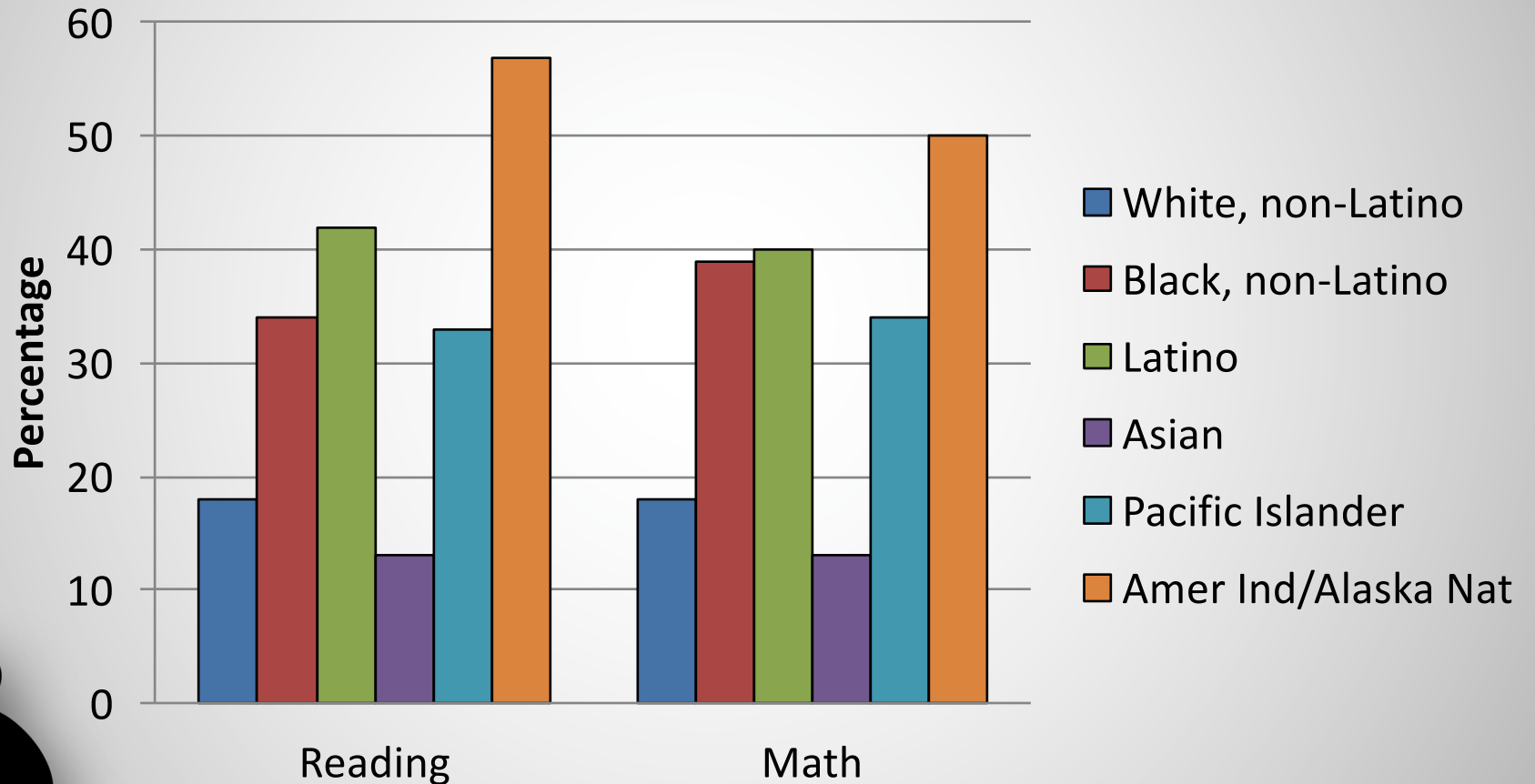
Melissa Amos  
University of Texas at Dallas



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# Why is it important?

% in Lowest Quartile at Kindergarten Entry

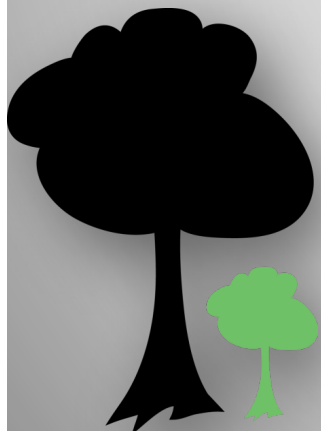


West, J., K. Denton, et al. (2000). America's Kindergartners. National Center for Education Statistics. Washington, D.C., U.S. Department of Education.

**Table 2. Percentage of Teachers (Means and Standard Errors) Who Said that *About Half of the Class or More Enter Kindergarten with Specific Problems* (N = 3,595)**

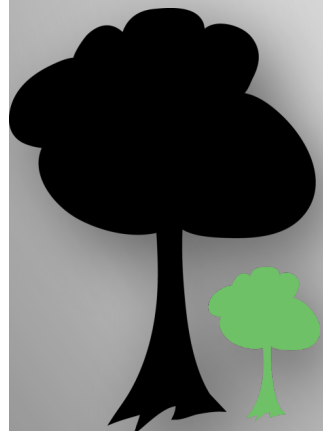
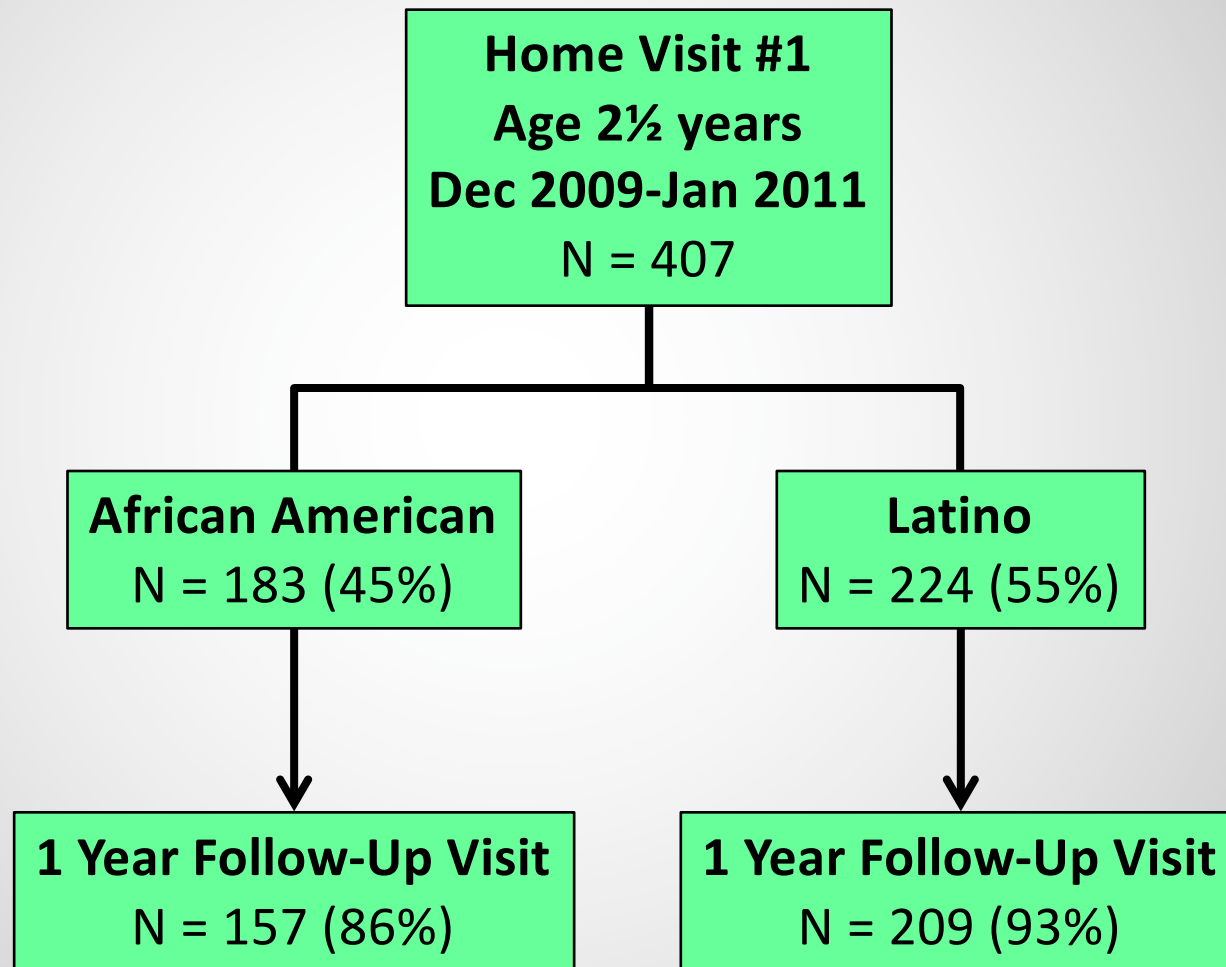
Type of Problem	Percentage of Teachers (SE)
Difficulty following directions	46.16 (1.07)
Lack of academic skills	36.26 (0.98)
Disorganized home environment	34.54 (1.00)
Difficulty working independently	34.39 (1.02)
Lack of any formal preschool experience	30.79 (0.99)
Difficulty working as part of a group	30.45 (0.99)
Problems with social skills	20.39 (0.88)
Immaturity	19.87 (0.87)
Difficulty communicating/language problems	13.50 (0.72)

Rimm-Kaufman, S. E., Pianta, R. C., & Cox, M. J. (2000). Teachers' judgments of problems in the transition to kindergarten. *Early Childhood Research Quarterly, 15*, 147-166.



# Dallas Preschool Readiness Project

Funded by the *Eunice Kennedy Shriver* National Institute of Child Health and Development



# Dallas Preschool Readiness Project

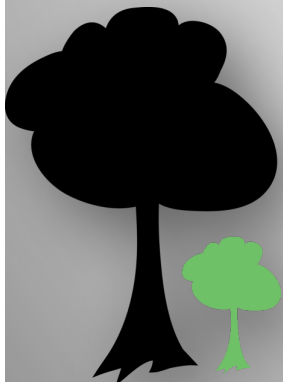
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## Home Visit #1 (age 2½)

- Self regulation (wrapped gift, snack delay, forbidden toy, fruit stroop, “mommy & me”, walk-a-line)
- Mother-child interaction
- Father-child interaction
- Child temperament
- Child social competence
- Parenting attitudes/beliefs
- Household characteristics

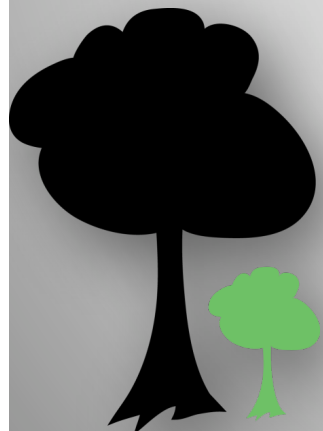
## Home Visit #2 (age 3½)

- Self regulation (wrapped gift, snack delay, HTKS, “mommy & me”, DCCS)
- Working memory
- School readiness
- Mother-child interaction
- Child social competence
- Parenting attitudes/beliefs
- Household characteristics



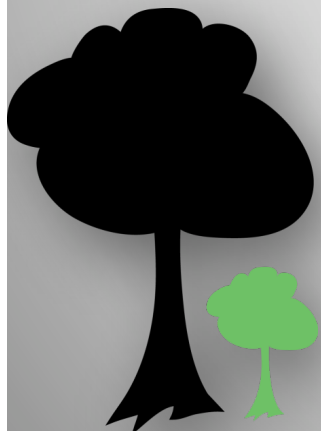
# Questions:

- What is it like to administer the HTKS task with very young ethnic minority children?
- Does the HTKS task appear to be a valid measure of self regulation for these very young ethnic minority children?



# Data collection staff

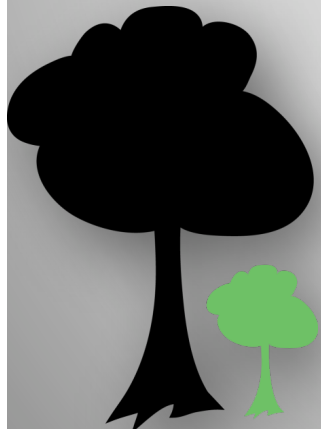
- Team included:
  - 8 full-time plus 4 part-time team members plus numerous student interns
  - 6 bilingual (3 native Spanish speakers)
  - Home visit teams included staff with strong ties with the African American and Latino communities in Dallas





# Data collection training

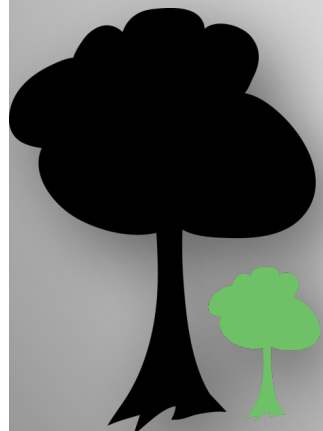
- 2-3 days of didactic instruction and role play
- 2 days of group practice with age-eligible children
- Each data collector had to be “certified” before assessing study families
  - Conducted each task perfectly with 2 children





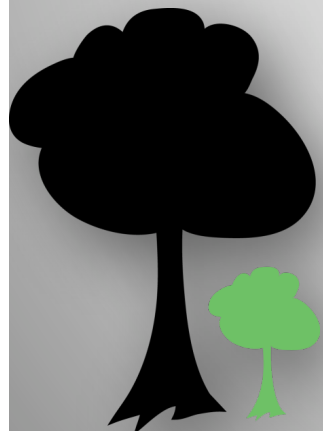
# Characteristics of HTKS Sample (N = 366)

	African American (N = 157)	Latino (N = 209)
	<u>%</u>	<u>%</u>
<u>Child gender</u>		
Boy	57	54
Girl	43	46
<u>Family structure</u>		
Nuclear/Nuclear extended	23	82
Single parent/Single extended	65	16
Other	12	2
<u>Family income</u>		
<50% of the federal poverty level	52	18
50-149% of the federal poverty level	26	65
150+% of the federal poverty level	22	17
<u>Caregiver's educational attainment</u>		
Less than high school	15	43
High school/GED	44	35
More than high school	41	22

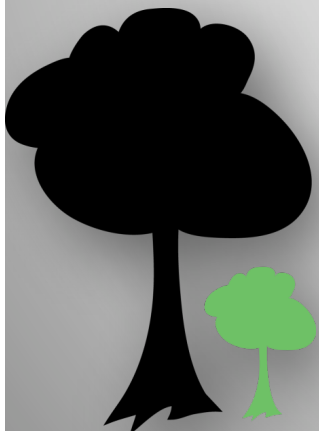
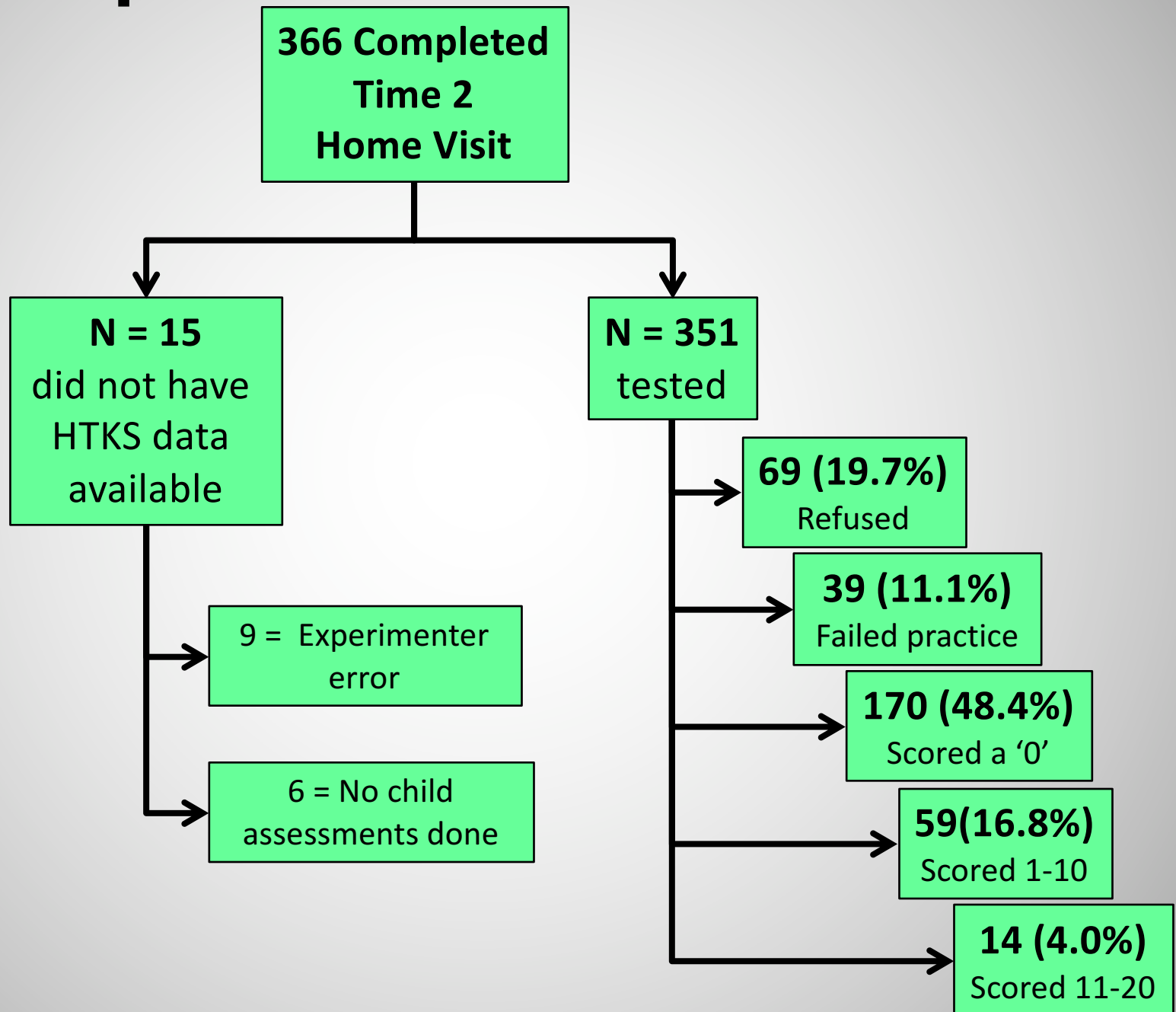


# Characteristics of HTKS Sample

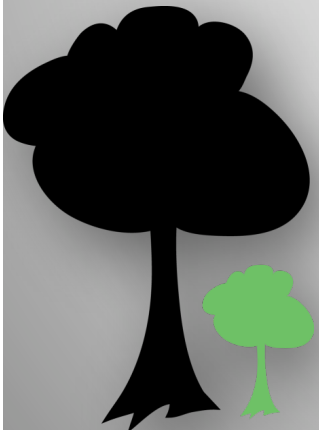
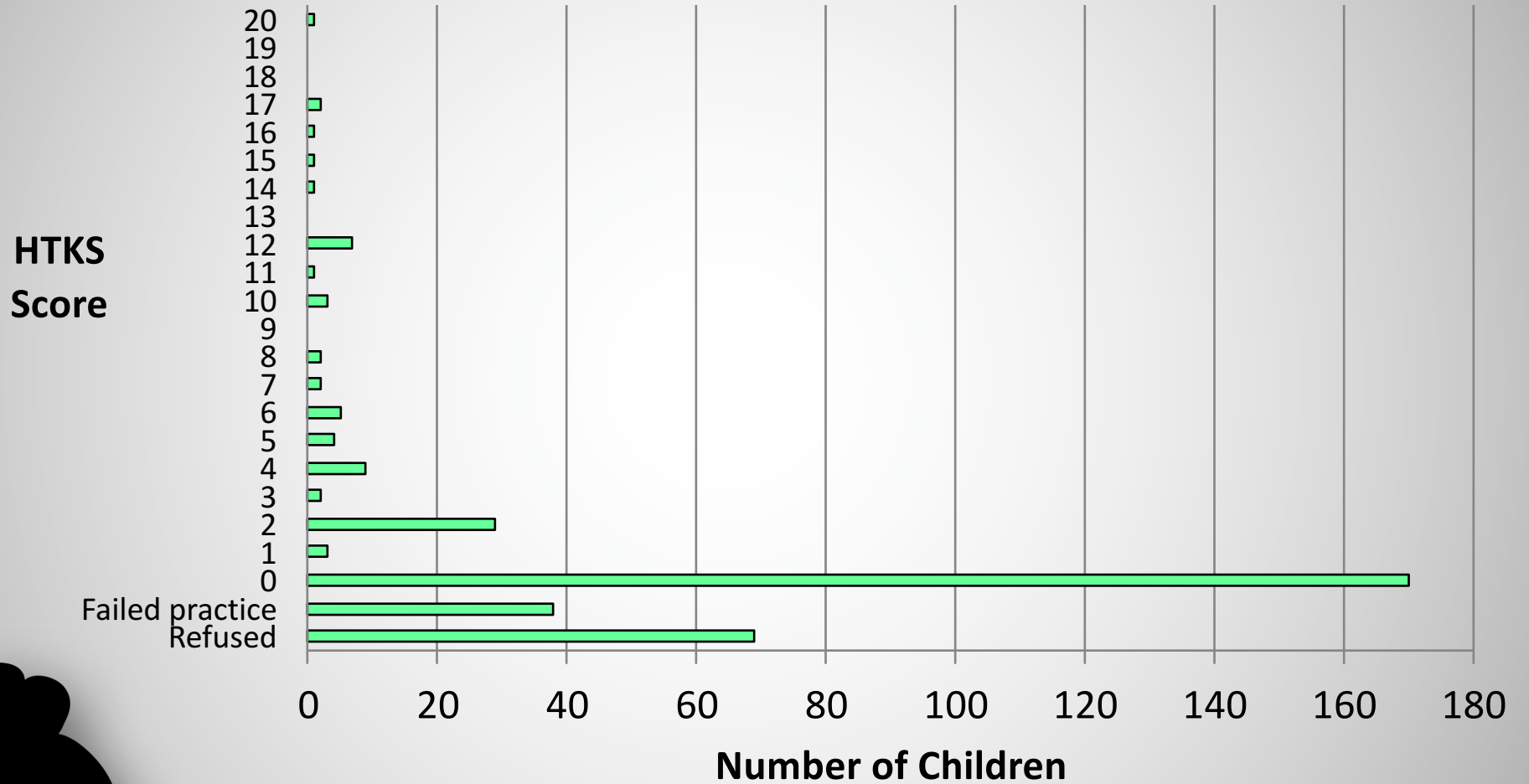
	Latino (N = 209)
	<u>%</u>
<u>Caregiver's nativity</u>	
U.S. born	25
Foreign born	75
<u>Country of origin (if foreign born)</u>	
Mexico	96
Central/South American	4
<u>Caregiver's preferred language</u>	
Spanish	76
English	24
<u>Child assessment language of administration</u>	
Spanish	71
English	26
Both	3



# Disposition of HTKS Task

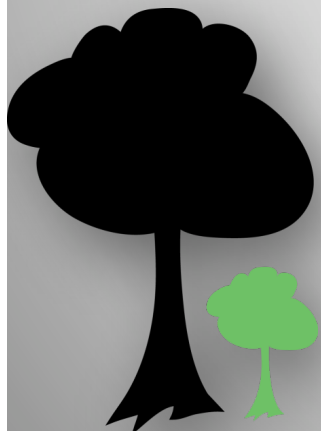


# HTKS Task Performance



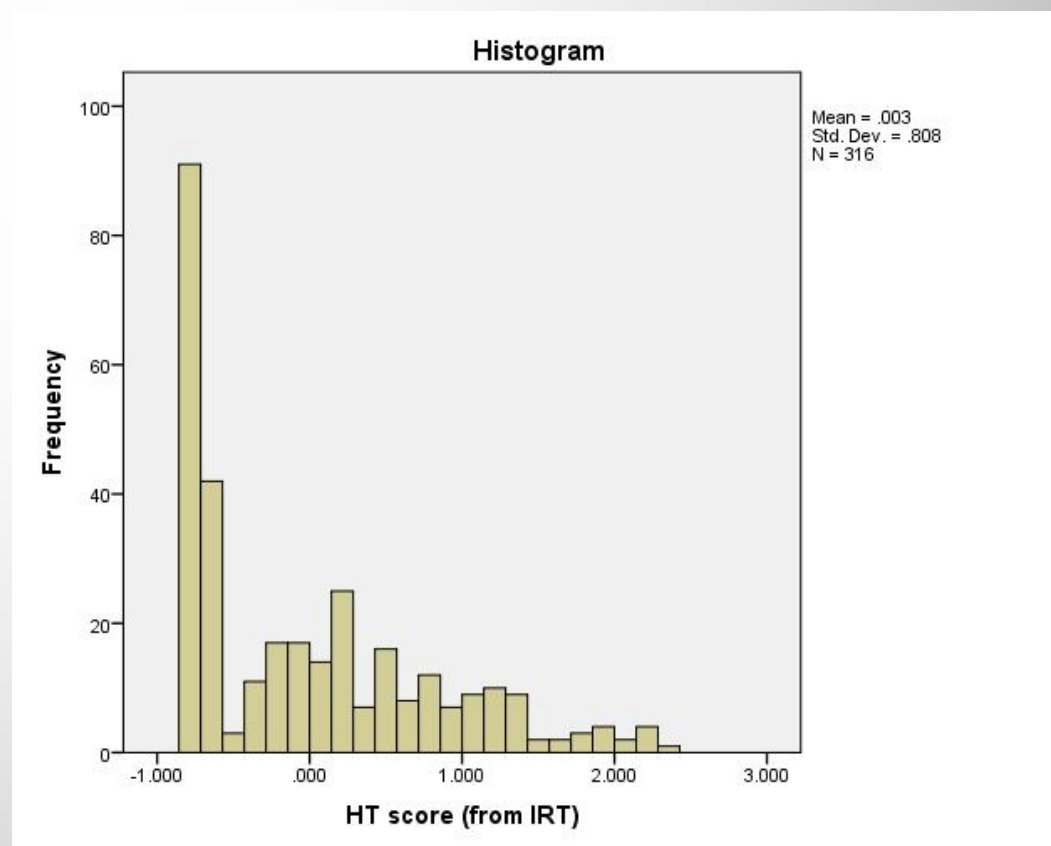
# Disposition of HTKS Task

- Latino children were significantly more likely than African American children...
  - To refuse (25% vs. 13%), or
  - To fail the practice trials (15% vs. 5%)
- No differences by child gender, family income, or caregiver education



# HTKS Factor Score

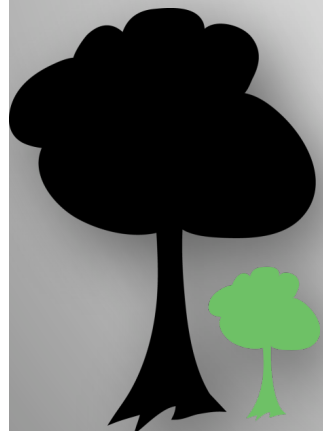
- How can we maximize our use of information on child performance?
- Performance on practice trials and test trials used to estimate a factor score using a Rasch model



# Demographic differences in HTKS score

	Mean (SD)	F
<u>Child ethnicity</u>		
African American	.117 (.852)	5.50*
Latino	-.095(.757)	
<u>Child gender</u>		
Boy	.002 (.816)	.00
Girl	.004 (.801)	
<u>Family income</u>		
<50% of the federal poverty level	-.010 (.778)	1.42
50-149% of the federal poverty level	-.038 (.789)	
150+% of the federal poverty level	.228 (.939)	
<u>Caregiver's educational attainment</u>		
Less than high school	-.106 (.747)	3.28*
High school/GED	-.041 (.790)	
More than high school	.176 (.874)	
<u>Child language (<i>Latinos only</i>)</u>		
English	.068 (.796)	3.36+
Spanish	-.168 (.724)	

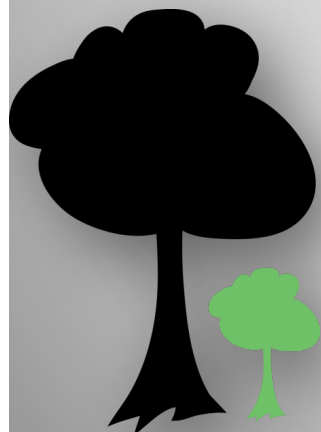
+ p < .10; \*p < .05





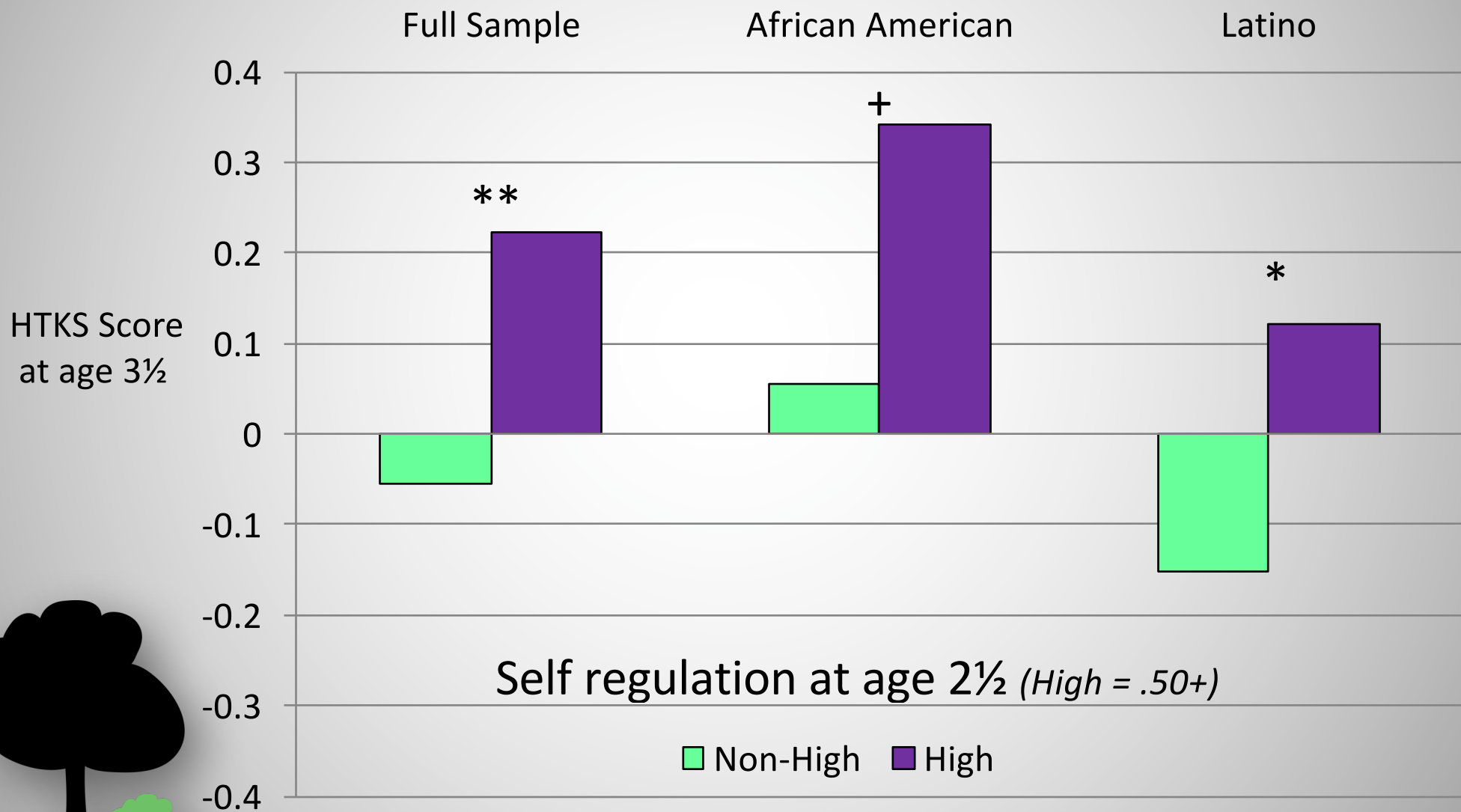
# Validity of the HTKS: Relation to self-regulation at age 2½

- **Self regulation score** (average proportion of time waited)
  - Snack delay - average latency to touch candy across trials
  - Wrapped gift - latency to peek
  - Wait for bow - average latency to touch, lift, open
  - Forbidden toy - latency to engage



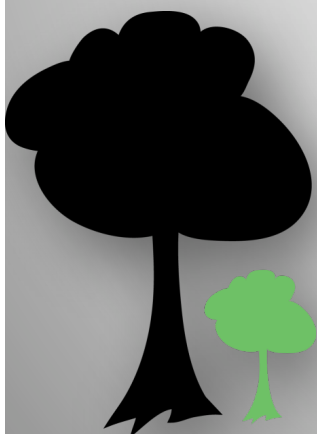
*Model fit indices:  $\chi^2 = .08$ ,  $p = .96$ ; RMSEA = .00, CFI = 1.00*

# Average HTKS score by self regulation at age 2½

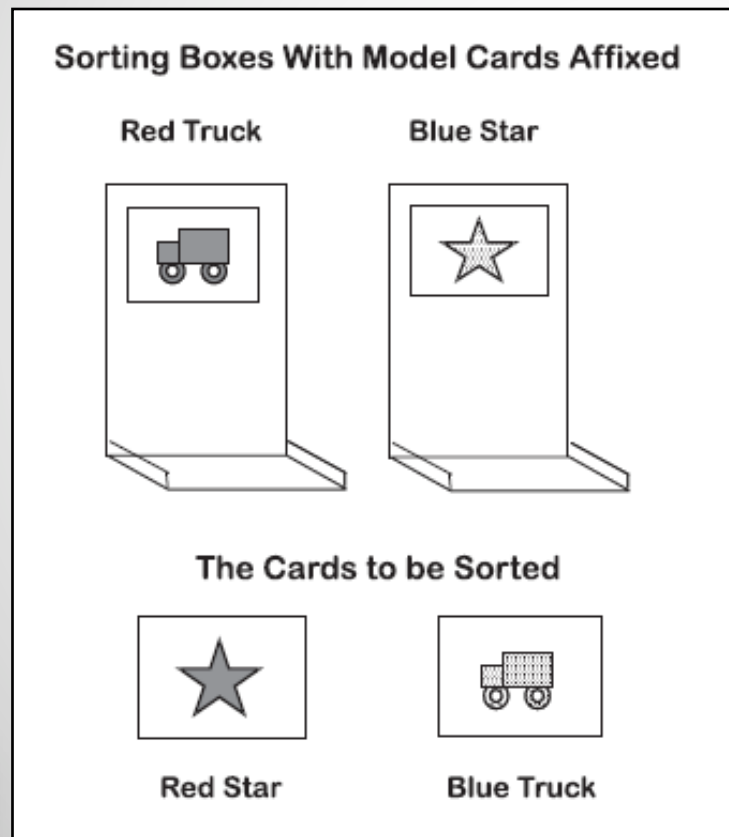


+p < .10; \*p < .05; \*\*p = .01

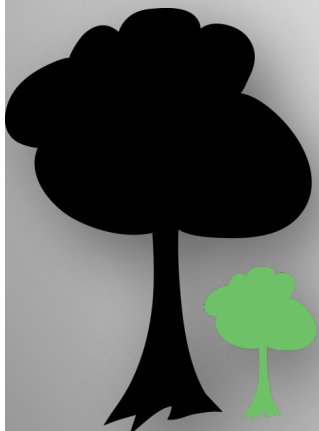
About 22% of the children scored in the "high" group for self regulation at age 2½.



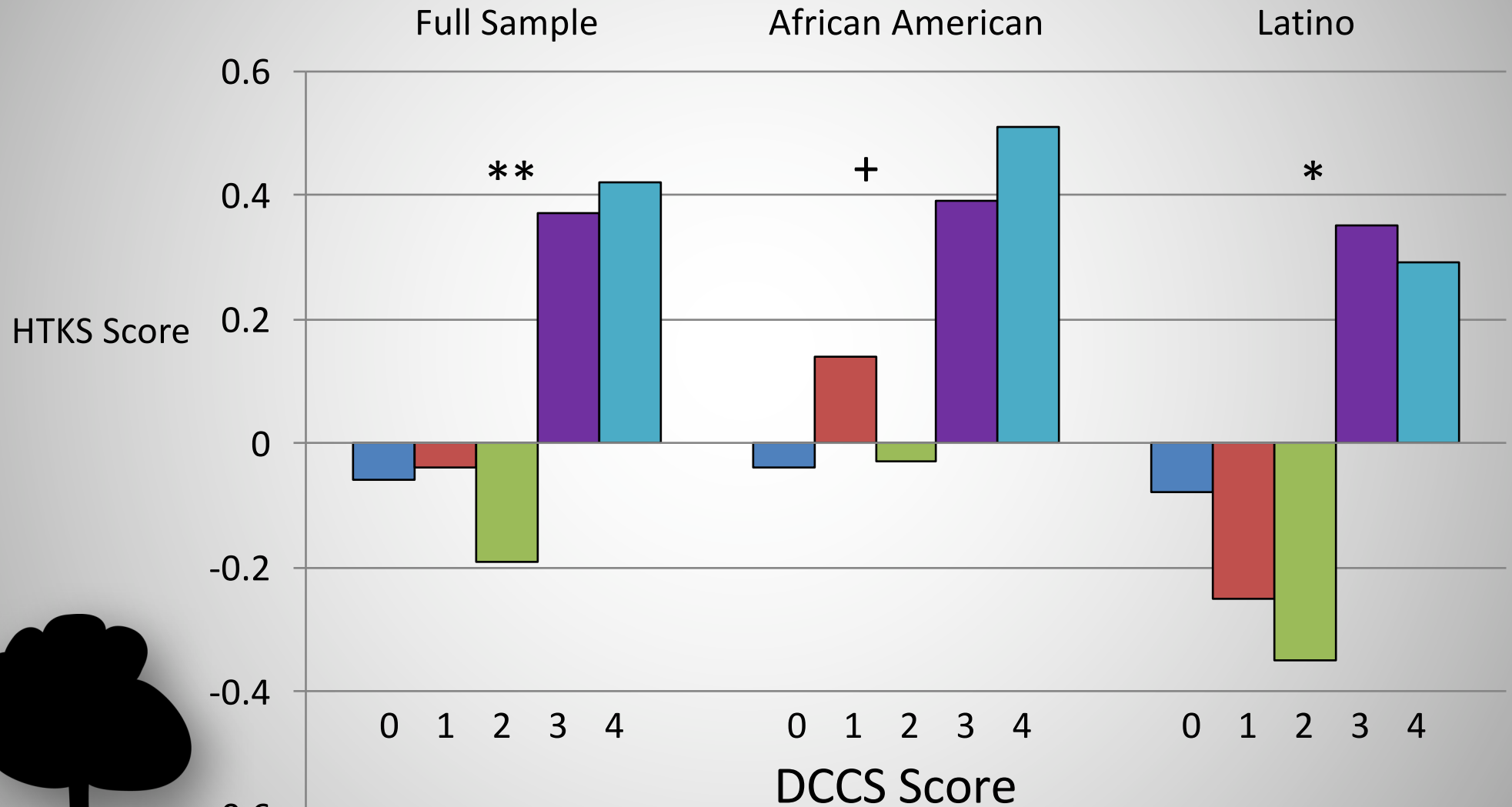
# Concurrent Validity: The Dimensional Card Change Sort (DCCS)



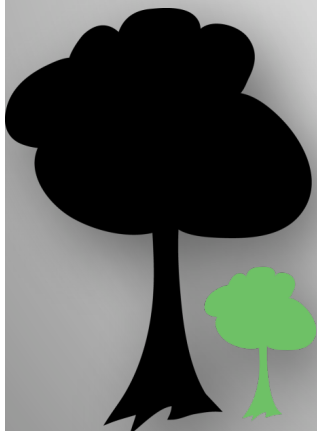
Diamond, A., Carlson, S. M., & Beck, D. M. (2005). Task switching on the dimensional change card sort task: Separating the dimensions aids the ability to switch. *Developmental Neuropsychology*, 28, 689-729.



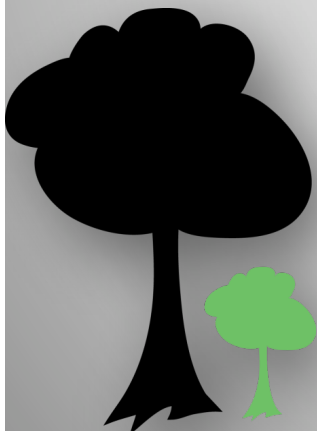
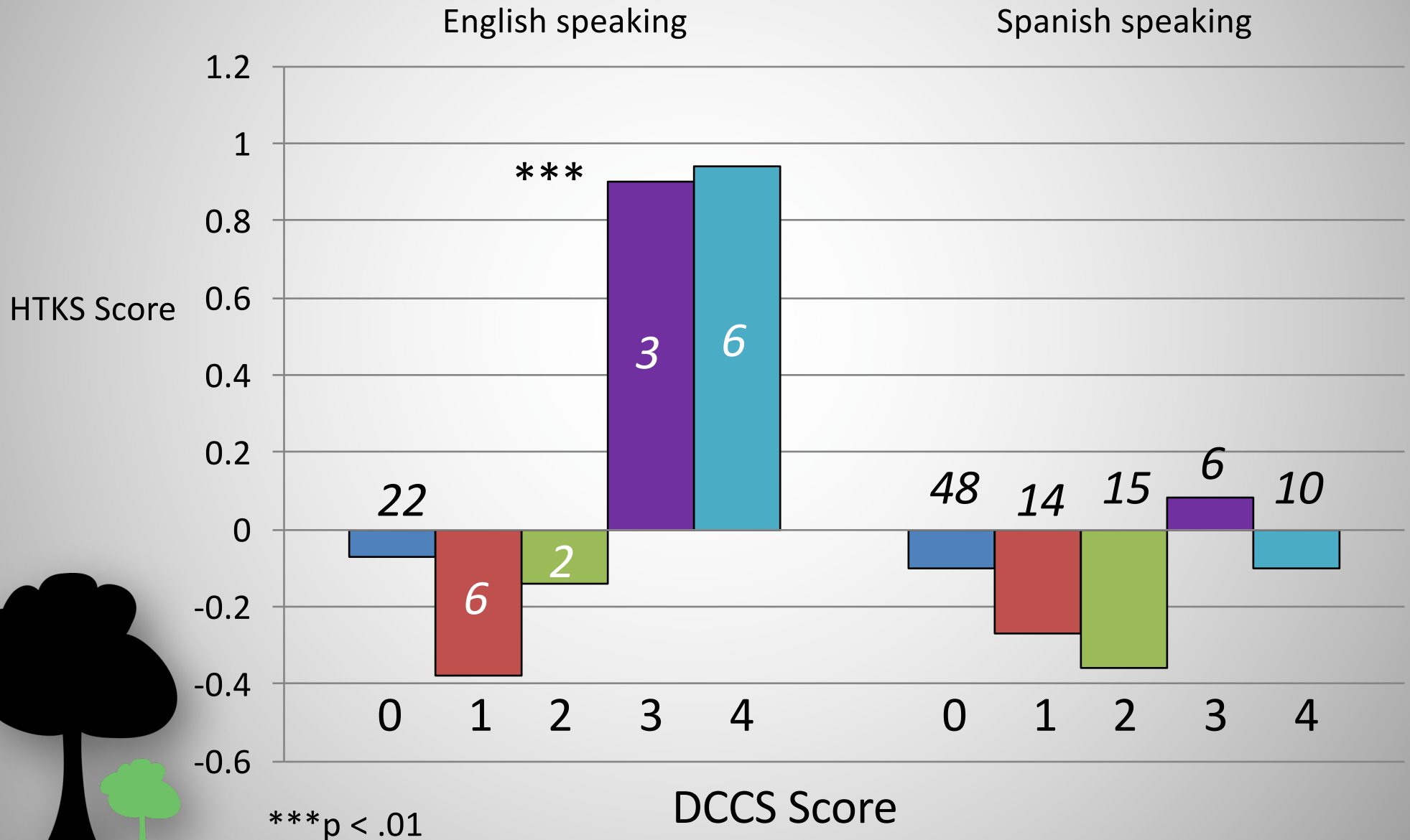
# Concurrent Validity: Average HTKS score by DCCS score



+p < .10; \*p < .05; \*\*p = .01



# Concurrent Validity: Average HTKS score by DCCS score

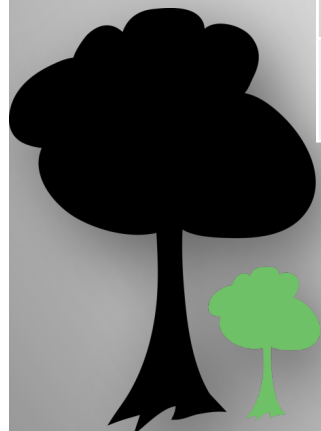


\*\*\*p < .01

# Correlation of HTKS score with measures of school readiness

	Full Sample	African American	Latino
Bracken SRS	.165**	.217*	.096
PPVT	.007	.063	.040
SSIS	-.085	-.105	-.108
CBCL Total	.040	-.040	.142+
CBCL Internalizing	-.038	-.114	.070
CBCL Externalizing	.063	.021	.159*

\*p < .05; \*\*p < .01



# The HTKS and ethnic minority children:

## Conclusions

- Age 3½ is probably the lower boundary for administration
  - Need better ways of capturing the full range of performance at this lower boundary
- HTKS performance demonstrates validity in this sample
  - Associated with standard measures of self regulation and cognitive flexibility
  - Associated with measures of school readiness
- Training and monitoring is important





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## Principal Investigators

Margaret O'Brien Caughy, Sc.D.

Margaret Tresch Owen, Ph.D.

## Project Director

Jerry Roberson, Dr.P.H., M.A.

## Lab Managers

Jamie Hurst, Ph.D.

Ana-Maria Mata-Otero, Ph.D.

## Home Visit Coordinators

Plaststilla Arnold

Carmen Gonzalez

Bunnoi McDaniel

Clare Stevens

## Coding and Data Management

Melissa Amos

Adriana Villa Baird

Piper Duarte

Nazly Hasanizadeh

Caroline Mejias

Junie Shrestha

