



# Projecting the Impact of Obesity on a Cohort of School-Aged Hispanic Children

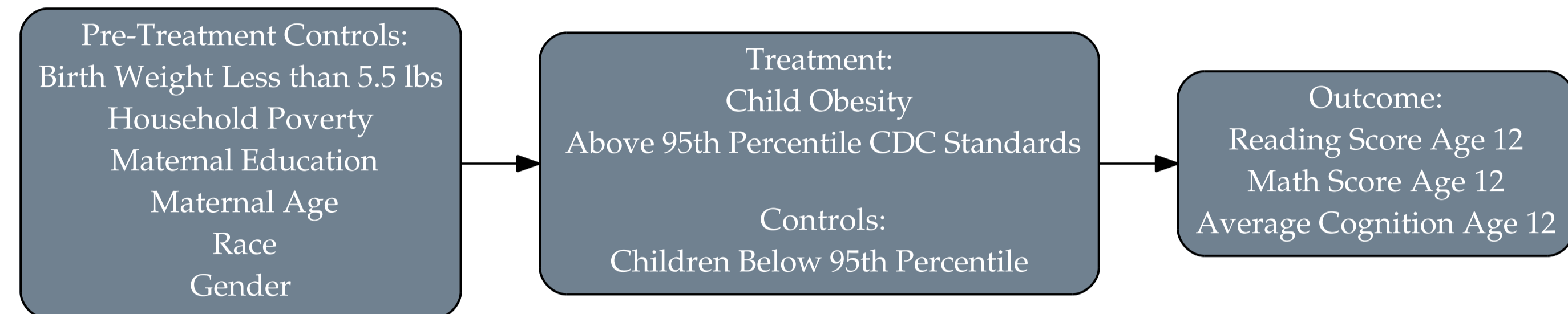
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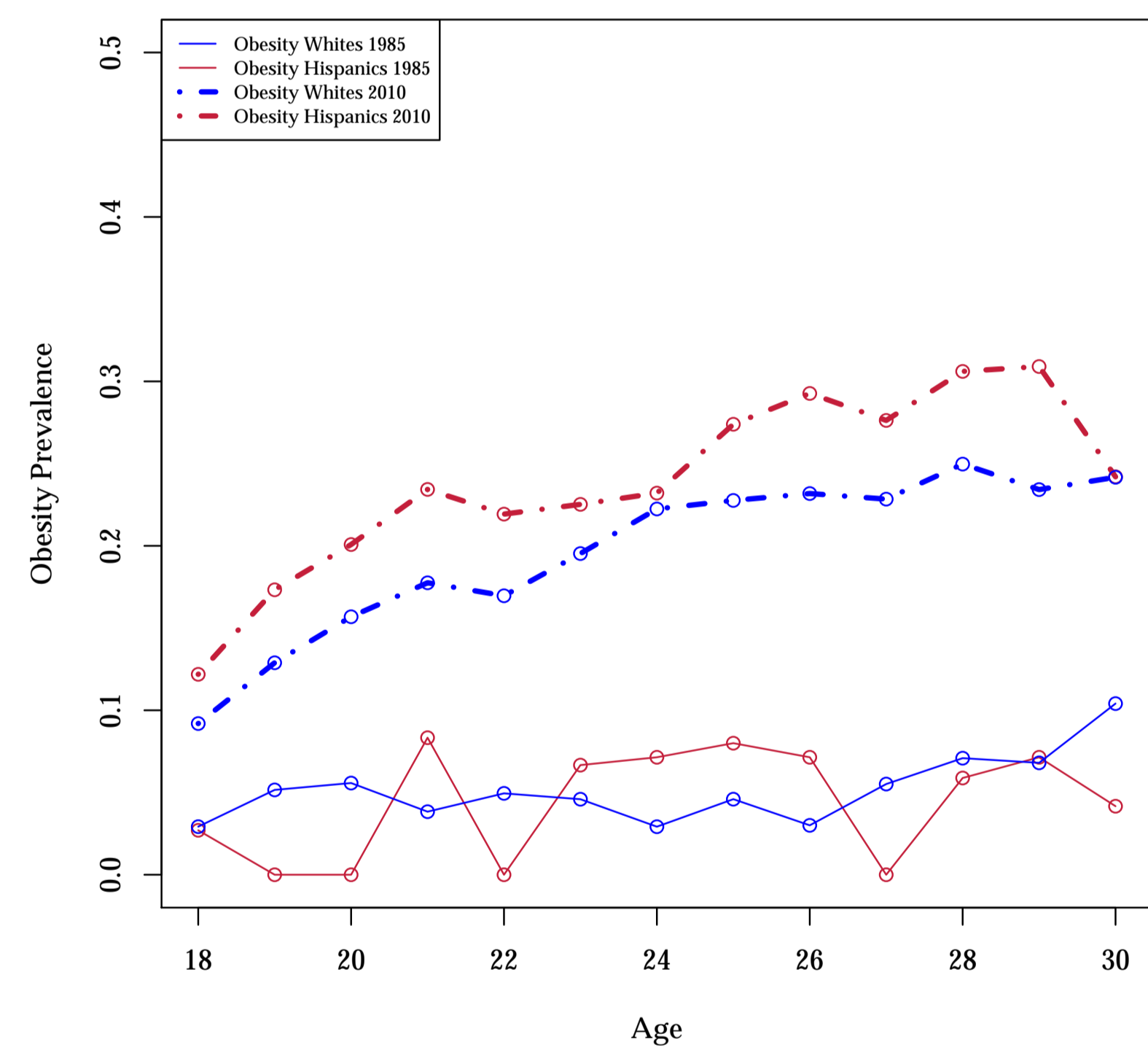
## Objective

- To assess effects of obesity on cognition in the United States.
- To estimate the cognition gap for Hispanic vs. Non-Hispanics.
- To explore possible outcomes considering future obesity trends.

## Radius Propensity Score Matching



## Past Trends in Obesity



## Data Sets

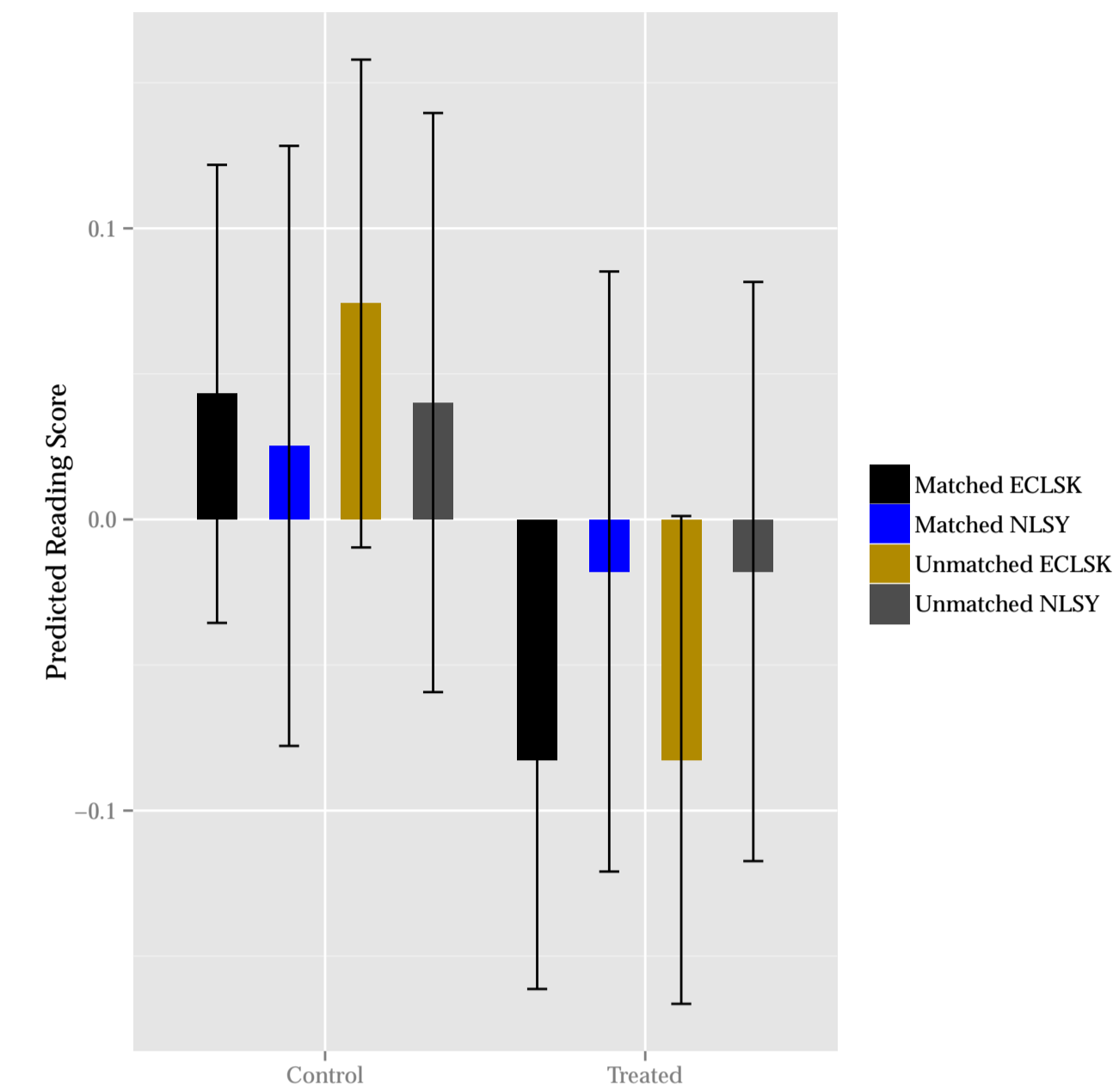
Parameter	2. NLSY-C 1979	3. ECLS-K 1997	1. Census	4. NHANES
Obesity 6	X	X		
Obesity 12	X	X		
Cognition 12	X	X		
Pop. 2000			X	
Race 2000			X	
Obesity 1999-2009				X

1. United States Census Bureau. 2012 National Population Projections: Summary Tables. 2012.
2. Bureau of Labor Statistics, U.S. Department of Labor. National Longitudinal Survey of Youth-Children 1979 Cohort, 1986-2010, 2012.
3. Center for Disease Control and Prevention. National Health and Nutrition Examination Survey, 2012.
4. National Center for Education Statistics. Early Childhood Longitudinal Program-Kindergarten 1998-1999, 2012.

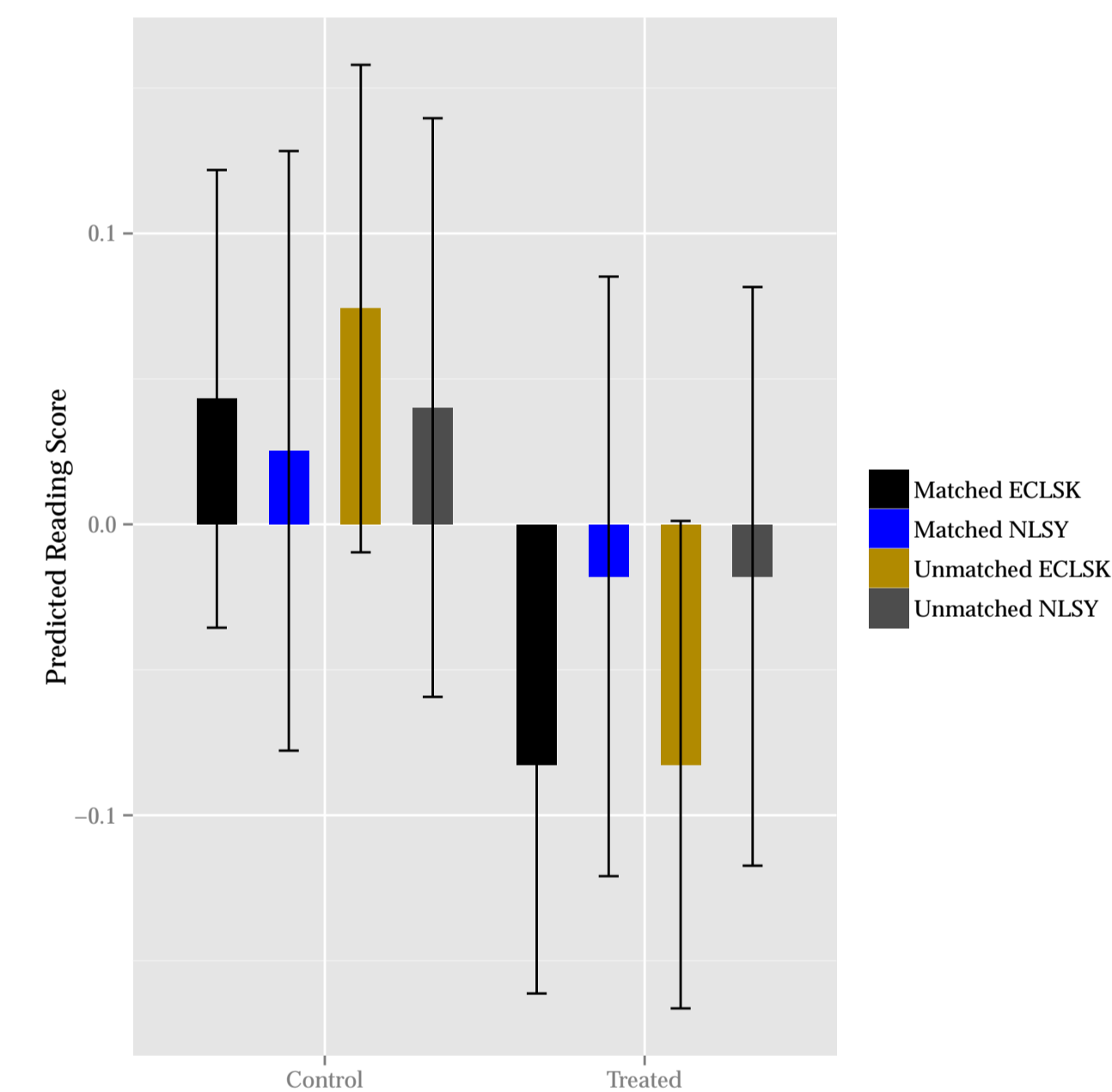
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## Obesity's Effect on Cognition at Age 12

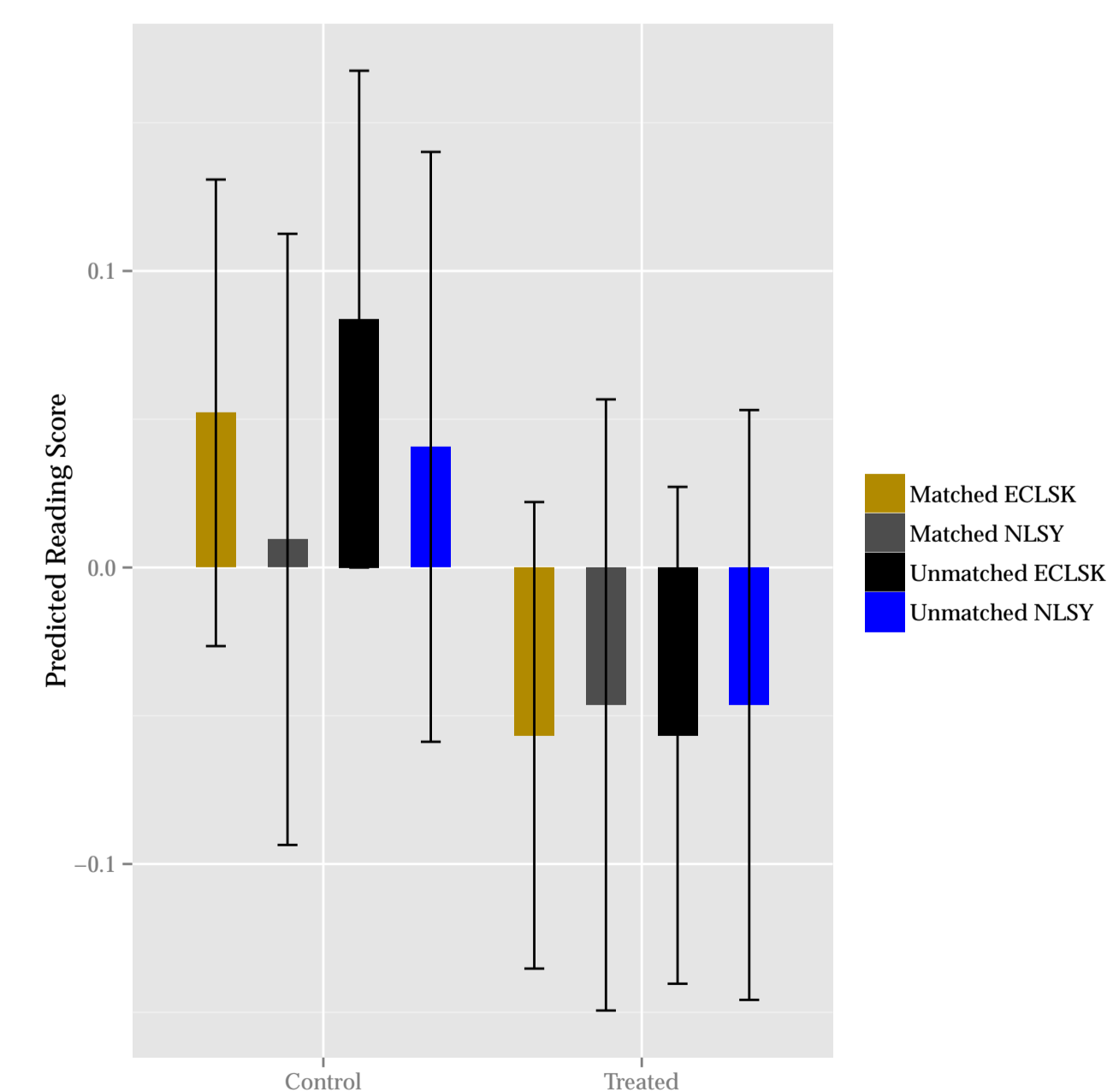
### Effect on Reading



### Effect on Math

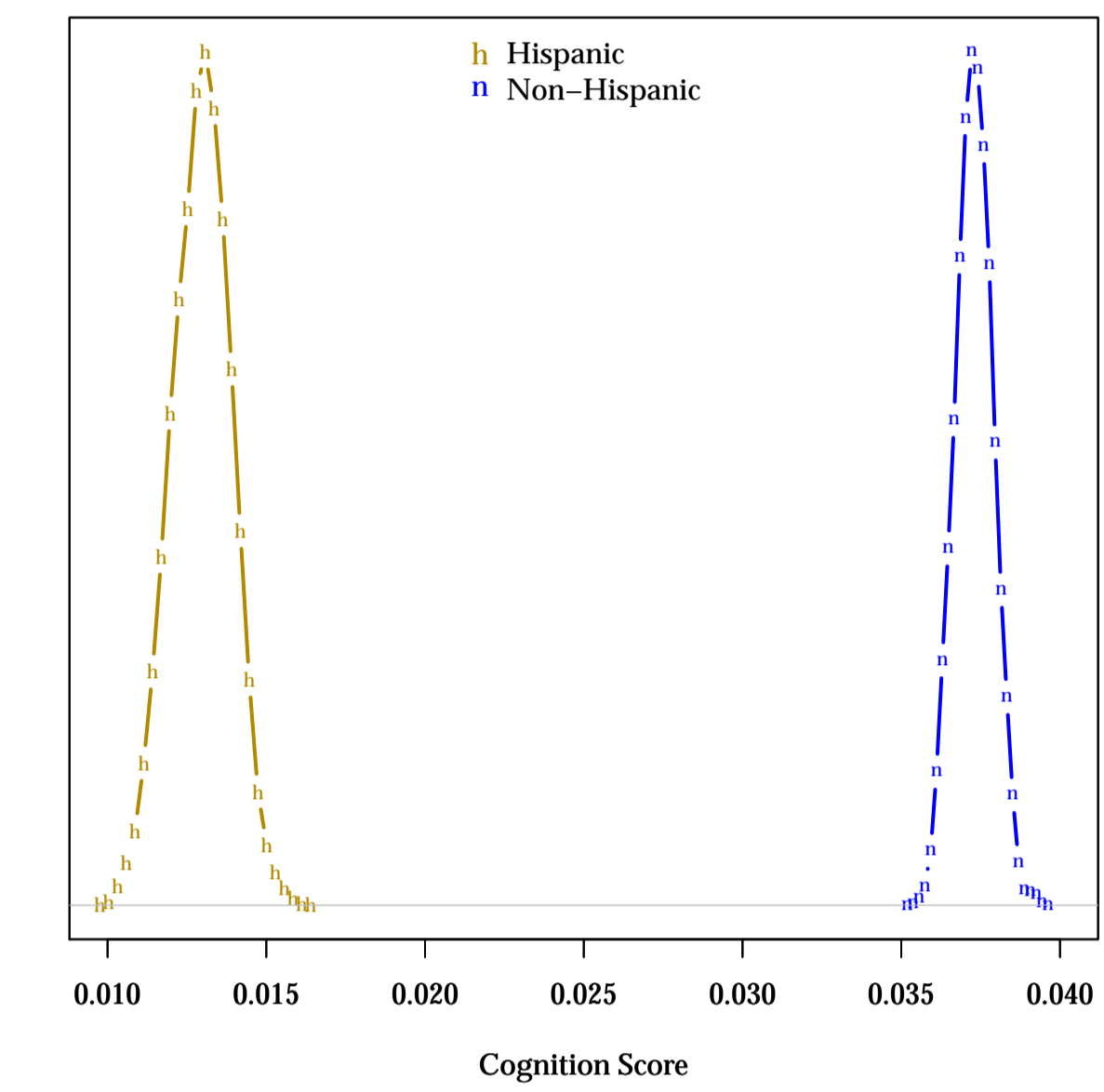


### Effect on Cognition



## Implications for the Future

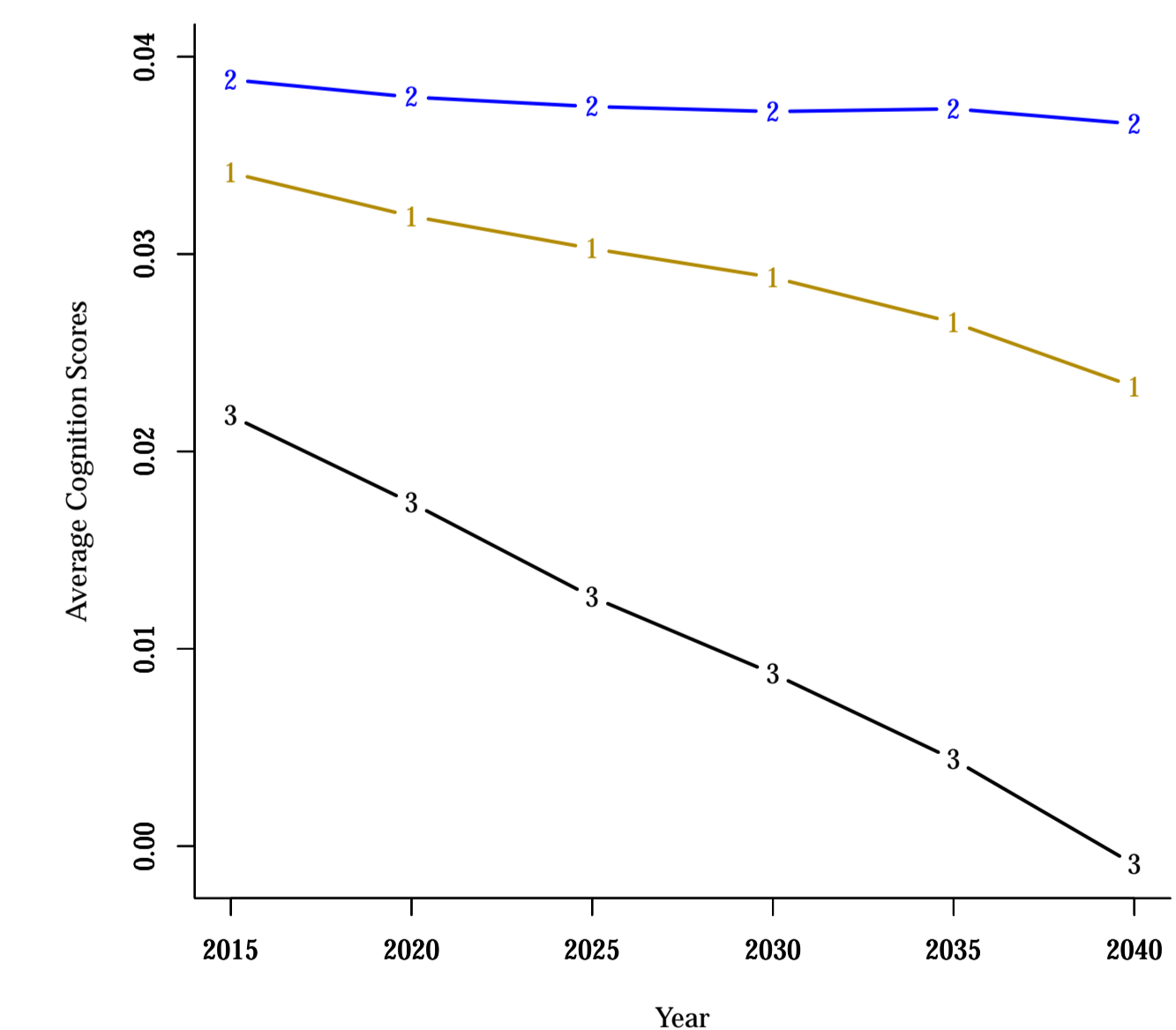
### Cognition Gap in 2025



Simulate Three Scenarios:

1. Cognition for population aged 12 if obesity continues to increase linearly at disparate rates for Hispanics compared to Non-Hispanics.
2. Cognition for Population aged 12 if population obesity were to increase at the same rate as for Non-Hispanics.
3. Cognition for Population aged 12 if population obesity were to increase at the same rate as for Hispanics.

## Trends in Population Cognition for Scenarios



## Implications

- Observable changes in cognition scores based on future changes in obesity.
- Cognitive scores the single greatest predictor of future educational attainment.
- Estimates suggest a growing disparity between Hispanics and Non-Hispanics in obesity and human capital.

