Supplemental Information

DECOMPOSITION ANALYSIS: METHODS

For clarification purposes, here, we describe the steps employed for a decomposition analysis by using an example based on OLS models comparing white and African American boys. First, a multivariable OLS regression model is fit to predict BMI *z* scores among white boys. A separate OLS model is then fit for African American boys by using the β coefficients for each of the covariates in the white boys' model. This model predicts what BMI *z* scores would be for African American boys had they the same risk factor distribution as white boys. These 2 regression models provide the expected values for African American boys as well as the observed values for white boys. Next, the observed differences in the average BMI *z* scores between the white and African American boys are partitioned into 2 parts: the explained and unexplained portion. The explained portion (the component explained by group differences in the mean values of the model covariates) represents the amount by which BMI *z* scores between African American and white boys would decrease if African American boys had the same risk factor distribution as white boys. The unexplained portion (the differences in the coefficient estimates and intercepts) could represent risk factors that were omitted from the model, a measurement error in the variables that is systematically different between the 2 groups, or potentially some form of discrimination between the 2 groups.[20]

SUPPLEMENTAL TABLE 4 Variables, Measurement, and Waves of Data Collection

Variable	Variable Questions and Wave of Measurement	How Variable Was Categorized
Maternal history of smoking during pregnancy	"In the last 3 mo of your pregnancy, how many cigarettes or packs did you smoke on an average day?" (wave 1)	Maternal smoking during pregnancy versus no smoking
History of breastfeeding	"Did you ever breastfeed (child)?" (wave 1)	Ever breastfed versus never breastfed
Early introduction of solid foods	"How old was (child) in months when solid food was first introduced?" (wave 1)	Early introduction of solids (<4 mo) versus not
Infant wt gain	This was based on the 9-mo rate of infant wt gain, calculated as the difference in wt at 9-mo and birth wt (kg), divided by the age in mo at the first wave of data collection (~9 mo).	Continuous variable
Television viewing	"On average, about how many hours of television [does] (child) watch at home each weekday, that is, Monday through Friday?" Probe: this does not include videos or DVDs. "On average, about how many hours of videos or DVDs [does] (child) watch at home each weekday, that is, Monday through Friday?" Same questions repeated for weekends (wave 3).	≥2 h per d of television on weekdays or weekends versus less
SSB consumption	"During the past 7 d, how many times did your child drink soda pop (for example, coke, Pepsi, or Mountain Dew), sports drinks (for example, Gatorade), or fruit drinks that are not 100% fruit juice (for example, Kool-Aid, Sunny Delight, Hi-C, Fruitopia, or Fruit Works)?" (wave 3)	Possible responses include the following: 1 time per d, 2 times per d, 3 times per d, 4 or more times per d, 1–3 times during the past 7 d, 4–6 times during the past 7 d, and child did not drink any during the past 7 d. Regular SSB drinkers (children whose parents reported that they drank ≥1 serving of SSB per d) versus infrequent or nondrinkers.
No. family meals per wk	"Now, I'd like to ask you about family routines. In a typical week, please tell me the number of days… at least some of the family eats the evening meal together?" (wave 3)	Possible responses ranged from 0 to 7 d. Children were categorized as having family meals if the family ate at least 4 meals together per wk versus less.
Fruit and vegetable consumption	"During the past 7 d, how many times did your child eat fresh fruit, such as apples, bananas, oranges, berries, or other fruit, such as applesauce, canned peaches, canned fruit cocktail, frozen berries, or dried fruit? Do not count fruit juice." Possible responses included the following: "1 time per d, 2 times per d, 3 times per d, 4 or more times per d, 1–3 times during the past 7 d, 4–6 times during the past 7 d, and child did not eat fruit during the past 7 d." "During the past 7 d, how many times did your child eat vegetables other than French fries and other fried potatoes? Include vegetables like those served as a stir fry, soup, or stew, in your response." Similar response categories as above for fruit	Combined responses to both questions and dichotomized variable as adequate fruit and vegetable consumption (1 time per d, 2 times per d, 3 times per d, 4 or more times pre d) versus inadequate fruit and vegetable (for responses: 1–3 times during the past 7 d, 4–6 times during the past 7 d, and child did not eat fruits or vegetables during the past 7 d) consumption
Physical activity	"In the past month, how often did you do the following things with (child)?" Take (child) outside for a walk or to play in the yard, a park, or a playground	Possible responses included the following: more than once per d, approximately once per d, a few times per wk, a few times per mo, rarely, or not at all. We dichotomized this variable on the basis of parent responses to how often the child went outside to walk or play (at least once per d versus less than once per d).
Food insecurity	1. "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." 2. "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." 3. "(I/we) couldn't afford to eat balanced meals." 4. "(I/we) relied on only a few kinds of low-cost food to feed (child/the children) because (I was/we were) running out of money to buy food." 5. "(I/We) couldn't feed (child/the children) a balanced meal because (I/we) couldn't afford that." (wave 1)	Possible responses included often, sometimes or never true. If parents had 3 or more affirmative responses to questions, the household was categorized as food-insecure (versus food secure).

SUPPLEMENTAL TABLE 4 Continued

Variable	Variable Questions and Wave of Measurement	How Variable Was Categorized
Neighborhood safety	"Do you consider your neighborhood very safe from crime, fairly safe, fairly unsafe, or very unsafe?" (wave 1)	Possible responses included very safe, fairly safe, very unsafe, and fairly unsafe. If a parent's response was very unsafe and fairly unsafe, the child's neighborhood safety was categorized as unsafe (versus safe).
Child care arrangement	Section 1.03 ECLS-B–derived composite variable indicating the primary, nonparental child care arrangement, based on where the child spent the most hours per wk (wave 3)	Section 1.04 dichotomized as parental child care versus s nonparental child care
SES	Composite variable developed by ECLS-B for children's SES at baseline data collection (wave 1). Variable comprised information on the mother's and father's educational attainment, occupational category and prestige score, and household income (wave 1)	Categorized as quintiles (variable generated by the ECLS-B)

SUPPLEMENTAL TABLE 5 PE% From Blinder-Oaxaca Decomposition of BMI *z* Score Difference Between White Children and Children From 4 Racial and/or Ethnic Groups, Boys and Girls by Risk Factor Group: ECLS-B

Factor	Boys				Girls			
	White Versus African American, %	White Versus Hispanic, %	White Versus Asian, %	White Versus American Indian, %	White Versus African American, %	White Versus Hispanic, %	White Versus Asian, %	White Versus American Indian, %
Child age	−10.7	5.8	6.3	21.1	−4.4	−3.5	−2.1	−0.6
Socioeconomic factors[a]	9.1	61.4	22.6	42.5	52.8	131.0	25.3	52.2
Maternal risk factors[b]	6.3	−1.4	34.8	−11.5	9.5	−20.6	30.7	4.3
Infancy risk factors[c]	85.2	16.2	56.3	45.4	54.6	54.5	43.3	57.2
Early childhood risk factors[d]	10.2	18.1	−20.0	2.5	−12.6	−61.5	2.8	−13.1

PE% indicates how much of the mean difference in BMI *z* scores is accounted for by group differences in the distributions of the model covariates.

[a] Socioeconomic factors include the following: household SES, household food insecurity, and neighborhood safety.

[b] Maternal risk factors include the following: wt (kg) and maternal history of smoking during pregnancy.

[c] Infancy risk factors include the following: breastfeeding history, age at introduction of solid foods, and infant wt gain.

[d] Early childhood risk factors include the following: television viewing, SSB consumption, fruit and vegetable consumption, physical activity, family meals, and child care arrangement.

SUPPLEMENTAL TABLE 6 PE% From Blinder-Oaxaca Decomposition BMI *z* Score Difference Between White and Other Racial and/or Ethnic Groups for Individual Risk Factors, Boys and Girls: ECLS-B

Factor	Boys				Girls			
	White Versus African American, %	White Versus Hispanic, %	White Versus Asian, %	White Versus American Indian, %	White Versus African American, %	White Versus Hispanic, %	White Versus Asian, %	White Versus American Indian, %
Age	−10.7	5.8	6.3	21.1	−4.4	−3.5	−2.1	−0.6
Socioeconomic factors								
SES	3.4	57.3	22.4	43.2	36.2	104.4	24.3	34.3
Household food insecurity	0.5	−12.0	0.1	−0.7	5.8	16.7	6.7	16.1
Neighborhood safety	5.2	16.2	0.1	0.0	10.8	9.9	−5.6	1.8
Maternal risk factors								
Wt, kg (SE)	13.8	−1.9	30.2	−13.6	10.2	−5.2	27.2	4.4
Smoking during pregnancy	−7.5	0.5	4.6	2.1	−0.7	−15.3	3.6	−0.1
Early life risk factors								
Never breastfed	14.7	−1.6	7.7	7.1	7.6	−12.7	12.9	0.7
Early introduction of solid foods	0.0	−5.3	33.3	7.2	5.6	−1.8	15.4	2.2
Wt gain	70.5	23.0	15.3	31.1	41.4	69.0	14.9	54.3
Early childhood risk factors								
Television viewing >2 h per d	−2.8	5.5	0.8	−0.5	−1.2	−10.3	−0.2	0.6
Physical inactivity	1.5	−0.1	6.0	4.0	−1.7	−11.5	20.9	−0.4
SSB consumption	11.0	5.5	−2.1	−2.5	−7.2	−15.1	−11.4	−13.6
Nonparental child care	−1.0	−1.8	−0.2	0.7	6.0	−43.0	−7.4	−3.9
Fruit and vegetable consumption	−2.1	2.6	−6.0	−2.9	1.0	4.7	−1.9	4.9
Family meals <4 per wk	3.5	6.4	−18.6	3.7	−9.5	13.8	2.7	−0.7

PE% indicates how much of the mean difference in BMI *z* scores is accounted for by group differences in the distributions of the model covariates.