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# PARENTAL RACE/ETHNICITY, EDUCATION, AND **CHILDREN'S SUMMER ACTIVITY GAP**

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Parental Race/Ethnicity, Education, and Children's Summer Activity Gap

# Abstract

**Objective.** We examine variation in children's activities during the summer after first grade by parental race/ethnicity and education.

**Background**. Past research shows disparities in children's summer activities by socioeconomic status (SES), but has rarely investigates differences by race/ethnicity, despite concerns about racial/ethnic gaps in children's achievement.

**Method**. Ordinary-least-squares regression models are conducted using data from the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (N = 4,255).

**Results**. Regardless of parental education, compared with White parents, Black parents have fewer family trip destinations and have children spend more time attending summer camps, whereas Asian parents have children spend less time in summer camps; Black and Asian parents allow children to spend more time using screen media and have children play outside less often. Black and Asian parents, especially those without college degrees, are more likely to have children engaged in academic activities, such as summer school, tutoring, or studying at home. Differences between Hispanic and White parents disappear after controlling for background characteristics, except that Hispanic parents allow children more screen time.

**Conclusion**. Racial/ethnic differences in children's summer activities exist for parents with or without college degrees even after controlling for other background characteristics.

**Implications**. Further investigation of patterns and sources of racial/ethnic differences in children's educational and leisure-time activities is needed.

American children have a long summer break. For over two months, parents are responsible for structuring all of their children's activities. For researchers, examining variation in children's summer activities by parental demographic and socioeconomic characteristics may provide a unique window into understanding social inequalities in parenting practices and children's developmental outcomes (Chin & Phillips, 2004). Existing studies found differences in children's summer activities by parents' socioeconomic status (SES), measured by parental education, income, and occupation (Burkam et al., 2004; Chin & Phillips, 2004; Gershenson, 2013). Little research has examined racial/ethnic variation in children's summer activities, but there are good reasons such research is needed. Racial/ethnic differences in children's achievement have been of great concern among researchers (Condron, 2009; Hsin & Xie, 2014; Quinn, 2015). Parenting and children's achievement (Brooks-Gunn & Markman, 2005; Farkas & Beron, 2004). Some researchers have suspected that racial/ethnic learning gaps increase during a summer break (Cheadle, 2008; Downey, Von Hippel, & Broh, 2004).

Using data from the Early Childhood Longitudinal Study, Kindergarten Class of 2010-11 (ECLS-K:2011), this paper examines how children's activities during the summer break after first grade differ by parental race/ethnicity, focusing on White, Black, Hispanic, and Asian American parents. We focus on three types of activities, including: (a) *active play*, such as family trip destinations, day or overnight camps, and outside play, (b) *screen media use*, including watching television programs or videos, playing video games, and using a computer, and (c) *academic skill building activities*, like reading, studying with parents, attending summer school, and being tutored. Because Black and Hispanic parents generally have lower levels of education and family incomes than White and Asian parents, part of racial/ethnic differences in children's activities may stem from variations in parental SES across these racial/ethnic groups (Cheadle, 2008). Yet, we expect that racial/ethnic differences exist within each class spectrum (Condron, 2009). Further, recent qualitative research has emphasized that patterns of racial/ethnic differences in parenting practices may differ for higher SES and lower SES families (Dow, 2019; Elliot & Aseltine, 2012), suggesting the merit of examining the intersection between race/ethnicity and SES in parenting practices with quantitative data. Thus, we examine whether racial/ethnic differences in children's activities differ by SES. Because having a bachelor's degree has become a key indicator of securing a job with decent pay (Autor, Katz, & Kearney, 2008; Hout, 2012), we focus on parental education, specifically whether they had bachelor's degrees or not, as a primary indicator of SES.

Parental Race/Ethnicity, Education, and Children's Summer Activities Active Play: Family Trips, Camps, and Outside Play

*Family trips*. During the summer, many parents take their children on trips, such as to zoos, aquariums, art or science museums, seashores or lakes, or national and state parks. Such activities are considered positively related to children's achievement because these experiences inspire interest in specific areas and provide new perspectives (Jant et al., 2014). Moreover, these experiences, especially visiting museums and going to see performing arts, may cultivate "high-status" cultural tastes that are advantageous in the educational system (Bodovski, 2010; Jæger, 2011; Lareau & Weininger, 2003; Roksa & Potter, 2011). Research shows that parents with more education are more likely than parents with less education to take children to a greater variety of culturally enriching places (Lareau & Weininger, 2003; Roksa & Potter, 2011). Little research has examined racial/ethnic differences in summer trip destinations, however. Because Black and Hispanic parents are less likely than White and Asian parents to have college degrees (Cheadle,

2008; Duncan & Magnuson, 2005), Black and Hispanic children may go fewer varieties of places with their families during a summer break than White and Asian children. We expect that racial/ethnic gaps in the number of family trip destinations will be greater among children of parents without college degrees than children of parents with college degrees and that when parents' education and other measures of SES, such as family incomes, are controlled for, racial/ethnic differences will disappear.

*Summer camps*. Parents sign up their children to attend summer camps for various reasons, including their desire for children to have fun, develop skills and talents, and play actively, or their needs for childcare (Chin & Phillips, 2004). How parental race/ethnicity as well as education and incomes are related to the use of summer camps is less known. Although some summer camps are costly, affordable camps, often held by local community centers, youth centers, or religious organizations, are also available. Mothers who are employed full-time may need, and can afford, summer camps to supervise their children more than mothers who are employed part-time or not employed, although there is no specific research examining variation in summer camp use by maternal employment status. Black mothers are more likely than mothers of other racial/ethnic groups to be employed full-time (England, Garcia-Beaulieu, & Ross, 2004; Lu, Wang, & Han, 2017). Thus, Black children may spend more time attending summer camps than children of other racial-ethnic groups. When maternal employment is held constant, there will be little racial/ethnic difference.

*Outside active play.* Outside play, including swimming or water play, is a common children's summer activity. Childrearing experts have emphasized the benefits of outdoor play for children's development (Carson et al., 2016; Ginsburg, 2007). Past research using national surveys suggests that there are racial/ethnic differences in frequency of children's outside play.

Using time diary data from 1997 Child Development Supplement to the Panel Study of Income Dynamics (CDS-PSID), Hofferth and Sandberg (2001) found that Black, Hispanic, and Asian children spent less time playing or doing sports than White children. Using the 2009-2010 National Health and Nutrition Examination Survey, Fakhouri and colleagues (2013) found that Black and Hispanic children were less likely than White children to spend time on physical activities; Asian children were not included in the study. Explanations for Black and Hispanic children's less time playing outside than White children's tend to focus on low SES contexts, pointing out parents' concerns about neighborhood safety (Kimbro & Schachter, 2011) or lack of sports facilities and organizations in the neighborhood (Larson et al., 2001). From this perspective, we expect that racial/ethnic gaps in outside active play will be found only among children of parents without college degrees. In contrast, qualitative research has suggested that Black children living in middle- or upper-middle class neighborhoods tend to have fewer close friends living in the neighborhood to play with than their White counterparts (Dow, 2019; Lareau, 2003). These findings suggest that racial/ethnic differences in frequency of outside play will be found regardless of parental education.

# Screen Media Use

Various screen media, including watching TV or videos, playing video games or computer games, and other use of computers, have become a major part of young children's lives in the past few decades. The extent to which screen media use may affect children's development is still debated (Anderson & Bushman, 2001; Ferguson & Olson, 2013; Granic, Lobel, & Engles, 2014; Twenge et al., 2018). Nevertheless, experts tend to recommend that it is better to set a limit on children's screen media use (Council on Communications and Media, & MBE, 2016). Parents tend to agree on limiting children's screen time, but also point out the positive role that screen media plays. Screen media can act as a "parenting support tool," which helps keep their children occupied when they have to do other things, such as cooking, doing chores, and taking care of other children (Brown & Smolenaers, 2018; Evans, Jordan, & Horner, 2011). Screen media can facilitate parent-child conversations especially about sensitive issues (Evans, Jordan, & Horner, 2011). Parents have different views on the efficacy of screen media use for educational purposes: Some parents believed that educational TV programs or touch-screen applications would help children's cognitive and language development, whereas other parents believed that more screen time would reduce children's language use and thus their language development (Brown & Smolenaers, 2018).

Past research has found that Black children spend more time watching TV (Augustine et al., 2017; Hofferth & Sandberg, 201) and playing video games (Fakhouri et al., 2013; Granic, Lobel, & Engels, 2014) than White children. For Hispanic children, some studies found that Hispanic children spent more time playing video games than White children (Fakhouri et al., 2013) but other studies did not find differences between Hispanic and White children (Augustine et al., 2017; Hofferth & Sandberg, 2001). Children's time spent on their computers depends highly on home computer ownership, which has increased dramatically across the past few decades. Using two waves of the PSID-CDS, Ono and Tsai (2008) found that differences in time spent on the computer—learning, playing, or communication—between White and Black children ages 6 to 11 narrowed from 1997 to 2003 as home computer ownership became more common, suggesting research using more recent data is warranted. Research shows no differences among White, Black, and Hispanic children in computer use for studying (Hofferth & Moon, 2012). Most studies exclude Asian children; Hofferth and Sandberg (2001) did include Asian children and found that Asian children watched TV longer hours than White children.

Most researchers provide little explanation for racial/ethnic differences in screen media use. For their findings of urban Black adolescents' higher rates of TV watching than suburban White adolescents', Larson and colleagues (2001) suspected the lack of other affordable, safe leisure activities in the community. This explanation suggests that Black-White differences in children's time spent watching TV may not be found after controlling for SES indicators, such as family incomes and neighborhood safety. Two other characteristics, education and parenting style, are worth considering as confounding factors. As already mentioned, the proportion of those with college degrees is lower for Black and Hispanic parents than White and Asian parents. When considering the role of parenting style, Black, Hispanic, and Asian parents are less likely than White parents to use an authoritative parenting style (Gibbs et al., 2017; Nomaguchi & House, 2013). Studies have shown that higher parental education is related to less TV watching of children during the summer (Gershenson, 2013) as well as throughout the year (Bianchi & Robinson, 1997; Hofferth & Sandberg (2001). Researchers speculate that parents with higher levels of education are more likely than parents with less education to desire and are able to have children engaged in more "productive" activities than watching TV (Bianchi & Robinson, 1997). More specifically, parents with higher education are more likely to use parenting style called authoritative parenting or concerted cultivation, which emphasizes parent-child conversations, negotiation, and reasoning (Cooper & Pugh, 2020; Hoff et al., 2002; Lareau, 2003), and authoritative parenting beliefs are related to beliefs that screen media use has negative effects on children (Hwang et al., 2017). All in all, we expect that Black, Hispanic, and Asian children will spend more time on screen media than White children during a summer break and that racial/ethnic differences in screen media use may be more evident among children whose parents do not have college degrees than among children whose parents have college degrees or more.

# Academic Skill-Building Activities.

Reading is a vital skill for first graders to continue to build during a summer break. For racial/ethnic differences in children's reading time, although not focusing on a summer break, Hofferth and Sandberg (2001) found that Black and Hispanic children spend less time, while Asian children spend more time reading, than White children. Because children of highly educated parents read more often (Bianchi & Robinson, 1997; Hofferth & Sandberg, 2001), racial/ethnic differences may be concentrated among parents without college degrees than parents with college degrees or more. Children with lower reading skills may be reluctant to read on their own. Because Black and Hispanic children, on average, have lower reading skills than White or Asian children (Condron, 2009; Quinn, 2015), it is important to take children's abilities into account when examining racial/ethnic differences in time children spend reading, which Hofferth and Sandberg (2001) did not. Controlling for prior reading skills, there could be no racial/ethnic differences in frequency of children's reading during a summer.

Academic activities during a summer break include studying with parents, attending summer school, and studying with a tutor. Hofferth and Sandberg (2001) found that Black, Hispanic, and Asian children spent more time studying than White children, and Black children spent more time at school than White children. Some research has found that Black, Hispanic, and Asian parents were more likely than White parents to help their kindergarteners with daily homework (Li & Hamlin, 2019), whereas other research did not find racial/ethnic differences in parental help on children's school work (Robinson & Harris, 2014). For educational activities outside of formal schooling, past research, focusing on high school students, found that Black, Hispanic, and Asian parents, particularly those without college degrees, were more likely than White parents to have their children prepare for SAT tests using test preparation courses, a hired counselor, or college preparation camps (Buchmann, Condron, & Roscigno, 2010; Ho, Park, & Kao, 2019). Researchers speculate that racial/ethnic minority parents tend to have higher educational aspirations for their children than White parents (Gibbs et al., 2017; Sonnenschein & Galindo, 2015), but face more challenges to navigating their children's formal schooling than White parents (Cheadle & Amato, 2011; Crosnoe et al., 2016), thus rely on educational programs outside of formal schooling. Drawing on these past research findings, we expect that Black, Hispanic, and Asian parents are more likely than White parents to have their children engaged in academic activities during a summer break, and these racial/ethnic differences may be found more among parents without college degrees than those with college degrees.

# Possible Confounding Factors

We control for other factors that vary across the four racial/ethnic groups and may be related to parenting practices and children's activities, according to prior research. As discussed earlier, parental education, family income, and neighborhood safety (Hofferth & Sandberg, 2001), as well as maternal employment and single parenthood (Cheadle, 2008), are key confounding factors with race/ethnicity. To control for immigration status, we used parents' English language proficiency, which is related to parenting practices and children's activities (Cheadle, 2008; Han, Lee, & Waldfogel, 2012; Nomaguchi & House, 2013). Two other demographic characteristics of parents that are important to control for include: mothers' age and the number of children living in the household (Cheadle, 2008; Hofferth & Sandberg, 2001), as well as the focal children's gender (Hofferth & Sandberg, 2001; Nomaguchi & Fettro, 2018). Finally, whether children were attending private school, whether children were provided a booklist for summer reading by their school, and children's reading scores in spring before the summer break were controlled for as well.

## The Present Study

Using data from the ECLS-K:2011, we examined racial/ethnic differences in three areas of children's activities during the summer break after first grade, with special attention to variation by parental education.

Hypothesis 1. Black and Hispanic parents are less likely than White and Asian parents to take their children on family trips and have their children play outside. These racial differences are greater among parents without college degrees than parents with college degrees.

Hypothesis 2. Black, Hispanic, and Asian parents are more likely than White parents to allow their children to spend time using screen media. These racial differences are more pronounced among parents without college degrees than parents with college degrees.

Hypothesis 3. Black, Hispanic, and Asian parents are more likely than White parents to have their children engaged in academic activities, such as studying with parents, attending summer school, and having a tutor. These racial differences are greater among parents without college degrees than parents with college degrees.

# Method

# Data

The ECLS-K:2011 is a longitudinal study of children who attended full-day or part-day kindergarten in 2010-11 (Tourangeau et al., 2017). The survey includes interviews with "primary" parents, teachers, and school administrators, as well as one-on-one assessments of children. For the present analysis, we used the fall second-grade parent interviews when information about children's activities during the summer break after first grade was collected; we used the fall-kindergarten (baseline) interview to obtain primary parents' demographic characteristics, including race/ethnicity, education, and age; we used the spring first-grade

interview to measure primary parents' marital status, employment status, and children's reading scores. The analytical sample focused on children whose primary parents participated in the parent interviews in the fall of second grade (n = 4,370). Note that the sample size is much smaller than the original sample size (n = 18,174), largely because the fall second grade interviews were conducted only for a subsample of children and their families. Finally, we excluded parents who were Native Americans, "other" race, or multiple races (n = 115) because of the small sample size for this group when it was broken down by education (e.g., n = 33 for high school or less and n = 34 for college). These procedures made the analytical sample size N = 4,256. Missing cases were imputed using the multiple imputation procedure suggested by Allison (2001). We used the weight variable provided by the ECLS-K:2011 to adjust the sample regarding non-response to parent interviews, attrition in the follow-up interviews, and other characteristics to be a nationally representative sample of children who attended school from kindergarten through the second grade in 2010-2013. The vast majority (85%) of primary parents were biological mothers, whereas 10% were biological fathers.

# **Dependent Measures**

*Children's summer activities* were reported in the fall second grade interview by the primary parents who were asked about specific activities in which the focal children had participated during the previous summer.

Active play included three types. Family trips were measured as a continuous variable indicating the number of places the focal children went with their family during the summer out of the following six kinds: (a) an art gallery, museum, or historical site, (b) zoos or aquariums, (c) amusement parks, (d) beaches, lakes, rivers, or state or national parks, (e) plays or concerts, and (f) a large city other than where the child lives (ranging from 0 to 6). *Time spent in summer* 

*camps* was measured as the total hours children spent attending day or overnight camps during the summer, ranging from 0 to 450. *Outdoor play* was measured by the question, "On a typical summer week, how often did the child play outside actively (e.g., running, jumping, or swinging) (1 = never, 2 = once or twice, 3 = 3 to 6 times, 4 = every day).

Screen media use included three types. Time spent watching TV was also measured as minutes per day based on the question, "On a typical summer day, how many hours of television, videotapes, or DVDs on average did the child watch?" This included television shows, videos, or DVDs watched on a TV, computer, or handheld device like an iPad or cellphone; but not games played on gaming systems like PlayStation, Wii, Xbox or handheld devices. *Time spent playing video games* was measured as minutes per day based on the question, "On a typical summer day, how much time did the child spend playing video games?" which included games played on systems like PlayStation, Wii, or Nbox, or on handheld devices such as a Nintendo DS, Sony PSP, iPod, iPad, or cellphone, or games played on the computer. *Computer use* was measured by the question, "On a typical summer week, how often did the child use a computer or other electronic device for educational purposes? By electronic device, we mean any type of computer, cell phone, smart phone, iPod, reading device (e.g., Kindle or Nook), or game system (e.g., Wii, Xbox, DS, and PlayStation)," (1 = never, 2 = once or twice, 3 = 3 to 6 times, 4 = every day).

*Reading or academic activities* included four types. *Reading* on their own was based on the question, "During a typical summer week, how often did the child look at or read books on his/her own?" (1 = never, 2 = once or twice, 3 = 3 to 6 times, 4 = every day). *Studying with parents* was the average of three questions, "On a typical summer week, how often did you or any other family member do math activities with the child such as learning numbers, adding, subtracting, or measuring?", "On a typical summer week, how often did you or any other family

member do writing activities with him/her?", and "On a typical summer week, how often did you or any other family member read books to him/her?" (1 = never, 2 = once or twice, 3 = 3 to 6 times, 4 = every day). For *summer school attendance*, the primary parents were asked, "Did this child attend summer school this summer? Please do not include summer camps." If they answered "yes," they were asked whether the summer school was (a) required by the school, (b) suggested by the school, (c) parents decided to send the child to the program. We created three dummy variables, including no summer school program (reference), attended a summer school required or suggested by school, and attended a summer school on the parent's decision. *Studying with a tutor* was a dichotomous variable based on the question, "Was this child tutored over the summer on a regular basis, by someone other than you or family member, in a specific subject, such as reading, math, science, or a foreign language?", where children who were tutored over the summer were coded 1 and those who were not were coded 0.

## Independent Measures

*Parental race/ethnicity* was measured in the base-line interview (fall kindergarten) as four dummy variables including non-Hispanic White (reference), non-Hispanic Black, Hispanic, and Asian (including Pacific Islanders). *Parental education* was measured as a dichotomous variable where those who had a Bachelor's degree or higher were coded 1 and those who did not have 4-year college degrees were coded 0. We initially examined three education groups, including high school diploma or less, some college, and 4-year college degree or more. The sample sizes for Asian parents with a high school diploma or less was small (n = 31) and the patterns of findings were similar between the two lower education groups.

Control Measures

*Family income* was a variable created by the ECLS-K, ranging from 1 = \$5000 or less, 2 = \$5001 to \$10,000, 3 = \$10,101 to \$15,000, ... 16 = \$75,001 to \$100,000, 17 = \$100,001 to \$200,000, and 18 = \$200,001 or more, indicating the annual income of the household. Missing cases were imputed by the ECLS-K. *Neighborhood safety* was measured by a question, "How safe is it for children to play outside during the day in your neighborhood?" (1 = not at all safe, 2 = somewhat safe, 3 = very safe). *The primary parent's employment status* was measured as three dummy variables including non-employed (reference), employed part-time, and employed full-time, measured in the spring of first grade. *The primary parent's marital status* was measured as three dummy variables including married (reference), cohabiting, and single, measured in the spring of first grade. *Parents' English proficiency* was the mean of eight items regarding how well each parent speak, read, understand, and write English (1 = not well at all to 5 = English is the primary language). *The primary parent's age* was measured in the base-line survey. *The number of children* under age 18 in the household was measured in the spring of first grade.

*Child's gender* was measured by a dichotomous variable (1 = girls, 0 = boys) in the fall of kindergarten year. *Book list* was a dichotomous variable whether the child's school provided a book list with particular books to read over the summer. *Private school* was measured as a dichotomous variable where children who were attending private school were coded as 1 and children who were attending public school were coded as 0. About 3.8% of children (n = 164) were home-schooled or attending unknown types of school. These children, along with 33 missing cases, were imputed into either private or public school. The findings were consistent both with and without including these cases. *Children's reading score* in the spring of first grade was measured with the item-response-theory scale provided by the ECLS-K:2011. *Analytical Plans*  We first compared means for all variables in the analyses across four racial/ethnic groups for two groups by parental education whether parents had college degrees. For multivariate analyses, we used ordinary-least-squired (OLS), logistic, or multinomial logistic regression models depending on the dependent variable. The total hours spent in summer camps had many zeros and thus were not normally distributed; still, recent research has suggested that OLS regression models would produce estimates less biased than in Tobit models (Pepin, Sayer, & Casper, 2018; Stewart, 2013). For each dependent variable, two models were examined. Model 1 examined racial/ethnic differences in a given summer activity controlling for education and control variables. Model 2 added interaction terms between each of the race/ethnicity dummy variables and college degrees to Model 1 to examine whether racial-ethnic differences in a given summer activity would vary for the two education groups.

# Results

#### Descriptive Results

Table 1 presents means or proportions for variables in the analyses. On average, first graders had 3.5 types of family trips (with a range from 0 to 6). Looking at each of the six trip destinations asked in the survey, a majority of parents took their children to these places, except for a play or a concert. About 85% of children went to beaches, rivers, or national parks, 63% went to zoos or aquariums, 62% visited large cities where they did not live, 59% went amusement parks, and 53% visited museums or historical sites. Only 27% went to see a play or a concert. First graders spent a total of 30 hours, on average, attending summer camps during the summer break. The low average hours was in part because only about 28% of parents sent their children to summer camps. Among children who went to summer camps, the average was 108 total hours. To put this number in a more intuitive term, 108 hours would be equivalent to 6

hours per day, 5 days a week, for 3.6 weeks. When breaking down the distribution (not shown), we found that 72.3% reported 0 hours, 19.8% reported 120 hours or less (i.e., 6 hours per day, 5 days a week, for 4 weeks or fewer), 3.6% reported between 121 and 240 hours (i.e., 6 hours per day, 5 days a week, for 5 to 8 weeks), and 4.4% reported more than 241 hours (i.e., 6 hours per day, 5 days a week for 9 weeks or more). The average score for outside play was 3.7 where "3" represented 3 to 6 days per week and "4" represented every day. In supplemental analysis (not shown), we found that 75% reported that their children played outside actively every day.

For screen media use, parents estimated that their first graders spent 2.31 hours watching TV or DVDs and spent about 1 hour (0.97 hours) playing video/computer games per day in a typical week. In a supplemental analysis (not shown), we found that 98% watched TV and 79% played video games daily, suggesting that watching TV and playing video games were major part of children's leisure during the summer. The average score for computer use for educational purposes was 2.46 where "2" meant once or twice per week and "3" meant 3 to 6 days per week. About a half (47%) reported three or more days per week (not shown).

Regarding academic activities, the average score for reading alone was 2.96 with the same response categories that were used for computer use. More than two-thirds (69%) reported their children read three or more days per week (not shown). The average score for studying with parents (or other adult family members) was 2.43. A little more than a half (53%) reported that they or other adults studied with their children three or more days per week (not shown). A small percentage of children attended summer school: 4% attended summer school because they were required and 3% did so even though they were not required, whereas 93% did not attend. In addition, 6% of children were tutored during the summer. Among those who attended summer school, 97% went for reading, 86% for math, 56% for compute, 49% for science, 49% for art,

and 26% for music (data not shown). The information breaking down the subjects for which children were tutored was not available.

## [Table 1 about here]

Table 2 presents means for measures of children's summer activities by parental race/ethnicity and education. We looked at college graduates first. Compared to White parents with college degrees, Black parents with college degrees took children on family trips less often and had children spend more time in summer camps. There was no significant difference in the frequency of outside play. For screen media use, Black parents with college degrees were more likely than White parents with college degrees to let their children engage in screen mediawatching TV, playing video games, and using the computer for educational purposes. For academic activities, while there was no difference in reading frequencies, Black parents with college degrees were more likely than White parents with college degrees to have their children attend summer school due to a requirement, have their children tutored, and supervise their children studying at home. Hispanic parents with college degrees showed little difference from their White counterparts in terms of active play as well as academic activities. However, differences were found for time children spent on screen media: Hispanic parents with college degrees were more likely than their White counterparts to let their children spend more time watching TV, playing video games, and using the computer. Asian parents with college degrees were less likely than White counterparts to have children play outside, more likely to allow their children to spend time playing video games, more likely to have their children attend summer school without being required, and more likely to have children tutored.

Turning to parents without college degrees, in addition to differences found for the college graduates, Black parents were less likely than White parents to have their children play

outside. There were more White-Hispanic differences for those without college degrees than those with college degrees: Hispanic parents without college degrees were less likely than their White counterparts to have their children engaged in academic activities, such as reading, studying with parents, and computer use for educational purposes. Asian parents without college degrees were more likely than their White counterparts to have their children engaged in academic activities, such as reading, studying with parents, and attending summer school.

Some racial/ethnic differences in mothers' demographic and SES characteristics are worth mentioning. Regardless of education levels, compared with White mothers, Black mothers were younger, more likely to be employed full-time, be single, have less family income, and report poorer neighborhood quality. Many differences between White and Hispanic mothers were also found for both education groups: Hispanic parents were younger, more likely to be cohabiting, have less family income, report poorer neighborhood quality, and report less fluency in English. In addition, for the lower education group only, Hispanic parents had more children on average and were less likely to be employed full-time. Regardless of education levels, Asian parents were more likely to report poorer neighborhood quality and less proficiency in English. Among college graduates only, the average number of children were fewer for Asian mothers than White mothers. Among those without college degrees, Asian mothers were older and were more likely to be employed full-time than White mothers. Because these demographic and SES characteristics might be related to children's activities, multivariate analyses were necessary to control for the confounding effects of these characteristics.

# [Table 2 about here]

#### Multivariate Results

Tables 3 to 6 presents the results from multivariate analyses. Table 3 shows results for active play, Table 4 shows results for screen media use, and Tables 5and 6 show results for academic activities. For the three activities of active play (Table 3), many of the racial/ethnic differences in children's summer activities remained significant even after controlling for demographic and other characteristics. We examined three items of active play first. Compared with White parents, Black parents were less likely to take their children on family trips. In supplemental analyses, we examined racial/ethnic differences in each of the six trip destinations separately (not shown). Black parents showed lower rates of taking children to amusement parks and beaches, but showed no differences in four other types (zoos/aquariums, museums/historical sites, play/concert, cities). For the use of summer camps, Black parents were more likely, whereas Asian parents were less likely, to have their children spend time attending summer camps. Finally, Black and Asian parents were less likely than White parents to have their children play outside. There were no significant differences between Hispanic and White parents in the frequencies of family trips, summer camps, and outside play for their children. These racial-ethnic differences (or lack of thereof) did not differ by parental education.

## [Table 3 about here]

For screen media use (Table 4), non-White parents' greater tendencies to have their children engaged in screen media use remained significant even after controlling for background characteristics. Compared with White parents, Black and Hispanic parents allowed their children to watch more TV, Black and Asian parents allowed their children to play more video games, and parents in all three of these racial/ethnic groups had their children use the computer for educational purposes more often. The interaction between Hispanic ethnicity and having a college degree was significant for educational computer use. Supplemental analyses (not shown) suggest that the higher odds of computer use among Hispanic children than White children were found only for parents with college degrees.

In supplemental analyses (not shown), we examined whether racial/ethnic differences in children's screen media use would be reduced when authoritative parenting style was controlled for. An authoritative parenting style was measured as the average scores for four questions ( $\alpha = .70$ ) that were asked in the spring kindergarten survey, including: "The child and I often have warm, close time together", "The child likes me", "I show the child a lot of love", and "I express affection by hugging, kissing, or holding the child" (1 = not at all true to 4 = completely true). The average score was 3.78 for White parents, 3.78 for Black parents, 3.69 for Hispanic parents, and 3.73 for Asian parents. Differences were significant between White and Hispanic parents and between Black and Hispanic parents. Authoritative parenting scale was negatively related to children's TV time and video game time, but not computer use. Controlling for this variable, however, did not change racial/ethnic differences in children's TV time or video game time.

#### [Table 4 about here]

For academic activities (Tables 5 and 6), as found at the bivariate level, Black and Asian parents were more likely than White parents to be engaged in academic activities, such as attending summer school that was not required, being tutored, and studying at home with parents. There was no racial/ethnic differences in the likelihood of children attending summer school required by school after controlling for other background characteristics. The interactions between being Asian and having a college degree on studying with parents and between being Black and having a college degree on attending school without being required by school were significant and the signs were negative. Few differences were found between Hispanic and White children after controlling for parents' English proficiency and other characteristics. For reading, there was little racial-ethnic difference, except that among those with no college degrees, Asian parents had their children read more often. In supplemental analyses (not shown), we examined whether racial/ethnic differences in children's tutoring would disappear after controlling for parental expectations for children's educational goal, with little change for the higher odds of Black and Asian children studying with a tutor compared with White and Hispanic children. In supplemental analyses (not shown), we examined racial/ethnic differences in summer school attendance by subject, looking at reading, math, computer, science, art, and music. Asian children were more likely than children of other racial/ethnic groups to attend summer school for any of the six subjects. Black and Hispanic children were more likely than White children to attend summer school for art or music; there was no difference in the odds of attending summer school for other subjects between Black or Hispanic children and White children.

## [Tables 5 and 6 about here]

Table 7 summarizes the findings. At the bivariate level, we found many racial-ethnic differences in children's summer activities for both education groups. Most of the differences between Black parents and White parents, and between Asian and White parents, remained significant even after controlling for major background characteristics. Regardless of parental education, measured by whether they had a bachelor's degree or more, compared with White children, Black children went on fewer types of family trips—although this was concentrated in just two types of outings: water play and amusement parks—but spent more time attending summer camps. Asian children spent less time attending summer camps than children to play outside, and more likely to spend time using screen media, such as television, video games, and the computer. Black and Asian children were also more likely than White children to be engaged

in academic activities, like attending summer school and studying with a tutor or parents, especially among those whose parents have no college degree. For comparisons between White and Hispanic parents, all differences were no longer significant after background characteristics were controlled for, except that Hispanic children spent more time watching TV, and, for those whose parents had college degrees only, Hispanic children spent more time using the computer.

# [Table 7 about here]

#### Discussion

Disparities in children's out-of-school activities are of great concern among researchers and policy makers as a possible source of disparities in children's achievement. Using unique data from the ECLS-K:2011, this paper provided a national portrait of racial/ethnic differences in first graders' summer activities, including family trip destinations, camps, outside play, screen media use, reading, and academic activities, with specific focus on variation in racial/ethnic differences by parental education. Our analyses produce several major findings that indicate the merit of further investigations on patterns, sources, and consequences of racial/ethnic differences in parenting and children's activities.

We found that Black parents take their children to fewer family trip destinations than parents of other racial/ethnic groups. Specifically Black parents are less likely to take their children to two of the six destinations asked in the study: amusement parks and beaches or others bodies of water. There are no racial/ethnic differences in parents' report of taking children to the four other destinations: museums or historical sites, zoos or aquariums, plays or concerts, and large cities, which, researchers argue, may cultivate skills and tastes that are valued in the mainstream culture of schools and workplaces (Lareau, 2003). The current findings are in contrast to prior research findings that Black and Hispanic parents are less likely to have their children engaged in these "culturally enriching" activities (Cheadle & Amato, 2011; Roksa & Potter, 2011). One possibility is that all parents regardless of race/ethnicity may try to take their children to places where their children can enjoy enriching activities.

Our findings suggest that Black parents are more likely than parents of other racial/ethnic groups to have their children spend time in summer camps, whereas Asian parents are less likely to do so. As we speculated, primary parents' full-time employment status was related to greater hours children spent in summer camps, but Black children's longer hours attending summer camps remain significant after controlling for maternal employment or other family characteristics. Many summer camps are held by community centers or churches, and Black parents may be more likely than parents of other racial/ethnic groups to rely on community-based childrearing (Dow, 2019). With regard to Asian parents' lower rates of using summer camps than parents of other racial/ethnic groups, given that Asian parents are more likely than parents are more likely to invest their resources for children in academic-oriented programs. Further research examining types of summer camps is warranted.

We find that Black and Asian parents are less likely than White and Hispanic parents to have their children play outside. Black and Asian children's low rates of playing outside or doing sports have been documented (Hofferth & Sandberg, 2001). Past research has also shown that Hispanic children were less active (Fakhouri et al., 2013; Hofferth & Sandberg, 2001), but these studies did not control for key background characteristics such as parents' perception of neighborhood safety and parents' English proficiency. Explanations for Black and Hispanic children spending less time playing outside tend to focus on low-income families, pointing out the role of neighborhood safety (Kimbro & Schachter, 2011) or lack of sports facilities and organizations in the community (Larson et al., 2001). The present analysis found less outside play for Black and Asian children among parents with or without college degrees and even after controlling for family incomes and perceptions of neighborhood safety. These findings suggest the need for searching explanations other than neighborhood economic resources. Qualitative research has documented that in higher SES neighborhoods, racial/ethnic minority children are less likely than White children to have close friends living in the neighborhood to play with (Dow, 2019; Lareau, 2003). Future research should examine the effects of racial/ethnic composition of the neighborhood on children's leisure activities.

Non-White parents, especially Black parents followed by Asian parents, are more likely than White parents to let their children to use screen media more frequently than White parents. These differences remain significant after controlling for parental education, family incomes, neighborhood safety, and parenting styles. Domoff and colleagues (2019), using a convenience sample collected in Michigan, found "parallel family media use"—i.e., children and parents, or other family members, use screen media simultaneously—is common. Pepin and colleagues (2018) found that Black mothers, but not Hispanic mothers, were more likely than White mothers to spend time watching TV. Little research has compared parents and children's leisure time use, however. We need research that scrutinize sources of racial/ethnic differences in screen media use among children as well as parents.

We find that Black and Asian parents are more likely than White and Hispanic parents to have their children engaged in academic activities during the summer, especially among parents without college degrees. The present findings are consistent with past findings that racial/ethnic minority children are more likely than White children to spend time studying (Hofferth & Sandberg, 2001) and are more likely to take SAT prep courses or tutoring (Buchmann, Condron, & Roscigno, 2010; Ho, Park, & Kao, 2019). These findings suggest merit for revisiting the claim that lower parental involvement in children's learning is responsible for Black and Hispanic children's lower test scores than White children's (Brooks-Gunn & Markman, 2005; Farkas & Beron, 2004).

There are limitations in the present analysis that future research should address. First, the question asked about tutoring included foreign languages. For Asians, of which the vast majority of parents were foreign-born, another possibility is that their children are attending school to learn their parents' native language (i.e., Chinese school). The information about the subject for which children were tutored was not available. Past research has emphasized that examining racial/ethnic groups separated by nativity is important (Han, Lee, & Waldfogel, 2012; Nomaguchi & House, 2013), yet we are unable to do so because of small sample sizes for foreign-born Black parents and U.S.-born Asian parents. We measured maternal employment status in the spring of first grade (i.e., before the summer) due to the lack of data on maternal employment during the summer, however some mothers who were employed in the spring might have been off during the summer (e.g., teachers).

This paper suggests that there are differences in what children do during the summer differ by parental race/ethnicity, especially Black and Asian parents, compared with White and Hispanic parents. Similar patterns of racial/ethnic differences are found for parents with or without college degrees, except for academic skill building activities for which racial/ethnic differences are more pronounced among parents without college degrees. Future research should investigate sources of racial/ethnic differences in parenting and children's activities.

#### References

Allison, P. D. 2001. Missing data. Thousand Oaks, CA: Sage.

- Anderson, C. A., & Bushman, B. J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science*, *12*(5), 353-359.
- Augustine, J. M., Prickett, K. C., & Kimbro, R. T. (2017). Health-related parenting among US families and young children's physical health. *Journal of Marriage and Family*, 79(3), 816-832.
- Autor, D. H., Katz, L. F., & Kearney, M. S. (2008). Trends in US wage inequality: Revising the revisionists. *The Review of Economics and Statistics*, 90(2), 300-323.
- Bianchi, S. M., & Robinson, J. (1997). What did you do today? Children's use of time, family composition, and the acquisition of social capital. *Journal of Marriage and the Family*, 59(2), 332-344.
- Bodovski, K. (2010). Parental practices and educational achievement: Social class, race, and habitus. *British Journal of Sociology of Education*, *31*(2), 139-156.
- Brooks-Gunn, J., & Markman, L. B. (2005). The contribution of parenting to ethnic and racial gaps in school readiness. *The Future of Children*, 139-168.
- Brown, A., & Smolenaers, E. (2018). Parents' interpretations of screen time recommendations for children younger than 2 years. *Journal of Family Issues*, *39*(2), 406-429.
- Buchmann, C., Condron, D. J., & Roscigno, V. J. (2010). Shadow education, American style:Test preparation, the SAT and college enrollment. *Social Forces*, *89*(2), 435-461.

- Burkam, D. T., Ready, D. D., Lee, V. E., & LoGerfo, L. F. (2004). Social-class differences in summer learning between kindergarten and first grade: Model specification and estimation. *Sociology of Education*, 77(1), 1-31.
- Carson, V., Hunter, S., Kuzik, N., Gray, C. E., Poitras, V. J., Chaput, J. P., ... & Kho, M. E. (2016). Systematic review of sedentary behaviour and health indicators in school-aged children and youth: an update. *Applied Physiology, Nutrition, and Metabolism, 41*(6), S240-S265.
- Cheadle, J. E. (2008). Educational investment, family context, and children's math and reading growth from kindergarten through the third grade. *Sociology of Education*, *81*(1), 1-31.
- Cheadle, J. E., & Amato, P. R. (2011). A quantitative assessment of Lareau's qualitative conclusions about class, race, and parenting. *Journal of Family Issues*, *32*(5), 679-706.
- Chin, T., & Phillips, M. (2004). Social reproduction and child-rearing practices: Social class, children's agency, and the summer activity gap. *Sociology of Education*, 77(3), 185-210.
- Condron, D. J. (2009). Social class, school and non-school environments, and black/white inequalities in children's learning. *American Sociological Review*, 74(5), 685-708.
- Cooper, M., & Pugh, A. J. (2020). Families across the income spectrum: A decade in review. *Journal of Marriage and Family*, 82(1), 272-299.
- Council on Communications and Media, & MBE. (2016). Media use in school-aged children and adolescents. *Pediatrics*, *138*(5), e20162592.
- Crosnoe, R., Ansari, A., Purtell, K. M., & Wu, N. (2016). Latin American immigration, maternal education, and approaches to managing children's schooling in the United States. *Journal of Marriage and Family*, 78(1), 60-74.

Domoff, S. E., Radesky, J. S., Harrison, K., Riley, H., Lumeng, J. C., & Miller, A. L. (2019). A naturalistic study of child and family screen media and mobile device use. *Journal of Child and Family Studies*, *28*(2), 401-410.

Dow, D. M. (2019). Mothering while Black. Berkley, CA: University of California Press.

- Downey, D. B., Von Hippel, P. T., & Broh, B. A. (2004). Are schools the great equalizer?Cognitive inequality during the summer months and the school year. *American Sociological Review*, 69(5), 613-635.
- Duncan, G. J., & Magnuson, K. A. (2005). Can family socioeconomic resources account for racial and ethnic test score gaps? *The Future of Children*, 35-54.
- Elliott, S., & Aseltine, E. (2013). Raising teenagers in hostile environments: How race, class, and gender matter for mothers' protective carework. *Journal of Family Issues*, 34(6), 719-744.
- England, P., Garcia-Beaulieu, C., & Ross, M. (2004). Women's employment among blacks, whites, and three groups of Latinas: Do more privileged women have higher employment? *Gender & Society*, *18*(4), 494–509.
- Evans, C. A., Jordan, A. B., & Horner, J. (2011). Only two hours? A qualitative study of the challenges parents perceive in restricting child television time. *Journal of Family Issues*, 32(9), 1223-1244.
- Fakhouri, T. H., Hughes, J. P., Brody, D. J., Kit, B. K., & Ogden, C. L. (2013). Physical activity and screen-time viewing among elementary school–aged children in the United States from 2009 to 2010. *JAMA Pediatrics*, 167(3), 223-229.
- Farkas, G., & Beron, K. (2004). The detailed age trajectory of oral vocabulary knowledge: Differences by class and race. *Social Science Research*, 33(3), 464-497.

- Ferguson, C. J., & Olson, C. K. (2013). Friends, fun, frustration and fantasy: Child motivations for video game play. *Motivation and Emotion*, 37(1), 154-164.
- Gershenson, S. (2013). Do summer time-use gaps vary by socioeconomic status? *American Educational Research Journal*, *50*(6), 1219-1248.
- Gibbs, B. G., Shah, P. G., Downey, D. B., & Jarvis, J. A. (2017). The Asian American advantage in math among young children: The complex role of parenting. *Sociological Perspectives*, 60(2), 315-337.
- Ginsburg, K. R. (2007). The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics*, *119*(1), 182-191.
- Granic, I., Lobel, A., & Engels, R. C. (2014). The benefits of playing video games. *American Psychologist*, *69*(1), 66-78.
- Han, W. J., Lee, R., & Waldfogel, J. (2012). School readiness among children of immigrants in the US: Evidence from a large national birth cohort study. *Children and Youth Services Review*, 34(4), 771-782.
- Ho, P., Park, H., & Kao, G. (2019). Racial and ethnic differences in student participation in private supplementary education activities. *Research in Social Stratification and Mobility*, 59, 46-59.
- Hoff, E., Laursen, B., Tardif, T., & Bornstein, M. (2002). Socioeconomic status and parenting. *Handbook of parenting Volume 2: Biology and ecology of parenting*, 8(2), 231-52.
- Hofferth, S. L., & Moon, U. J. (2012). Electronic play, study, communication, and adolescent achievement, 2003–2008. *Journal of Research on Adolescence*, *22*(2), 215-224.

- Hofferth, S. L., & Sandberg, J. F. (2001). How American children spend their time. *Journal of Marriage and Family*, 63(2), 295-308.
- Hout, M. (2012). Social and economic returns to college education in the United States. *Annual Review of Sociology*, *38*, 379-400. https://doi.org/10.1146/annurev.soc.012809.102503
- Hwang, Y., Choi, I., Yum, J. Y., & Jeong, S. H. (2017). Parental mediation regarding children's smartphone use: Role of protection motivation and parenting style. *Cyberpsychology, Behavior, and Social Networking*, 20(6), 362-368.
- Jæger, M. M. (2011). Does cultural capital really affect academic achievement? New evidence from combined sibling and panel data. *Sociology of Education*, *84*(4), 281-298.
- Jant, E. A., Haden, C. A., Uttal, D. H., & Babcock, E. (2014). Conversation and object manipulation influence children's learning in a museum. *Child Development*, 85(5), 2029-2045.
- Kimbro, R. T., & Schachter, A. (2011). Neighborhood poverty and maternal fears of children's outdoor play. *Family Relations*, 60(4), 461-475.
- Lareau, A. (2003). Unequal Childhood. Berkeley and Los Angeles, CA: University of California.
- Lareau, A., & Weininger, E. B. (2003). Cultural capital in educational research: A critical assessment. *Theory and Society*, *32*(5-6), 567-606.
- Larson, R. W., Richards, M. H., Sims, B., & Dworkin, J. (2001). How urban African American young adolescents spend their time: Time budgets for locations, activities, and companionship. *American Journal of Community Psychology*, 29(4), 565-597.
- Li, A., & Hamlin, D. (2019). Is Daily Parental Help with Homework Helpful? Reanalyzing National Data Using a Propensity Score–Based Approach. *Sociology of Education*, *92*(4), 367-385.

- Lu, Y., Wang, J. S. H., & Han, W. J. (2017). Women's short-term employment trajectories following birth: Patterns, determinants, and variations by race/ethnicity and nativity. *Demography*, 54(1), 93–118.
- Nomaguchi, K., & Fettro, M. N. (2018). Stability in mothers' work hours in early childhood and children's achievement in kindergarten. In *The Work-Family Interface: Spillover, Complications, and Challenges* (pp. 1-21). Emerald Publishing Limited.
- Nomaguchi, K., & House, A. N. (2013). Racial-ethnic disparities in maternal parenting stress: The role of structural disadvantages and parenting values. *Journal of Health and Social Behavior*, 54(3), 386-404.
- Ono, H., & Tsai, H. J. (2008). Race, parental socioeconomic status, and computer use time outside of school among young American children, 1997 to 2003. *Journal of Family Issues*, 29(12), 1650-1672.
- Pepin, J. R., Sayer, L. C., & Casper, L. M. (2018). Marital status and mothers' time use: Childcare, housework, leisure, and sleep. *Demography*, 55(1), 107-133.
- Quinn, D. M. (2015). Kindergarten Black–White test score gaps: Re-examining the roles of socioeconomic status and school quality with new data. *Sociology of Education*, 88(2), 120-139.
- Robinson, K. & Harris, A. L (2014). The Broken Compass: Parental Involvement with Children's Education. Harvard University Press.
- Roksa, J., & Potter, D. (2011). Parenting and academic achievement: Intergenerational transmission of educational advantage. *Sociology of Education*, *84*(4), 299-321.

- Sonnenschein, S., & Galindo, C. (2015). Race/ethnicity and early mathematics skills: Relations between home, classroom, and mathematics achievement. *The Journal of Educational Research*, 108(4), 261-277.
- Stewart, J. (2013). Tobit or not Tobit? *Journal of Economic and Social Measurement*, 38(3), 263-290.
- Tourangeau, K., Nord, C., Lê, T., Wallner-Allen, K., Vaden-Kiernan, N., Blaker, L. & Najarian,
  M. (2017). Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K: 2011) User's Manual for the ECLS-K:2011 Kindergarten–Second Grade Data File and Electronic Codebook, Public Version (NCES 2017-285). U.S. Department of Education.
- Twenge, J. M., Joiner, T. E., Rogers, M. L., & Martin, G. N. (2018). Increases in depressive symptoms, suicide-related outcomes, and suicide rates among US adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science*, 6(1), 3-17.

Table 1. Means (SD) or Proportions for All Variabl		$\frac{119818(N-M)}{M}$	( <i>SD</i> )
Summon optimities	Range	IVI	(50)
Summer activities	0 - 6	2 40	(1, 47)
Family trips scale	0 - 0	3.49	(1.47)
Zoos or aquariums	• -	0.63	
Amusement parks	0 - 1	0.59	
Beaches, rivers, national parks	0 - 1	0.85	
Museums, historical sites	0 - 1	0.53	
Plays or concerts	0 - 1	0.27	
Large cities	0 - 1	0.62	
Total hours spent in summer camps	0 - 500	30.09	(77.58)
Participation in any summer camp	0 - 1	0.28	
Total hours spent in summer camps for participants	4 - 500	108.42	(119.82)
Outside play	1 - 4	3.70	(.55)
TV hours per day	0 - 23	2.31	(1.51)
Video game hours per day	0 - 20	0.97	(1.13)
Computer use	1 - 4	2.46	(.95)
Reading	1 - 4	2.96	(.81)
Studying with parents	1 - 4	2.43	(.54)
Summer school, required	0 - 1	0.04	
Summer school, optional	0 - 1	0.03	
Studying with a tutor	0 - 1	0.06	
Race-ethnicity			
White	0 - 1	0.58	
Black	0 - 1	0.13	
Hispanic	0 - 1	0.24	
Asian	0 - 1	0.05	
Education	-	0.02	
Bachelor's degree or more	0 - 1	0.31	
Control variables	0 1	0.51	
Employed, full-time	0 - 1	0.46	
Employed, part-time	0 - 1	0.40	
	0 - 1	0.22	
Nonemployed Number of children	1 - 13		$(1 \ 1 \ 2)$
	1 - 13 1 - 18	2.59	(1.13)
Family income	1 - 13 1 - 3	10.44	(5.42)
Neighborhood safety	1 - 3 0 - 1	2.70	(.50)
Married	0 - 1 0 - 1	0.70	
Cohabiting		0.03	
Single	0 - 1	0.28	
Girls	0 - 1	0.48	(c ==)
Mothers' age	14 – 77	34.44	(6.53)
Mothers' English proficiency	1 - 5	3.91	(.66)
Private school	0 - 1	0.08	
Book list	0 - 1	0.35	
Reading score in Spring G1	36 - 139	95.65	(17.02)

Table 1. Means (SD) or Proportions for All Variables in the Analysis (N = 4,255)

				College	(n = 130)	04)			
	W	hite		Black	Н	ispanic	Asian		
Summer activities									
Family trips	4.18	(1.24)	3.87	(1.63)***	3.97	(1.31)	4.23	(0.82) *°	
Summer camps	55.30	(99.69)	81.90	(176.39)*	37.36	(67.22) <sup>b</sup>	30.83	(49.84)	
Outside play	3.78	(0.48)	3.73	(0.62)	3.72	(0.45)	3.42	(0.51) ****	
TV hours	1.75	(1.18)	2.70	(1.99)***	2.23	(0.99) **°	1.94	(0.98) <sup>c</sup>	
Video games	0.68	(0.79)	1.06	(1.45)***	0.93	(0.75)**	1.03	(0.68) ***	
Computer use	2.45	(0.90)	2.87	(1.05)***	2.88	(0.77)***	2.64	(0.73)	
Reading	3.05	(0.82)	3.17	(1.11)	3.09	(0.67)	3.04	(0.62)	
Studying with parents	2.42	(0.50)	2.56	(0.67)*	2.43	(0.48)	2.40	(0.42) <sup>a</sup>	
Summer school, req.	0.03		0.07	**	0.03		0.05		
Summer school, opt.	0.05		0.02		0.04		0.16	<b>***</b> be	
Studying with a tutor	0.06		0.15	***	0.05	a	0.14	<b>**</b> d	
Control variables									
Employed, full-time	0.51		0.64	*	0.58		0.52		
Employed, part-time	0.28		0.26		0.21		0.20		
Number of children	2.42	(0.93)	2.52	(1.53)	2.53	(0.82)	2.12	(0.58) ** <sup>be</sup>	
Family income	15.34	(3.24)	11.66	(6.34)***	12.57	(4.42)***	15.46	(2.64) <sup>cf</sup>	
Neighborhood safety	2.88	(0.35)	2.77	(0.55)*	2.70	(0.43)***	2.72	(0.39) ***	
Cohabiting	0.00		0.01		0.03	**	0.00		
Single	0.11		0.34	***	0.15	c	0.04	b	
Girls	0.47		0.52		0.46		0.54		
Mothers' age	37.57	(5.05)	35.61	(6.16)**	35.75	(4.18)**	37.04	(3.52)	
English proficiency	4.20	(0.21)	4.20	(0.21)	3.67	(0.53) *** <sup>c</sup>	3.59	(0.34) ****	
Private school	0.15		0.35	***	0.19	b	0.10	c	
Book list	0.37		0.57	***	0.32	c	0.54	<b>**</b> e	
Reading score in Spring	104 = 5		0 <b></b>		00.05		10515		
G1		(16.30)	97.45	(18.35)***	98.92	(11.99)**	106.18	(11.19) <sup>ce</sup>	
N 0/	-	48		129		112		115	
% among college+		73		10		9		9	

Table 2. Means (SD) for All variables in the Analysis by Parental Race-Ethnicity and Education

Differences from White were significant at \*p < .05; \*\*p < .01; \*\*\*p < .001.

Differences from Black were significant at  ${}^{a}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ .

Differences from Hispanic were significant at  ${}^{d}p < .05$ ;  ${}^{e}p < .01$ ;  ${}^{f}p < .001$ .

Tabl	e 2.	Cont.

				Non-Coll					
	W	hite		Black	H	Iispanic	Asian		
Summer activities									
Family trips	3.42	(1.74)	2.93	(1.95) ***	2.96	(1.14)***	3.29	(1.20)	
Summer camps	19.26	(71.28)	46.49	(127.75) ***	7.62	(31.32) **°	9.19	(24.79)**	
Outside play	3.75	(0.60)	3.66	(0.67) *	3.59	(0.52)***	3.36	(0.49) *** <sup>bd</sup>	
TV hours	2.29	(1.79)	3.18	(2.02) ***	2.51	(1.31) *°	2.50	(1.10)	
Video games	0.96	(1.42)	1.53	(1.85) ***	1.00	(0.91) <sup>c</sup>	1.14	(0.61)	
Computer use	2.43	(1.10)	2.68	(1.16) **	2.22	(0.81) ***°	2.93	(0.63) ** <sup>f</sup>	
Reading	2.99	(0.95)	2.93	(0.97)	2.75	(0.66) *** <sup>b</sup>	3.40	(0.53) ** <sup>bf</sup>	
Studying with parents	2.42	(0.65)	2.64	(0.62) ***	2.33	(0.47) *°	2.65	(0.43) *f	
Summer school, req.	0.03		0.05		0.08	<b>***</b> a	0.05		
Summer school, opt.	0.02		0.04	*	0.02		0.17	***cf	
Studying with a tutor	0.04		0.09	***	0.03	c	0.10	**e	
Control variables									
Employed, full-time	0.41		0.65	***	0.35	*c	0.57	<b>**</b> f	
Employed, part-time	0.22		0.16	**	0.18	*	0.17		
Number of children	2.56	(1.40)	2.61	(1.42)	2.92	(1.00) *** <sup>b</sup>	2.40	$(0.84)^{d}$	
Family income	10.32	(5.95)	6.08	(4.62) ***	6.43	(3.35) ***	11.51	(3.69) <sup>cf</sup>	
Neighborhood safety	2.76	(0.57)	2.66	(0.57) *	2.43	(0.48) *** <sup>b</sup>	2.47	(0.39) *** <sup>a</sup>	
Cohabiting	0.02		0.03		0.06	***	0.00		
Single	0.28		0.72	***	0.31	c	0.06	<b>**</b> cf	
Girls	0.48		0.47		0.50		0.45		
Mothers' age	33.97	(8.26)	32.09	(8.08) ***	32.17	(5.30) ***	37.28	(4.58) **cf	
English proficiency	4.22	(0.17)	4.20	(0.27)	3.01	(0.68) <b>***</b> <sup>c</sup>	3.28	(0.42) *** <sup>ce</sup>	
Private school	0.05		0.03		0.03		0.09	<b>**</b> be	
Book list	0.34		0.30		0.29	*	0.51	**cf	
Reading score in	0611	(10.57)	00.47	(20.1.4) ****	06 70	(10.00)***	06.00	(0, 10) hf	
Spring G1	96.11	(18.57)	88.47	(20.14) ***	86.72	(13.23)***	96.92	(9.40) <sup>bf</sup>	
N 0(	,	,534 52		434		903		80	
% among non-college		52		15		31		3	

Differences from White were significant at p < .05; p < .01; p < .01:

Differences from Black were significant at  ${}^{a}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ .

Differences from Hispanic were significant at  ${}^{d}p < .05$ ;  ${}^{e}p < .01$ ;  ${}^{f}p < .001$ .

		Family Trips				Hours in Camps				Outside play			
	Mo	del 1	Model 2		М	lodel 1	Мо	odel 2	Model 1		Mo	odel 2	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	
Black	222	.097*	247	.111*	26.919	5.210***	26.694	5.953***	080	.038*	096	.043*	
Hispanic	.141	.103 <sup>b</sup>	.141	.113 <sup>b</sup>	-8.300	5.498°	-6.055	6.060 °	042	.040	054	.045	
Asian	.113	.152	.012	.232	-27.167	8.122*** <sup>cd</sup>	-22.534	12.220 °	291	.059*** <sup>bf</sup>	301	.089***ae	
College degrees	.413	.076***	.395	.087***	23.488	4.096***	24.867	4.689***	.027	.030	.014	.034	
College x Black			.097	.209			1.823	11.207			.060	.081	
College x Hispanic			031	.210			-9.735	11.260			.046	.082	
College x Asian			.177	.297			-7.386	15.544			.018	.115	
Employed, full-time	.058	.071	.061	.071	27.381	3.837***	27.346	3.844***	.016	.028	.017	.028	
Employed, part-time	.124	.082	.126	.082	6.547	4.428	6.439	4.432	.103	.032**	.103	.032**	
Number of children	088	.026***	088	.026***	-6.135	1.395***	-6.171	1.396***	.015	.010	.015	.010	
Family income	.055	.008***	.055	.008***	.919	.412*	.915	.412*	.006	.003*	.006	.003*	
Neighborhood safety	.151	.062*	.151	.062*	-1.438	3.269	-1.366	3.270	.112	.024***	.112	.024***	
Cohabiting	.302	.187	.301	.187	7.494	10.089	7.653	10.097	.019	.073	.019	.073	
Single	.096	.079	.096	.079	.009	4.229	.084	4.244	.050	.031	.052	.031	
Girls	.032	.059	.030	.059	-9.744	3.151**	-9.763	3.154**	106	.023***	106	.023***	
Mothers' age	.002	.005	.003	.005	.472	.252	.472	.253	002	.002	002	.002	
English proficiency	.219	.065***	.220	.066***	-3.998	3.508	-3.296	3.588	.057	.026*	.054	.026*	
Private school	.211	.112	.207	.113	-4.294	6.108	-4.499	6.160	053	.044	057	.044	
Book list	.173	.063**	.171	.064**	8.999	3.344**	8.952	3.355**	.064	.025*	.063	.025*	
Reading score in S	.004	.002*	.004	.002*	.141	.099	.142	.099	002	.001***	002	.001***	
Intercept	1.123	.387**	1.119	.393**	6.238	20.702	2.693	21.054	3.376	.152***	3.392	.155***	
<b>R</b> <sup>2</sup>	.15	8***	.15	58***	.1	14***	.11	4***	.0	69***	.06	<u>5</u> 9***	

Table 3. Ordinary-Least-Squires Regression Models Predicting the Association Among Parental Race-Ethnicity, Education, and Children's Summer Activities: Active Play (N = 4,255)

\*p < .05; \*\*p < .01; \*\*\*p < .001. Omitted reference groups are: White, college x white, non-employed, married, boys, public school, no booklist. Differences from Black parents were significant at  ${}^{a}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ . Differences from Hispanic parents were significant at  ${}^{d}p < .05$ ;  ${}^{e}p < .01$ ;  ${}^{f}p < .001$ .

	TV hours					Video game hours				Computer use			
	Model 1		Mo	odel 2	Ν	lodel 1	Mo	odel 2	Model 1		М	odel 2	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	
Black	.827	.106***	.785	.121***	.499	.078***	.533	.088***	.381	.066***	.337	.075***	
Hispanic	.371	.110***°	.333	.121** <sup>b</sup>	.091	.082 °	.058	.091 °	.222	.070**	.130	.076 ª	
Asian	.252	.166 <sup>b</sup>	.238	.258 ª	.413	.131** <sup>d</sup>	.367	.216	.529	.104***e	.736	.154***af	
College degrees	352	.081***	389	.092***	185	.062**	191	.070**	.021	.052	024	.059	
College x Black			.152	.222			149	.166			.148	.141	
College x Hispanic			.156	.222			.164	.167			.455	.144**	
College x Asian			.026	.315			.062	.255			360	.198 af	
Employed, full-time	.087	.076	.088	.076	.008	.059	.007	.059	.007	.049	.002	.049	
Employed, part-time	241	.088**	241	.088**	078	.067	076	.067	.030	.056	.028	.056	
Number of children	012	.028	012	.028	.017	.021	.017	.021	.015	.018	.015	.018	
Family income	027	.008***	027	.008***	008	.006	008	.006	.003	.005	.003	.005	
Neighborhood safety	128	.064*	129	.064*	100	.053	101	.053	.049	.042	.050	.042	
Cohabiting	336	.200	335	.200	.530	.150***	.526	.150***	.148	.128	.154	.127	
Single	174	.084*	169	.084*	085	.063	089	.063	135	.053*	126	.053*	
Girls	088	.063	088	.063	457	.048***	456	.048***	.079	.040*	.082	.040*	
Mothers' age	003	.005	003	.005	003	.004	003	.004	.004	.003	.003	.003	
English proficiency	.214	.070**	.204	.072**	.113	.052*	.101	.053	.278	.045***	.255	.045***	
Private school	186	.119	196	.120	021	.090	010	.091	015	.077	031	.077	
Book list	165	.069*	169	.069*	112	.051*	108	.052*	049	.043	052	.043	
Reading score in S	.001	.002	.001	.002	002	.001	002	.001	.001	.001	.001	.001	
Intercept	2.187	.409***	2.237	.416***	1.339	.309***	1.397	.315**	.840	.261**	.971	.265***	
$\mathbb{R}^2$	.09	90***	.09	0***		)91***	.09	2***	.05	51***	.0	57***	

Table 4. Ordinary-Least-Squires Regression Models Predicting the Association Among Parental Race-Ethnicity, Education, and Children's Summer Activities: Screen Media Use (N = 4,255)

\*p < .05; \*\*p < .01; \*\*\*p < .001. Omitted reference groups are: White, college x white, non-employed, married, boys, public school, no booklist. Differences from Black parents were significant at  ${}^{a}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ . Differences from Hispanic parents were significant at  ${}^{d}p < .05$ ;  ${}^{e}p < .01$ ;  ${}^{f}p < .001$ .

		Reading				Studying with Parents				Tutored			
	Mo	odel 1	М	odel 2	Mo	odel 1	M	odel 2	Mo	odel 1	M	odel 2	
	b	SE	b	SE	b	SE	b	SE	b	SE	b	SE	
Black	.010	.057	017	.065	.166	.038***	.193	.044***	.952	.211***	1.074	.267***	
Hispanic	046	.058	076	.064	039	.040 °	041	.044 °	276	.29 ° 1	308	.331 °	
Asian	.273	.086** <sup>bf</sup>	.567	.129*** <sup>cf</sup>	.153	.059**°	.338	.089*** <sup>f</sup>	.890	.291** <sup>f</sup>	.753	.449 <sup>d</sup>	
College degrees	.085	.043	.084	.050	.058	.030	.083	.034*	.280	.173	.310	.211	
College x Black			.105	.118			104	.082			322	.392	
College x Hispanic			.187	.120			.060	.082			.145	.543	
College x Asian			501	.165** <sup>df</sup>			322	.113**e			.176	.530	
Employed, full-time	067	.041	073	.041	107	.028***	111	.028***	297	.176	300	.176	
Employed, part-time	013	.047	017	.047	020	.033	022	.033	064	.197	059	.196	
Number of children	.007	.015	.007	.015	014	.010	014	.010	103	.065	105	.065	
Family income	014	.004**	014	.004**	011	.003***	011	.003***	.033	.019	.033	.019	
Neighborhood safety	036	.034	035	.034	.028	.024	.029	.024	.051	.146	.047	.146	
Cohabiting	.268	.107*	.276	.106**	.189	.074*	.193	.074**	.027	.513	.020	.513	
Single	106	.045*	097	.045*	005	.031	004	.031	361	.203	390	.207	
Girls	.303	.033***	.305	.033***	.093	.023***	.095	.023***	.062	.142	.065	.142	
Mothers' age	003	.003	004	.003	.003	.002	.002	.002	.017	.011	.017	.011	
English proficiency	.168	.037***	.163	.038***	.083	.026**	.082	.027**	011	.174	032	.178	
Private school	.095	.064	.080	.064	020	.044	018	.044	1.110	.195***	1.138	.197***	
Book list	.067	.038	.064	.038	.065	.025**	.067	.025**	.195	.149	.205	.149	
Reading score in S	.006	.001***	.006	.001***	002	.001**	002	.001**	032	.005***	032	.005***	
Intercept	1.937	.220***	1.974	.223***	2.228	.150***	2.234	.152***	939	.968	866	.994	
R <sup>2</sup> or -log likelihood	.08	88***	.0	93***	.05	56***	.00	50***	148.04	4 (17)***	148.7	6(20)***	

Table 5. Ordinary-Least-Squires Regression Models Predicting the Association Among Parental Race-Ethnicity, Education, and Children's Summer Activities: Academic or Literacy Activities (N = 4,255)

\*p < .05; \*\*p < .01; \*\*\*p < .001. Omitted reference groups are: White, college x white, non-employed, married, boys, public school, no booklist. Differences from Black parents were significant at  ${}^{a}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ . Differences from Hispanic parents were significant at  ${}^{d}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ .

	No Summer School Attendance (reference)											
	Mo	odel 1	Мо	del 2	Мо	del 1	Moo	del 2				
	S	ummer Scho	ool, Volun	itary	Summer School, Required							
	b	SE	b	SE	b	SE	b	SE				
Black	.432	.299	1.117	.367**	.259	.264	.043	.306				
Hispanic	319	.357	029	.425 ª	.330	.281	.371	.304				
Asian	1.580	.288*** <sup>bf</sup>	2.101	.423***af	.745	.407	.544	.617				
College degrees	.423	.216	-1.862	.712**	.426	.229	.918	.526				
College x Black			370	.647			569	.678				
College x Hispanic			828	.490			.446	.785				
College x Asian			.834	.276**			.297	.289				
Employed, full-time	.066	.223	.026	.224	027	.198	026	.198				
Employed, part-time	.142	.252	.127	.253	.120	.228	.099	.229				
Number of children	004	.082	008	.083	085	.066	090	.066				
Family income	006	.024	006	.024	.004	.022	.007	.022				
Neighborhood safety	093	.180	087	.182	228	.151	232	.151				
Cohabiting	.108	.615	.096	.619	130	.506	148	.506				
Single	756	.301*	829	.311**	038	.202	022	.201				
Girls	.233	.179	.243	.180	.180	.164	.170	.165				
Mothers' age	.037	.014**	.035	.014*	.030	.012*	.031	.012*				
English proficiency	218	.201	176	.206	089	.158	065	.160				
Private school	.690	.250**	.773	.251**	-1.353	.557*	-1.427	.560*				
Book list	091	.188	057	.189	.133	.184	.115	.185				
Reading score in S	005	.006	005	.006	067	.006***	067	.006***				
Intercept	-3.396	1.188**	-3.756	1.218**	2.442	.972*	2.416	.994*				

Table 6. Multinominal Regression Models Predicting the Association Among Parental Race-Ethnicity, Education, and Children's Summer School Attendance (N = 4,255)

\*p < .05; \*\*p < .01; \*\*\*p < .001. Omitted reference groups are: White, college x white, non-employed, married, boys, public school, no booklist. Likelihood Ratio was 314.82 (df = 34, p < .001) for Model 1 and 332.65 (df = 40, p < .001) for Model 2. Differences from Black parents were significant at  ${}^{a}p < .05$ ;  ${}^{b}p < .01$ ;  ${}^{c}p < .001$ . Differences from Hispanic parents were significant at  ${}^{d}p < .05$ ;  ${}^{e}p < .01$ ;  ${}^{f}p < .001$ .

		College+			No College			
	Со	mpared with	White	Compared with White				
	Black	Hispanic	Black	Hispanic	Asian			
Active play								
Family trips	(-)			-	(-)			
Summer camps	+		-	+	(-)	(-)		
Outside play			-	-	(-)	-		
Home media								
TV hours	+	+		+	+			
Video game hours	+	(+)	+	+				
Computer use	+	+*	+	+	(-)	+		
Academic								
Read alone					(-)	+*		
Studied with parents	(+)			+	(-)	+*		
Summer school required	+				(+)			
Summer school voluntary			+	+*		+		
Tutored	+		+	+		(+)		

# Table 7. Summary of Findings

"+" indicates higher scores; "-" indicates lower scores compared with White

Controlling for demographic, SES, and school characteristics

Signs in parentheses indicate differences at bivariate level

\* Differences by education level is significant.