Media Influence on Children's Skills: A Bunching Application

by

Débora Mazetto

(Under the Direction of Gregorio Caetano)

Abstract

This dissertation investigates the effects of TV watching on children's skills, their leisure consumption behavior in the United States, and activity substitution. Comprising two chapters, this research offers valuable insights for policymakers, educators, and parents striving to optimize children's leisure activities and promote holistic development. The first chapter explores the impact of TV watching on children's cognitive and non-cognitive skills. This research enhances our understanding of how television interaction affects children's skill development, revealing nuanced effects across demographic groups. Using data from the Children Development Supplement (CDS) from the Panel Study of Income Dynamics (PSID), this study describes children's leisure consumption, focusing on TV watching. The study then uses a control function approach to reduce selection bias and examine the effects of TV watching on skills. By analyzing children with zero TV viewing hours and their skill variations, this method clarifies the influence of unobservable factors on skill development. I find that each additional hour of TV viewing negatively impacts children's non-cognitive skills while exhibiting no significant effect on cognitive skills. Moreover, by examining differences based on grade, income, and sex, the study shows that TV's negative impact on non-cognitive skills is especially marked among middle-school children and those from higher-income families. In the second chapter, I use the same methodology and data to understand the patterns of substitution between TV watching and other activities. The findings highlight that children have spent less time on leisure activities and more time on extra-curricular activities, substituting away from other types of leisure to watching more TV. I find that children substitute one hour of TV with less sleep, class time, and homework. I also analyze heterogeneous effects for different grades, income level, and sex.

Index words: Cognitive Skills, Non-cognitive Skills, Bunching, TV Watching, Media Consumption, Leisure Consumption, Time Use, Early Childhood, Time Substitution

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Dedication

To my parents, Rodney and Carmem, who encouraged and supported me unwaveringly. You have been illuminating my path with love, wisdom, and unconditional belief in my potential. I love you.

To my sister, Cecília, who gave me important insights about the aesthetics of this dissertation. I do like the color palette. I love you.

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To my professor and friend, Gregorio, who was decisive in the most difficult moments.

To all my family and friends, those who have become my family in Athens and those cheering for me in Brazil. You were there for me, even on the tough days. Thank you for the beers and laughs.

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Contents

List of Figures

List of Tables

Chapter 1

The Effect of TV Watching on Children's Skills

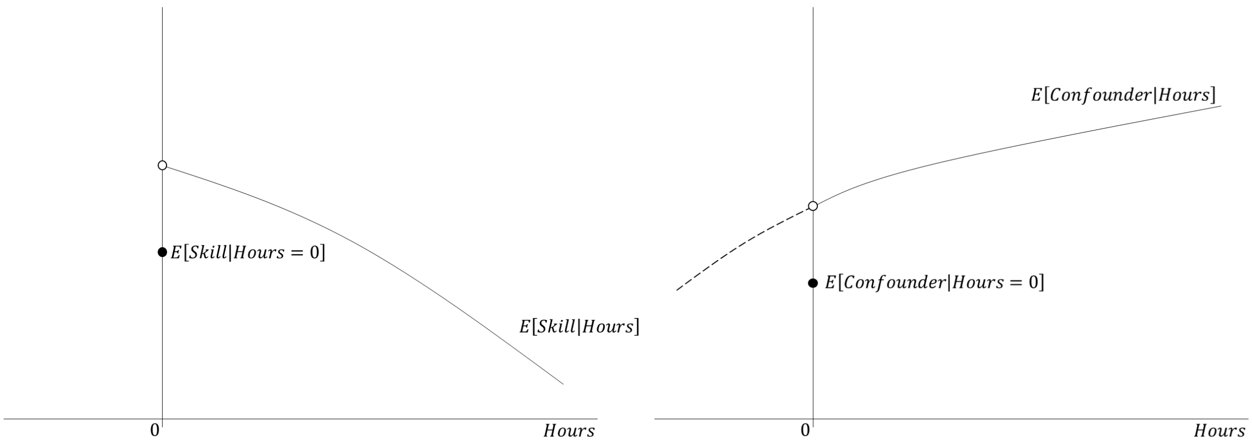
1.1 Introduction

TV is a common form of leisure, present in almost every American household (Nielsen, 2020a; Nielsen, 2020b). Even with emerging technologies like streaming services, social media, and online videos, children aged 8 to 12 still watched more than three hours of TV per day on average in 2019, while teenagers watched more than four hours (Rideout et al., 2022). Citing concerns about media effects on children, the American Academy of Pediatrics (AAP) recommends limits on screen time (AAP, 2001). For many years, the AAP recommended that children over two years of age limit TV to no more than two hours daily. Despite these recommendations, the causal effect of TV watching on children's skill development remains unclear.

This paper estimates the causal effect of TV watching on children's cognitive and non-cognitive skills. *A priori*, the effect is unclear. TV watching may enhance children's skills by exposing them to new ideas and educational content. It may also compose an important part of time spent with other family members, and encourage interaction among children, siblings, and parents. Conversely, TV may impede skill development by displacing more productive activities, such as homework, sports, and socializing. TV watching as an information-processing activity may instill habits that interfere with skill development. Additionally, TV watching could reduce family interactions, and violent or inappropriate content may adversely affect children's development. Thus, the effect of TV on children's skills is an empirical question.

The potential endogeneity of TV watching with respect to children's skills makes this a fundamentally difficult question to answer. That is, there may be unobservable attributes that affect both time spent watching TV and skills. I overcome this challenge by employing the novel control function approach, developed by C. Caetano, Caetano, and Nielsen, 2024, which exploits the fact that many children watch zero hours of TV. The skill variation among these children provides insights into the effect of unobservable factors on skills. I will briefly explain the intuition behind this approach. Consider the theoretical example in Figure 1.1. The left panel shows hypothetically how the outcome variable (child's skill) varies with the treatment variable (hours watching TV)[1]. The negative slope represents the negative association between TV watching and child's skills, and it combines the treatment effect of TV watching on child's skill and the endogeneity bias. The figure also indicates that the average skill level of children who do not watch TV is significantly lower than that of children who watch just a few minutes. One explanation for this discontinuity is that the treatment effect is discontinuous at zero, which implies that if a child who does not watch TV instead watched, for instance, 15 minutes of TV, her skill immediately and discontinuously improves. However, watching a few minutes of TV is unlikely to generate such a sharp increase in skills.

Figure 1.1: Control Function Approach and Selection-on-Unobservables: A Hypothetical Example of the Effect of Confounders on Skills



Note: theoretical example based on C. Caetano, Caetano, Nielsen, and Sanfelice, 2024.

The right panel of Figure 1.1 offers an alternative and more plausible explanation for this discontinuity. It illustrates how a hypothetical confounder varies with the treatment variable (hours watching TV). The confounder is a combination of all the factors and characteristics that affect a child's choice and skills, such as the child's innate ability, the child's own preferences about her leisure time, the strictness of her parents, the quality of time the child spends with her parents, siblings, and friends, etc. I refer to this confounder as the "type" of the child. The right panel shows that the average confounder (the average "type") of the children who watch TV is similar, i.e., the average type of children who watch two hours of TV is not so different from the average type of children who watch 1.5 hours; this is true for all children who choose some positive hours.

However, the average type of children who do not watch TV is sharply different from the average type of children who watch some TV because there is more variation in the type of children bunched at zero. Among these children there are those who are of a type that led them to be exactly indifferent between watching TV or not (children at an "interior solution"), and those types of children that are far from indifference and choose not to watch TV (children constrained to choose a "corner solution"). The group of children who do not watch TV are represented by the dashed line in the right panel of Figure 1.1,

[1]For the empirical version of this figure, please see Figure 1.8 for non-cognitive skills and Figure 1.9 for cognitive skills.

where the black dot shows the average type (the average confounder) of all the children lumped together at zero hours of TV. If the treatment effect of watching TV is not discontinuous at zero, the discontinuity observed in the outcome can only be due to the confounders alone. At the bunching point it is therefore possible to identify the endogeneity bias and indirectly recover the treatment effect.

This study utilizes detailed time diary data from the Child Development Supplement (CDS) of the Panel Study of Income Dynamics (PSID), examining how much time children aged 5 to 18 spend watching TV and their cognitive and non-cognitive skill levels.Using the control function approach, I find that TV watching significantly negatively affects children's non-cognitive skills: for every additional hour spent in front of the TV, the child experiences a reduction in their non-cognitive skill of about 0.146 standard deviations (s.d.) on average. This effect is more pronounced among middle-school-aged children who are transitioning into adolescence, a period marked by substantial emotional and intellectual changes.[2]. Similarly, the effect is also more prominent for children from high-income families, where the opportunity cost of watching TV is likely higher, as it may crowd out other productive time uses. I find a positive but statistically insignificant effect of TV watching on cognitive skills.

This paper contributes to the literature on the effects of TV on children's outcomes in two main ways. I provide a credible estimate of the average treatment effect of time spent watching TV on children's cognitive and non-cognitive skills using representative data for the US population. Many studies have documented negative correlations between hours of TV watching and educational attainment[3], health[4], and behavior[5]. However, these studies largely rely on cross-sectional variation, which does not account for the endogeneity of TV watching. In economic research, most studies focus on children's cognitive development and other outcomes (Gentzkow and Shapiro, 2008; Huang and Lee, 2010; Kearney and Levine, 2019) and other outcomes, such as teenage pregnancy (Kearney and Levine, 2015; Trudeau, 2016), but rarely socioemotional development. The exceptions are Nieto and Suhrcke, 2021 and Colombo and Failache, 2023. Nieto and Suhrcke, 2021 examine the effect of screen-based activities on children's obesity and mental well-being in the UK by leveraging the digital television transition, which substantially increased the number of free channels. They found that access to digital television adversely affected children's mental health. Colombo and Failache, 2023 exploit geographic variation in the introduction of fiber-optic-to-the-home technology to study the effects of high-speed internet exposure on early childhood development in Uruguay. Their intention-to-treat effect estimates reveal that increased exposure to high-speed internet decreased development scores related to communication, problem solving, and social skills.

Secondly, I contribute to the literature by estimating the average treatment effect of time spent watching TV, observing the actual hours children engage with this activity. In economic studies, treatment definitions vary widely, with most estimating intention-to-treat effects of TV watching by exploiting variations in TV signal access or reception (Gentzkow and Shapiro, 2008; Jensen and Oster, 2009; Olken, 2009)

[2] Perret-Clermont, 1980 and Rogoff, 1990 show an extensive work regarding socialization and cognitive development among children from the psychology perspective.

[3] See Glenn, 1994; Gentile et al., 2004; Zimmerman and Christakis, 2005; Hancox et al., 2005; Zavodny, 2006; Munasib and Bhattacharya, 2010; Tarekegn and Endris, 2019; Jing and Kirkorian, 2020; and Kennedy et al., 2022.

[4] See Gentile et al., 2004; Chandra et al., 2008; and Williams, 2019.

[5] See Gentile et al., 2004; Christakis et al., 2004; and Meroni et al., 2022.

or the broadcasting of particular shows (DellaVigna and Kaplan, 2007; Chong and Ferrara, 2009; Dahl and DellaVigna, 2009; Chiou and Lopez, 2010; Ferrara et al., 2012; Kearney and Levine, 2015; Trudeau, 2016; Banerjee et al., 2019; Jaeger et al., 2020; Ang, 2023; Lindo et al., 2022). For instance, Gentzkow and Shapiro, 2008 utilized variations in the timing of TV introductions across local markets to study the impact of preschool TV exposure on adolescent test scores. Their findings indicate small positive impacts on test scores for each additional year of preschool TV exposure. Kearney and Levine, 2019 investigated how preschool-age children's exposure to Sesame Street affected educational and labor market outcomes, using geographic variations in broadcast reception. Their findings suggest that Sesame Street's introduction improved school performance, particularly among boys. Unlike these studies, I observe hours of TV watched and can address the endogeneity bias using the control function approach by C. Caetano, Caetano, and Nielsen, 2024, which allows me to estimate the average treatment effects on both cognitive and non-cognitive skills. The average treatment effect of time spent watching TV holds particular policy relevance, especially considering the AAP's recommendations to reduce children's screen time. Furthermore, I explore effects across key dimensions of heterogeneity including gender, grade, and family income status to identify which children are most impacted by TV watching.Lastly, I apply the novel methodology proposed by C. Caetano, Caetano, and Nielsen, 2024 to a new and policy-relevant context.

Overall, my results significantly contribute to the expanding knowledge on children's media consumption and development[6]. The positive, though statistically insignificant, effects of TV watching on cognitive skills align with literature suggesting that exposure to TV can slightly benefit cognitive development. My findings provide new evidence that TV watching negatively affects non-cognitive skills, especially among middle-school-aged children and those from high-income families.

The remainder of the paper is organized as follows: Section 1.2 describes the data used for estimations, and Section 1.3 presents the identification strategy details. Results are presented in Section 1.4, and Section 1.5 tests the robustness of these results by relaxing key assumptions. Conclusions and discussions are presented in Section 1.6.

1.2 Data

To estimate the effects of TV watching on children's skills, I use data from the Panel Study of Income Dynamics (PSID) and the Child Development Supplement (CDS). The PSID is a nationally representative longitudinal household survey of families and individuals in the United States that provides information about children, parents, and their families. The CDS provides detailed time diary data on children's daily activities and measures their cognitive and non-cognitive skills. These two datasets allow me to correlate children's choices and outcomes with their personal, familial, and environmental characteristics.

[6]This paper builds on the literature that study the economic impacts of media. See DellaVigna and La Ferrara, 2015 and Hennighausen, 2015, for example.

1.2.1 Children's Activities

The Child Development Supplement (CDS) requires families to fill out a time diary detailing children's activities on a typical day of the week. Beginning in 1997, the survey followed families with up to two children, aged 0 to 12, through 2002 and 2007. From the 2014 wave onwards, the survey included all eligible children in the household, up to 18 years of age. I analyze data from the 1997, 2002, 2007, 2014, and 2019 waves, focusing on school-aged children from 5 to 18 years. The total sample comprises 7,027 child-wave observations.

The time diary records each child's activities on a random weekday and a random weekend day.[7]. If the child is too young, a parent records each activity in the diary, noting the start and end times, participants, location, and selecting from a list of over 300 activities. I group activities into eight major categories: Extra-Curricular Activities[8], Sleep Time, Class Time, Homework, Active Leisure[9], Passive Leisure[10], Chores and Duties[11], and Other Activities[12]. Second, I exclude observations described as "non-typical," those missing weekday or weekend data, or diaries not covering the full 24 hours, in line with previous research[13] (Fiorini and Keane, 2014; C. Caetano, Caetano, and Nielsen, 2024). This provides detailed information on the time spent in each activity.

I initially present the activity distribution for the entire week, though my primary results focus on weekdays. This choice is due to weekdays being busier with various activities, thus raising the opportunity cost of watching TV compared to weekends. Secondly, weekdays are the days when parents and policy-makers might be more interested in understanding potential effects[14]. As demonstrated in Section 1.4, my findings are independent of this choice.

Figure 1.2 illustrates the daily breakdown of activity categories for children who watch TV and those who do not during the week[15]. Children who do not watch TV typically spend more time on other leisure activities, chores, and extra-curricular activities than those who do.

[7]To improve reliability of the data collected and possible biases, the study obtains information on at least one weekend and one weekday with multiple samples over a period of time.

[8]Extra-curricular, or enrichment, activities include lessons out of class time, sports in a structured class, before and after school time classes, and volunteering or associations duties.

[9]Active leisure activities include reading time, hobbies, time spent with arts and excursions, sports and physical activities that are not in a structured class, religious activities, conversation, socialization, reward/affection time, board and family games, and other types of activities considered active leisure.

[10]Passive leisure activities include watching TV, computer use either playing, web-surfing or social media, other media use such as radio, and other types of activities considered passive leisure.

[11]Chores and duties include care for others, chores, paid work, travel time, shopping, personal care, and meals.

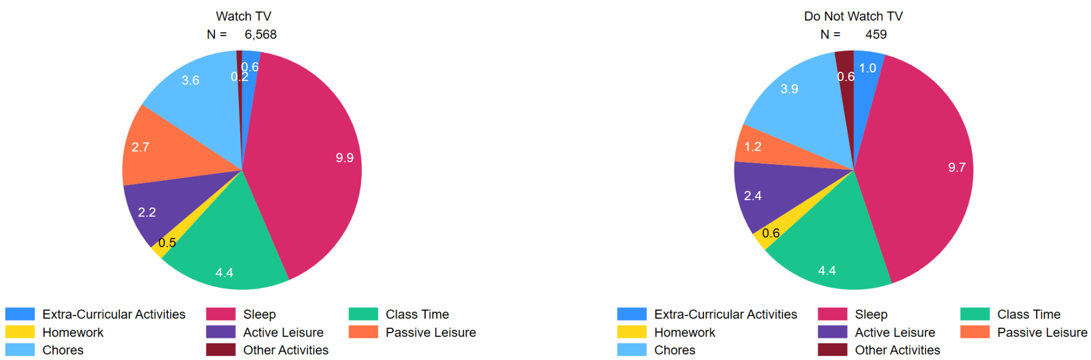
[12]Other activities include any other time spent with activities that were not properly described in the diary. This amount of time, as shown ahead, is negligible.

[13]When the time slots between 10 p.m. and 6 a.m. are missing, I do not exclude the observation, instead I record that time as "sleeping" (C. Caetano, Caetano, & Nielsen, 2024).

[14]Whenever I analyze the effect of TV on other activities, I maintain the consistency in terms of the period analyzed, meaning that I consider the comparison between TV on weekdays and other activities on weekdays.

[15]Figures A.1 and A.2 show the same comparison for watching TV during weekdays and weekends, respectively, in the Appendix.

Figure 1.2: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week)

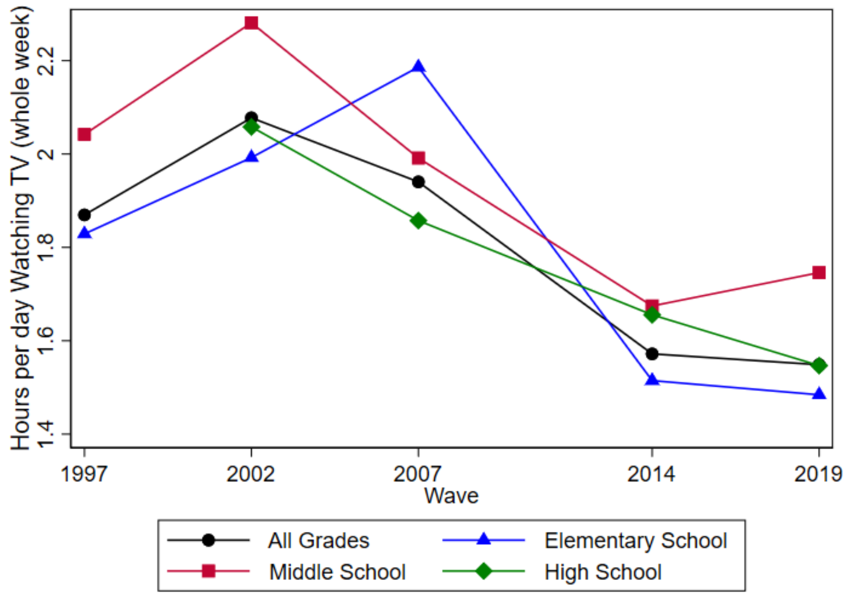


Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. (4) Figures A.1 and A.2 show the same analysis for weekdays and weekends, and Figures A.3 to A.10 show the same analysis by grade, income, and sex. Source: CDS/PSID.

Children who do not watch TV significantly increase their time spent reading, playing sports, and engaging in social activities like religious events, conversations, socializing, and affectionate interactions. (see Table A.5 in the Appendix). They also spend more time on computers, a significant substitute for TV and increasingly important. It appears that TV is substituted with other leisure activities, with non-viewing children engaging in distinctly different activities compared to their TV-watching peers.

Although children's TV viewing time has decreased over the last two decades, television remains a significant leisure activity. Figure 1.3 shows that on average, children watch more than one hour of TV per day, with younger children viewing more than their older counterparts. Over weekends, the average rises to more than two hours per day.

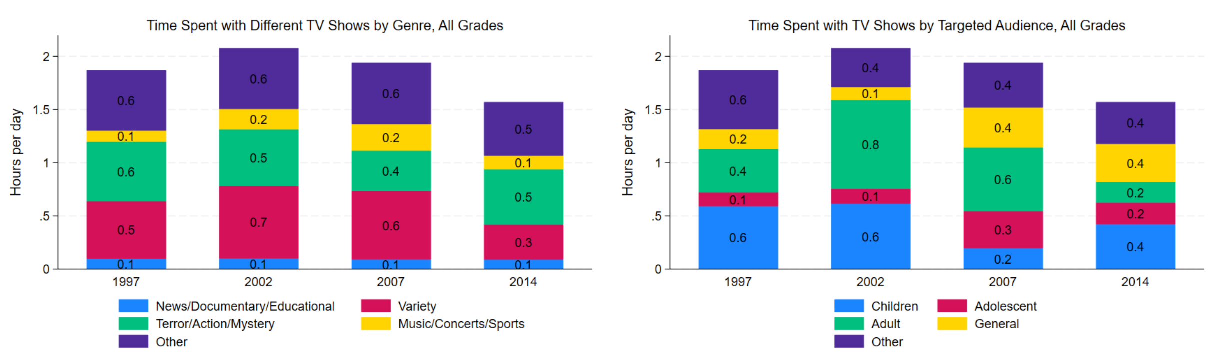
Figure 1.3: Average Daily TV Viewing Time per Survey Wave, by Grade



Notes: (1) The 1997 wave included no high school children as the initial sample only covered children up to 12 years old. (2) Figures A.19 to A.21 extend this analysis to weekdays, weekends, and variations by income and gender. Source: CDS/PSID.

The CDS provides details about the content of TV shows watched by children.[16]. The left panel of Figure 1.4 displays the time children spend watching TV, categorized by show genre. On average, children primarily watch leisure-related shows rather than educational content. Additionally, the right panel of Figure 1.4 indicates that children often watch shows intended for adults or general audiences.

Figure 1.4: Time Spent with TV Shows by Genre and Targeted Audience, All Grades



Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. (3) Figures A.22 to A.29 show the same analysis by grade, income, and sex. Source: CDS/PSID.

[16] Available only up to wave 2014.

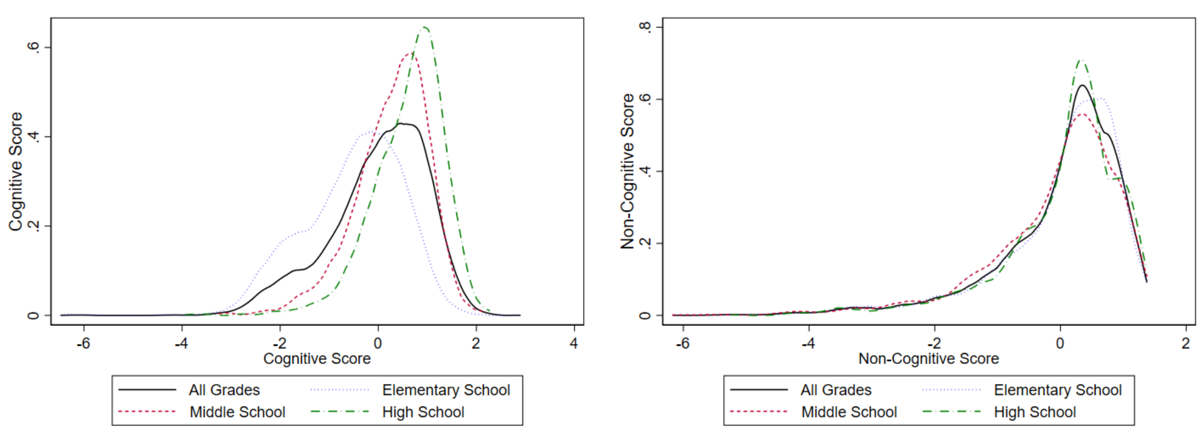
In summary, the data reveal that children watch a considerable amount of TV primarily for leisure, often viewing non-educational shows not specifically aimed at their age group.

1.2.2 Skills

The CDS measures children's skills in two ways: firstly, it assesses cognitive skills through test scores on letter word identification, applied problems, and passage comprehension. Secondly, it evaluates non-cognitive skills based on parental assessments of their child's behavior. For example, the questionnaire inquires whether the child cheats or lies, struggles to get along with others, has concentration difficulties, or tends to cry excessively. Using principal component analysis, I calculate scores for both skill sets, where a higher score indicates better performance, normalized to a mean of zero and a standard deviation of one.[17].

Additionally, I employ the Behavior Problem Index (BPI) to validate the robustness of the non-cognitive skill results. The BPI, provided by the CDS, is a standardized measure of non-cognitive skills, including internalizing and externalizing behavior subscales. The BPI internalizing scale assesses the child's withdrawn behaviors, while the externalizing scale measures outward aggressive behaviors (Peterson & Zill, 1986). Importantly, the non-cognitive score scale aims to reflect positive aspects of children's development, such as self-esteem, social competence, and self-control, where a higher score indicates better development of these traits. Figure 1.5 displays the kernel distribution of cognitive and non-cognitive scores across grades in the sample.

Figure 1.5: Kernel Distribution of Cognitive and Non-Cognitive Scores, by Grade



Notes: (1) This figure compiles data from the 1997, 2002, 2007, 2014, and 2019 waves. (2) Figures A.58 and A.59 extend this analysis to include detailed cognitive scores and both BPI scales. Figures A.60 to A.61 further categorize these distributions by income and sex. Source: CDS/PSID.

[17]Tables A.1 and A.2 in Appendix A show the loading factors used to create cognitive and non-cognitive scores. Normalization is made for all observations regardless of the grade, income level, sex, or wave, as the main result considers the whole sample.

1.2.3 Controls

Lastly, I employ pre-determined[18] controls from the PSID data, including the child's age, sex, race, grade, family characteristics (status of parents[19], marital status at birth, household income, maternal work hours), educational environment (private schooling, homeschooling), and additional indicators for income tercile and wave.

The final sample includes 7,027 children aged 5 to 18, averaging 11 years, categorized into elementary (pre-kindergarten to grade 5), middle (grades 6 to 8), and high school (grades 9 to 12), across the 1997, 2002, 2007, 2014, and 2019 waves. Table 1.1 presents summary statistics for these demographic and educational categories. On average, children in the sample watch 1.84 hours of TV daily, with 1.50 hours on weekdays and 2.69 hours on weekends. Middle schoolers watch the most TV, averaging 2.03 hours daily, followed by children from low-income families (2.03 hours), boys (1.89 hours), and participants from the 2002 wave (2.08 hours). During the week, only 7% of children do not watch TV. This percentage increases to 23% on weekdays and 14% on weekends.

Half of the sample is male, 39% are black, and the average age is nearly 11 years. 61% of the children had mothers who were married at their birth. The average family income is approximately $87,550 per year, and mothers work an average of 27.4 hours per week, though mothers of younger children tend to work fewer hours than those with older children. Finally, the majority of the observations are from the 2002 (29%) and 1997 (22%) waves.

[18] Controls can be considered pre-determined since this information comes from the PSID wave immediately previous to the CDS wave.

[19] Including the fact that both parents are alive or not works as a proxy for the presence of the parents in the household. An alternative would be to use variables regarding the presence of the father and the mother in the household. However, these variables lead to many missing observations.

Table 1.1: Summary Statistics by Grade

	All Grades	Elementary School	Middle School	High School
Dependent Variables				
Cognitive Score	0.00 (1.00)	-0.51 (1.00)	0.27 (0.75)	0.61 (0.73)
Cognitive: Letter Word	0.00 (1.00)	-0.44 (1.01)	0.35 (0.77)	0.57 (0.70)
Cognitive: Applied Problems	0.00 (1.00)	-0.44 (0.92)	0.32 (0.84)	0.60 (0.87)
Cognitive: Passage Comprehension	0.00 (1.00)	-0.39 (1.05)	0.17 (0.80)	0.50 (0.81)
Non-Cognitive Score	0.00 (1.00)	0.02 (1.00)	-0.08 (1.04)	0.04 (0.95)
BPI	0.00 (1.00)	-0.05 (1.00)	-0.04 (1.03)	0.14 (0.96)
BPI: Internalizing	0.00 (1.00)	0.01 (0.97)	-0.09 (1.07)	0.07 (0.99)
BPI: Externalizing	0.00 (1.00)	-0.06 (1.01)	-0.02 (1.01)	0.15 (0.95)
Treatment Variables (hours/day)				
TV watching (whole week)	1.84 (1.42)	1.76 (1.28)	2.01 (1.49)	1.86 (1.63)
TV watching (weekdays)	1.50 (1.51)	1.42 (1.36)	1.66 (1.57)	1.53 (1.75)
TV watching (weekends)	2.69 (2.25)	2.60 (2.06)	2.89 (2.43)	2.68 (2.47)
Bunching (var = 0)				
TV watching (whole week)	0.07 (0.25)	0.05 (0.21)	0.06 (0.24)	0.10 (0.31)
TV watching (weekdays)	0.23 (0.42)	0.20 (0.40)	0.20 (0.40)	0.30 (0.46)
TV watching (weekends)	0.14 (0.35)	0.11 (0.31)	0.14 (0.35)	0.20 (0.40)
Control Variables				
Child is Male	0.51 (0.50)	0.52 (0.50)	0.48 (0.50)	0.50 (0.50)
Child is White	0.46 (0.50)	0.45 (0.50)	0.47 (0.50)	0.47 (0.50)
Child is Black	0.39 (0.49)	0.37 (0.48)	0.42 (0.49)	0.42 (0.49)
Child is Hispanic	0.11 (0.31)	0.14 (0.35)	0.07 (0.26)	0.07 (0.26)
Child's Age (years)	10.93 (3.97)	7.78 (2.35)	12.67 (0.97)	16.10 (1.21)
Mother Married	0.61 (0.49)	0.59 (0.49)	0.61 (0.49)	0.65 (0.48)
Father is Alive	0.98 (0.15)	0.98 (0.13)	0.97 (0.16)	0.97 (0.18)
Mother is Alive	0.99 (0.08)	1.00 (0.05)	0.99 (0.10)	0.99 (0.10)
Households Income ($,000)	87.55 (114.88)	80.31 (81.93)	87.80 (83.48)	103.2 (182.4)
Hours Mother Works	27.40 (20.87)	25.75 (20.68)	28.12 (21.24)	30.19 (20.59)
Homeschooling	0.02 (0.13)	0.02 (0.14)	0.02 (0.13)	0.01 (0.12)
Private School	0.08 (0.26)	0.08 (0.27)	0.08 (0.27)	0.07 (0.25)
Special Education	0.12 (0.33)	0.10 (0.30)	0.16 (0.37)	0.12 (0.32)
Wave 1997	0.22 (0.41)	0.33 (0.47)	0.17 (0.38)	0.00 (0.00)
Wave 2002	0.29 (0.45)	0.26 (0.44)	0.28 (0.45)	0.36 (0.48)
Wave 2007	0.17 (0.38)	0.03 (0.17)	0.29 (0.46)	0.36 (0.48)
Wave 2014	0.16 (0.37)	0.19 (0.39)	0.12 (0.33)	0.13 (0.34)
Wave 2019	0.16 (0.37)	0.18 (0.39)	0.13 (0.34)	0.14 (0.35)
Observations	7,027	3,674	1,675	1,678

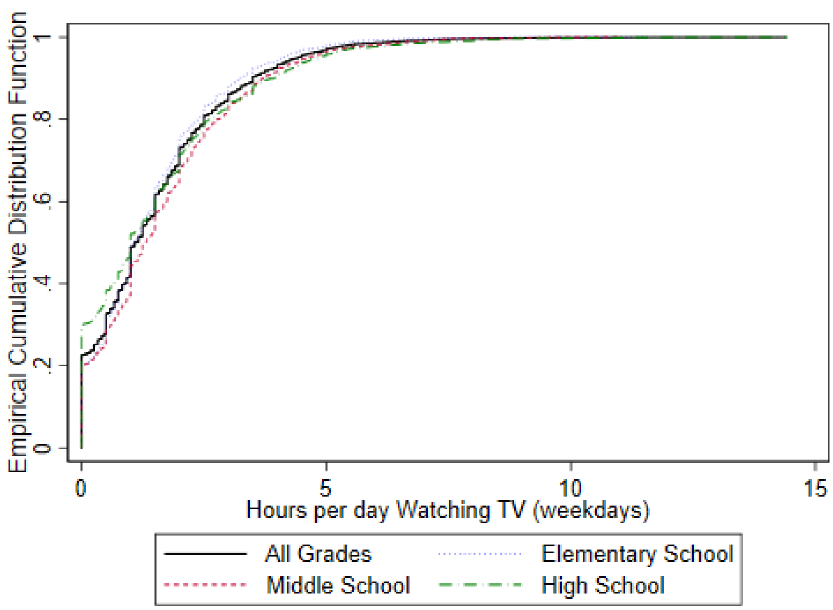
Notes: (1) Tables A.3 and A.4 show the summary statistics by income level and sex. (2) Standard deviations in parentheses. (3) No population weights applied. Source: CDS/PSID.

1.3 Empirical Strategy

Estimating the impact of TV watching on children's skill development is challenging due to the endogenous relationship between the child's choices and outcomes. This paper employs a novel methodology to address the endogeneity problem, focusing on selection on unobservables and the control function approach.

Let H represent the treatment variable, which is the observed hours a child spends watching TV[20]. Figure 1.6 illustrates the cumulative distribution function of H, which is smooth for $H > 0$. However, at $H = 0$, there is a noticeable bunching point where approximately 23% of the children in my sample do not watch TV on weekdays. A similar concentration happens across grades—20% of children in elementary school, 20% of children in middle school, and 30% of children in high school do not watch TV on weekdays.

Figure 1.6: Evidence of Bunching: Empirical CDF by Grade of Hours Watching TV



Notes: (1) This figure shows the estimated CDF of $H \geq 0$ for the full sample and by grade. (2) Figures A.30 to A.32 show the CDF for the whole week and weekends and by income level and sex. In Appendix A, I also show the PDF by grade, income level, and sex. Source: CDS/PSID.

Let H^* represent the desired hours a child would choose to watch TV, influenced by a combination of both observed and unobserved factors. While H is the treatment variable, H^* indexes the confounders affecting the choice of H, including unobserved factors such as parental strictness and the child's preferences. Call this index of confounders H^* the "type" of the child. Children who choose exactly what their

[20]From now on, I focus the analysis on TV watching during weekdays as watching TV on weekdays implies a higher opportunity cost for children and those are the days when parents and policy makers might be more interested in.

type leads them to choose will have $H = H^*$. However, among the children who I observe choosing $H = 0$, there are two groups: those who are exactly indifferent between watching TV or not (so that $H^* = H = 0$), and those who are far from indifference, whose confounder ("type") is $H^* < 0$. The children with a negative value of the confounder are children who are so averse to watch TV that even if it was possible to give them one additional hour in the day, they would still not spend time watching TV and still I would observe them choosing $H = 0$. While children of type $H^* = 0$ choose $H = 0$ as an "interior solution", children of types $H^* < 0$ choose $H = 0$ as a "corner solution"—the restriction that H cannot be negative is binding for them. Then, H can be read as a censored variable, whereas H^* is the uncensored variable that tracks all the endogeneity that rises with the choice. Thus, I can write $H = \max\{0, H_i^*\}$ or:

$$H = H^* \cdot \mathbf{1}(H^* \geq 0), \text{with } \mathbb{P}(H^* < 0) > 0 \quad (1)$$

Now, consider S as the child's skill level. I aim to measure the effect on S when a child increases her TV viewing time from h_0 to $h_1 = h_0 + 1$ hour. The observed comparison arises from the difference in skills between a child who has chosen h_0 and another who has chosen h_1. Due to the unobserved "type" of the child (the confounder), this simple difference actually compares different types of children: children of type h_0^* (who choose $h_0 = h_0^*$) and children of type h_1^* (who choose $h_1 = h_1^*$). However, the marginal treatment effect should compare children of the same type making two different observed choices—for example, a child of type h_1^* choosing both h_0 and h_1. The observed difference can be decomposed into the marginal treatment effect and a selection bias arising from the unobserved confounder.

$$\begin{aligned}
&\underbrace{\mathbb{E}[S|H = h_1, H^* = h_1] - \mathbb{E}[S|H = h_0, H^* = h_0]}_{\text{observed}} = \\
&\underbrace{\mathbb{E}[S|H = h_1, H^* = h_1] - \mathbb{E}[S|H = h_0, H^* = h_1]}_{\text{marginal treatment effect}} + \\
&\underbrace{\mathbb{E}[S|H = h_0, H^* = h_1] - \mathbb{E}[S|H = h_0, H^* = h_0]}_{\text{selection bias}} \quad (2)
\end{aligned}$$

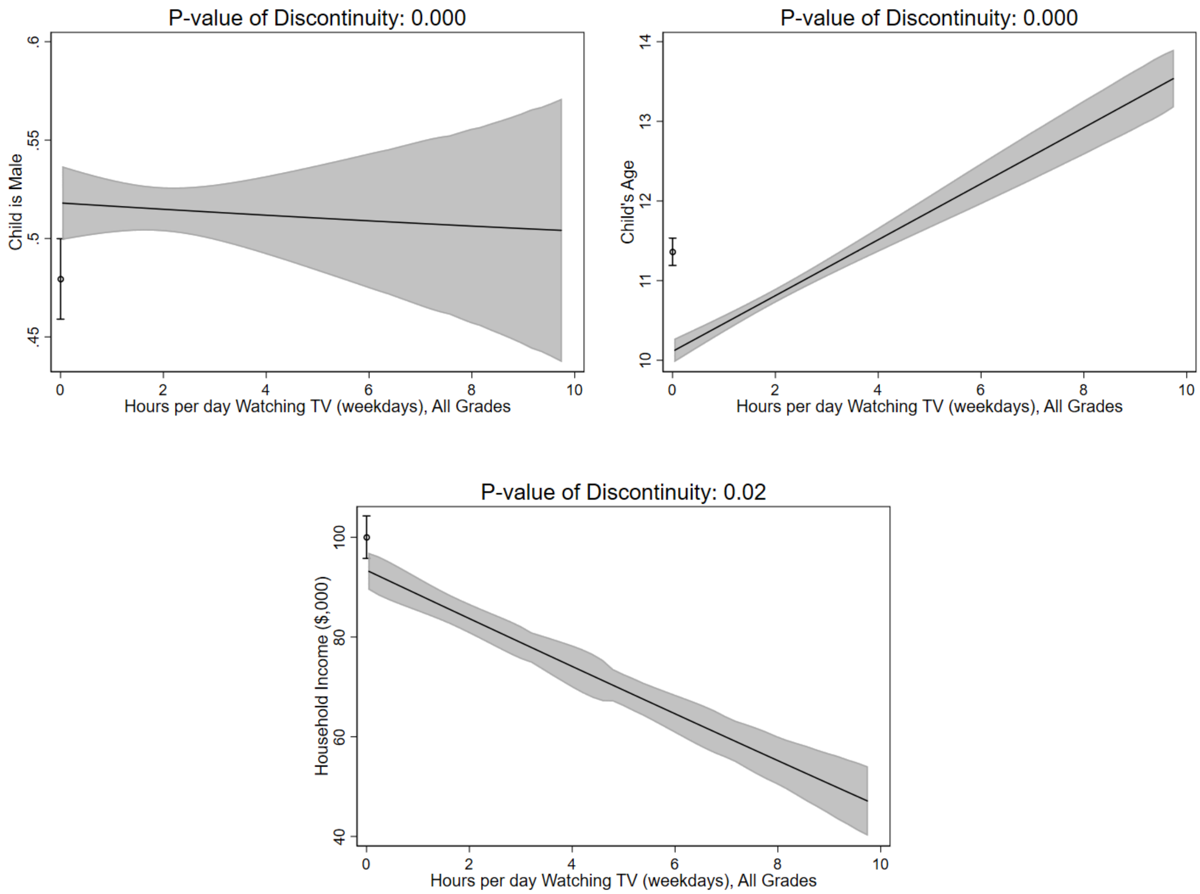
Equation (2) derives from the potential outcomes model, and most empirical approaches targeting the marginal treatment effect employ identification strategies that neutralize the selection bias. Conversely, the "selection-on-unobservables" approach indirectly identifies the marginal treatment effect by initially identifying the selection bias, using a variation source in the function that eliminates the marginal treatment effect. The discontinuous variation in S as it approaches $H = 0$ from the right is exclusively due to H^*, meaning that the variation in H^* corresponds to the impact on S from being of different types (selection bias) at $H = 0$.

The primary assumption in this approach is that both H and H^* influence S, yet H^* changes discontinuously with H. Intuitively, consider a comparison between children who choose $H = 0$ and those who choose $H = h$, for an infinitesimal value of $h > 0$. The observed difference in S cannot stem from the marginal treatment effect, as these children have very similar H choices. Thus, any difference in skills must solely result from variations in H^*, or the "type" of these children. As previously mentioned, children with $H = h > 0$ correspond to the type $H^* = h$. However, children with $H = 0$ do not necessarily match the type $H^* = 0$; they might be indifferent ($H^* = 0$) or averse ($H^* < 0$) to watching TV. At $H = 0$, there is variation among the types of children making this choice, and any discontinuity in average skills at this point can solely be attributed to discontinuities in type[21].

The bunching depicted in Figure 1.6 indicates the existence of a subgroup of children with $H^* < 0$. If children at $H = 0$ were uniformly indifferent to watching TV, they would resemble those who watch just a few minutes each week, with $H^* = h$ where h is a small positive value. However, this is not reflected in the data. Figure 1.7 presents a local linear regression analysis for various covariates on H where $H > 0$, alongside the average values of these covariates for children with $H = 0$. Compared to their peers, children who do not watch TV are disproportionately likely to be female, older, and from higher-income families. Therefore, children at $H = 0$ differ markedly from those with marginally positive TV watching hours, $H = h > 0$. Children who watch TV appear to be negatively selected compared to those who do not.

[21]If there exist children of type $H^* < 0$, the average type of children at $H = 0$ will be strictly negative, and there would be a discontinuity in the average type at this point since it will be strictly positive for small values of $H > 0$, but strictly negative for $H = 0$.

Figure 1.7: Evidence of Selection: Variations in Children's Characteristics at $H = 0$ Across All Grades



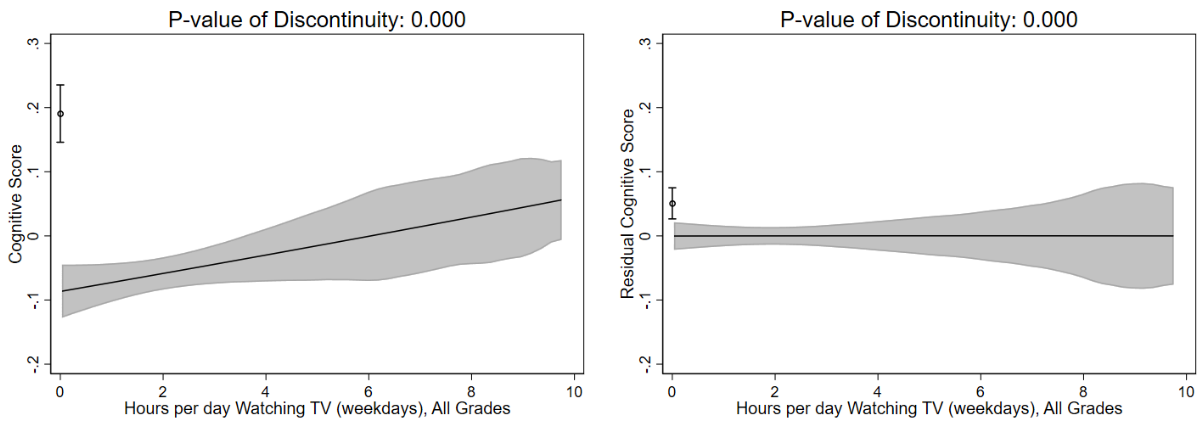
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) Figures A.55 to A.57 show similar plots per grade. Source: CDS/PSID.

These discontinuities indicate that children who do not watch TV are likely selected based on covariates correlated with their skills, denoted by S. Figures 1.8 and 1.9 directly illustrate this point. The graphs below resemble those in Figure 1.7, but display S on the vertical axis. Evidence suggests negative selection; children who do not watch TV generally have higher cognitive scores than those who do, and there is positive selection regarding non-cognitive scores. This selection may relate to observable characteristics; therefore, the graphs on the right feature the "residualized" local linear estimator, essentially the residuals from a regression of S on the control variables X.[22]. By controlling for these observable characteristics,

[22]The vector of pre-observed characteristics X contains variables on child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is in private school, and whether the child is home-schooled. See C. Caetano, 2015 for more details on the discontinuity test.

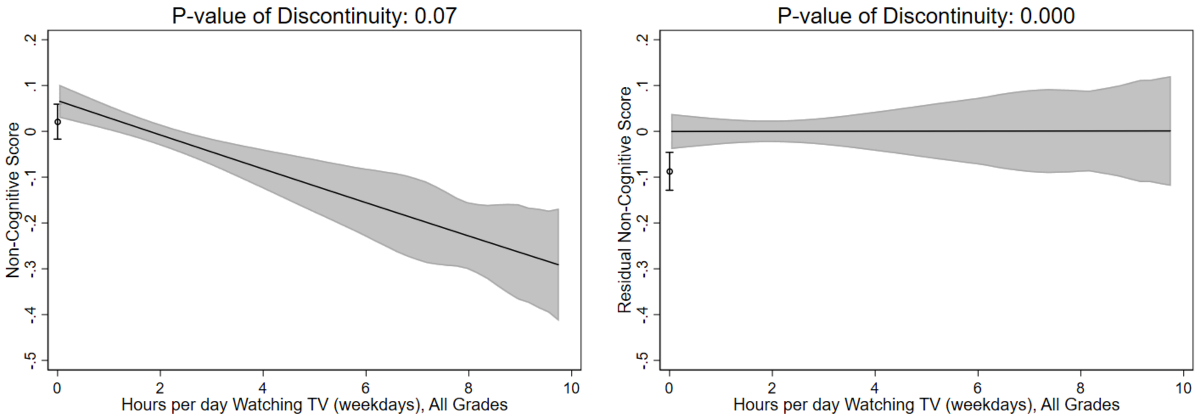
any discontinuity in S at $H = 0$ solely reflects discontinuities in unobservable factors, namely, the confounding variables. Therefore, an OLS estimator of the coefficient on H in a regression of S on H and X would tend to be biased, motivating the "selection-on-unobservables" approach that this paper uses.

Figure 1.8: Evidence of Selection: Discontinuity in Children's Cognitive Skills at $H = 0$, All Grades, Watching TV during Weekdays



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter non-parametrically in this regression—child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Figures A.43 to A.45 show results by grade and Figure A.46 shows results for other measures of cognitive skills. Source: CDS/PSID.

Figure 1.9: Evidence of Selection: Discontinuity in Children's Non-Cognitive Skills at $H = 0$, All Grades, Watching TV during Weekdays



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter non-parametrically in this regression—child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Figures A.49 to A.51 show results by grade and Figure A.52 shows results for other measures of non-cognitive skills. Source: CDS/PSID.

1.3.1 Control Function Approach

Let X be a vector of pre-determined controls, and U be the unobserved error term representing all remaining factors that explain the outcome, likely correlated with H, such that[23][24]:

$$S = \beta H + U \quad (3)$$

$E[U|H] \neq 0$ due to the unobserved selection that persists even after controlling for observed characteristics, as discussed in the previous section, making a regression of S on H likely to produce biased estimates of β. The following assumption introduces some structure to the relationship between U and H^*.

Assumption 1: *Linearity in* $\mathbf{H}^*$. *$U = g(X) + \delta H^* + \varepsilon$, where $g(X)$ is a non-parametric function and $\mathbb{E}(\varepsilon|H^*, X) = 0$.*

[23]Note that Equation (3) specifies a function for the treatment effect of interest $f(H, \beta) = \beta H$, with causal parameter β. f can be described in any form without loss of generality for the assumptions described in this section.

[24]The empirical approach builds on the extensive economic literature about skill production function and human capital formation. See Todd and Wolpin, 2003; Todd and Wolpin, 2007; Bernal and Keane, 2010; Cunha et al., 2010; Bernal and Keane, 2011; DelBoca et al., 2014.

Rewrite Equation (3) as:

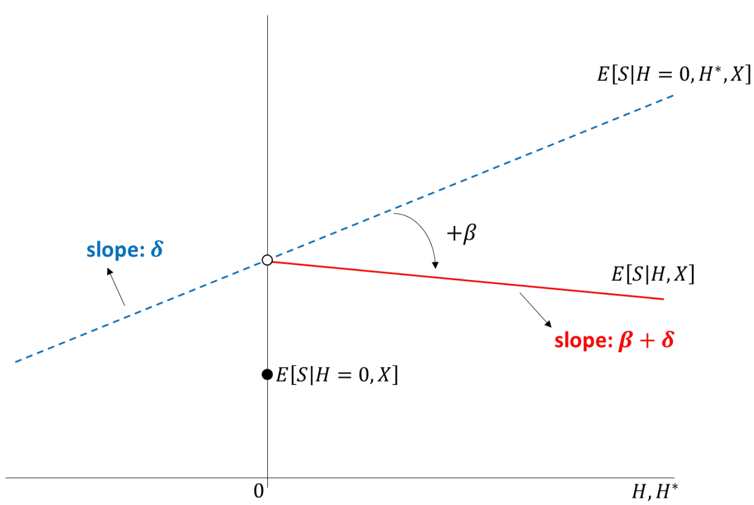
$$S = \beta H + \underbrace{g(X) + \delta H^* + \varepsilon}_{U}$$

$$S = \beta H + g(X) + \delta[\underbrace{H + H^* \cdot \mathbf{1}(H = 0)}_{H^*}] + \varepsilon$$

$$S = \beta H + g(X) + \delta[H + H^* \cdot \mathbf{1}(H = 0)] + \varepsilon \quad (4)$$

Figure 1.10 elucidates the true meanings of β and δ in this approach. I am interested in the effect of H on S, denoted by β. If there is an endogeneity problem, then $\delta \neq 0$. The values of the confounders (type) H^* are not observable. Imagine a hypothetical world without TV, where there is no treatment effect regardless of children's type—i.e., $H = 0$ for all H^*. In this scenario, the effect of the confounder on skills would equal δ, as depicted by the blue line in Figure 1.10. However, we live in a world where TVs exist, and $H \geq 0$. I only observe how skills change with the treatment and the effect of the confounder, meaning that the slope of the red line in Figure 1.10 equals $\beta + \delta$, representing the treatment effect plus the selection bias. The only point where I can accurately observe the treatment effect is at $H = 0$—i.e., the total treatment effect $\beta H = 0$, although I recognize that the confounder effect exists among the observations bunched at zero due to the discontinuity. If I can estimate δ at $H = 0$, I can discern the effect of the confounder and indirectly estimate β for $H > 0$. This approach hinges on a required assumption stated in Assumption 1: the unobservable U is linear in the confounder H^*, conditional on X.

Figure 1.10: Intuition Behind the Selection on Unobservables Approach



Note: theoretical illustration of how S change with H and H^*.

If we could observe H^*, then Assumption 1 would suffice to directly identify β in Equation (4). However, H^* is not observable when it is negative, necessitating the use of a proxy. Specifically, I can express $H^* = H + H^*\mathbf{1}(H = 0)$, and therefore $\mathbb{E}(H^*|H, X) = H + \mathbb{E}(H^*|H = 0, X)\mathbf{1}(H = 0)$.

Consequently, Equation (4) can be reformulated as follows:

$$S = \beta H + m(X) + \delta[H + \mathbb{E}(H^*|H = 0, X) \cdot \mathbf{1}(H = 0)] \quad (5)$$

$\mathbb{E}(H^*|H = 0, X)$ represents the average type of children with $H = 0$ and observed characteristics X. As previously shown, I recognize that some of these children are of a type $H^* < 0$. The selection-on-unobservables approach posits that both H and H^* influence S, but S changes discontinuously with H^*. For $h > 0$, $H = H^*$; however, for $h = 0$, children are either indifferent, i.e., $H = H^* = 0$, or they are at a corner solution where $H = 0$ and $H^* < 0$. I cannot precisely determine how close to indifference (i.e., how close to $H^* = 0$) the average child who does not watch TV is, yet this quantity is crucial for identification. I know that $\mathbb{E}(H^*|H = 0, X) < 0$, enabling me to estimate β for a sequence of increasingly negative values in place of $\mathbb{E}(H^*|H = 0, X)$. This provides the full range of possible values of β that could be obtained under Assumption 1 alone. However, to make the discussion of the results more concrete, I report point estimates of β, assuming specific shapes for the distribution of $H^*|X$. I adhere to three distribution assumptions, following C. Caetano, Caetano, and Nielsen, 2024.

Assumption 2: *Distribution of* $\mathbf{H^*|X}$.

- <u>*Semiparametric Uniform:*</u> $\eta|X \sim U[\kappa(X), \theta(X)]$, *which considers that all types of bunched children are equally represented and none have H^*'s too far from indifference ($H^* = 0$).*

- <u>*Semiparametric Normal:*</u> $\eta|X \sim \mathcal{N}(l(X), \sigma^2(X))$, *which does not require the assumption about the linearity of $m(X)$, $g(X)$, and $h(X)$, and about homoskedasticity.*

- <u>*Nonparametric Tail Symmetry:*</u> *for all censored quantiles q_0, $\eta|X$ has symmetric tails below q_0 and above $1 - q_0$, which relaxes the normality assumption, keeping the symmetry between the constrained part of the distribution and the corresponding upper tail.*

In summary, the empirical approach for identifying the marginal treatment effect, β, necessitates, firstly, the existence of observations where $H = 0$ and $H^* < 0$ (bunching). Secondly, it requires selection on unobservables, assuming that the confounder (the "type" of the child) is linear in the treatment conditional on controls (linearity assumption). Finally, to present point estimates, the approach necessitates a second assumption about the distribution of $H^*|X$, although this is not essential for the identification of β. Observable variables X serve as additional controls for endogenous variation, thus weakening the assumptions on the unobservable U. However, as discussed in C. Caetano, Caetano, and Nielsen, 2024, to maintain the non-parametric structure of the model, it is advisable to "discretize" X prior to estimating $E(H^*|H = 0, X)$. So let $\{\hat{\mathcal{C}}_1, \ldots, \hat{\mathcal{C}}_k\}$ be a finite partition of the support of X into sets, called clusters, and let $\hat{C}_K = (1(X \in \hat{\mathcal{C}}_1), \ldots, 1(X \in \hat{\mathcal{C}}_K))'$ be the clusters indicators. Instead of using X directly in the estimation of $E(H^*|H = 0, X)$, I use $\hat{C}_K$, which has finite support. The estimator $\hat{E}(H^*|H = 0, X) = \hat{E}(H^*|H = 0, \hat{C}_K)$ is constructed using a two-step procedure. Initially, X is discretized, and then one of the distribution assumptions is applied to each cluster separately. Observations with similar X values are grouped into the same cluster, and as the number of clusters (K) increases, the observations within each cluster become more homogenous in terms of their proximity to the values of X.

Intuitively, if $E(H^*|H=0,X)$ is continuous, then as K increases, $\hat{E}(H^*|H=0,\hat{C}_K)$ will increasingly approximate $E(H^*|H=0,X)$.

The same clusters are used to specify controls as $m(X)=X'\tau+\sum_{k=1}^{K}\alpha_k 1(X\in\mathcal{C}_1)$, so the cluster indicators control non-parametrically for differences across clusters, while differences within cluster due to X are controlled linearly.

The following model is estimated via OLS:

$$S=\beta H+X'\tau+\sum_{k=1}^{K}\alpha_k 1(X\in\mathcal{C}_1)+\delta\left[H+\hat{\mathbb{E}}(H^*|H=0,\hat{C}_K)1(H=0)\right] \quad (6)$$

where $\hat{\mathbb{E}}$ follows the distribution assumptions made previously and $\hat{C}_K$ is the cluster to which each observation belongs to.

1.3.2 Data Collection and Measurement Error

Although the dataset, which relies on time diaries, may mitigate concerns regarding omitted inputs, it also raises issues related to reliability. Estimates of the impact of TV watching on skills can be biased if time inputs are inaccurately measured, making measurement errors a potential source of endogeneity. The empirical approach in this paper addresses endogeneity by dealing with potential confounders that could influence the identification of treatment effects. Consider the following model (G. Caetano et al., 2019):

$$S_i=\tilde{H}_i\beta+X_i\tau+\epsilon_i$$

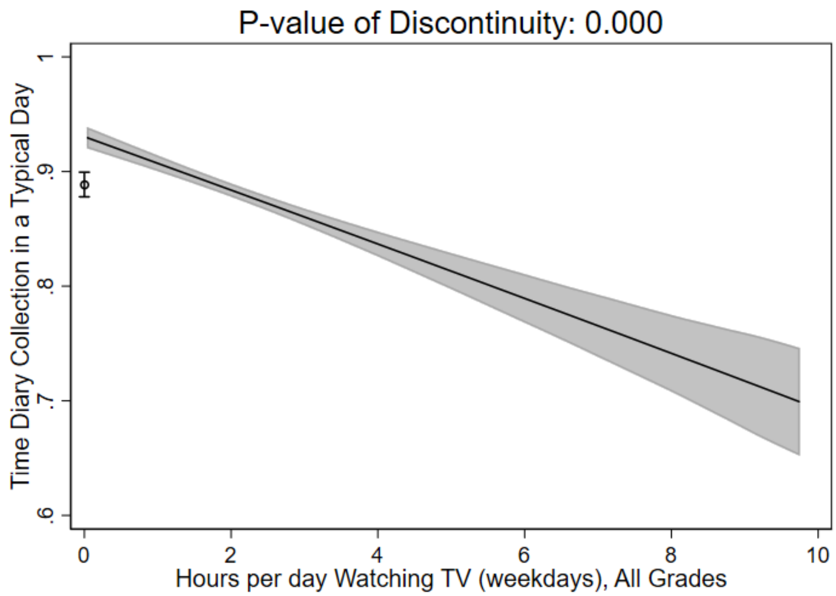
where S_i is the child's skill, the outcome of interest, $\tilde{H}_i$ is the true hours watching TV, X_i are observed controls, and ϵ_i is the error. However, I only observe H_i, which may contain potential measurement errors ν_i that vary across observations. Rewriting the equation to incorporate this measurement error:

$$S_i=H_i\beta+X_i\tau+\underbrace{\nu_i\beta+\varepsilon_i}_{\epsilon_i}$$

Thus, the determinants of ν_i that correlate with H_i are likely to generate endogeneity. For example, measurement error can become a potential source of endogeneity if parents of a child who watches TV are more likely to underreport viewing hours, either because they are lenient about the child's TV time or because they are less concerned about the accuracy of the survey compared to parents of children who do not watch TV.

Although I do not directly observe ν_i, the survey provides information about time use misreporting through variables related to the completion of the time diary or whether data collection occurred on a typical day. Figure 1.11 presents a discontinuity plot of the variable indicating whether the data collection was conducted on a typical day. Notably, a discontinuity in this variable at zero hours of TV watching suggests that the degree of measurement error is likely discontinuous at that point. This finding implies that the empirical strategy is capable of detecting endogeneity caused by measurement error, and the control function approach can address the unobserved ν_i associated with the confounder H_i^*.

Figure 1.11: Evidence of Power to Detect Endogeneity from Measurement Error



Note: (1) The panel shows a plot of the local linear estimator of the expected value of a variable conditional on hours watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value of the variable among the children who spent no time on TV watching is shown, along with its 95% confidence interval. (3) The p-value of a test for whether there is discontinuity at zero is shown in the header of each panel. Source: CDS/PSID.

Consider a scenario where individuals who actually spend positive amounts of time watching TV mistakenly report zero hours. If the true hours, $\tilde{H}_i$, are endogenous, such misreporting is likely to diminish the power of the discontinuity test, as it tends to reduce the discontinuity at zero. The reason is that children who accurately report zero hours will exhibit discontinuous characteristics on some unobserved dimensions, whereas those who mistakenly report zero are closer to the average on these dimensions, thereby smoothing out any apparent discontinuity. In this case, to the extent that such measurement errors occur, they do not compromise the detectability of the discontinuity at zero.

However, there may be instances where the survey could lead to measurement biases not addressed by the above specification. In such cases, employing another data source would be the most effective approach. In the Appendix B.1, I present a comparison between the Child Development Supplement (CDS) and the American Time Use Survey (ATUS) from the U.S. Bureau of Labor Statistics. The goal is to demonstrate that TV consumption habits are consistent when comparing different datasets with varied survey methodologies, which can help alleviate concerns regarding measurement error. Furthermore, in Section 1.5, I conduct robustness tests to demonstrate how the estimates of the treatment effect remain reliable even when observations very close to zero are excluded.

1.4 Results

This section presents the estimates of β based on Equation (6), using the three different assumptions about the distribution of $H^*|X$ described in the previous section. Results are presented for the effect of watching TV on cognitive and non-cognitive skills for the entire sample and by aggregated groupings.

Table 1.2 presents the estimated results for the effects of watching TV during weekdays on children's non-cognitive skills, using the selection-on-unobservables and control function approach. Column (1) presents the results of a naive OLS regression. This analysis neither includes observed controls nor corrects for endogeneity. In column (2), the OLS regression incorporates observed controls but still does not address the endogeneity problem discussed in Section 1.3. Finally, columns (3) to (5) display point estimates under different assumptions about the distribution of $H^*|X$. These columns are preferred because they consider the effect of confounders on the estimated treatment effect (β). In this analysis, the Semiparametric Normal distribution appears to align more consistently with the data. However, the discussion will concentrate on findings that remain valid regardless of the specific distributional assumptions applied (refer to Section 1.5.2 for details).

Non-cognitive skills exhibit a negative association with TV watching. Initially, this relationship loses statistical significance upon the addition of control variables. Yet, after adjusting for confounders, this negative correlation regains significance under all distributional assumptions. Consequently, it can be inferred that watching one hour of TV reduces a child's non-cognitive score by an average of 0.097 s.d. This effect is substantial, considering the sample variance in TV watching hours—a one standard deviation increase in TV watching time (1.51 hours per day, as detailed in Table 1.1) corresponds to a reduction in non-cognitive skills of approximately 0.146 s.d. Furthermore, estimates using uniform or symmetric distributions for $H^*|X$ closely mirror those from the normal case.

The results are consistent across different grades in terms of the direction of the effect, and there is no statistical evidence to reject the hypothesis that the β coefficients differ across grades. However, the point estimates are statistically significant only for middle-school-aged children. Specifically, for each additional hour of TV, the non-cognitive score of middle-school children decreases by an average of 0.122 s.d., equating to a reduction of 0.192 s.d. for a one s.d. increase in TV watching time (1.57 hours per day, as shown in Table 1.1). This significant effect among children aged 11 to 13 may be attributed to this being a transitional period from childhood to adolescence, where significant developmental changes occur. Children in this age group often begin to develop stronger, more complex friendships and peer relationships, emphasizing the emotional importance of having friends. Concurrently, they experience increased peer pressure and become more conscious of their bodies as they approach puberty (CDC, 2023). Thus, these children are likely more sensitive to the content of programs, the company they keep while watching TV, and other factors that contribute to the overall effect.

Table 1.2 also presents estimates of δ, which represents the average effect of the confounder H^* on the outcome S. These estimates are both positive and significant, indicating that children who watch more TV tend to be positively selected compared to those who watch fewer hours, as demonstrated in Figure

1.9[25]. In Appendix A.8, I demonstrate that similar conclusions are reached when using different measures of non-cognitive skills, such as the internalizing and externalizing subscales of the BPI.

Table 1.2: Results for the effect of TV Watching during Weekdays on Non-Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.029^{***}	-0.001	-0.170^{***}	-0.097^{***}	-0.080^{***}
(N= 7,027)		(0.008)	(0.008)	(0.055)	(0.033)	(0.029)
	δ			0.155^{***}	0.082^{***}	0.066^{***}
				(0.050)	(0.027)	(0.023)
Elementary School	β	-0.038^{***}	-0.003	-0.161	-0.085	-0.063
(N= 3,674)		(0.013)	(0.012)	(0.105)	(0.057)	(0.048)
	δ			0.148	0.072	0.051
				(0.096)	(0.048)	(0.039)
Middle School	β	-0.028^{*}	-0.004	-0.220^{*}	-0.122^{*}	-0.106^{*}
(N= 1,675)		(0.016)	(0.016)	(0.124)	(0.071)	(0.061)
	δ			0.202^{*}	0.104^{*}	0.088^{*}
				(0.113)	(0.059)	(0.050)
High School	β	-0.015	-0.001	-0.115	-0.077	-0.070
(N= 1,678)		(0.014)	(0.014)	(0.073)	(0.051)	(0.049)
	δ			0.100	0.062	0.056
				(0.062)	(0.039)	(0.037)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.8 and A.9 show similar results for whole week and weekends, and Tables A.10 to A.12 show similar results for other measures of non-cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table 1.3 presents the estimated results for the effects of watching TV during weekdays on children's cognitive skills. The naive analysis suggests a positive correlation between TV viewing and cognitive scores. However, after controlling for confounders, the significant causal effect disappears for the entire sample and across all grades. Consequently, I cannot reject the hypothesis that the beta coefficients vary across grades. The positive point estimates align with findings from the literature using various empirical approaches, yet I can rule out effects greater than 0.072 s.d. and smaller than -0.018 s.d. Furthermore, it is important to note that the estimates of δ are negative and significant for the entire sample, which

[25]A positive δ indicates that the average non-cognitive score for children at $H = 0$ is lower than the average non-cognitive score for children at $H = h$ where $h > 0$.

reinforces the negative selection of children who watch more TV compared to those who watch fewer hours, as demonstrated in Figure 1.8[26].

Table 1.3: Results for the effect of TV Watching during Weekdays on Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.028^{***}	-0.018^{***}	0.051	0.027	0.025
(N= 5,781)		(0.008)	(0.005)	(0.038)	(0.023)	(0.020)
	δ			-0.063^{*}	-0.039^{**}	-0.035^{**}
				(0.034)	(0.019)	(0.016)
Elementary School	β	-0.030^{**}	-0.012	0.051	0.035	0.029
(N= 2,673)		(0.013)	(0.008)	(0.073)	(0.039)	(0.032)
	δ			-0.059	-0.041	-0.035
				(0.069)	(0.034)	(0.027)
Middle School	β	-0.041^{***}	-0.011	0.094	0.050	0.043
(N= 1,538)		(0.011)	(0.008)	(0.074)	(0.039)	(0.034)
	δ			-0.099	-0.054	-0.046^{*}
				(0.069)	(0.034)	(0.028)
High School	β	-0.061^{***}	-0.028^{***}	0.006	-0.005	-0.005
(N= 1,570)		(0.012)	(0.010)	(0.050)	(0.035)	(0.034)
	δ			-0.030	-0.019	-0.018
				(0.041)	(0.026)	(0.024)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.23 and A.24 show similar results for whole week and weekends, and Tables A.25 to A.27 show similar results for other measures of cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

The results presented above offer new evidence that watching TV can indeed impair children's non-cognitive development. This conclusion is robust because the empirical approach used in this study accounts for endogeneity, not necessarily arising from observed characteristics but from the unobserved confounder H^*, referred to in this paper as the "type" of the child. The mechanisms through which increased hours of TV viewing may undermine children's non-cognitive skills require further exploration.

[26] A negative δ indicates that the average cognitive score for children at $H = 0$ is higher than the average cognitive score for children at $H = h$ where $h > 0$.

1.4.1 Heterogeneity Analysis

The control function approach and the bunching method enable the estimation of heterogeneous effects of watching TV on children's skills, as detailed in Tables 1.4 to 1.7 by income level and gender. The impact of TV on non-cognitive skills aligns consistently across different grades. Particularly noteworthy is the effect observed in children from high-income families, where an additional hour of TV watching reduces their non-cognitive scores by 0.146 s.d. These children face a higher opportunity cost for TV watching compared to their peers in middle- and low-income families, making the adverse effects more pronounced. Moreover, evidence suggests that high-income families typically engage in higher-quality family interactions than disadvantaged families (Fort et al., 2020), implying that replacing family time with passive activities like TV viewing can be especially detrimental for these children. Nevertheless, the results do not conclusively vary across income levels. While the effects on both girls and boys are significant, it remains uncertain whether these effects differ statistically.

Table 1.4: Results for the effect of TV Watching during Weekdays on Non-Cognitive Score, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.029^{***}	-0.001	-0.170^{***}	-0.097^{***}	-0.080^{***}
(N= 7,027)		(0.008)	(0.008)	(0.055)	(0.034)	(0.030)
	δ			0.155^{***}	0.082^{***}	0.066^{***}
				(0.050)	(0.028)	(0.024)
Low Income	β	-0.051^{***}	-0.026^{*}	-0.083	-0.053	-0.047
(N= 2,245)		(0.015)	(0.014)	(0.112)	(0.062)	(0.053)
	δ			0.053	0.024	0.018
				(0.103)	(0.052)	(0.042)
Middle Income	β	0.001	0.027^{**}	-0.147	-0.071	-0.050
(N= 2,315)		(0.014)	(0.013)	(0.111)	(0.065)	(0.055)
	δ			0.161	0.085	0.065
				(0.102)	(0.054)	(0.045)
High Income	β	-0.020^{*}	-0.006	-0.214^{***}	-0.146^{***}	-0.137^{***}
(N= 2,467)		(0.012)	(0.012)	(0.074)	(0.050)	(0.048)
	δ			0.186^{***}	0.117^{***}	0.107^{***}
				(0.064)	(0.040)	(0.037)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.13 and A.14 show similar results for whole week and weekends, and Tables A.15 to A.17 show similar results for other measures of non-cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table 1.5: Results for the effect of TV Watching during Weekdays on Non-Cognitive Score, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.029^{***}	-0.001	-0.170^{***}	-0.097^{***}	-0.080^{***}
(N= 7,027)		(0.008)	(0.008)	(0.055)	(0.033)	(0.029)
	δ			0.155^{***}	0.082^{***}	0.066^{***}
				(0.049)	(0.027)	(0.023)
Only Boys	β	-0.025^{**}	0.010	-0.196^{**}	-0.106^{**}	-0.085^{**}
(N= 3,563)		(0.011)	(0.011)	(0.083)	(0.048)	(0.042)
	δ			0.191^{**}	0.100^{**}	0.080^{**}
				(0.076)	(0.040)	(0.034)
Only Girls	β	-0.033^{***}	-0.017	-0.152^{**}	-0.101^{**}	-0.087^{**}
(N= 3,464)		(0.012)	(0.012)	(0.071)	(0.046)	(0.041)
	δ			0.123^{*}	0.072^{*}	0.058^{*}
				(0.064)	(0.037)	(0.032)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.18 and A.19 show similar results for whole week and weekends, and Tables A.20 to A.22 show similar results for other measures of non-cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Once again, the results for cognitive skills are uniformly positive but not statistically significant, with the exception of middle-income families. This raises a potential discussion point: whether TV can be educational for children in these families. However, I do not observe any consistent differences in the content watched by children from middle-income families compared to those from low-income and high-income families. Finally, the estimated average effect of the confounder H^* on the outcomes shows that it is positive for non-cognitive scores and negative for cognitive scores.

Table 1.6: Results for the effect of TV Watching during Weekdays on Cognitive Score, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.028***	−0.018***	0.050	0.026	0.023
(N= 5,292)		(0.008)	(0.005)	(0.038)	(0.023)	(0.020)
	δ			−0.063*	−0.037**	−0.034**
				(0.034)	(0.018)	(0.016)
Low Income	β	−0.019	−0.013	0.121	0.058	0.043
(N= 1,632)		(0.015)	(0.010)	(0.079)	(0.044)	(0.038)
	δ			−0.125*	−0.062*	−0.048
				(0.072)	(0.036)	(0.030)
Middle Income	β	−0.010	−0.015*	0.148**	0.075**	0.058*
(N= 1,747)		(0.013)	(0.008)	(0.067)	(0.038)	(0.032)
	δ			−0.152**	−0.078**	−0.061**
				(0.062)	(0.032)	(0.026)
High Income	β	−0.010	−0.025***	−0.056	−0.040	−0.037
(N= 1,913)		(0.012)	(0.009)	(0.049)	(0.033)	(0.031)
	δ			0.028	0.013	0.010
				(0.042)	(0.027)	(0.024)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.28 and A.29 show similar results for whole week and weekends, and Tables A.30 to A.32 show similar results for other measures of non-cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table 1.7: Results for the effect of TV Watching during Weekdays on Cognitive Score, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.028^{***}	-0.018^{***}	0.050	0.026	0.023
(N= 5,292)		(0.008)	(0.005)	(0.037)	(0.022)	(0.020)
	δ			-0.063^{*}	-0.037^{**}	-0.034^{**}
				(0.033)	(0.018)	(0.015)
Only Boys	β	-0.024^{*}	-0.011	0.041	0.022	0.021
(N= 2,654)		(0.012)	(0.008)	(0.054)	(0.031)	(0.027)
	δ			-0.048	-0.029	-0.028
				(0.048)	(0.026)	(0.021)
Only Girls	β	-0.032^{***}	-0.027^{***}	0.064	0.032	0.024
(N= 2,638)		(0.011)	(0.007)	(0.044)	(0.028)	(0.025)
	δ			-0.083^{**}	-0.050^{**}	-0.043^{**}
				(0.039)	(0.023)	(0.020)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.33 and A.34 show similar results for whole week and weekends, and Tables A.35 to A.37 show similar results for other measures of non-cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

1.5 Sensitivity and Robustness Analysis

This section demonstrates that the key findings outlined in Section 1.4 are robust to relaxations in the identifying assumptions. The control function approach detailed in Section 1.3 is based on two primary assumptions. First, the methodology assumes that I can extend the treatment effect (TV watching) on the outcome (skills) to the positive side, assuming that the confounder (child's "type") influences the outcome linearly—this is known as the "linearity assumption." The validity of this assumption regarding the linearity of the confounder's effect on skills is examined in Section 1.5.1 using two distinct methods: (i) comparing local versus non-local extrapolation of the assumption; and (ii) allowing for non-linearities, specifically variations in $\delta(X)$ by cluster.

The second is about the magnitude of the discontinuity, specifically, the degree of deviation from indifference when children decide how many hours of TV to watch. This assumption pertains to the distribution of the confounder among children who have chosen zero hours of TV, referred to as the "distributional assumption." Section 1.5.2 illustrates that this distributional assumption regarding $H^*|X$ does not influence the estimates of TV watching effect on children's cognitive skills.

When estimating the treatment effect, a decision is made regarding the optimal number of clusters to approximate the control function most effectively. In Section 1.5.3, I explore how the sensitivity of the estimates varies with the choice of cluster number.

1.5.1 The Linearity Assumption

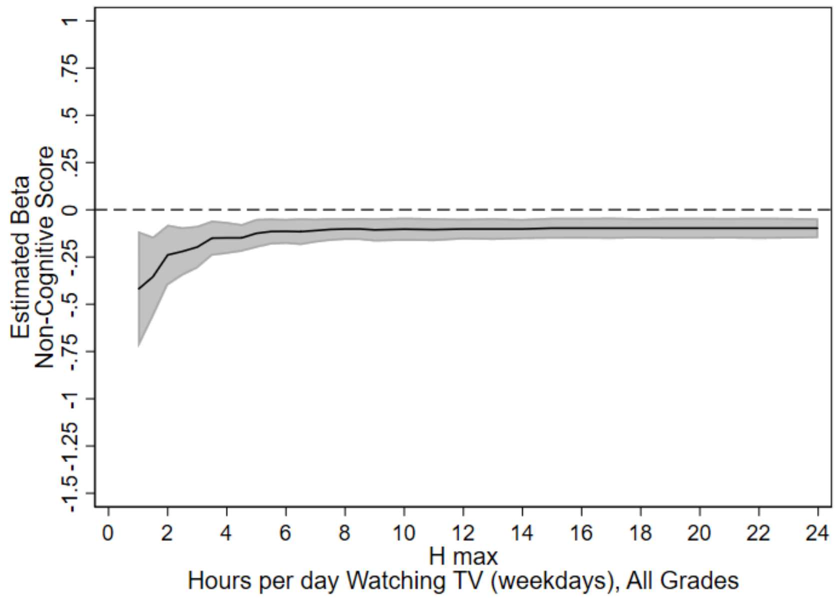
The identification strategy assumes that the confounder can be described as a linear combination of the observed characteristics and the unobserved H^* (child's type). In other words, it restricts the effect of H^* on S to be the same for $H > 0$ as for $H = 0$. However, it can be the case that the confounder affects S differently for different levels of H. To test this, I consider two sensitivity analysis. First, I reduce the extent of the extrapolation of the effect of H^* to be local only to the smaller values of H, measuring the estimates for increasing degrees of extrapolation towards larger values of H. Second, I allow for non-linearities of the effect of the confounder through δ.

Local versus Non-local Extrapolation

The linearity assumption restricts the effect of the confounder H^* on outcome S to be the same for $H > 0$ as for $H = 0$. It can be the case though that H^* affects S differently when $H = 0$ or $H > 0$. In this case, the linearity assumption fails and the estimate for the treatment effect is not identified. One way to evaluate how the linearity assumption can affect the estimates of β is to reduce the extent of the extrapolation of the effect of H^* to be local only for smaller values of H and increase the degree of extrapolation for larger values of H.

This exercise consists of restricting the sample to $H \leq H_{max}$ for progressively larger values of H_{max}. Thus, $\mathbb{E}(U|X, H^*) = m(X) + \delta H^*$ only for $H \leq H_{max}$. If the linearity assumption does not hold, I should expect $\hat{\beta}$ to change as I change H_{max}. However, as shown in Figure 1.12, the estimates of β are consistent for the whole sample. As H_{max} gets closer to zero, $\hat{\beta}$ becomes more negative and less precise (also because of the smaller sample in the later case). As H_{max} become larger, the estimates are more precise and less negative, consistent with the results in Table 1.2. Despite the noise for more local estimates, there is evidence that going from a local extrapolation to a more global extrapolation of the linearity assumption does not change the main findings.

Figure 1.12: Estimated β for different samples with $H \leq H_{max}$, Non-Cognitive Score, All Grades



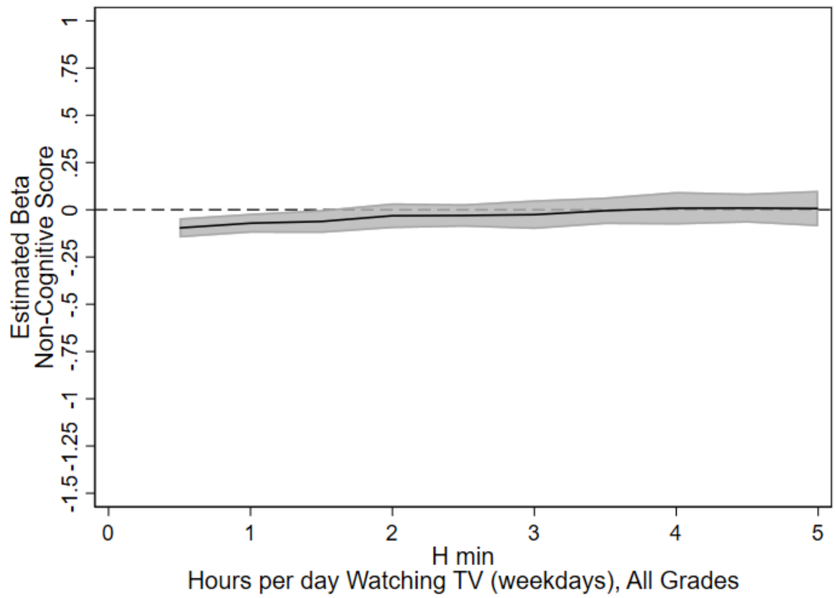
Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{max}$ and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for $H_{max} \geq 1$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. (4) Figures A.66 to A.69 show the same exercise for cognitive skills and other measures of non-cognitive skills, as well the exercise by grade. Source: CDS/PSID.

In Appendix A.9.2, I show in Figure A.66 that going from a local extrapolation to a more global extrapolation of the linearity assumption does not change the positive non-significant effects of watching TV on cognitive skills.

The same exercise can be done for the opposite case, where I restrict the sample to $H \geq H_{min}$ for progressively larger values of H_{min}. Thus, $\mathbb{E}(U|X, H^*) = m(X) + \delta H^*$ only for $H \geq H_{min}$, one way of addressing concerns with measurement error of observations very close to zero. As shown in Figure 1.13, the estimates of β are consistent for the whole sample. As H_{min} gets closer to zero, $\hat{\beta}$ becomes more negative and more precisely estimated[27]. As H_{min} become larger, the estimates continue to be negative, consistent with the results in Table 1.2, with less precision, showing that measurement errors should not be a concern in the case of misreporting of hours of TV.

[27]The better precision in estimating the effect of TV watching on non-cognitive skills as H_{min} gets closer to zero is due to the bigger sample when estimating the effects.

Figure 1.13: Estimated β for different samples with $H \geq H_{min}$, Non-Cognitive Score, All Grades



Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{max}$ and a 95% confidence interval. (2) Bootstraped standard errors using 50 bootstrap samples. (3) Estimates shown for $H_{min} \geq 0.5$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. (4) Figures A.70 to A.72 show the same exercise for cognitive skills, as well the exercise by grade. Source: CDS/PSID.

In Appendix A.9.2, I show in Figure A.70 that the positive non-significant effects of watching TV on cognitive skills is consistent for the whole sample.

Allowing for Non-linearities

Another way of testing the linearity assumption is to allow for non-linearities on the confounder, that is, allowing the effect of δ on S to change across different values of H and other characteristics. In Section 1.4, I assumed that $\mathbb{E}[U|X, H^*] = m(X) + \delta H^*$. However, it might be the case that δ changes non-parametrically with the observed characteristics X so that $\mathbb{E}[U|X, H^*] = m(X) + \delta(X)H^*$, which could absorb some of the variation in H^* that is captured across different values of X.

Specifically, I consider an alternative specification of Equation (6), considering that $\delta(X)$ can vary by cluster, that is:

$$S = \beta H + X'\tau + \sum_{k=1}^{K} \alpha_k 1(X \in \mathcal{C}_1) + \sum_{k_\delta=1}^{K_\delta} \delta_{k_\delta} 1(X \in \mathcal{C}_1) \times \left[H + \hat{E}(H^*|H=0, \hat{C}_K)1(H=0)\right] \quad (9)$$

Important to notice that Equation (7) does not requite the existence of bunching within each cluster. Also, $\hat{E}(H^*|H=0, \hat{C}_K)$ is allowed to vary by cluster, so I could choose a different distributional assumption for each cluster. However, as shown in Section 1.5.2, the distribution of $\hat{E}(H^*|H=0)$ does not change the estimates of β. Therefore, for the exercises shown in this section, I assume the same distribution assumption for all clusters.

Table 1.8 shows that the results are robust for this alternative specification and very similar to the ones presented before.

Table 1.8: Results for the effect of TV Watching during Weekdays on Non-Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.029^{***}	-0.001	-0.173^{***}	-0.096^{***}	-0.081^{***}
(N= 7,027)		(0.008)	(0.008)	(0.058)	(0.034)	(0.030)
	$F(\delta)$			1.995	1.950	1.905
				(0.837)	(0.841)	(0.843)
Elementary School	β	-0.038^{***}	-0.003	-0.172	-0.086	-0.075
(N= 3,674)		(0.013)	(0.012)	(0.106)	(0.057)	(0.048)
	$F(\delta)$			1.960	1.911	1.927
				(0.815)	(0.819)	(0.809)
Middle School	β	-0.028^{*}	-0.004	-0.243^{*}	-0.125^{*}	-0.109^{*}
(N= 1,675)		(0.016)	(0.016)	(0.130)	(0.071)	(0.062)
	$F(\delta)$			0.564	0.527	0.530
				(0.867)	(0.867)	(0.864)
High School	β	-0.015	-0.001	-0.116	-0.077	-0.071
(N= 1,678)		(0.014)	(0.014)	(0.075)	(0.052)	(0.049)
	$F(\delta)$			0.585	0.550	0.499
				(0.846)	(0.855)	(0.875)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 10$. $F(\delta)$ is interpreted as the non-parametric function for the changes in δ given changes in the number of clusters. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Tables A.38 and A.39 show similar results for whole week and weekends, and Table A.40 shows similar results for cognitive skills. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

1.5.2 The Distributional Assumption

In this section, I show that the point estimates reported in Section 1.4 (columns (3) to (5) of Table 1.2) are robust to the failure of the distributional assumption. The exercise shows how the estimates of β vary when the estimator of $\mathbb{E}[H^*|H=0, X]$ is biased (the distributional assumption does not hold). Let $\tilde{\mathbb{E}}$ be the value of the expectation identified under a given distributional assumption, and $\tilde{\beta}$ the corresponding treatment effect using the control function approach. The failure of the distributional assumption implies that $\tilde{\mathbb{E}}$ might be different from $\mathbb{E}$ and thus $\tilde{\beta}$ would be biased. I follow the strategy presented by C. Caetano et al., 2023 and used also by C. Caetano, Caetano, Nielsen, and Sanfelice, 2024 that shows the identification of the true effect β can be written as a function of the misidentification of the expectation E given by:

$$B_\beta = -\frac{B_{\mathbb{E}}}{\tilde{\mathbb{E}}}\delta \quad (7)$$

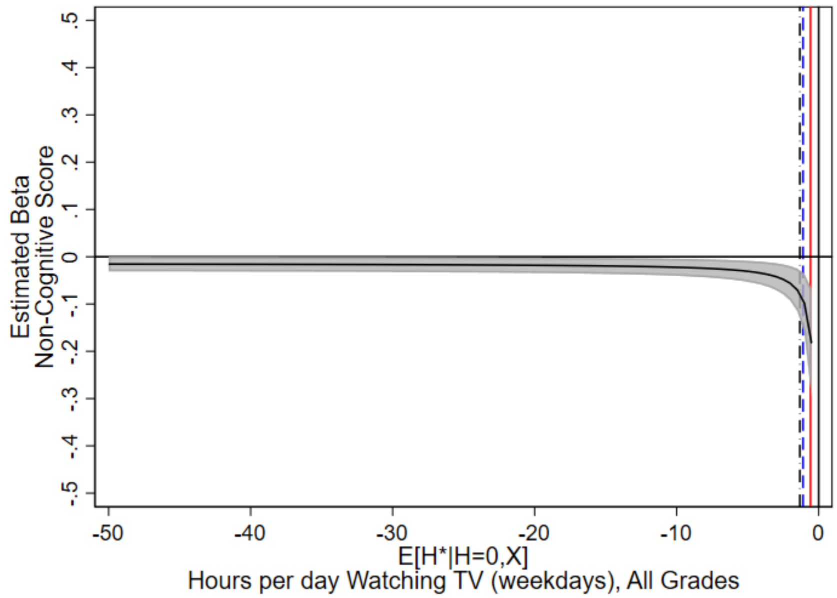
For a given value of δ and the magnitude of the expectation mistake $B_{\mathbb{E}}$, having an estimator that errs towards the expectation estimator ($\mathbb{E}(H^*|H=0,X)$) is preferred when the expectation $\mathbb{E}$ is very negative than less negative. Using this idea, Figure 1.14 shows the estimates of β for different negative values of $\tilde{\mathbb{E}}$ using a similar version of equation (6):

$$S = \tilde{\beta}H + X'\tilde{\tau} + \sum_{k=1}^{K} \tilde{\alpha}_k 1(X \in \mathcal{C}_1) + \tilde{\delta}\left[H + \tilde{\mathbb{E}}(H^*|H=0,\tilde{C}_K)1(H=0)\right] \quad (8)$$

Notice that $\tilde{\mathbb{E}}$ is allowed to vary with X ($K = 10$). The vertical lines are added for reference and equal the average expectation for the three different distributional assumptions described in Section 1.3.

Figures 1.14 shows that the fact that watching TV has a negative impact on children's non-cognitive skill ($\beta < 0$) does not depend on the distributional assumption, i.e. it does not depend on the value of $\tilde{\mathbb{E}}$. This conclusion implies that the qualitative effect of TV on non-cognitive skills holds despite the distributional assumption. Also, the magnitude of β showed on columns (3) to (5) can be underestimated rather than overestimated (or overestimated in absolute value), because as the estimates of $\mathbb{E}(H^*|H=0,X)$ become more negative, the magnitude of β is smaller in absolute value than the ones obtained under the distributional assumptions made before.

Figure 1.14: Estimated β for each counterfactual value of $\tilde{\mathbb{E}}[H^*|H = 0]$, Non-Cognitive Score, All Grades



Note: (1) The black curve shows what would be the $\hat{\beta}$ obtained from the regression of Equation (6) for different counterfactual values of $\tilde{\mathbb{E}}[H^*|H = 0]$ with a 95% confidence interval. (2) The vertical lines represent the weighted average of the estimates of $\tilde{\mathbb{E}}[H^*|H = 0, X]$ across all $K = 10$ clusters, obtained from the distributional assumptions: Semiparametric Uniform (solid red line), Semiparametric Tobit (dashed blue line), and Nonparametric Tail Symmetry (dot-dashed black line). (3) Figures A.62 to A.65 show the same exercise for cognitive skills and other measures of non-cognitive skills, as well the exercise by grade. Source: CDS/PSID.

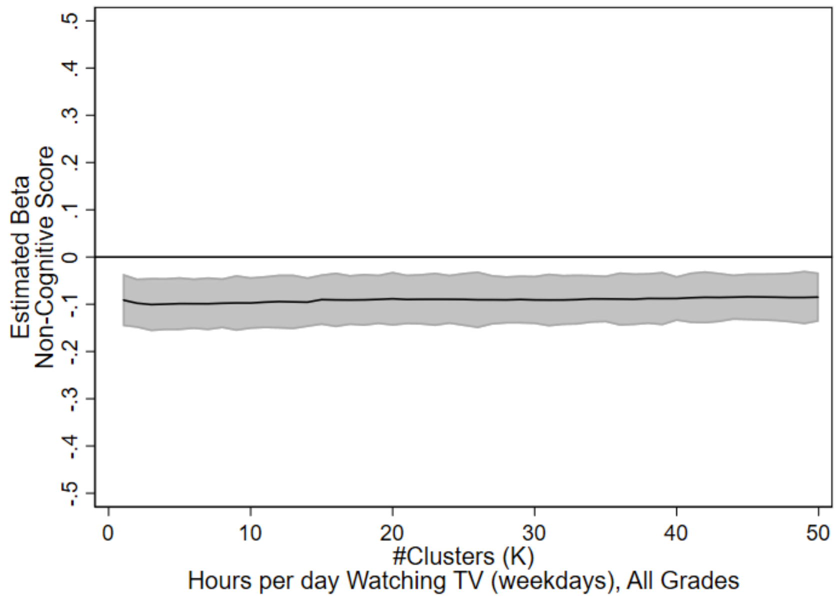
In Appendix A.9.1, I show in Figure A.62 that the positive non-significant effects of watching TV on cognitive skills do not depend on the distributional assumption either.

1.5.3 Cluster Choice

This section examines whether the number of clusters ($K = 10$) I use in the analysis is appropriate. The clusters add non-parametric flexibility to $m(X)$ as the impacts of the observed characteristics X can affect S in non-parametric ways at the cluster level. Second, they allow for heterogeneity in $\hat{\mathbb{E}}(H^*|H = 0, X)$, as the expectation is the same for individuals within a given cluster cluster but can vary across clusters. As the number of clusters grows, we better approximate $m(X)$ and $\mathbb{E}(H^*|H = 0, X)$.

Figure 1.15 shows that as the number of clusters increases, the estimated impact of TV watching on non-cognitive skills barely changes. This shows that 10 (the number of clusters I used in Section 1.4) is a sufficiently large number of clusters in order to guarantee all the nonparametric flexibility the method requires.

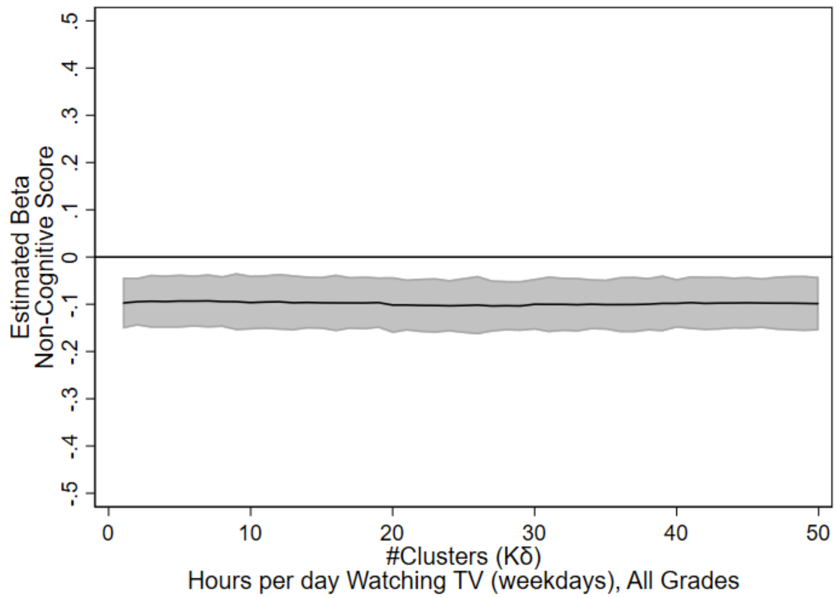
Figure 1.15: Estimated β for different number of clusters (K), Non-Cognitive Score, All Grades



Note: (1) The black line shows estimates of β for different number of clusters (K) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. (4) Figures A.73 to A.76 show the same exercise for cognitive skills and other measures of non-cognitive skills by grade. Source: CDS/PSID.

Analogously, the same exercise is done for K_δ and I find similar results: estimates of the treatment effect β change marginally when I increase the number of clusters on $\delta(X)$ from 1 to 50 (see Figure 1.16).

Figure 1.16: Estimated β for different number of δ clusters (K_δ), Non-Cognitive Score, All Grades



Note: (1) The black line shows estimates of β for different number of δ clusters (K_δ) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. (4) Figures A.77 to A.80 show the same exercise for cognitive skills and other measures of non-cognitive skills by grade. Source: CDS/PSID.

1.6 Conclusion

This paper estimates the causal effect of time spent watching TV on children's cognitive and non-cognitive skills by using a selection-on-unobservables and control function approach based on data from the CD-S/PSID. Given the widespread presence of TV in American households and the increasing engagement of children with media devices from an early age, this study aims to illuminate the impact of TV on children's skills—a topic of significant concern for policy advocates and child experts.

Economic research acknowledges the potential positive aspects of TV, such as providing accessible and affordable educational content that can contribute to children's development. Additionally, TV can facilitate family interactions, offering opportunities for shared activities among children and adults. However, excessive TV consumption presents potential drawbacks. Time spent watching TV may detract from other valuable life experiences, potentially hindering skill development. The information-processing nature of TV viewing might foster habits that interfere with learning. Furthermore, concerns arise about children prioritizing TV over activities that have a greater impact on development.

This paper contributes to the literature by adopting a novel methodological approach that reveals impacts on non-cognitive skills. To the best of my knowledge, this is the first paper to analyze these effects for the American population while also considering heterogeneous effects across different population groups.

The empirical findings reveal a nuanced picture. TV has a significant negative impact on children's non-cognitive skills, regardless of grade, income level, sex, or specific measures of non-cognitive skills considered. This negative effect is particularly pronounced for middle school children and those from higher-income families. The results show positive but not statistically significant effects for cognitive skills, challenging the notion that TV consumption yields only beneficial outcomes.

Studying the effects of TV on children's skills opens the door for further research. First, a deeper analysis of the nuanced impact of TV on cognitive and non-cognitive skills allows for a more refined understanding of the mechanisms involved. Researchers can investigate specific content and genres of TV programs that positively or negatively affect children's development, which may lead to tailored recommendations for parents and educators in selecting age-appropriate educational content. Additionally, understanding how socioeconomic factors interact with TV's influence on skills can inform targeted interventions to bridge potential skill gaps among diverse groups of children.

Second, exploring non-cognitive skills—a relatively under-researched area concerning TV's impact—presents rich opportunities for further investigation. Beyond academic performance, non-cognitive skills include aspects such as emotional regulation, communication, and socialization. Longitudinal studies can also provide insights into the long-term effects of TV consumption on skills, which extend beyond this paper's scope.

Lastly, the methodological innovation introduced in this study offers an alternative to other methods, broadening the scope of possible applications. Researchers can build on this approach to investigate the impact of other media forms, as well as other contexts where bunching exists.

In summary, this paper provides a nuanced exploration of TV's impact on children's cognitive and non-cognitive skills. By providing empirical evidence and methodological innovation, it contributes valuable insights to the ongoing discourse on the effects of media consumption on child development. The findings emphasize the need for a balanced perspective, considering both the potential educational benefits and the risks associated with excessive TV viewing, thereby informing guidelines and recommendations for children's media exposure. Overall, this study provides a roadmap for future research aimed at disentangling the complex relationship between media exposure and child development.

Chapter 2

Children's Time Use Substitution Patterns

2.1 Introduction

In this chapter, I estimate the causal effect of watching one more hour of TV on other activities, using the Child Development Supplement (CDS) and the Panel Study of Income Dynamics (PSID). This study complements the findings in Chapter 1 by identifying one of the channels through which TV negatively affects children's non-cognitive skills.

This paper builds on economics research documenting changes in time use among adults Aguiar and Hurst, 2007 document changes in work and leisure consumption in the U.S. over five decades of time-use surveys. They found that leisure time increased significantly due to declining time spent on non-market production. Although I do not observe a substantial increase in children's leisure time, leisure activities have changed significantly, prompting questions about how this might affect children's human capital formation. Aguiar et al., 2021 explore the decline in younger men's market hours over the past 15 years and reveal that this group has shifted leisure time to video gaming and other computer activities, which has reduced their labor supply. Chen and Adler, 2019 found that screen time doubled among children aged 0 to 2 years between 1997 and 2014, while TV time significantly increased. These results were particularly pronounced among boys and children from low-income families with less-educated parents. With the increase in children's time spent on video games and computers, it is important to expect future labor market effects. Documenting these trends fills a gap in the literature on children's time use.

The approach used here is the same used in the previous chapter and by C. Caetano, Caetano, and Nielsen, 2024, but it uses a different set of activities as outcomes and considers TV hours as the treatment variable. I also focus on substitution patterns during weekdays, which may be more relevant to parents concerning their children's development.[1].

[1] In the Appendix B, I show results for weekends and whole week.

I find that children substitute one hour of TV with less sleep (-0.115 hours/day), class time (-0.948 hours/day), and homework (-0.102 hours/day)[2]. I can rule out effects smaller than -0.205 hours/day for sleep, -1.117 hours/day for class time, and -0.143 hours/day for homework. I also analyze heterogeneous effects by grade level, income level, and gender. I find that (1) elementary school-age children, those from low-income families, and boys substitute homework with more TV time and other non-TV passive leisure activities; (2) middle school-age children substitute homework with more TV time and more time with extra-curricular activities and chores.

With the increasing accessibility of new technologies, particularly the internet and personal computers, I also analyze the effects on specific extracurricular and leisure activities. Technology now plays a significant role in children's lives, affecting them in various ways. On one hand, children today are often exposed to the internet early and have access to more content than children had 30 years ago. For instance, in the early 1990s, major social media platforms like YouTube and Facebook had not yet been created, but now they are deeply ingrained in the daily lives of many young people. Thus, media plays an important role in understanding how children's time use has evolved. While children's time spent watching TV has decreased over the past few decades, their use of other electronics, such as video games, computers, and cell phones, has risen sharply. Although these technologies allow children to stay connected with family and friends, helping them stay in touch with people they may not often see, these trends also reflect a shift in how children socialize. I find that children substitute one hour of TV watching with less socialization (especially among girls) and arts and excursions, and spend more time on social media (especially among boys and children from both low- and high-income families).

The remainder of this chapter is organized as follows: Section 2.2 introduces the main patterns of substitution relative to TV watching, the primary subject of Chapter 1, considering the discontinuous unobservable effects among children who do or don't watch TV. Section 2.3 describes the empirical approach used in the substitution analysis, while Section 2.4 presents the results. Section 2.5 offers the main conclusions of this chapter.

2.2 Children's Time Use Substitution Patterns

My primary data source for studying trends in children's time use is the Child Development Supplement (CDS) from the Panel Study of Income Dynamics (PSID). The PSID is a nationally representative, longitudinal household survey of families and individuals in the United States that provides information about children, parents, and their families[3]. The time diary collects information about each child's activities on

[2]These point estimates consider the Nonparametric Tail Symmetry distribution.

[3]According to the "The Child Development Supplement to the Panel Study of Income Dynamics 1997 User Guide", "*The child is assessed first, using a set of standardized tests and questions. Then, the primary caregiver (usually the mother) answers a set of interviewer-administered questions about each child, for up to two children [or other eligible children in the household after 2014]. In order to obtain more information about the family and to assess parental functioning and parent-child and parent-parent relations, each primary caregiver fills out a self-administered questionnaire.*" The survey also applies the same child and self-administered questionnaires to a second caregiver, which is defined quite broadly, since in many low-income households the second caregiver is a grandmother. Information is collected also from "*(...) the teacher and administrator of the child's school or childcare center/program, family day care home, or other day care provider. The teacher/caregiver provided information on*

a randomly selected weekday and a randomly selected weekend day[4]. The child or parent, if the child is too young, records each activity throughout the day, noting when it started and stopped, with whom and where it took place, and using a list of over 300 activities. I aggregate the activities into eight broad categories: Extra-Curricular Activities, Sleep Time, Class Time, Homework, Active Leisure, Passive Leisure, Chores and Duties, and Other Activities[5]. The remaining data provides valuable insights into how children allocate their time across various activities, following previous literature (Fiorini and Keane, 2014; C. Caetano, Caetano, and Nielsen, 2024). With that, I have information about the amount of time spent in each activity.

Table 2.1 summarizes how children's time usage in each activity category has evolved over the years. Figures 2.1 and 2.2 depict box plots of each activity category and TV watching hours. From 1997 to 2019, children increased the time they spent on educational activities, sleep, and passive leisure, while time spent on active leisure activities declined. Notably, children spent more than five hours daily on classes, homework, and extra-curricular activities in 1997. By 2019, they spent around 12 more minutes per day on these activities, translating to an increase of nearly one and a half hours per week. They also slept more, gaining 15 minutes per day, or one hour and 45 minutes per week. However, the most significant change occurred in leisure activities. Over this period, time spent on active leisure decreased by almost six hours per week, while passive leisure increased by nearly one and a half hours per week.

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the child, on activities in the classroom, and on his or her own characteristics. The administrator provided information on the characteristics and composition of the school and its student body." The questionnaires were developed over the course of the 11-month pre-production period, during which time two pretests were conducted. Data collection spans from January to November, halted only during July and August due to summer vacation. Also, the time diaries are reviewed and edited with the primary caregiver (and the child, if appropriate).

[4] To improve reliability of the data collected and possible biases, the study obtains information on at least one weekend and one weekday with multiple samples over a period of time.

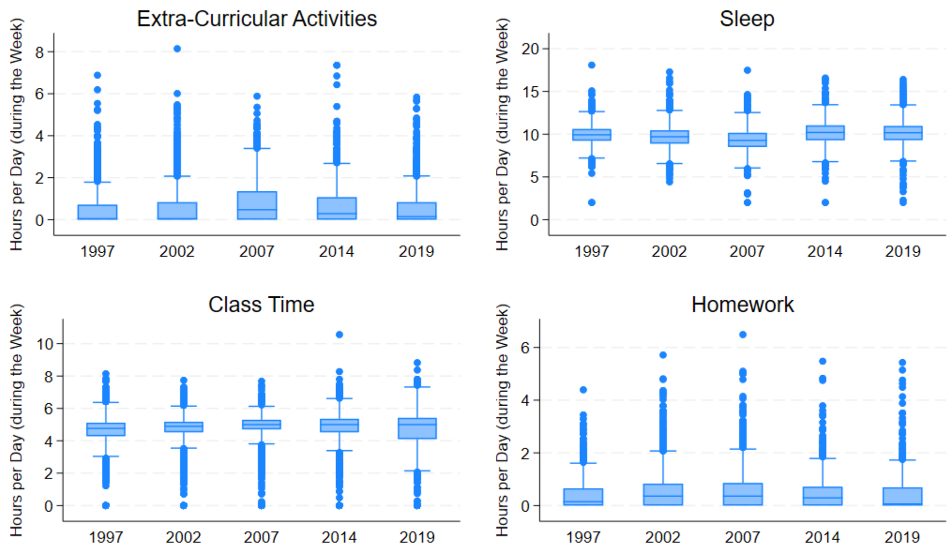
[5] When the time slots between 10 p.m. and 6 a.m. are missing, I do not exclude the observation, instead I record that time as "sleeping"(C. Caetano, Caetano, and Nielsen, 2024).

Table 2.1: Hours per Day Spent with Different Activity Categories

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.49	0.57	0.85	0.71	0.59	0.10***
	(0.83)	(0.95)	(1.01)	(1.02)	(0.94)	(0.03)
	[0.05]	[0.05]	[0.48]	[0.29]	[0.14]	
Sleep	9.94	9.70	9.33	10.17	10.19	0.25***
	(1.21)	(1.29)	(1.43)	(1.51)	(1.58)	(0.05)
	[9.93]	[9.70]	[9.27]	[10.20]	[10.17]	
Class Time	4.20	4.42	4.60	4.46	4.25	0.04
	(1.73)	(1.55)	(1.45)	(1.80)	(2.01)	(0.07)
	[4.76]	[4.89]	[5.00]	[5.00]	[5.00]	
Homework	0.37	0.58	0.60	0.44	0.42	0.04**
	(0.53)	(0.70)	(0.81)	(0.60)	(0.66)	(0.02)
	[0.14]	[0.36]	[0.36]	[0.29]	[0.06]	
Active Leisure	2.93	2.05	1.85	2.05	2.09	-0.84***
	(1.76)	(1.46)	(1.48)	(1.61)	(1.72)	(0.07)
	[2.69]	[1.80]	[1.55]	[1.76]	[1.80]	
Passive Leisure	2.28	2.82	3.10	2.38	2.50	0.22***
	(1.42)	(1.82)	(1.96)	(1.72)	(1.94)	(0.07)
	[2.06]	[2.51]	[2.79]	[2.06]	[2.03]	
Duties or Chores	3.55	3.78	3.50	3.51	3.62	0.06
	(1.23)	(1.47)	(1.69)	(1.41)	(1.53)	(0.05)
	[3.45]	[3.60]	[3.21]	[3.35]	[3.42]	
Other Activities	0.23	0.09	0.18	0.29	0.34	0.11***
	(1.04)	(0.41)	(1.15)	(1.31)	(1.32)	(0.05)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Observations	1,518	2,030	1,205	1,132	1,142	

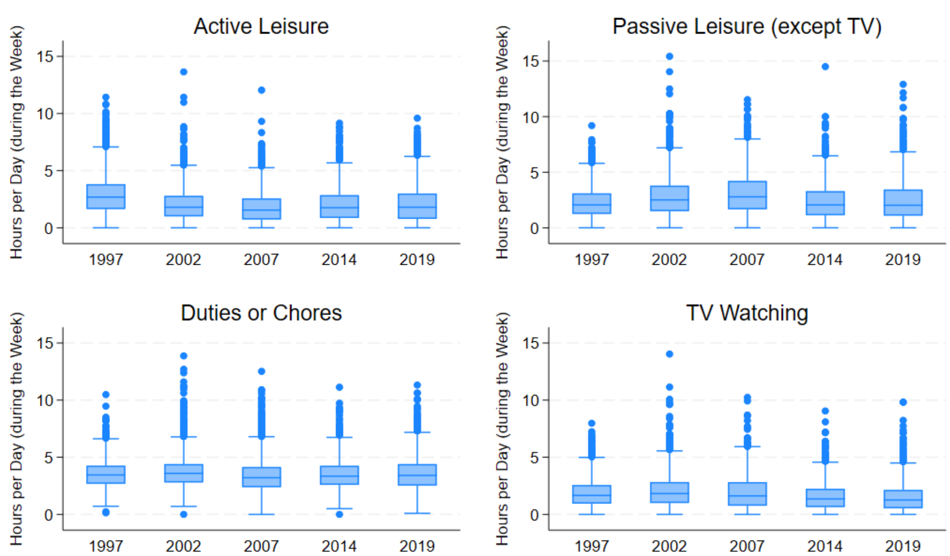
Notes: (1) Standard deviation in parentheses, median in brackets. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Figure 2.1: Distribution of Daily Time (hours/day during the whole week) by Group of Activities per Wave, All Sample, Part 1



Source: CDS/PSID.

Figure 2.2: Distribution of Daily Time (hours/day during the whole week) by Group of Activities per Wave, All Sample, Part 2



Source: CDS/PSID.

Tables B.1 to B.3 (Appendix B) provide a similar analysis by grade, family income, and sex. High school students experienced the largest increase in educational activities, gaining 13 minutes per day or 1.5 hours per week. Children from high-income families had a similar increase of 32 minutes per day or nearly four hours per week. In terms of leisure activities, middle school students and children from low-income families showed the largest declines in active leisure, by 52 and 57 minutes per day, respectively. Boys reduced their active leisure time by an hour per day, while girls reduced theirs by 40 minutes per day—a 67% smaller reduction. Conversely, passive leisure time increased the most for middle school students and children from middle-income families, by 31 and 19 minutes per day, respectively. Boys also increased their passive leisure time by 20 minutes per day more than girls.

There may be concerns about whether these changes result from sampling variations. Since children's age, income level, and gender seem crucial in understanding time use patterns, I report below how average time spent in activities has evolved, excluding demographic composition changes. All of these changes may influence a child's time allocation decisions. For instance, girls tend to spend more time on computers, while boys spend more time playing video games. Therefore, the question is how time use has shifted over time after controlling for children's demographics. To answer this, I estimate the following:

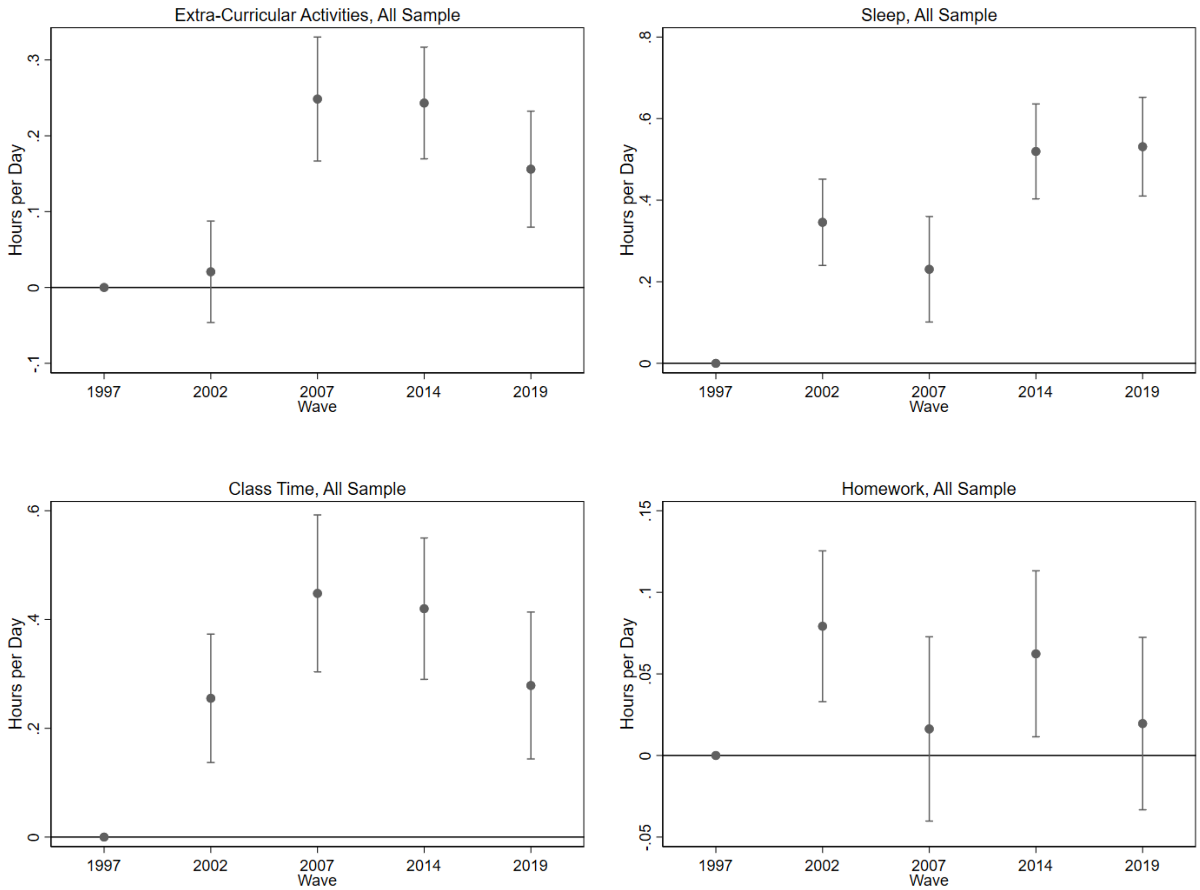
$$T_{i,a,t} = \alpha + \beta_{02} D_{i,02} + \beta_{07} D_{i,07} + \beta_{14} D_{i,14} + \beta_{19} D_{i,19} + \mathbf{X_{i,t}} \pi + \epsilon_{i,t} \quad (10)$$

where $T_{i,a,t}$ is the time spent in activity a by child i during wave t, $D_{i,t}$ is a year dummy equal to one if the child i participated in the survey wave t, and $\mathbf{X_{i,t}}$ is a vector of child i's demographics, including race dummies, child's age and age squared, mother's marital status at the child's birth, whether the parents are alive, mother's working hours, family income, homeschooling status, private schooling status, participation in a gifted program, and special education enrollment. The coefficients on the wave dummies describe how the average time spent in an activity has changed, net of demographic changes[6](Aguiar & Hurst, 2007). The results are discussed below.

Figure 2.3 shows the conditional average time spent on Extra-Curricular Activities, Sleep, Class Time, and Homework. The coefficients are interpreted as hour-per-day deviations from 1997, reinforcing the trends mentioned earlier. Children are spending more time on extra-curricular activities and class time, while no significant changes are observed in homework time. Additionally, children are sleeping nearly 30 minutes more.

[6]I control for mother's working hours and family income since income seems to be an important determinant of the different ways children spend their time. As reported by Hall and Nielsen, 2020, children from more advantaged backgrounds show a different pattern of time use than children in lower-income families and with low-educated parents.

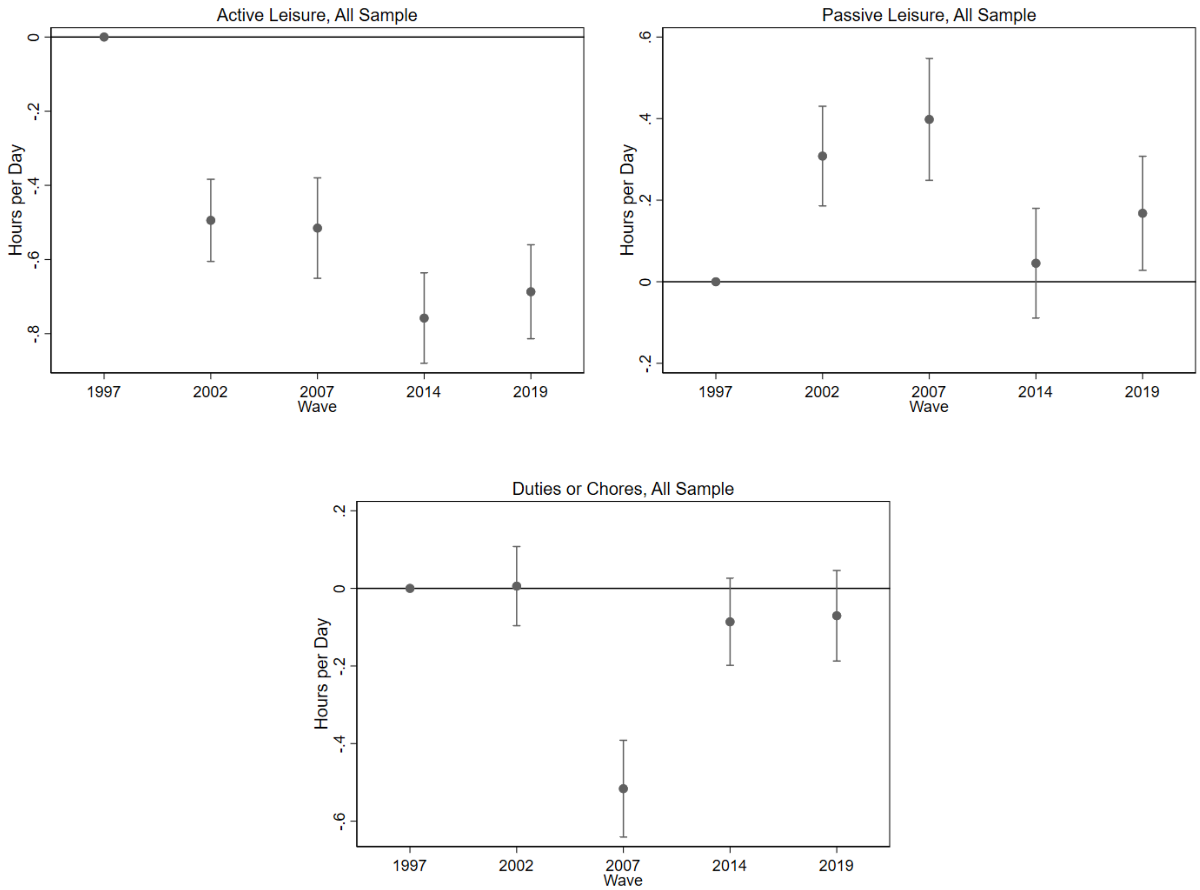
Figure 2.3: Hours per Day Spent with Different Activity Categories, Part 1



Notes: (1) The coefficients on wave dummies are the coefficients estimated from Equation (1), with 1997 being the omitted wave) and they should be interpreted as hour per day deviations from 1997. (2) Tables B.13 to B.16 in Appendix B show the correspondent regression results. Source: CDS/PSID.

Figure 2.4 presents the conditional average time spent on Active Leisure, Passive Leisure, and Duties and Chores. The panels reveal a significant decrease in time spent on active leisure activities, while the increase in passive leisure time is not significant across all waves. As for chores, a significant decrease in time spent was observed only in the 2007 wave compared to 1997.

Figure 2.4: Hours per Day Spent with Different Activity Categories, Part 2



Notes: (1) The coefficients on wave dummies are the coefficients estimated from Equation (1), with 1997 being the omitted wave) and they should be interpreted as hour per day deviations from 1997. (2) Tables B.17 to B.19 in Appendix B show the correspondent regression results. Source: CDS/PSID.

2.2.1 Changes in Specific Activities

Given the importance of changes in leisure consumption among children, I explore more closely which activities drive these trends. Tables 2.2 and 2.3 show the changes in active and passive leisure consumption broken down by activities subgroups. I also show specific activities among duties and chores in Table 2.4.

Time spent with sports and physical activities, socialization, and board and family games reduced the most among these categories. For sports and physical activities, the major decrease come from children in elementary-school age and from low-income families (see Tables B.4 to B.6 in the Appendix B). Also, while boys reduced their time with sports in 29 minutes/day, girls reduced their time with the same activity by only 13 minutes/day. Socialization time reduced the most among high-school-aged, low-income children, and boys.

Children also reduced their time spent with television and increased significantly the time spent with computer and video game over the period. Children in high-school age and low-income families experienced the largest reduction in TV time between 1997 and 2019. Middle-school-aged children and high-income families increased the most their time spent with computer and video games. And although girls have increased the use of computer by 18 minutes/day, relative to an increase of only 8 minutes/day among boys, boys increased their use of video games by 35 minutes/day, relative to only 7 minutes/day among girls. Finally, the time spent with social media, such as Facebook, Instagram, Twitter, etc., also increased, especially among children in high-school age, high-income families, and girls.

Table 2.2: Minutes per Day Spent with Different Active Leisure Activities

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	9.70	9.94	6.59	10.88	12.37	2.68***
	(18.35)	(20.85)	(20.75)	(23.66)	(28.12)	(0.90)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Hobbies	5.88	5.72	7.41	5.13	7.52	1.63**
	(16.42)	(18.89)	(28.97)	(17.75)	(21.49)	(0.73)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Arts and Excursions	4.31	3.75	4.55	3.40	4.50	0.19
	(17.63)	(16.49)	(17.07)	(14.16)	(19.77)	(0.73)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Sports and Physical Activities	32.18	18.93	18.58	13.18	10.87	-21.32***
	(47.16)	(38.74)	(40.15)	(30.34)	(27.16)	(1.56)
	[12.86]	[0.00]	[0.00]	[0.00]	[0.00]	
Religious Activities	9.32	10.37	9.02	7.88	8.05	-1.27
	(22.12)	(23.01)	(22.48)	(19.68)	(20.22)	(0.84)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Socialization	42.26	32.50	41.85	26.77	24.27	-17.99***
	(67.86)	(55.88)	(59.70)	(52.79)	(48.26)	(2.36)
	[20.00]	[9.29]	[17.86]	[0.57]	[1.43]	
Board and Family Games	62.48	36.05	12.27	48.37	49.75	-12.73***
	(66.98)	(55.25)	(32.90)	(69.31)	(68.95)	(2.66)
	[42.86]	[8.57]	[0.00]	[21.43]	[21.43]	
Other Active Leisure Activities	9.45	5.47	10.54	7.42	8.10	-1.35
	(21.48)	(22.47)	(29.88)	(25.15)	(28.04)	(0.96)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Observations	1,518	2,030	1,205	1,132	1,142	

Notes: (1) Standard deviation in parentheses, median in brackets. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table 2.3: Minutes per Day Spent with Different Passive Leisure Activities

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	112.18	124.65	116.42	94.31	92.92	-19.26***
	(76.53)	(90.32)	(92.54)	(76.82)	(82.47)	(3.10)
	[99.29]	[109.29]	[97.14]	[81.43]	[75.71]	
Computer Use	0.91	9.50	24.63	5.49	13.43	12.51***
	(6.44)	(33.74)	(49.48)	(24.24)	(35.48)	(0.93)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Video Game	16.05	29.21	34.85	33.71	36.46	20.41***
	(33.24)	(56.22)	(62.35)	(62.39)	(71.65)	(2.09)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Social Media	0.00	0.00	1.41	2.68	1.55	1.55***
	(0.00)	(0.00)	(8.32)	(14.07)	(10.31)	(0.26)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Other Passive Leisure Activities	7.61	5.66	8.61	6.41	6.96	-0.65
	(19.19)	(18.57)	(24.24)	(19.65)	(23.27)	(0.82)
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	
Observations	1,518	2,030	1,205	1,132	1,142	

Notes: (1) Standard deviation in parentheses, median in brackets. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Finally, analyzing different categories of duties and chores, I observe that children have spent more time with paid work, personal care, and meals, and less time with shopping, travel time, and care for others.

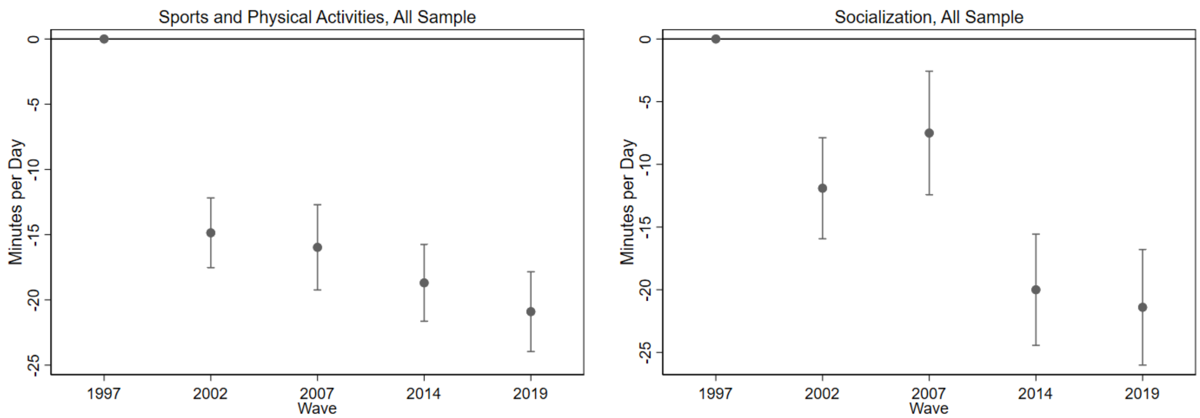
Table 2.4: Minutes per Day Spent with Different Duties and Chores

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Care for Others	1.97	2.02	3.41	2.06	1.20	-0.77**
Chores	20.38	21.93	20.67	19.53	20.37	-0.00
Paid Work	0.80	9.77	17.33	4.08	5.54	4.74***
Travel Time	56.74	57.25	51.96	48.65	50.67	-6.07***
Shopping	15.60	13.62	13.59	12.25	11.16	-4.44***
Personal Care	51.81	63.20	55.26	57.46	58.49	6.68***
Meals	65.96	59.15	47.48	66.31	69.64	3.68***
Observations	1,518	2,030	1,205	1,132	1,142	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

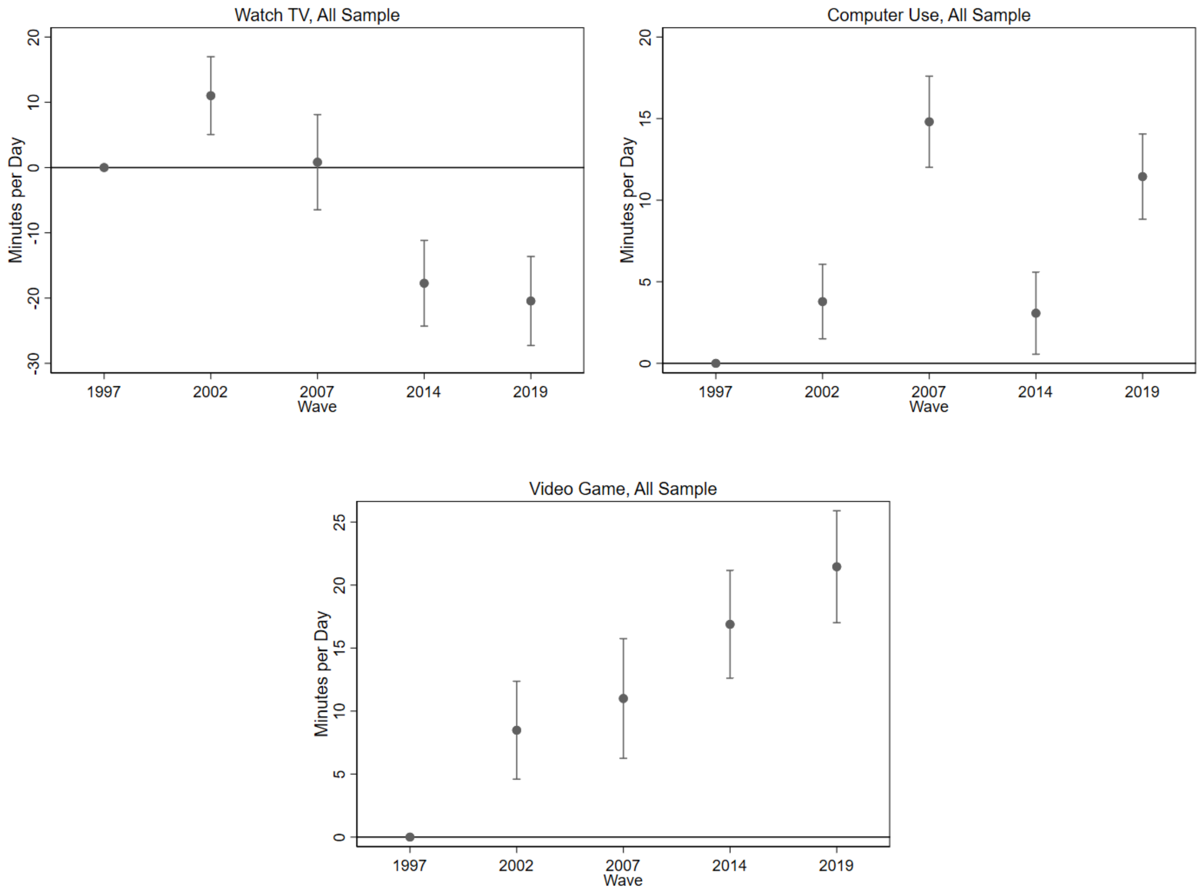
I explore more closely which activities drive these trends, considering demographics changes as described in Equation (10). Figure 2.5 shows the conditional average time spent on Sports and Physical Activities, and Socialization, while Figure 2.6 presents the conditional average time spent on TV, Computer, and Video Games. Time spent on sports and socialization has decreased significantly since 1997, while time spent on computers and video games has increased almost proportionally. The only passive leisure activity that saw a decline in time spent is TV watching, particularly in the 2014 and 2019 waves.

Figure 2.5: Minutes per Day Spent with Selected Active Leisure Activities



Notes: (1) The coefficients on wave dummies are the coefficients estimated from Equation (1), with 1997 being the omitted wave) and they should be interpreted as hour per day deviations from 1997. (2) Tables B.20 and B.21 in Appendix B show the correspondent regression results. Source: CDS/PSID.

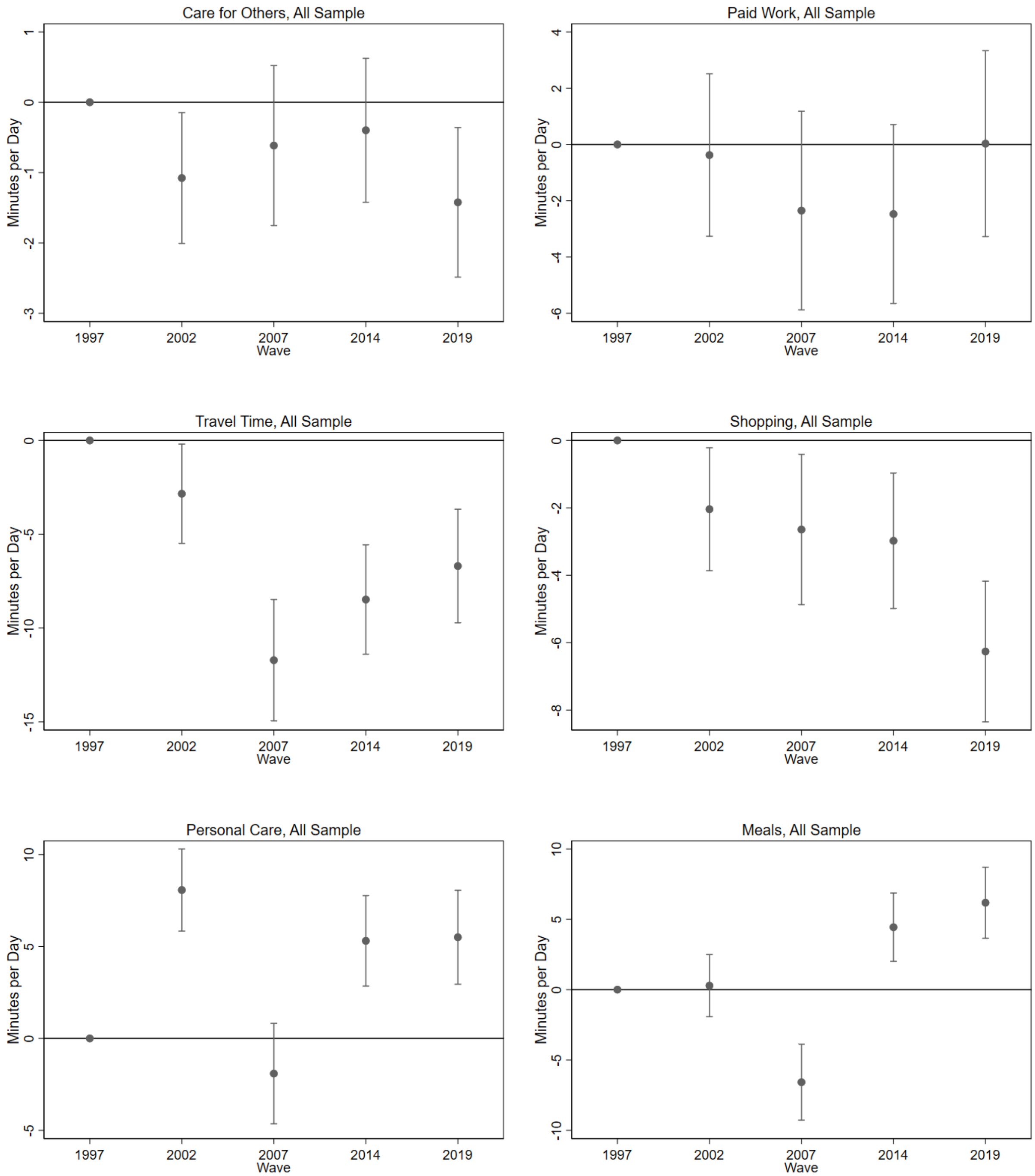
Figure 2.6: Hours per Day Spent with Selected Passive Leisure Activities



Notes: (1) The coefficients on wave dummies are the coefficients estimated from Equation (1), with 1997 being the omitted wave) and they should be interpreted as hour per day deviations from 1997. (2) Tables B.23 to B.24 in Appendix B show the correspondent regression results. Source: CDS/PSID.

After controlling for demographic changes, children have also spent less time on travel and shopping, while they have spent more time on personal care and meals, depending on the wave.

Figure 2.7: Hours per Day Spent with Selected Duties and Chores Activities



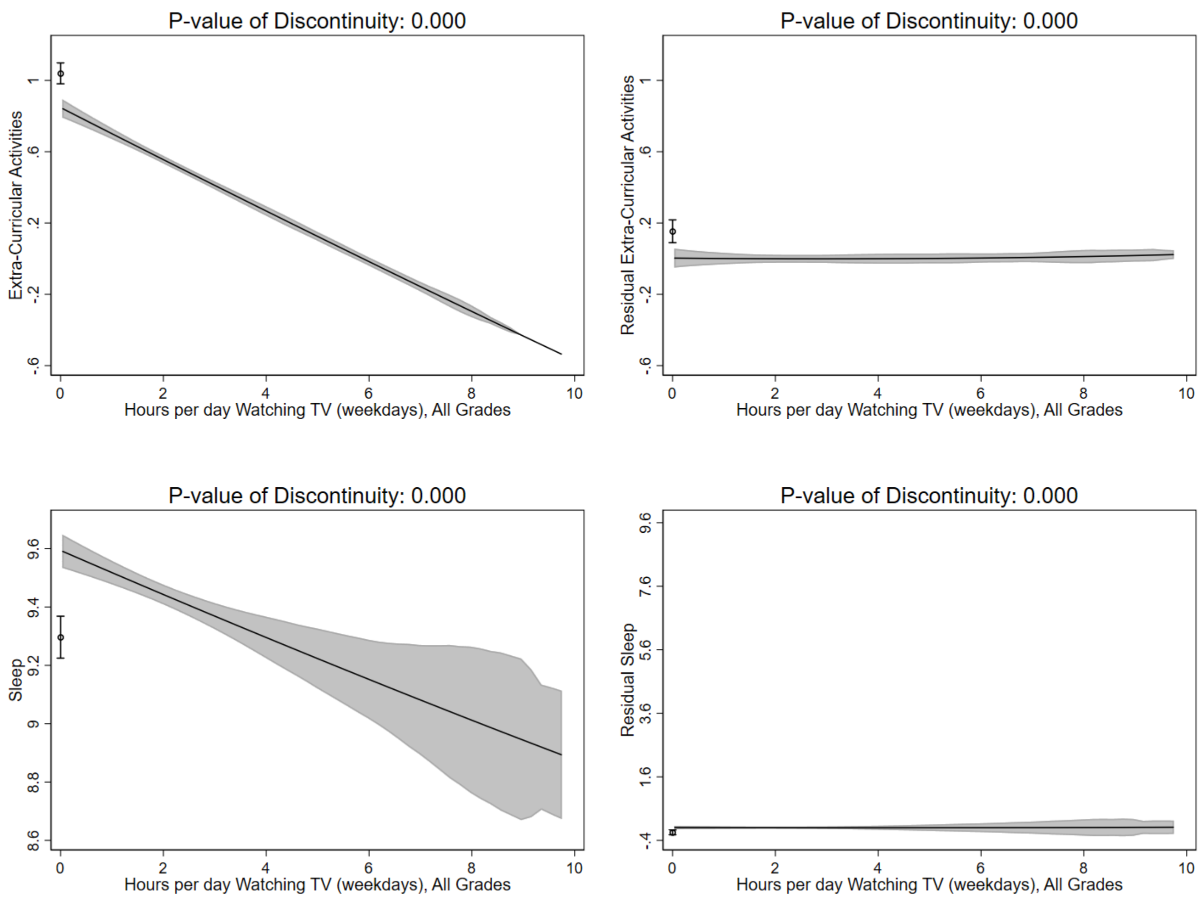
Notes: (1) The coefficients on wave dummies are the coefficients estimated from Equation (1), with 1997 being the omitted wave) and they should be interpreted as hour per day deviations from 1997. (2) Tables B.25 to B.30 in Appendix B show the correspondent regression results. Source: CDS/PSID.

In the next sections, I discuss the methodology used to estimate the causal effects of substituting watching TV with different activities and the main results.

2.3 Empirical Approach

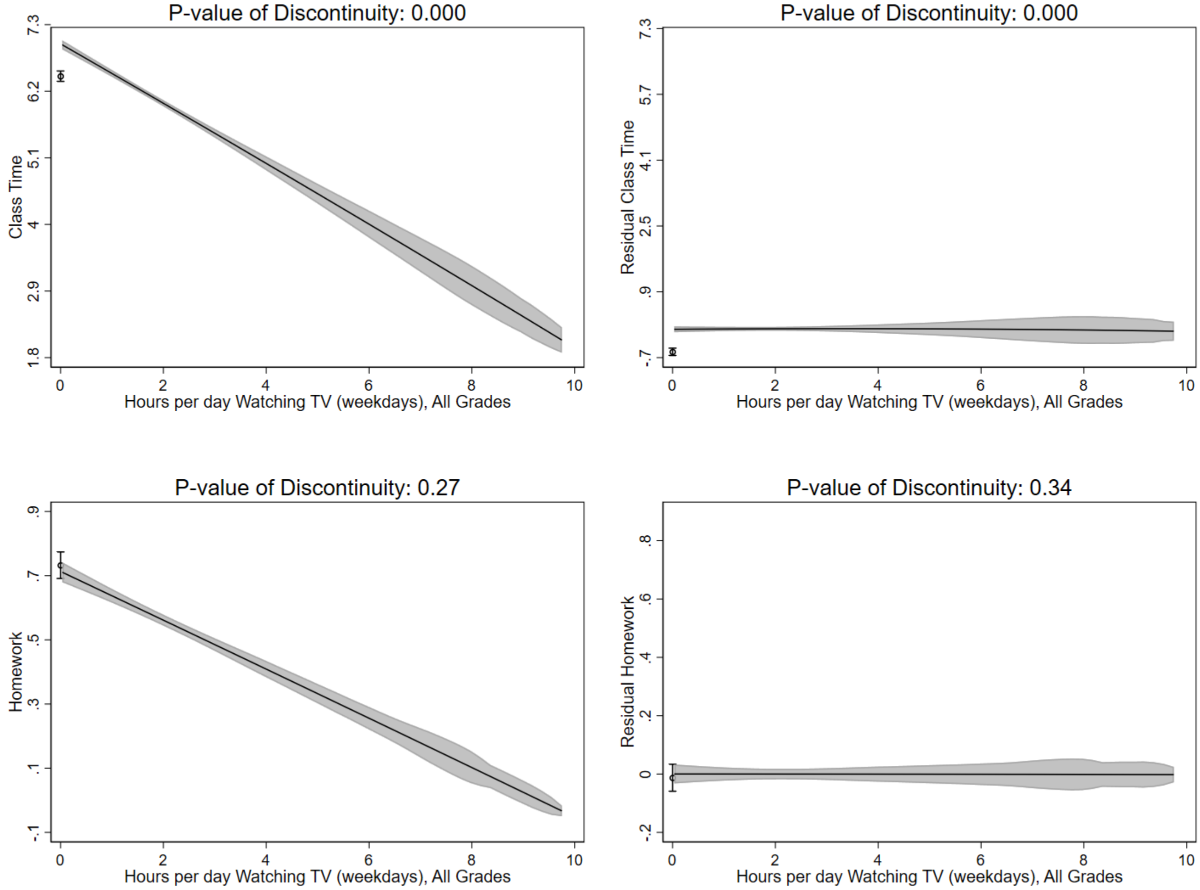
Using the methodology proposed in Section 1.3, Figures 2.8 to 2.11 illustrate discontinuity tests for groups of activities based on TV watching time. Evidence shows that children who watch TV tend to spend less time on extra-curricular activities, active leisure, passive leisure (excluding TV), and chores, while spending more time on sleeping and classes. No significant discontinuity is observed for homework.

Figure 2.8: Discontinuity in Children's Activities at $H = 0$, All Grades, Watching TV during Weekdays, Part 1



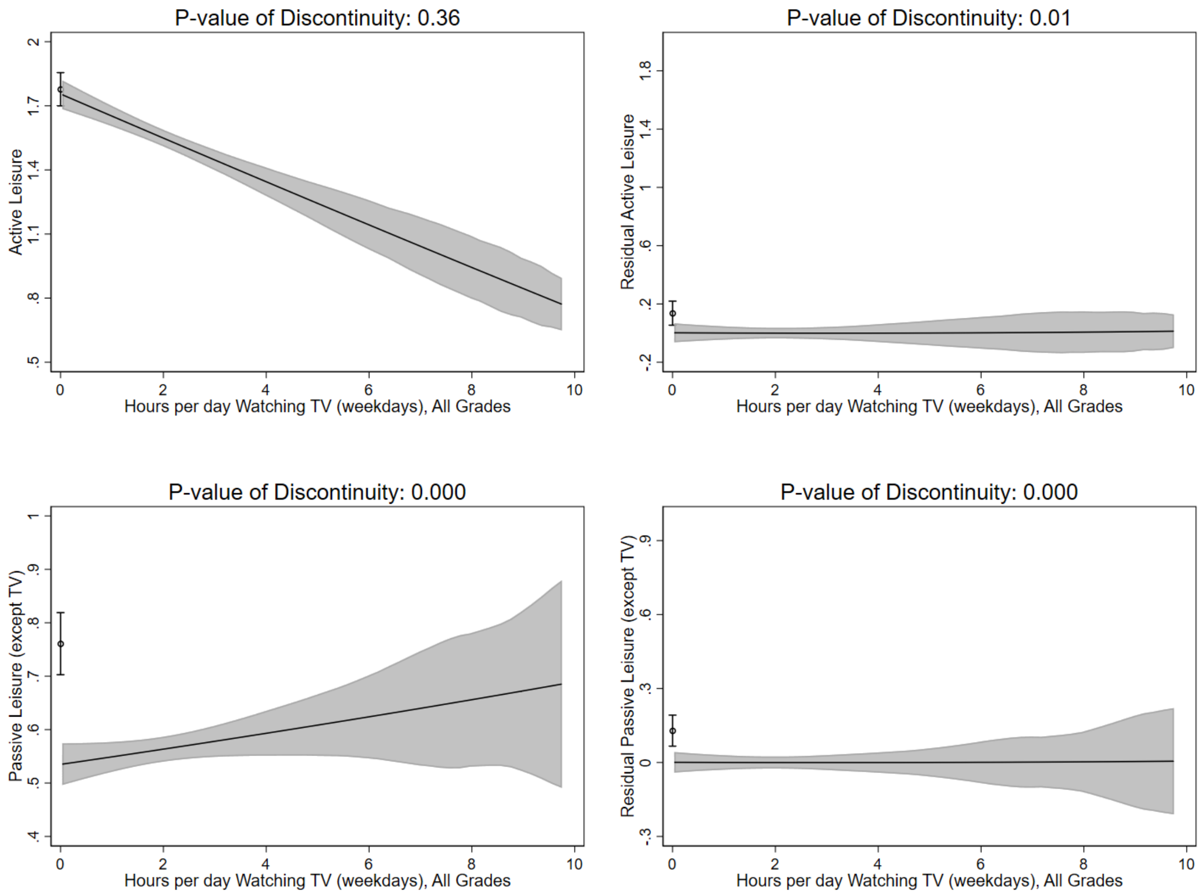
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 95% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 95% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure 2.9: Discontinuity in Children's Activities at $H = 0$, All Grades, Watching TV during Weekdays, Part 2



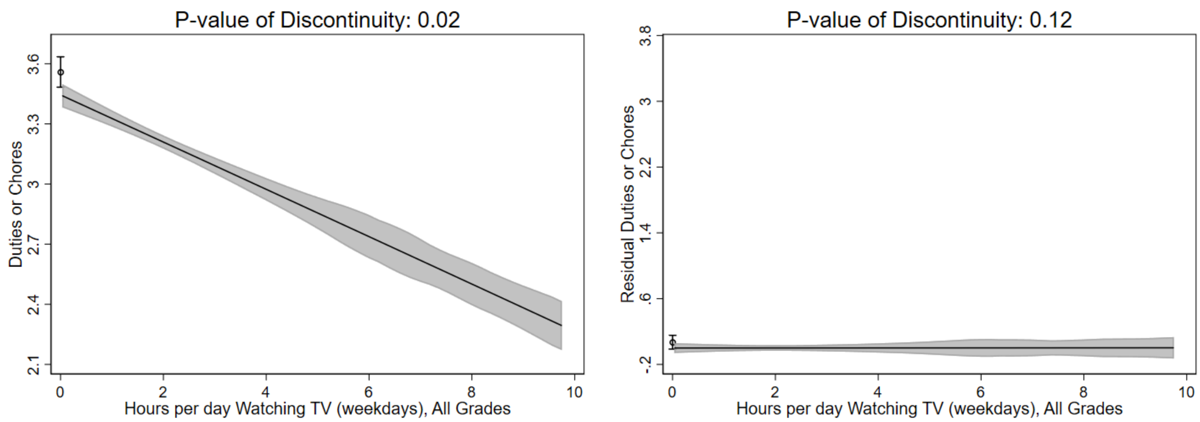
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 95% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 95% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure 2.10: Discontinuity in Children's Activities at $H = 0$, All Grades, Watching TV during Weekdays, Part 3



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 95% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 95% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure 2.11: Discontinuity in Children's Activities at $H = 0$, All Grades, Watching TV during Weekdays, Part 4



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 95% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 95% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Estimating the impact of TV watching on other children's activities is challenging because of the endogenous relationship between the child's choices—spending more time on one activity means that children spend less time on another.

Let T_a be the time a child spends on activity a, H the treatment variable, the observed hours a child spend watching TV on weekdays, and H^* the combination of observed and unobserved factors influencing the child's TV viewing choices. X is a vector of pre-determined controls. I want to estimate β such that:

$$T_a = \beta H + \delta H^* + g(X) + \varepsilon \quad (11)$$

where $g(X)$ is a non-parametric function of the pre-determined controls and $\mathbb{E}(\varepsilon|H^*, X) = 0$, given the Assumption 1 mentioned in Section 2.2. H^* is not observable, but with the control function approach, Equation (11) can be written as:

$$T_a = \beta H + m(X) + \delta[H + \mathbb{E}(H^*|H = 0, X) \cdot \mathbf{1}(H = 0)] \quad (12)$$

The following model is estimated via OLS:

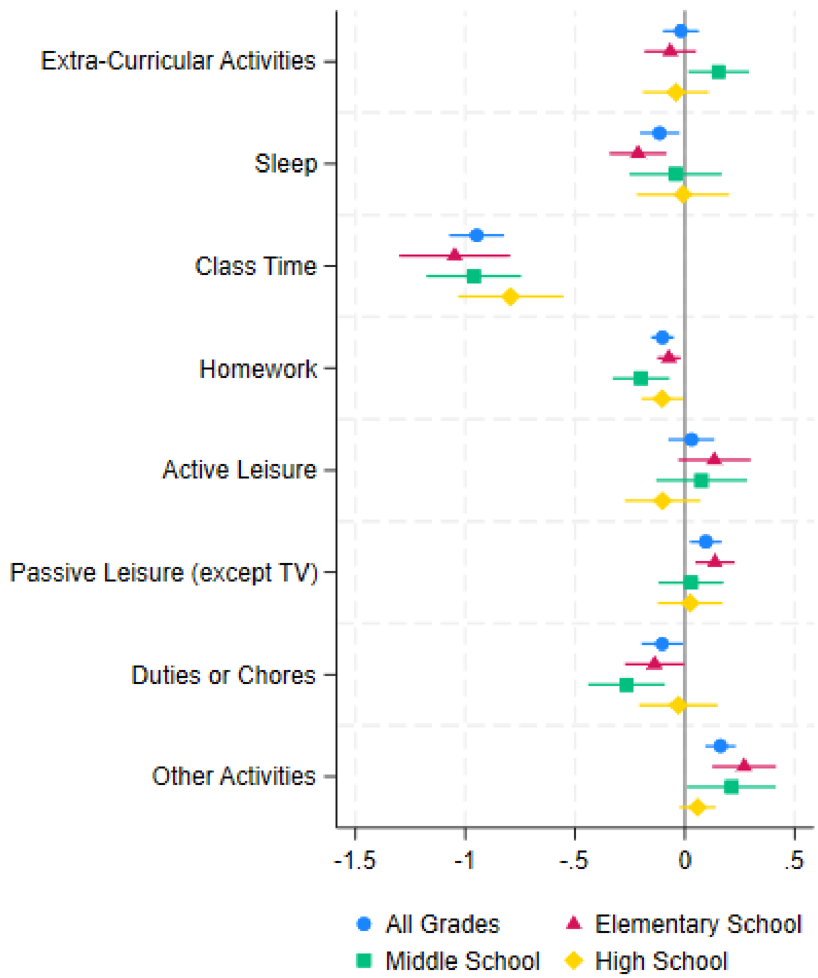
$$T_a = \beta H + X'\tau + \sum_{k=1}^{K} \alpha_k 1(X \in \mathcal{C}_1) + \delta \left[H + \hat{E}(H^*|H = 0, \hat{C}_K)1(H = 0)\right] \quad (13)$$

where $\hat{E}$ follows the distribution assumptions made previously in Assumption 2 of Section 1.3 and $\hat{C}_K$ is the cluster to which each observation belongs to.

2.4 Results

Figure 2.12 show the estimated β coefficients by grade for eight different groups of activities: Extra-Curricular Activities, Sleep Time, Class Time, Homework, Active Leisure, Passive Leisure (except TV), Duties and Chores, and Other Activities. For all grades, children substitute TV watching for less time of classes and homework. In general, they also sleep less, spend less time with chores, and more time with passive leisure (except TV). Children in elementary-school age sleep even less than the average sample, as well as spend less time with chores. I also observe significant effects for children in middle-school age regarding sleep and chores.

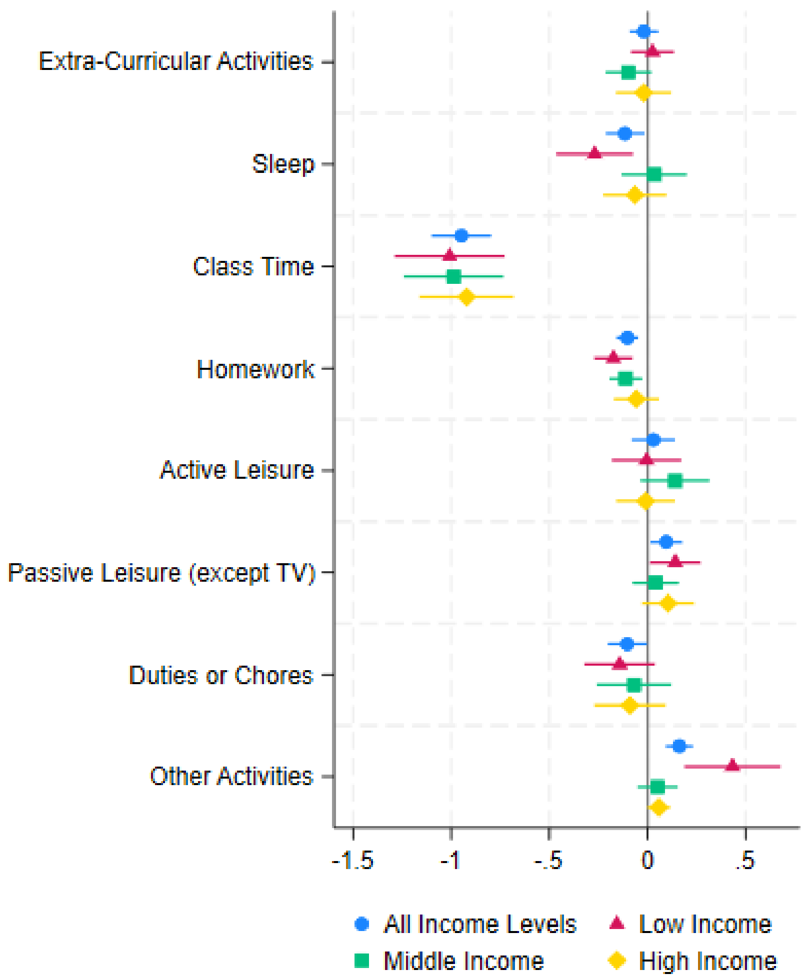
Figure 2.12: Estimated β Coefficients for Different Groups of Activities during Weekdays, by Grade



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure 2.13 show the estimated β coefficients by family income level. Children from low-income families sleep less and spend more time with other passive leisure activities than other children when they watch more TV. In all income levels, they also spend less time in classes and, with the exception of high-income children, they also do less homework. However, I do not observe an income effect among children relative to chores.

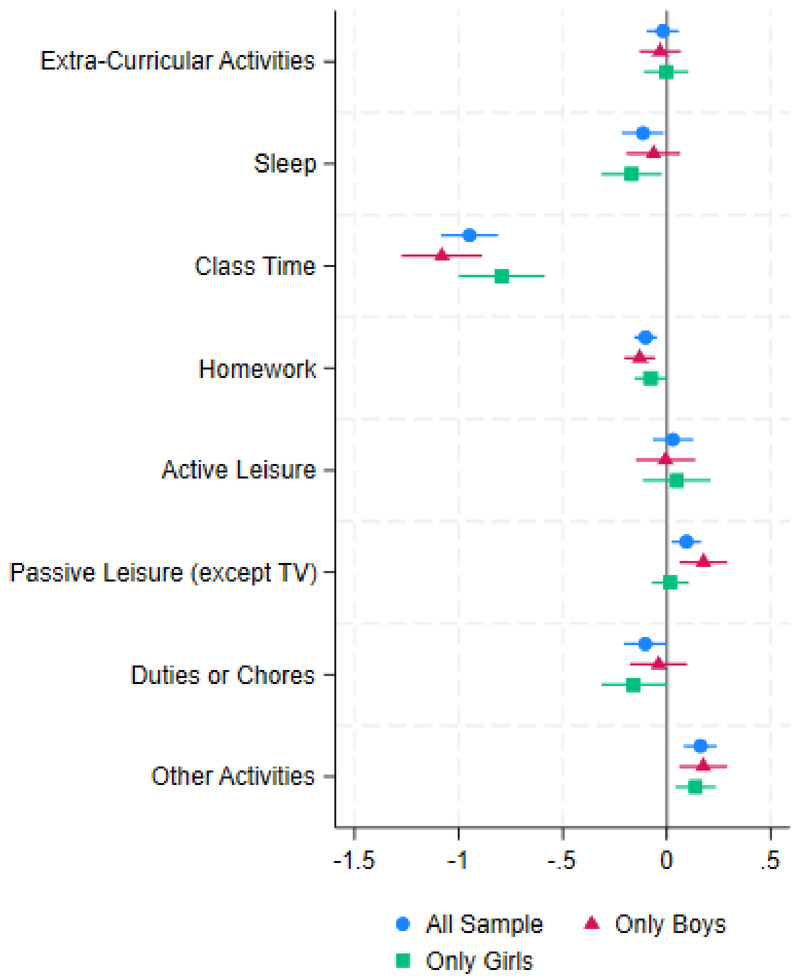
Figure 2.13: Estimated β Coefficients for Different Groups of Activities during Weekdays, by Income Level



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure 2.14 show the estimated β coefficients for boys and girls separately. Both boys and girls spend less time with classes and homework when they watch more TV. However, I observe that only girls sleep less and do less chores. Also, only boys spend more time with other passive leisure activities.

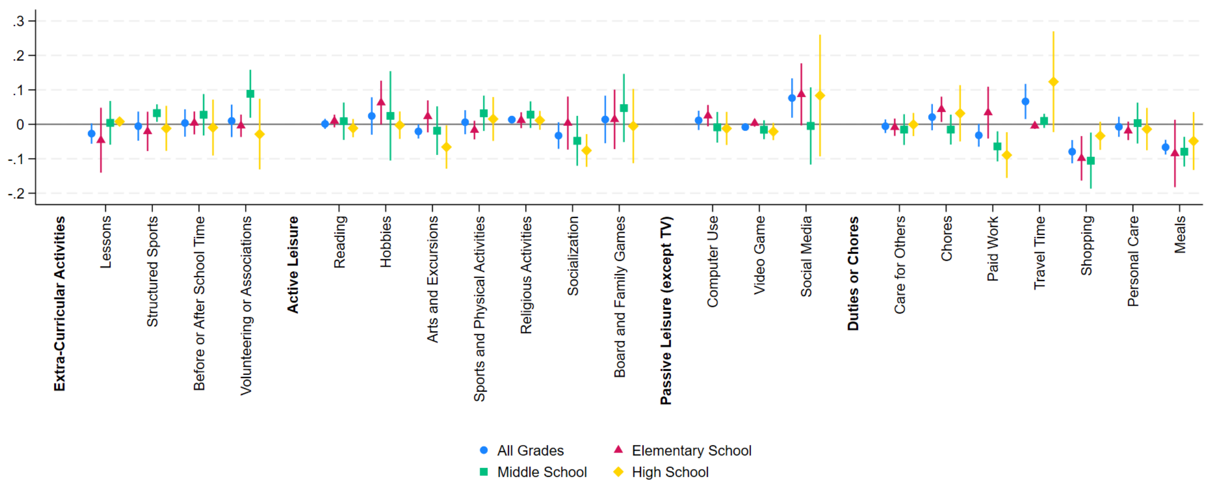
Figure 2.14: Estimated β Coefficients for Different Groups of Activities during Weekdays, by Sex



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

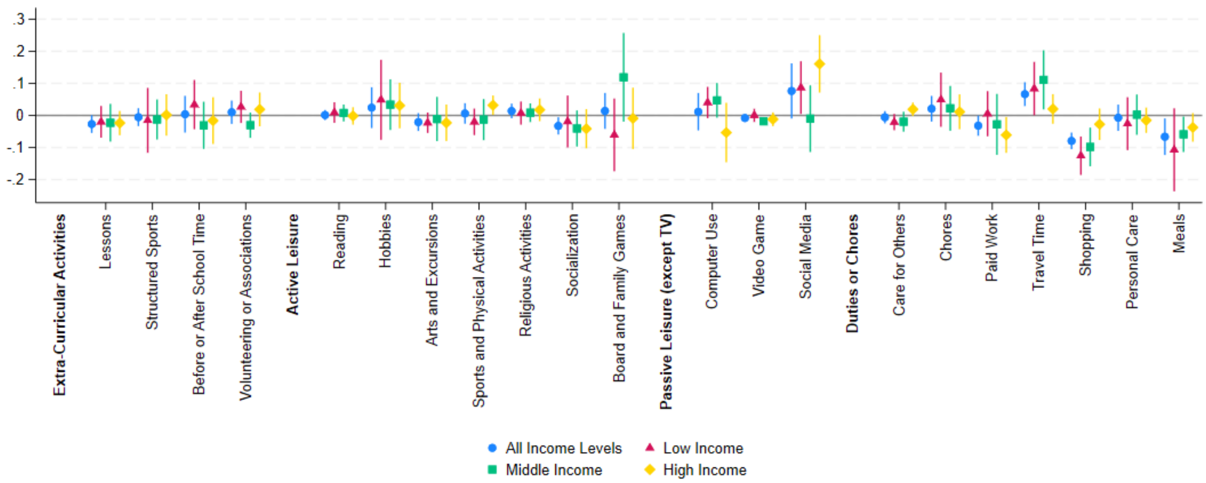
I also analyzed the causal effect of watching TV by different breakdowns of activities. In general, children substitute TV time towards less lessons, arts and excursions, socialization, video games, paid work, shopping, and meals, and more time with religious activities, social media, and travel time (see Figures 2.15 to 2.17). Children in elementary-school age also spend more time with hobbies, social media and chores, and less time with shopping. Children in middle-school age who watch more TV spend more time with structured sports, volunteering or association activities, and less time with paid work and shopping. Among children in high-school age, I only observe statistically significant effects for arts and excursions, socialization, and paid work.

Figure 2.15: Estimated β Coefficients for Different Breakdowns of Activities during Weekdays, by Grade



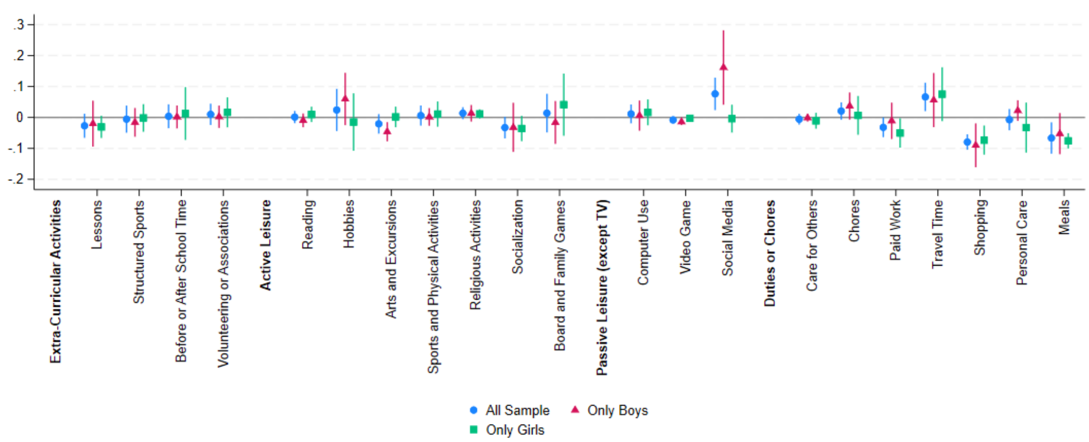
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure 2.16: Estimated β Coefficients for Different Breakdowns of Activities during Weekdays, by Income Level



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure 2.17: Estimated β Coefficients for Different Breakdowns of Activities during Weekdays, by Sex



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

When I analyze the estimates by income level, I observe that children in low- and high-income families spend more time with social media, and children in low- and middle-income families spend less time with shopping. Finally, boys spend less time with arts and excursions and more time in social media relative to girls. Both spend less time shopping.

These results brings attention to two important facts. The two main activities children replace by TV watching seem to be sleep and socialization time. Both activities have a broad positive effect on skills (Perret-Clermont, 1980; Rogoff, 1990). Thus, I conclude that the substitution away from these activities as the child is watching more TV might help explain the negative effects of TV watching on noncognitive skills I find in the previous chapter.

2.5 Conclusion

In this chapter, I describe the patterns of substitution among various activities relative to watching TV, using the empirical approach presented in Chapter 1.

The data analysis indicates that children are substituting not only their leisure time with TV but also their sleep and study time. As new technologies have become available, children have also increased their time spent using computers or playing video games.

The empirical analysis demonstrates that children substitute one hour of TV watching with less sleep, class time, and homework. I also explore heterogeneous effects across different grades, income levels, and sexes. I find that: (1)) elementary school-age children, those from low-income families, and boys substitute homework with more TV time and other non-TV passive leisure activities; (2) middle school-age children substitute homework with more TV time and more time with extra-curricular activities and chores; and (3) children substitute one hour of TV watching with less socialization (especially noticeable among girls) and arts and excursions, while spending more time on social media (particularly among boys, and children from both low- and high-income families).

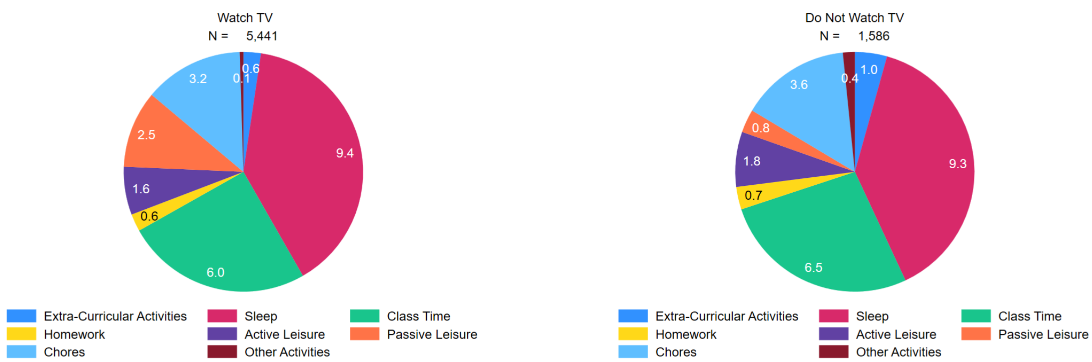
This paper illuminates the substitution effects of TV watching on children's noncognitive skills, contributing to the economic literature not only by detailing the patterns of activity substitution but also by analyzing the impacts across various demographic characteristics.

Appendix A

A.1 Additional Figures for Activities and Time Distribution

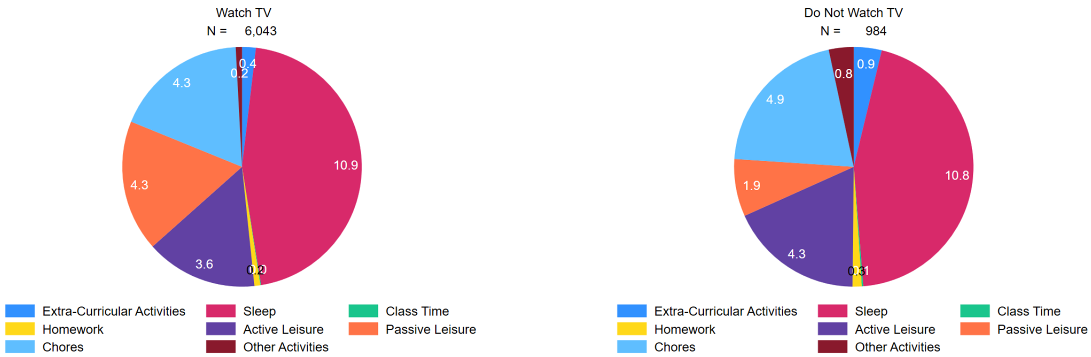
This section shows first the time breakdown on weekdays and weekends by group of activities for children who watch and do not watch TV. Second, I show the time breakdown by group of activities per wave.

Figure A.1: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for weekdays)



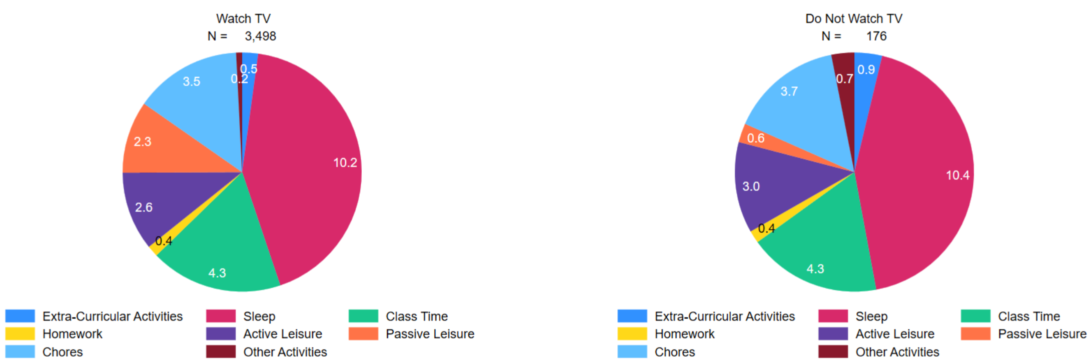
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.2: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for weekends)



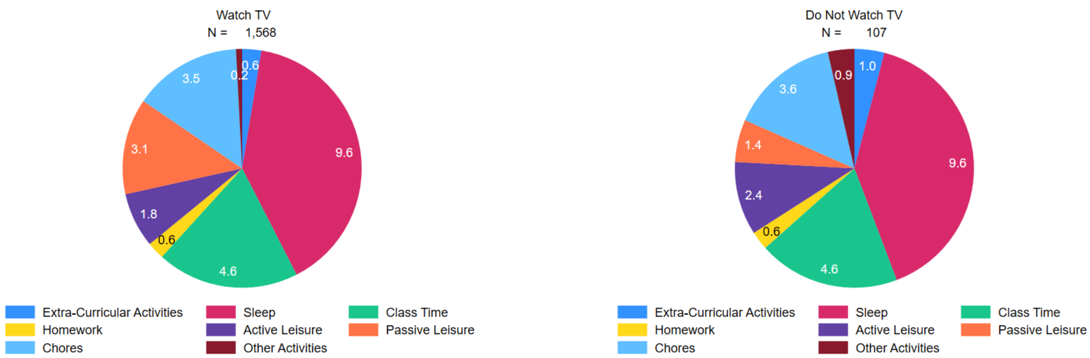
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.3: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), Elementary School



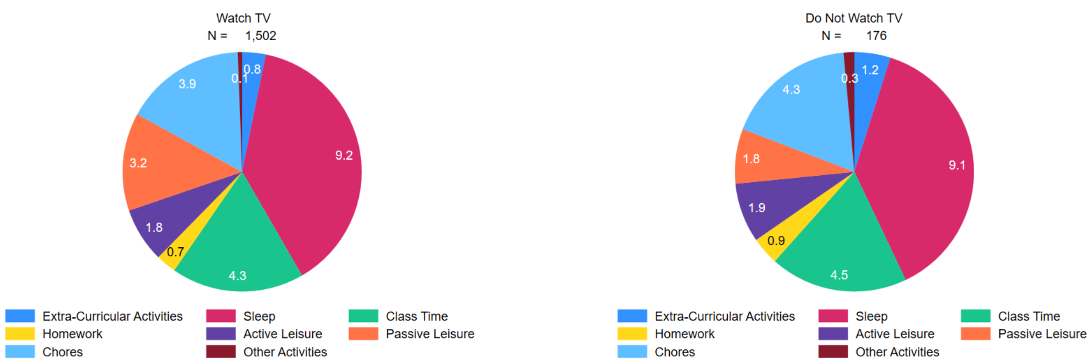
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.4: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), Middle School



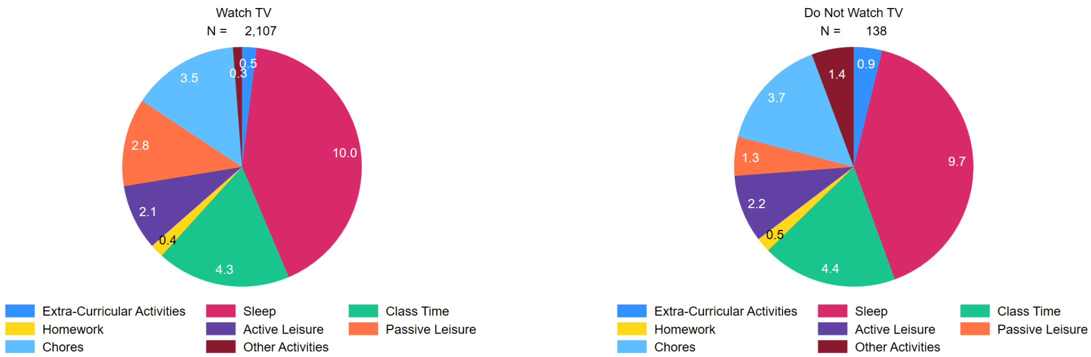
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.5: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), High School



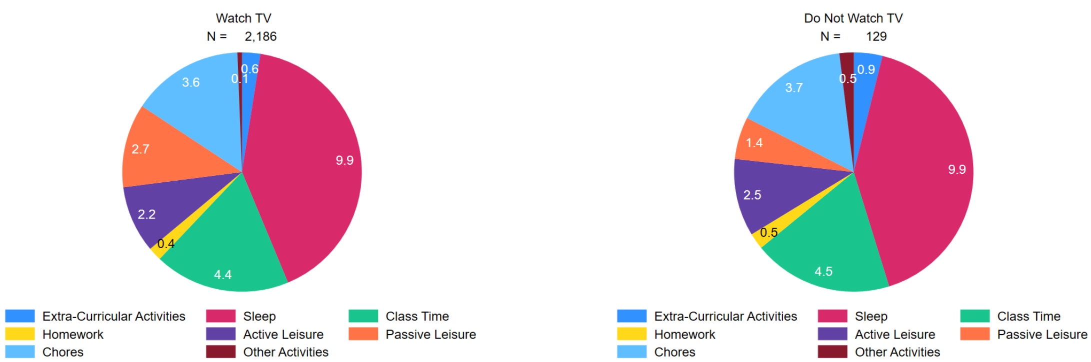
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.6: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), Low-Income Families



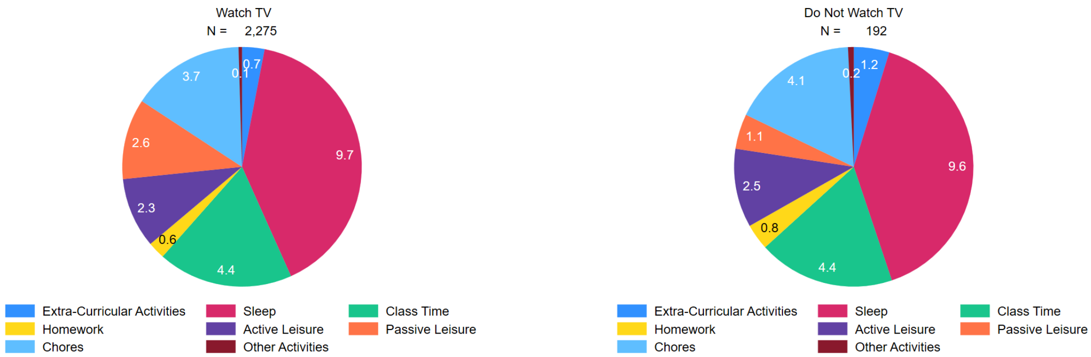
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.7: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), Middle-Income Families



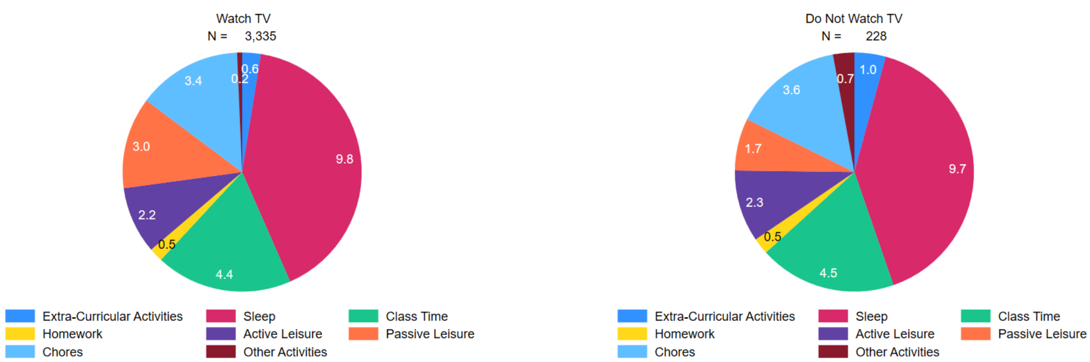
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.8: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), High-Income Families



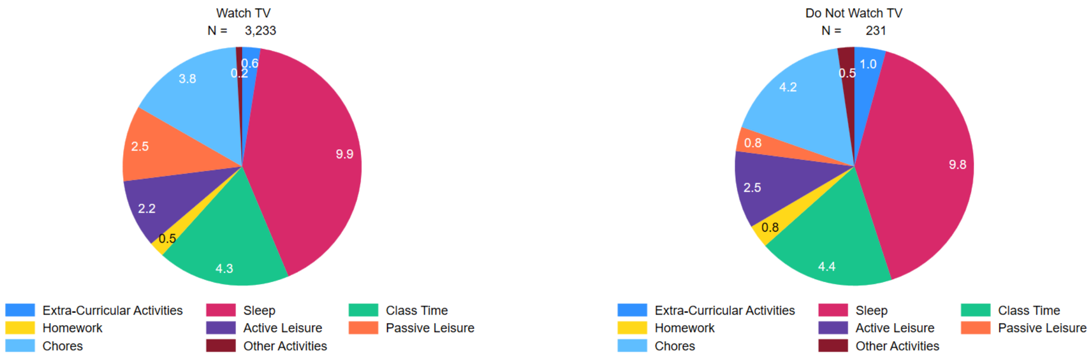
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.9: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), Only Boys



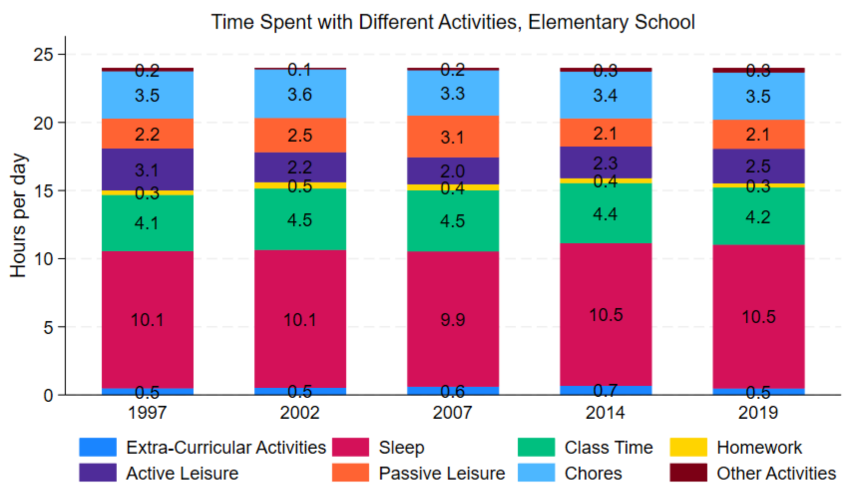
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.10: Daily Activity Time Breakdown for Children Who Watch and Do Not Watch TV (hours/day for the entire week), Only Girls



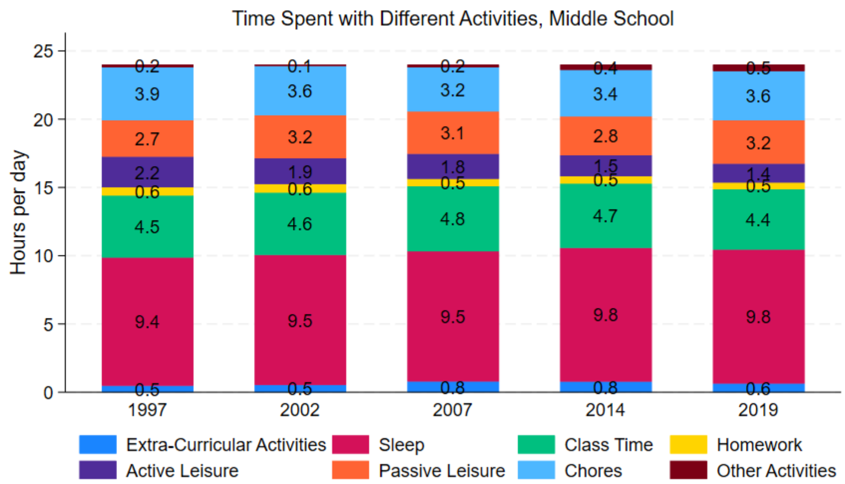
Notes: (1) The panels display average hours spent on various activities per typical day. (2) The categories are comprehensive. (3) Data are pooled from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.11: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, Elementary School



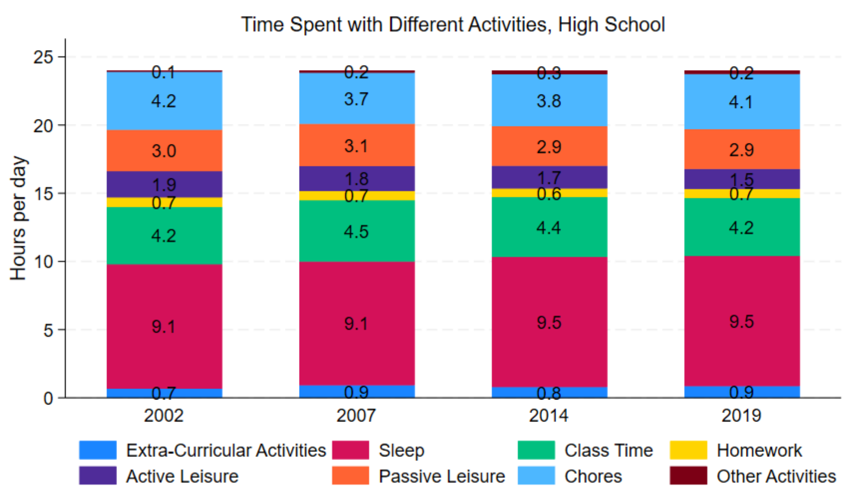
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.12: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, Middle School



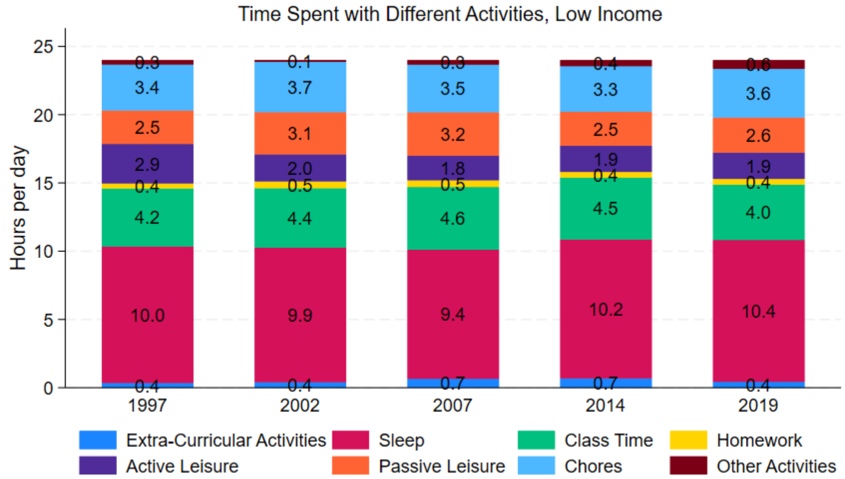
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.13: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, High School



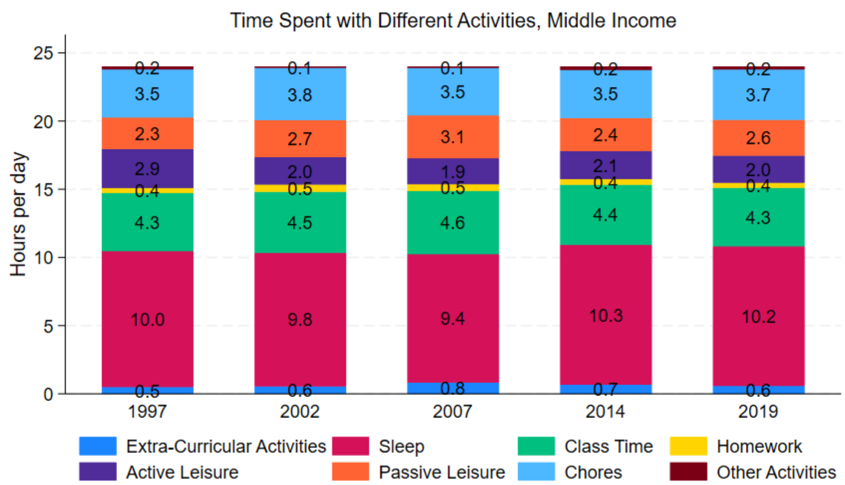
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.14: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, Low-Income Families



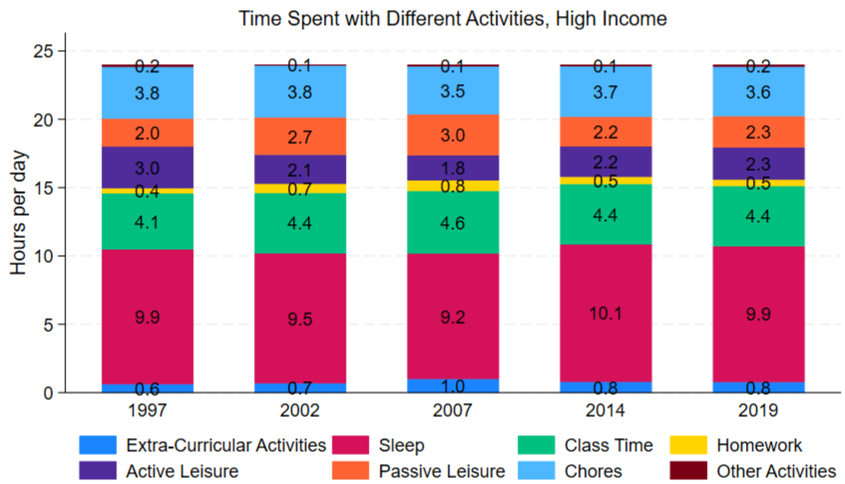
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.15: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, Middle-Income Families



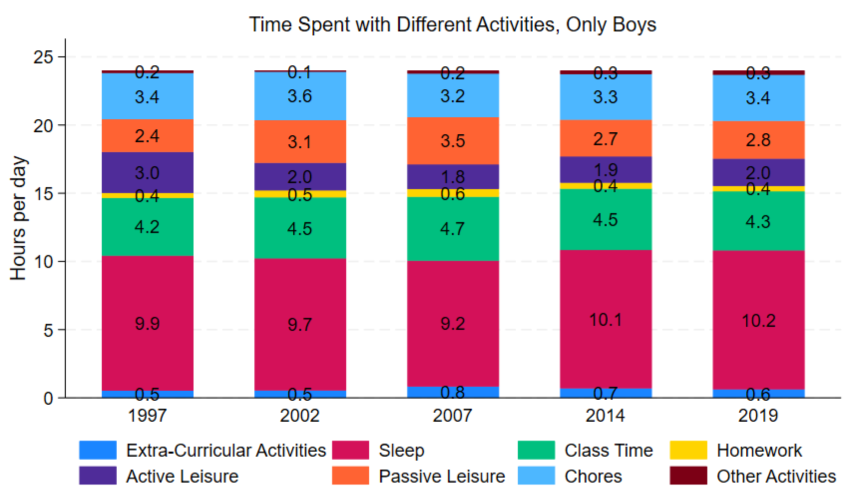
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.16: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, High-Income Families



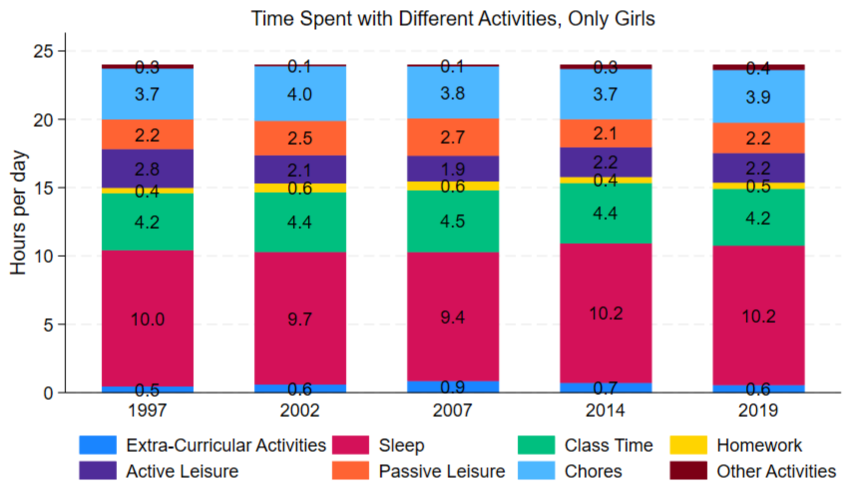
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.17: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, Only Boys



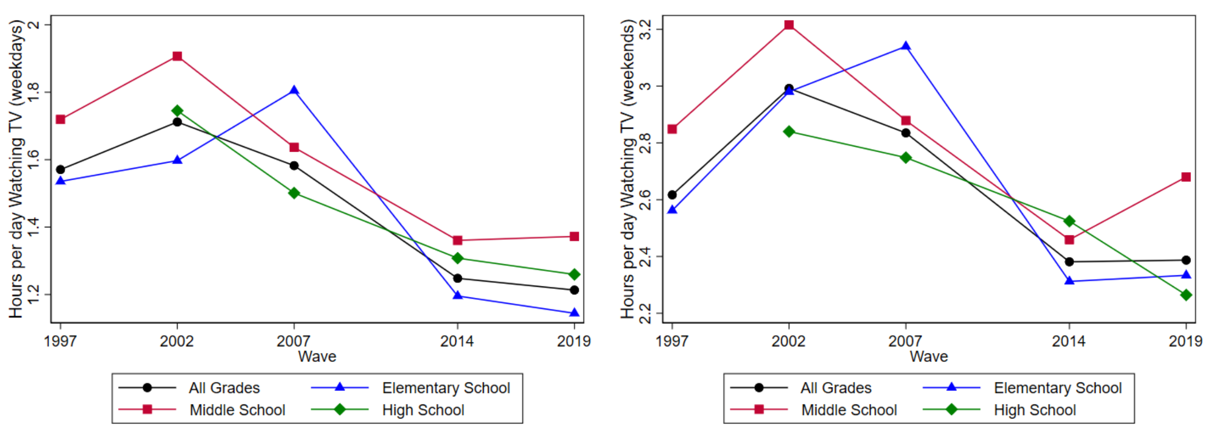
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.18: Daily Time Breakdown (hours/day during the whole week) by Group of Activities per Wave, Only Girls



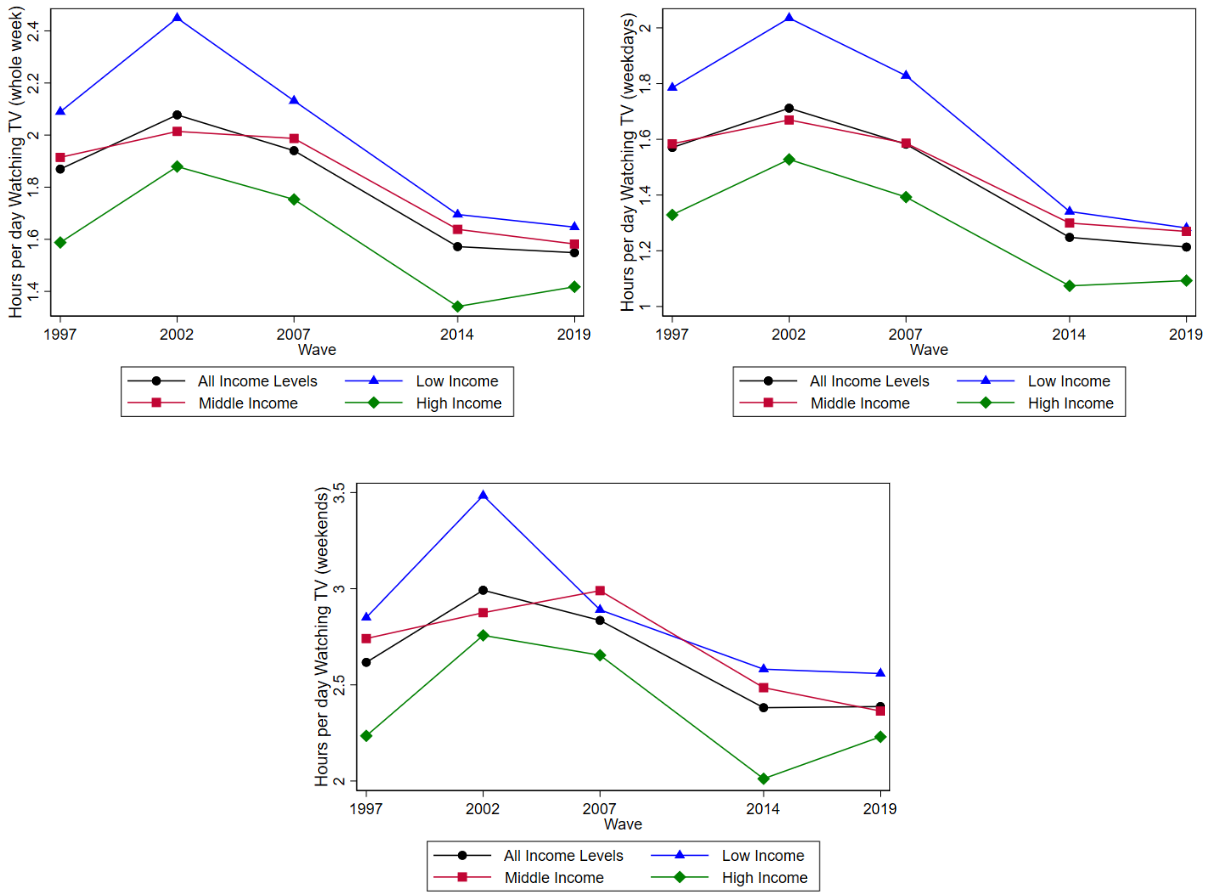
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) The categories are comprehensive. Source: CDS/PSID.

Figure A.19: Average Daily TV Viewing Time per Survey Wave, by Grade



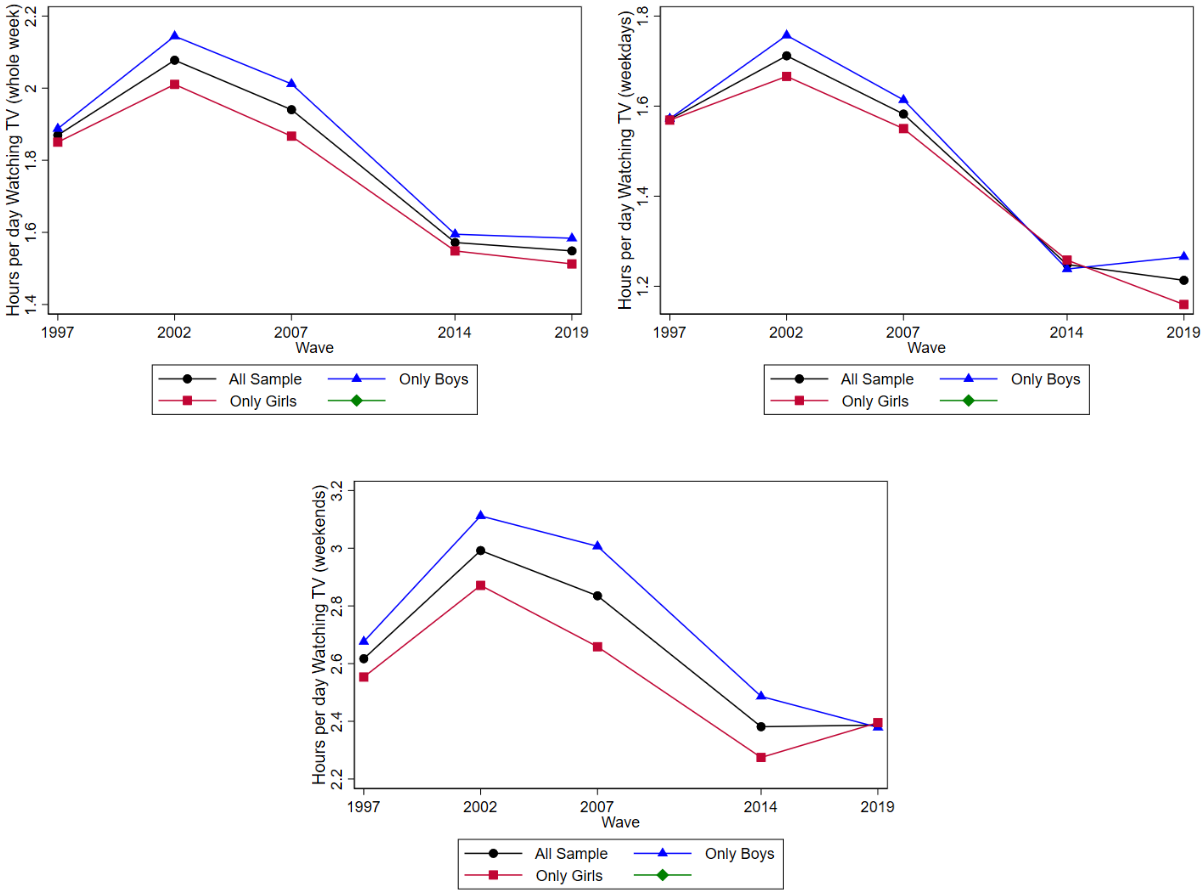
Notes: (1) The 1997 wave included no high school children as the initial sample only covered children up to 12 years old. Source: CDS/PSID.

Figure A.20: Average Daily TV Viewing Time per Survey Wave, by Income Level



Notes: (1) The 1997 wave included no high school children as the initial sample only covered children up to 12 years old. Source: CDS/PSID.

Figure A.21: Average Daily TV Viewing Time per Survey Wave, by Sex

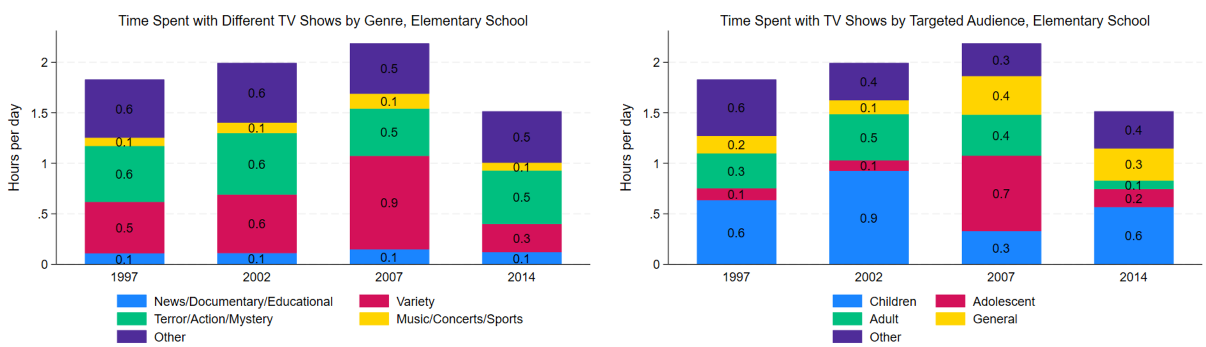


Notes: (1) The 1997 wave included no high school children as the initial sample only covered children up to 12 years old. Source: CDS/PSID.

A.2 Additional Figures for TV Watching by Genre and Targeted Audience

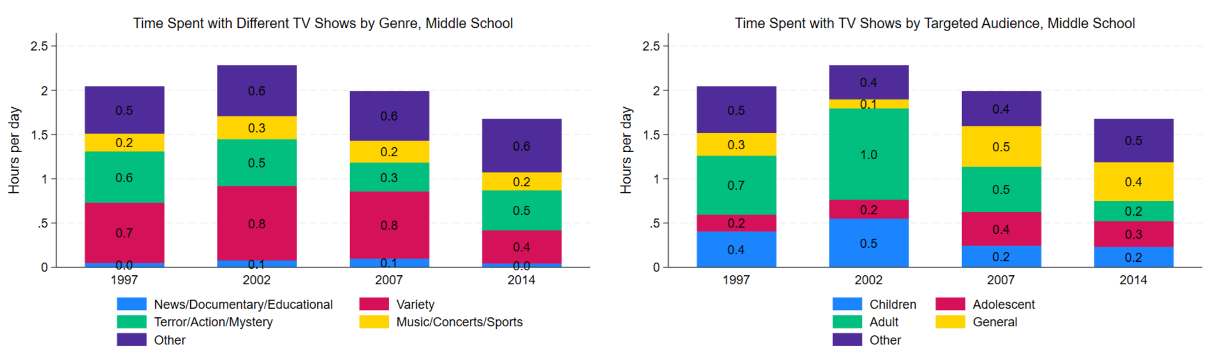
This section shows the time spent with different TV shows by genre and targeted audience by grade, income level, and sex.

Figure A.22: Time Spent with TV Shows by Genre and Targeted Audience, Elementary School



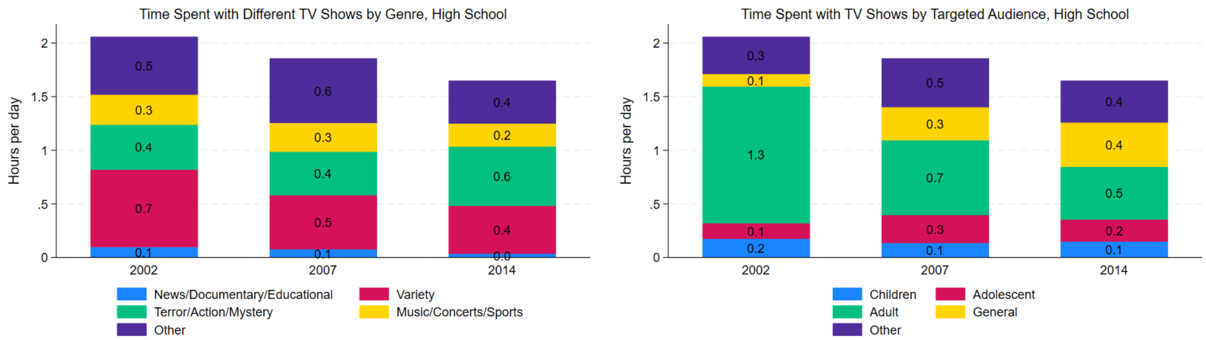
Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.23: Time Spent with TV Shows by Genre and Targeted Audience, Middle School



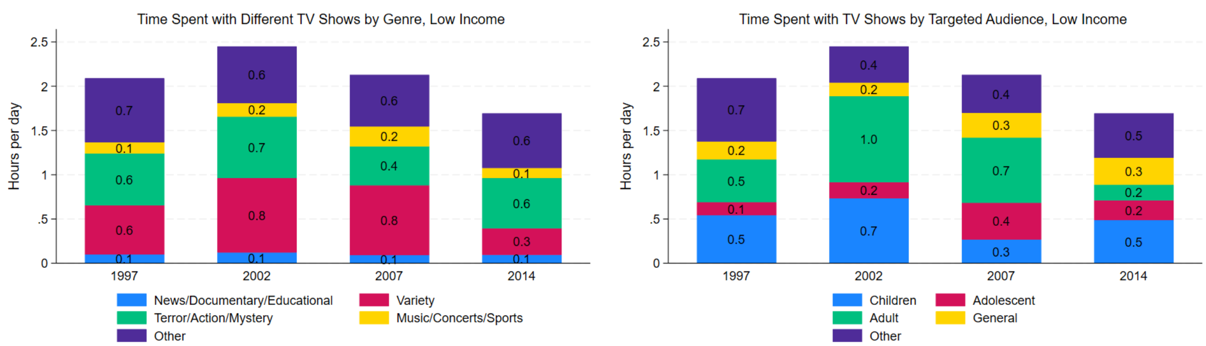
Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.24: Time Spent with TV Shows by Genre and Targeted Audience, High School



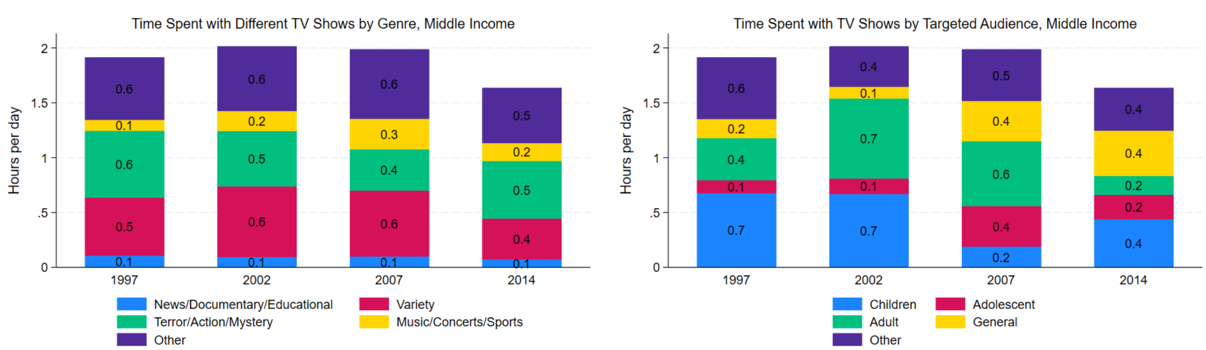
Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.25: Time Spent with TV Shows by Genre and Targeted Audience, Low-Income Families



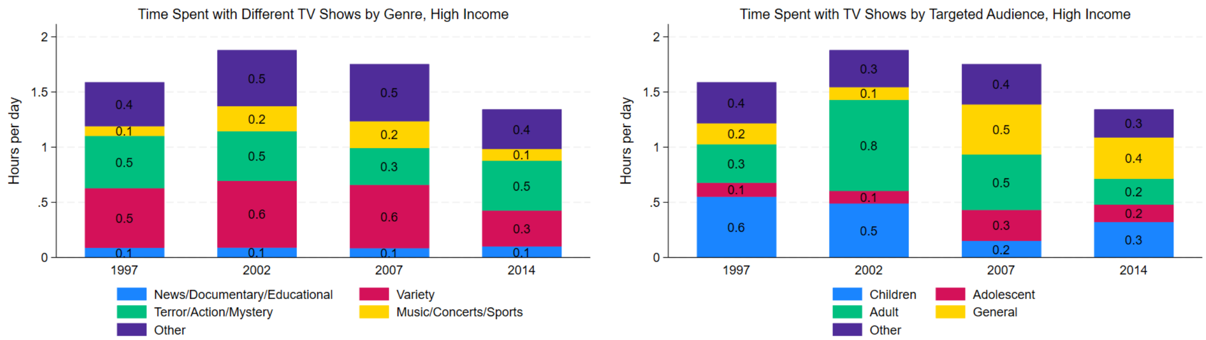
Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.26: Time Spent with TV Shows by Genre and Targeted Audience, Middle-Income Families



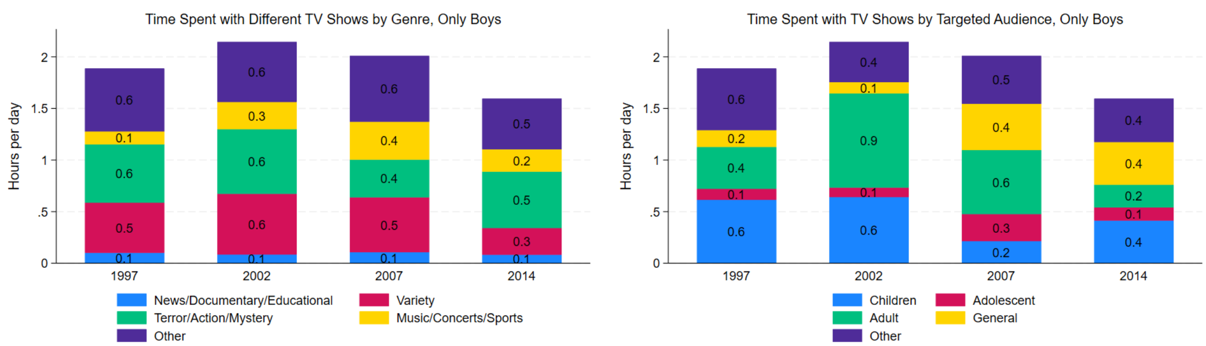
Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.27: Time Spent with TV Shows by Genre and Targeted Audience, High-Income Families



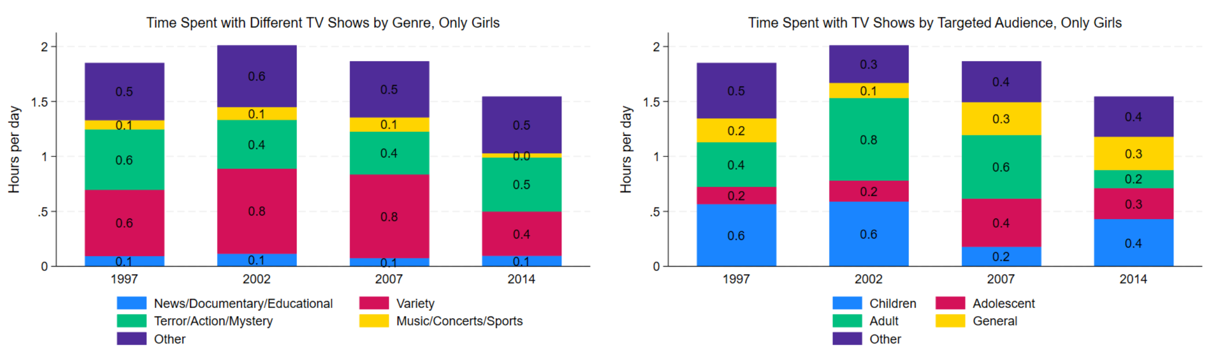
Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.28: Time Spent with TV Shows by Genre and Targeted Audience, Only Boys



Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

Figure A.29: Time Spent with TV Shows by Genre and Targeted Audience, Only Girls



Notes: (1) Genres are categorized as defined in the CDS/PSID. (2) The targeted audience refers to the primary viewers the TV programs, videos, or movies are intended for, classified into specific categories or marked as "other" as per CDS/PSID guidelines. Source: CDS/PSID.

A.3 Loading Factors for Cognitive and Non-Cognitive Scores

Table A.1: Cognitive Factor Loadings

Test	Factor 1997	Factor 2002	Factor 2007	Factor 2014	Factor 2019
Letter Word	0.95	0.94	0.86	0.95	1.12
Applied Problems	0.89	0.89	0.79	0.86	0.73
Passage Comprehension	0.96	0.96	0.9	0.95	-0.35

Source: CDS/PSID.

Table A.2: Non-Cognitive Factor Loadings

Question	Factor 1997	Factor 2002	Factor 2007	Factor 2014	Factor 2019
Cheat or tell lies	0.47	0.52	0.55	0.86	0.90
Bullies or is mean to others	0.57	0.55	0.50	0.92	0.95
Feels no regret after misbehaving	0.43	0.47	0.47	0.88	0.91
Breaks things on purpose	0.46	0.48	0.49	0.93	0.94
Has sudden changes in mood	0.54	0.56	0.57	0.83	0.86
Feels no love	0.44	0.52	0.55	0.91	0.93
Too fearful or anxious	0.42	0.46	0.49	0.88	0.90
Feels worthless or inferior	0.48	0.52	0.59	0.93	0.95
Sad or depressed	0.53	0.55	0.62	0.93	0.94
Cries too much	0.41	0.35	0.38	0.88	0.91
Easily confused	0.48	0.54	0.55	0.91	0.92
Has obsessions	0.49	0.52	0.6	0.88	0.89
Rather high strung, tense and nervous	0.49	0.55	0.54	0.89	0.91
Argues too much	0.57	0.58	0.58	0.82	0.86
Disobedient	0.53	0.59	0.58	0.87	0.91
Stubborn, sullen, or irritable	0.61	0.62	0.65	0.86	0.88
Has a very strong temper	0.60	0.65	0.63	0.88	0.90
Has difficulty concentrating	0.56	0.59	0.61	0.83	0.85
Impulsive, or acts without thinking	0.58	0.63	0.65	0.87	0.89
Restless or overly active	0.54	0.53	0.51	0.84	0.23
Has trouble getting along with other children	0.58	0.60	0.60	0.92	0.94
Not liked by other children	0.43	0.46	0.50	0.92	0.94
Withdrawn, does not get involved with others	0.39	0.41	0.44	0.92	0.92
Clings to adults	0.31	0.33	0.28	0.81	0.84
Demands a lot of attention	0.52	0.53	0.53	0.81	0.83
Too dependent on others	0.43	0.47	0.50	0.89	0.90
Thinks before acting, not impulsive	0.49	0.53	0.58	0.42	0.41
Generally well behaved, does what adults request	0.55	0.57	0.60	0.42	0.42
Can get over being upset quickly	0.40	0.44	0.53	0.41	0.41
Waits turns in games and other activities	0.46	0.51	0.49	0.42	0.41
Gets along well with other children	0.59	0.63	0.61	0.42	0.42
Admired by other children	0.53	0.57	0.57	0.42	0.41
Cheerful, happy	0.44	0.48	0.54	0.41	0.41
Tries things for himself/herself	0.37	0.36	0.48	0.41	0.41
Does neat, careful work	0.38	0.41	0.46	0.41	0.41
Curious and exploring, likes new experiences	0.16	0.22	0.27	0.40	0.40

Source: CDS/PSID.

A.4 Additional Tables for Summary Statistics

Table A.3: Summary Statistics by Income Level

	All Income Levels	Low Income	Middle Income	High Income
Dependent Variables				
Cognitive Score	0.00 (1.00)	-0.30 (1.03)	-0.03 (0.94)	0.30 (0.94)
Cognitive: Letter Word	0.00 (1.00)	-0.24 (1.03)	-0.02 (0.98)	0.24 (0.94)
Cognitive: Applied Problems	0.00 (1.00)	-0.28 (0.96)	-0.05 (0.95)	0.30 (1.00)
Cognitive: Passage Comprehension	0.00 (1.00)	-0.29 (1.02)	-0.03 (0.94)	0.29 (0.95)
Non-Cognitive Score	0.00 (1.00)	-0.09 (1.10)	-0.03 (1.00)	0.11 (0.90)
BPI	0.00 (1.00)	-0.09 (1.08)	-0.03 (0.98)	0.11 (0.92)
BPI: Internalizing	0.00 (1.00)	-0.08 (1.07)	-0.02 (0.99)	0.09 (0.94)
BPI: Externalizing	0.00 (1.00)	-0.10 (1.07)	-0.03 (0.98)	0.12 (0.94)
Treatment Variables (hours/day)				
TV watching (whole week)	1.84 (1.42)	2.03 (1.52)	1.87 (1.39)	1.65 (1.34)
TV watching (weekdays)	1.50 (1.51)	1.67 (1.60)	1.52 (1.48)	1.33 (1.44)
TV watching (weekends)	2.69 (2.25)	2.90 (2.41)	2.73 (2.25)	2.45 (2.08)
Bunching (var = 0)				
TV watching (whole week)	0.07 (0.25)	0.06 (0.24)	0.06 (0.23)	0.08 (0.27)
TV watching (weekdays)	0.23 (0.42)	0.20 (0.40)	0.20 (0.40)	0.27 (0.44)
TV watching (weekends)	0.14 (0.35)	0.14 (0.34)	0.13 (0.34)	0.15 (0.36)
Control Variables				
Child is Male	0.51 (0.50)	0.51 (0.50)	0.52 (0.50)	0.50 (0.50)
Child is White	0.46 (0.50)	0.20 (0.40)	0.45 (0.50)	0.70 (0.46)
Child is Black	0.39 (0.49)	0.64 (0.48)	0.38 (0.49)	0.19 (0.39)
Child is Hispanic	0.11 (0.31)	0.14 (0.34)	0.13 (0.34)	0.07 (0.26)
Child's Age (years)	10.93 (3.97)	10.53 (3.95)	10.94 (3.90)	11.29 (4.02)
Mother Married	0.61 (0.49)	0.31 (0.46)	0.62 (0.49)	0.87 (0.34)
Father is Alive	0.98 (0.15)	0.96 (0.19)	0.97 (0.17)	0.99 (0.09)
Mother is Alive	0.99 (0.08)	0.99 (0.09)	0.99 (0.08)	1.00 (0.06)
Households Income ($,000)	87.55 (114.88)	23.56 (11.68)	64.59 (13.82)	167.3 (163.4)
Hours Mother Works	27.40 (20.87)	22.59 (21.32)	29.26 (20.85)	29.98 (19.74)
Homeschooling	0.02 (0.13)	0.01 (0.11)	0.03 (0.16)	0.01 (0.12)
Private School	0.08 (0.26)	0.03 (0.18)	0.05 (0.23)	0.13 (0.34)
Special Education	0.12 (0.33)	0.14 (0.35)	0.13 (0.34)	0.09 (0.29)
Wave 1997	0.22 (0.41)	0.23 (0.42)	0.23 (0.42)	0.19 (0.40)
Wave 2002	0.29 (0.45)	0.24 (0.43)	0.30 (0.46)	0.32 (0.47)
Wave 2007	0.17 (0.38)	0.15 (0.36)	0.18 (0.38)	0.18 (0.39)
Wave 2014	0.16 (0.37)	0.20 (0.40)	0.15 (0.36)	0.14 (0.34)
Wave 2019	0.16 (0.37)	0.18 (0.39)	0.15 (0.35)	0.16 (0.37)
Observations	7,027	2,245	2,315	2,467

Notes: (1) Standard deviations in parentheses. (2) No population weights applied. Source: CDS/PSID.

Table A.4: Summary Statistics by Sex

	All Sample	Only Boys	Only Girls
Dependent Variables			
Cognitive Score	0.00 (1.00)	-0.06 (1.03)	0.06 (0.97)
Cognitive: Letter Word	0.00 (1.00)	-0.06 (1.02)	0.06 (0.97)
Cognitive: Applied Problems	0.00 (1.00)	0.01 (1.04)	-0.02 (0.96)
Cognitive: Passage Comprehension	0.00 (1.00)	-0.06 (1.02)	0.06 (0.97)
Non-Cognitive Score	0.00 (1.00)	-0.05 (1.01)	0.05 (0.99)
BPI	0.00 (1.00)	-0.05 (1.01)	0.05 (0.98)
BPI: Internalizing	0.00 (1.00)	0.00 (1.00)	0.00 (1.00)
BPI: Externalizing	0.00 (1.00)	-0.07 (1.02)	0.07 (0.97)
Treatment Variables (hours/day)			
TV watching (whole week)	1.84 (1.42)	1.89 (1.44)	1.80 (1.41)
TV watching (weekdays)	1.50 (1.51)	1.53 (1.53)	1.48 (1.49)
TV watching (weekends)	2.69 (2.25)	2.78 (2.29)	2.59 (2.21)
Bunching (var = 0)			
TV watching (whole week)	0.07 (0.25)	0.06 (0.24)	0.07 (0.25)
TV watching (weekdays)	0.23 (0.42)	0.21 (0.41)	0.24 (0.43)
TV watching (weekends)	0.14 (0.35)	0.14 (0.35)	0.14 (0.35)
Control Variables			
Child is Male	0.51 (0.50)	1.00 (0.00)	0.00 (0.00)
Child is White	0.46 (0.50)	0.44 (0.50)	0.47 (0.50)
Child is Black	0.39 (0.49)	0.40 (0.49)	0.38 (0.49)
Child is Hispanic	0.11 (0.31)	0.12 (0.32)	0.11 (0.31)
Child's Age (years)	10.93 (3.97)	10.89 (3.99)	10.98 (3.94)
Mother Married	0.61 (0.49)	0.60 (0.49)	0.61 (0.49)
Father is Alive	0.98 (0.15)	0.98 (0.15)	0.98 (0.15)
Mother is Alive	0.99 (0.08)	0.99 (0.09)	1.00 (0.07)
Households Income ($,000)	87.55 (114.88)	85.72 (90.69)	89.44 (135.3)
Hours Mother Works	27.40 (20.87)	27.75 (20.57)	27.05 (21.17)
Homeschooling	0.02 (0.13)	0.01 (0.11)	0.02 (0.15)
Private School	0.08 (0.26)	0.08 (0.28)	0.07 (0.25)
Special Education	0.12 (0.33)	0.15 (0.36)	0.09 (0.28)
Wave 1997	0.22 (0.41)	0.22 (0.41)	0.21 (0.41)
Wave 2002	0.29 (0.45)	0.29 (0.45)	0.29 (0.45)
Wave 2007	0.17 (0.38)	0.17 (0.38)	0.17 (0.38)
Wave 2014	0.16 (0.37)	0.16 (0.37)	0.16 (0.37)
Wave 2019	0.16 (0.37)	0.16 (0.37)	0.16 (0.37)
Observations	7,027	3,563	3,464

Notes: (1) Standard deviations in parentheses. (2) No population weights applied. Source: CDS/PSID.

Table A.5: Time Spent with Different Activities for Children who Watch and Do Not Watch TV during the Week, All Grades

	Do Not Watch TV	Watch TV	Difference	
Extra-Curricular Activities	1.02	0.60	0.42	(***)
Lessons	0.35	0.24	0.11	(***)
Structured Sports[1]	0.33	0.16	0.17	(***)
Before or After School Time	0.07	0.08	-0.02	
Volunteering or Associations	0.27	0.11	0.16	(***)
Sleep	9.74	9.85	-0.11	
Class Time	4.44	4.38	0.07	
Homework	0.64	0.48	0.16	(***)
Active Leisure	2.43	2.19	0.24	(***)
Reading	0.26	0.16	0.10	(***)
Hobbies	0.12	0.10	0.02	
Arts and Excursions	0.09	0.07	0.02	
Sports and Physical Activities	0.27	0.33	-0.06	(*)
Religious Activities	0.18	0.15	0.03	(**)
Conversations	0.29	0.22	0.07	(***)
Socialization	0.27	0.22	0.06	(*)
Affection Time	0.09	0.12	-0.02	
Board and Family Games	0.65	0.70	-0.05	
Other Active Leisure Activities	0.20	0.13	0.07	(***)
Passive Leisure	1.24	2.72	-1.48	(***)
Watch TV	0.00	1.97	-1.97	(***)
Computer Use	0.36	0.16	0.20	(***)
Video Game	0.69	0.47	0.22	(***)
Social Media[2]	0.02	0.02	0.00	
Other Passive Leisure Activities	0.19	0.11	0.08	(***)
Duties or Chores	3.87	3.59	0.27	(***)
Care for Others	0.04	0.04	0.00	
Chores	0.31	0.35	-0.03	
Paid Work	0.38	0.11	0.27	(***)
Travel Time	0.96	0.89	0.07	(**)
Shopping	0.22	0.22	-0.00	
Personal Care	0.96	0.96	-0.01	
Meals	1.00	1.03	-0.03	
Other Activities[3]	0.62	0.18	0.44	(***)
Observations	459	6,568		

Notes: (1) "Structured sports" includes time spent with teams and lessons. (2) "Social media" includes any online social media-based communication, such as Facebook, Instagram, Twitter, online chats, etc. (3) "Other activities" includes any other activity that is not classified in the other categories. (4) The table pools the waves of 1997, 2002, 2007, 2014, and 2019. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.6: Time Spent with Different Activities for Children who Watch and Do Not Watch TV during Weekdays, All Grades

	Do Not Watch TV	Watch TV	Difference	
Extra-Curricular Activities	1.04	0.57	0.48	(***)
Lessons	0.37	0.24	0.13	(***)
Structured Sports[1]	0.31	0.14	0.17	(***)
Before or After School Time	0.16	0.10	0.07	(***)
Volunteering or Associations	0.19	0.08	0.11	(***)
Sleep	9.29	9.45	-0.16	(***)
Class Time	6.45	6.03	0.42	(***)
Homework	0.73	0.57	0.17	(***)
Active Leisure	1.78	1.55	0.23	(***)
Reading	0.20	0.14	0.06	(***)
Hobbies	0.10	0.09	0.01	
Arts and Excursions	0.04	0.02	0.02	(**)
Sports and Physical Activities	0.19	0.24	-0.05	(***)
Religious Activities	0.06	0.03	0.03	(***)
Conversations	0.26	0.20	0.06	(***)
Socialization	0.17	0.10	0.08	(***)
Affection Time	0.12	0.12	0.00	
Board and Family Games	0.47	0.52	-0.05	(*)
Other Active Leisure Activities	0.16	0.09	0.08	(***)
Passive Leisure	0.75	2.50	-1.75	(***)
Watch TV	0.00	1.94	-1.94	(***)
Computer Use	0.20	0.13	0.07	(***)
Video Game	0.43	0.34	0.09	(***)
Social Media[2]	0.02	0.01	0.00	
Other Passive Leisure Activities	0.12	0.09	0.03	(***)
Duties or Chores	3.56	3.22	0.35	(***)
Care for Others	0.03	0.03	0.00	
Chores	0.26	0.25	0.01	
Paid Work	0.25	0.07	0.18	(***)
Travel Time	0.97	0.87	0.10	(***)
Shopping	0.12	0.12	-0.00	
Personal Care	1.02	0.96	0.06	(***)
Meals	0.92	0.92	0.00	
Other Activities[3]	0.39	0.12	0.27	(***)
Observations	1,586	5,441		

Notes: (1) "Structured sports" includes time spent with teams and lessons. (2) "Social media" includes any online social media-based communication, such as Facebook, Instagram, Twitter, online chats, etc. (3) "Other activities" includes any other activity that is not classified in the other categories. (4) The table pools the waves of 1997, 2002, 2007, 2014, and 2019. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.7: Time Spent with Different Activities for Children who Watch and Do Not Watch TV during Weekends, All Grades

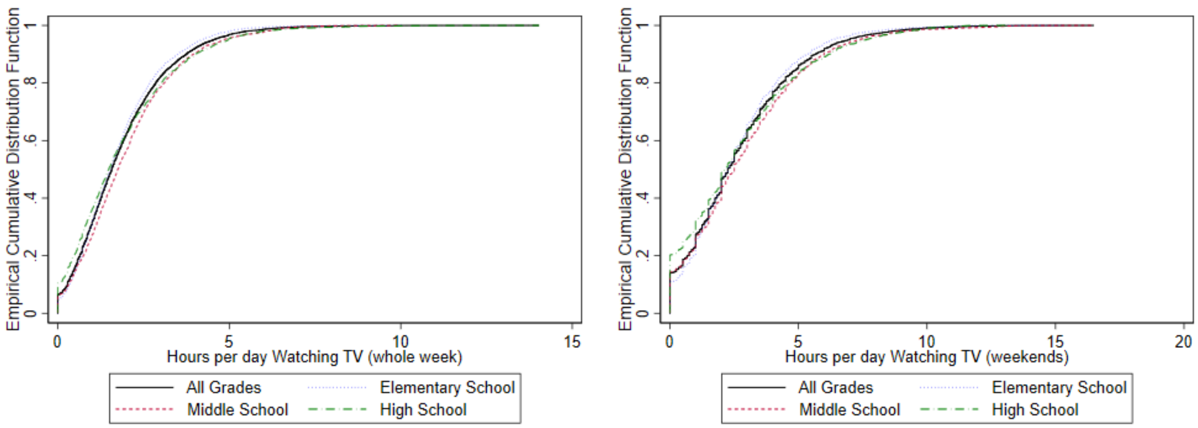
	Do Not Watch TV	Watch TV	Difference	
Extra-Curricular Activities	0.90	0.45	0.46	(***)
Lessons	0.32	0.18	0.15	(***)
Structured Sports[1]	0.27	0.13	0.13	(***)
Before or After School Time	0.00	0.00	-0.00	
Volunteering or Associations	0.32	0.14	0.18	(***)
Sleep	10.79	10.94	-0.15	(**)
Class Time	0.05	0.02	0.03	(**)
Homework	0.30	0.19	0.10	(***)
Active Leisure	4.35	3.62	0.73	(***)
Reading	0.23	0.18	0.05	(***)
Hobbies	0.16	0.13	0.03	
Arts and Excursions	0.29	0.15	0.15	(***)
Sports and Physical Activities	0.55	0.56	-0.01	
Religious Activities	0.55	0.42	0.13	(***)
Conversations	0.29	0.27	0.01	
Socialization	0.74	0.44	0.30	(***)
Affection Time	0.10	0.10	-0.00	
Board and Family Games	1.16	1.17	-0.02	
Other Active Leisure Activities	0.29	0.19	0.10	(***)
Passive Leisure	1.86	4.25	-2.39	(***)
Watch TV	0.00	3.12	-3.12	(***)
Computer Use	0.47	0.20	0.27	(***)
Video Game	1.10	0.76	0.34	(***)
Social Media[2]	0.03	0.02	0.01	
Other Passive Leisure Activities	0.27	0.15	0.11	(***)
Duties or Chores	4.94	4.32	0.62	(***)
Care for Others	0.08	0.05	0.03	(**)
Chores	0.56	0.59	-0.03	
Paid Work	0.42	0.12	0.29	(***)
Travel Time	1.18	0.87	0.31	(***)
Shopping	0.49	0.47	0.02	
Personal Care	0.95	0.94	0.02	
Meals	1.27	1.28	-0.02	
Other Activities[3]	0.81	0.20	0.61	(***)
Observations	984	6,043		

Notes: (1) "Structured sports" includes time spent with teams and lessons. (2) "Social media" includes any online social media-based communication, such as Facebook, Instagram, Twitter, online chats, etc. (3) "Other activities" includes any other activity that is not classified in the other categories. (4) The table pools the waves of 1997, 2002, 2007, 2014, and 2019. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

A.5 Additional Figures for TV Watching Distribution

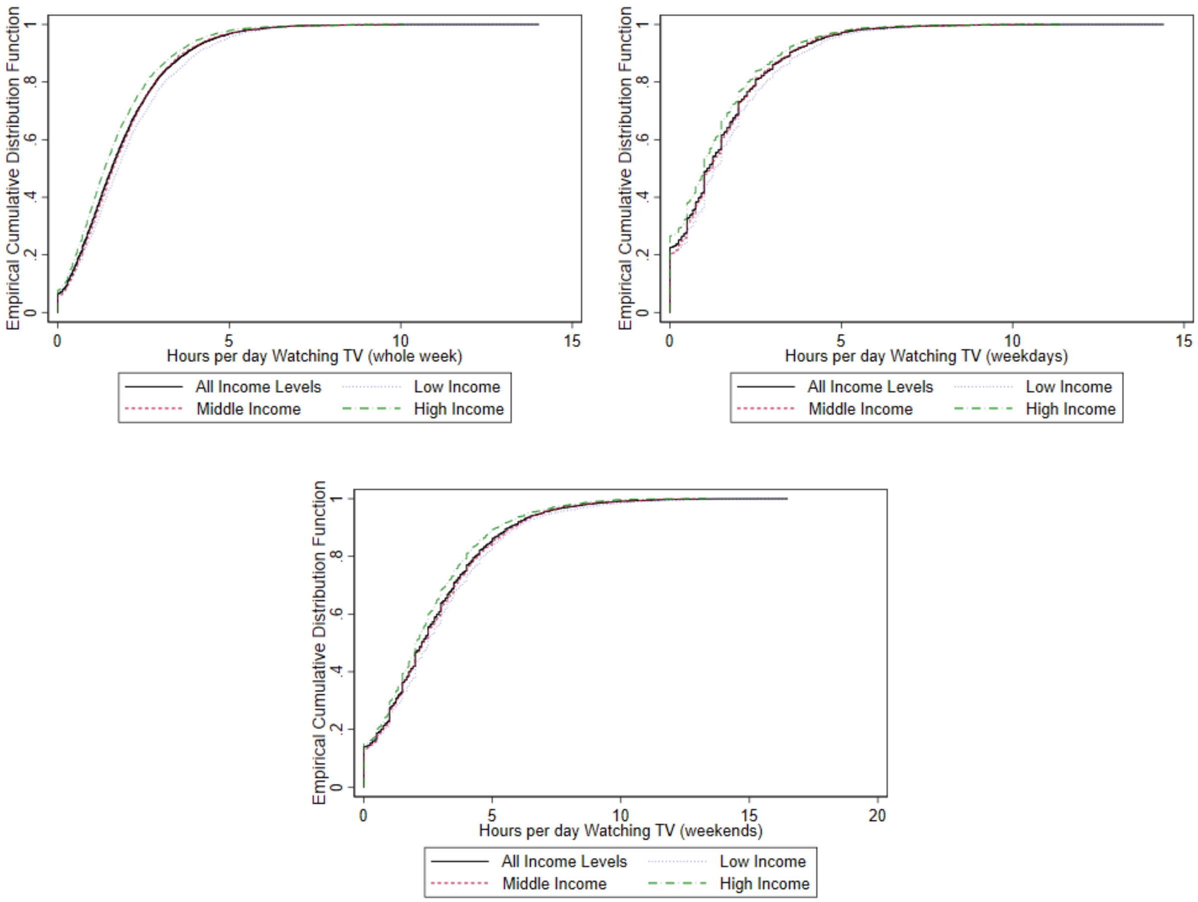
This section shows the cumulative distribution function (CDF) and the probability distribution function (PDF) by grade, income level, sex, and wave, for weekdays and weekends.

Figure A.30: Evidence of Bunching: Empirical CDF by Grade of Hours Watching TV



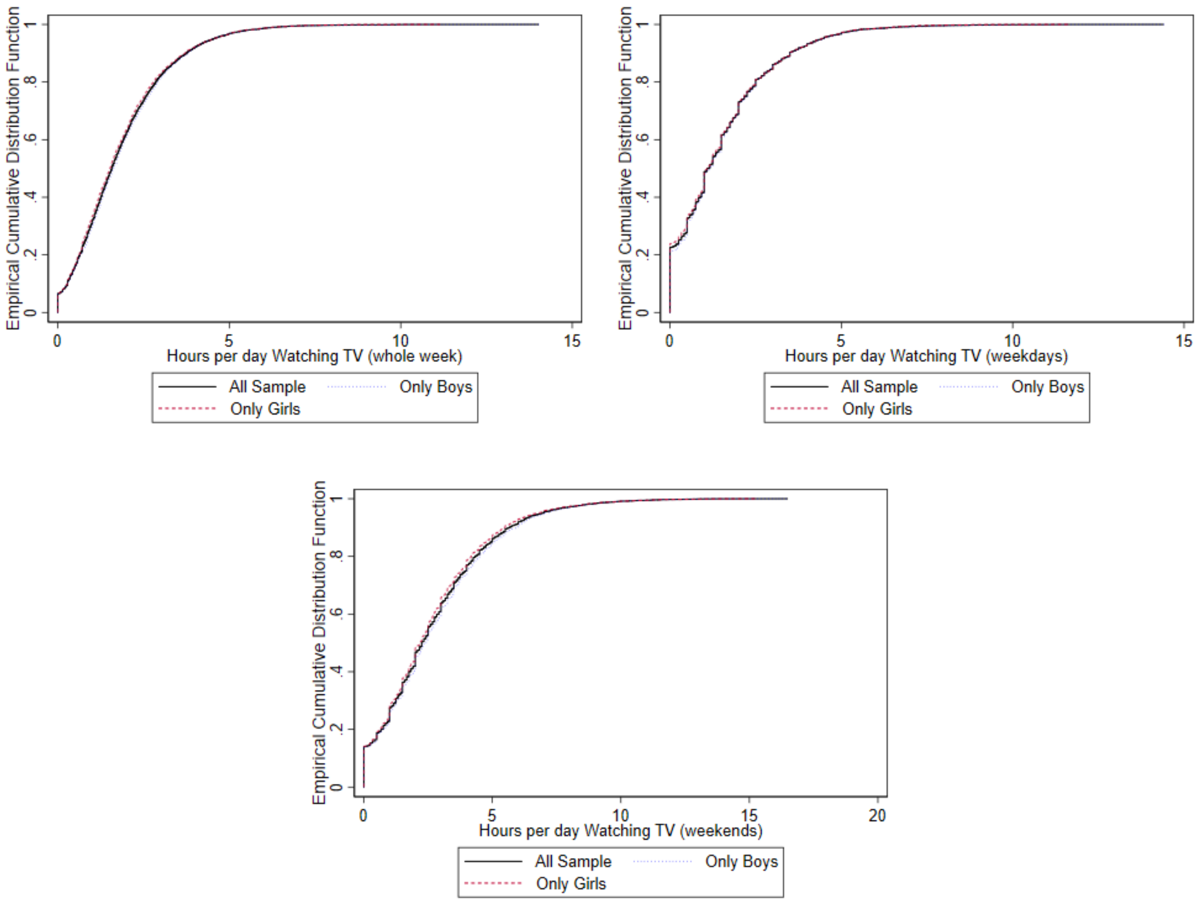
Notes: (1) This figure shows the estimated CDF of $H \geq 0$ for the full sample and by grade. Source: CDS/PSID.

Figure A.31: Evidence of Bunching: Empirical CDF by Income Level of Hours Watching TV



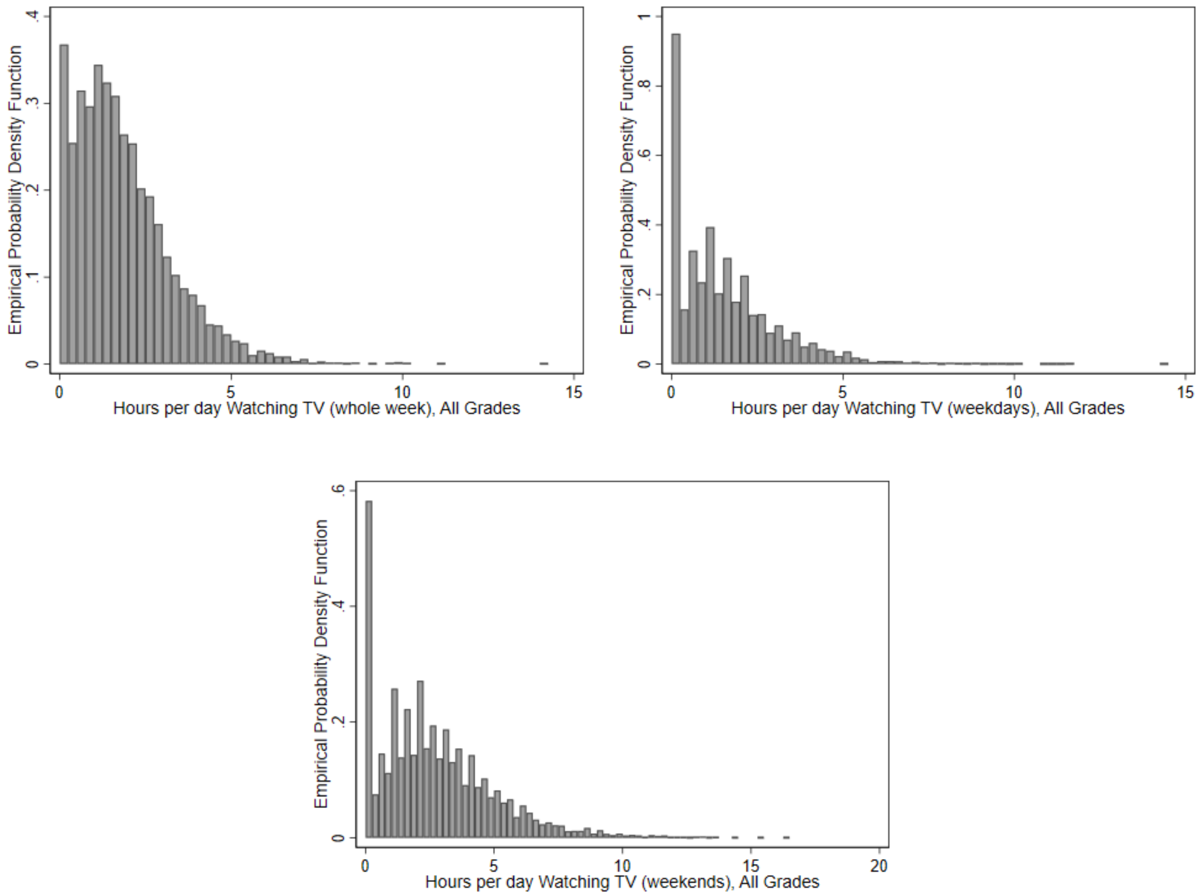
Notes: (1) This figure shows the estimated CDF of $H \geq 0$ for the full sample and by grade. Source: CDS/PSID.

Figure A.32: Evidence of Bunching: Empirical CDF by Sex of Hours Watching TV



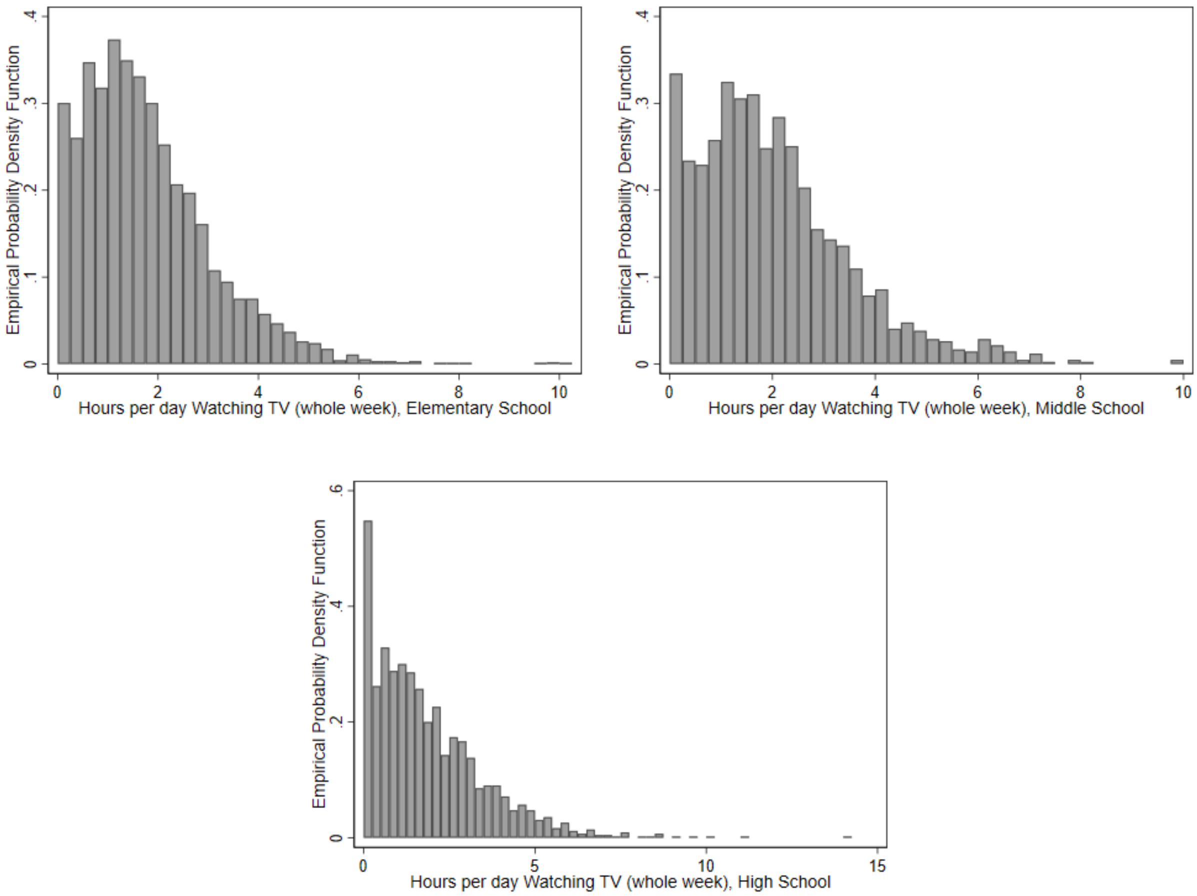
Notes: (1) This figure shows the estimated CDF of $H \geq 0$ for the full sample and by grade. Source: CDS/PSID.

Figure A.33: Probability Distribution Function for Hours per day Watching TV during the Whole Week, Weekdays, and Weekends



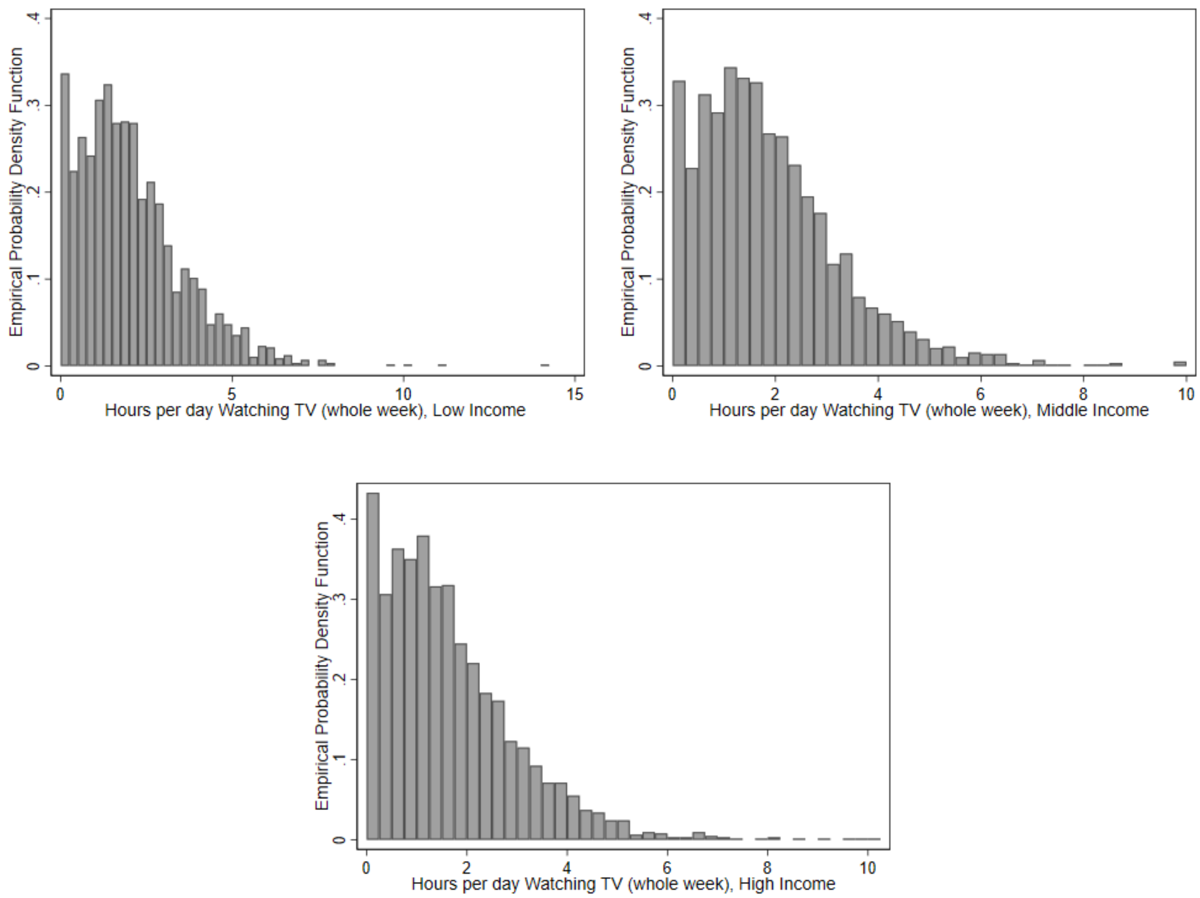
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample, using $bw = 1.4$. Source: CDS/PSID.

Figure A.34: Probability Distribution Function for Hours per day Watching TV (Whole Week) Across Grades



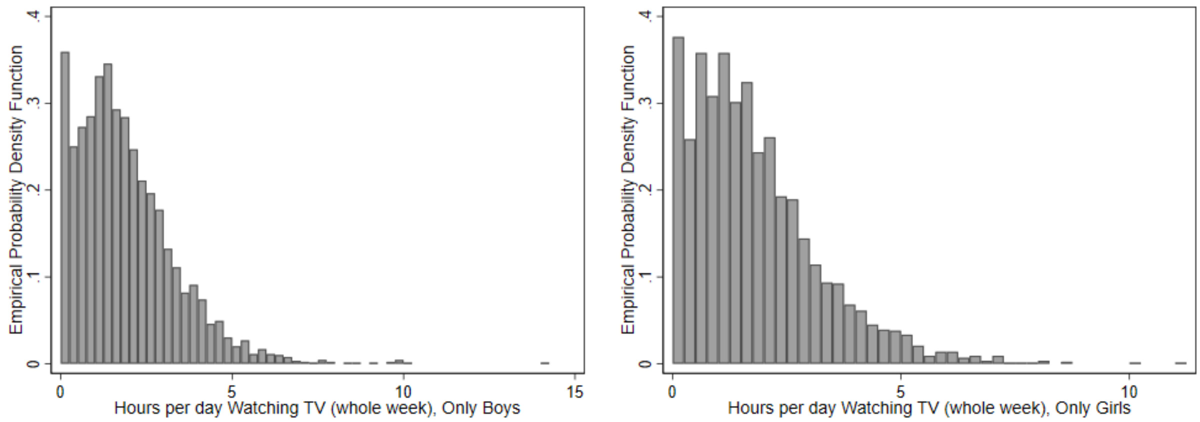
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by grade, $bw = 1.4$. Source: CDS/PSID.

Figure A.35: Probability Distribution Function for Hours per day Watching TV (Whole Week) Across Income Level



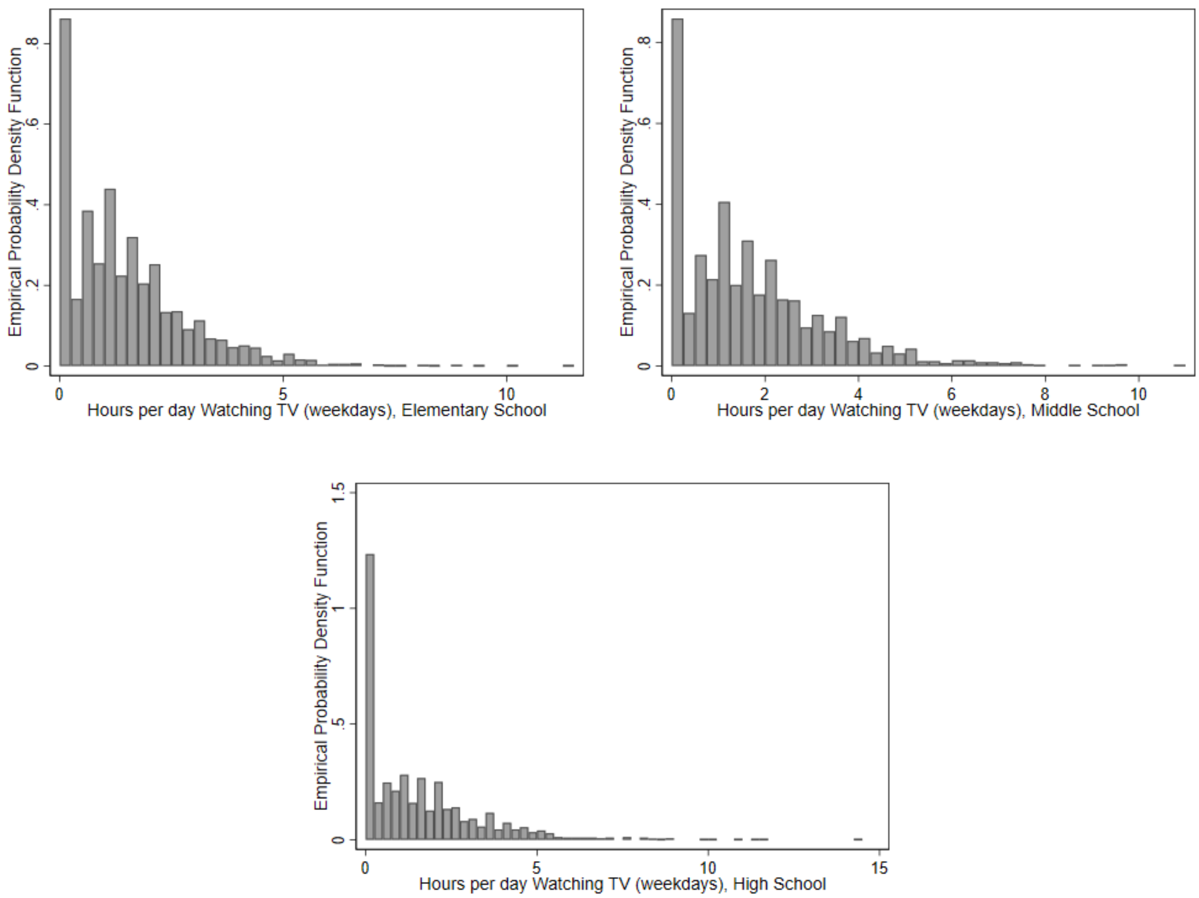
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by income level, using $bw = 1.4$. Source: CDS/PSID.

Figure A.36: Probability Distribution Function for Hours per day Watching TV (Whole Week) Across Sex



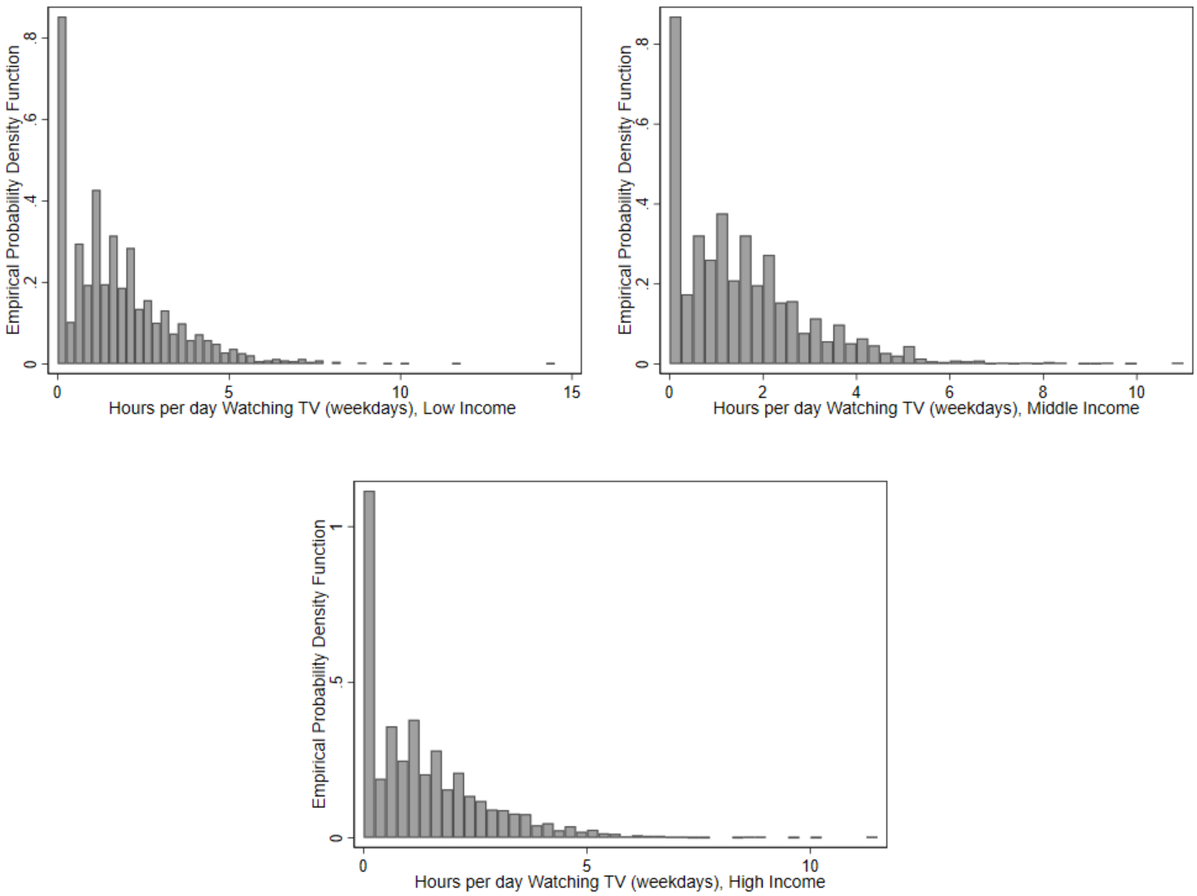
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by sex, using $bw = 1.4$. Source: CDS/PSID.

Figure A.37: Probability Distribution Function for Hours per day Watching TV (Weekdays) Across Grades



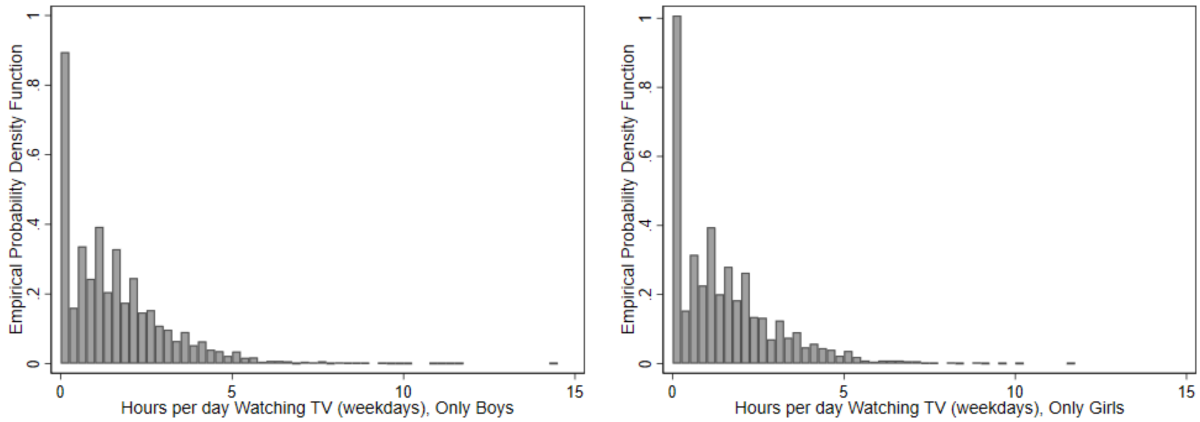
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by grade, using $bw = 1.4$. Source: CDS/PSID.

Figure A.38: Probability Distribution Function for Hours per day Watching TV (Weekdays) Across Income Level



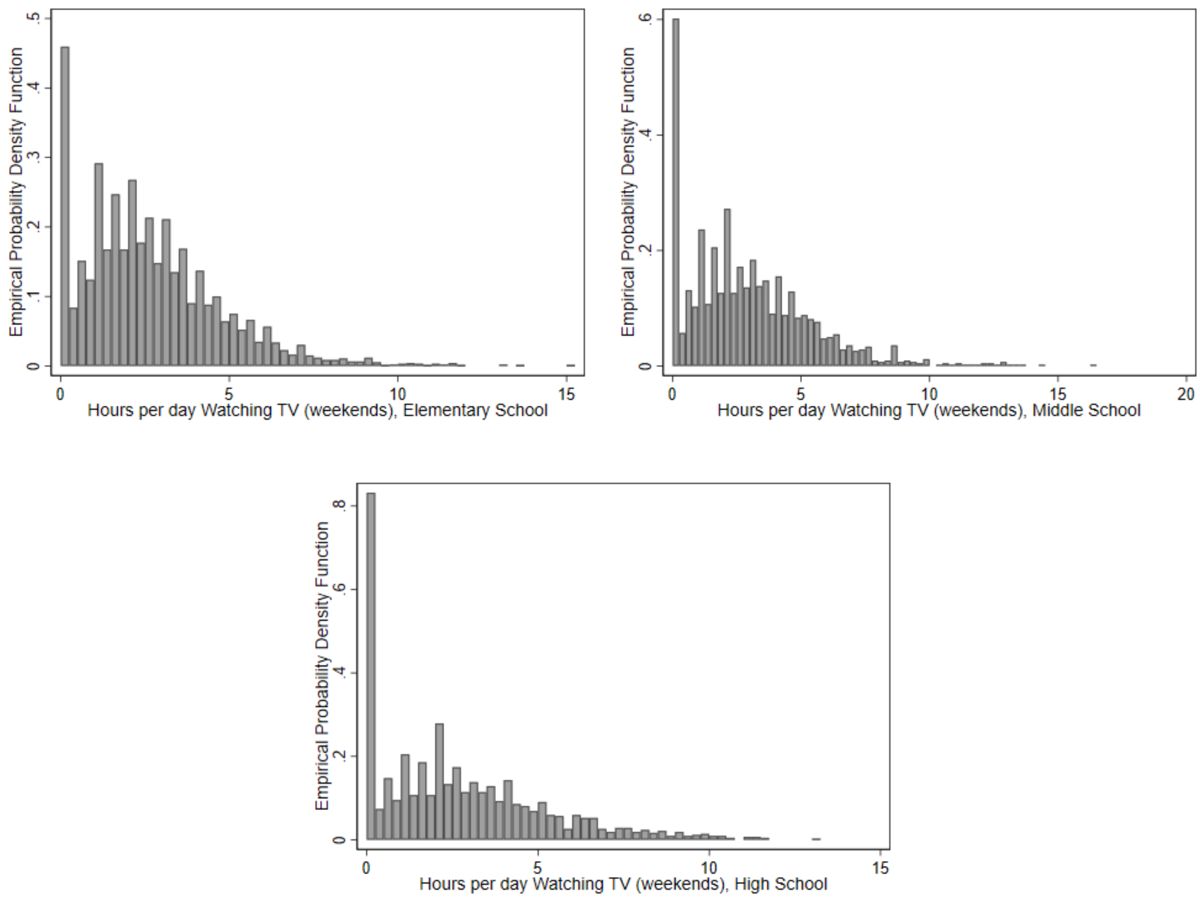
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by income level, using $bw = 1.4$. Source: CDS/PSID.

Figure A.39: Probability Distribution Function for Hours per day Watching TV (Weekdays) Across Sex



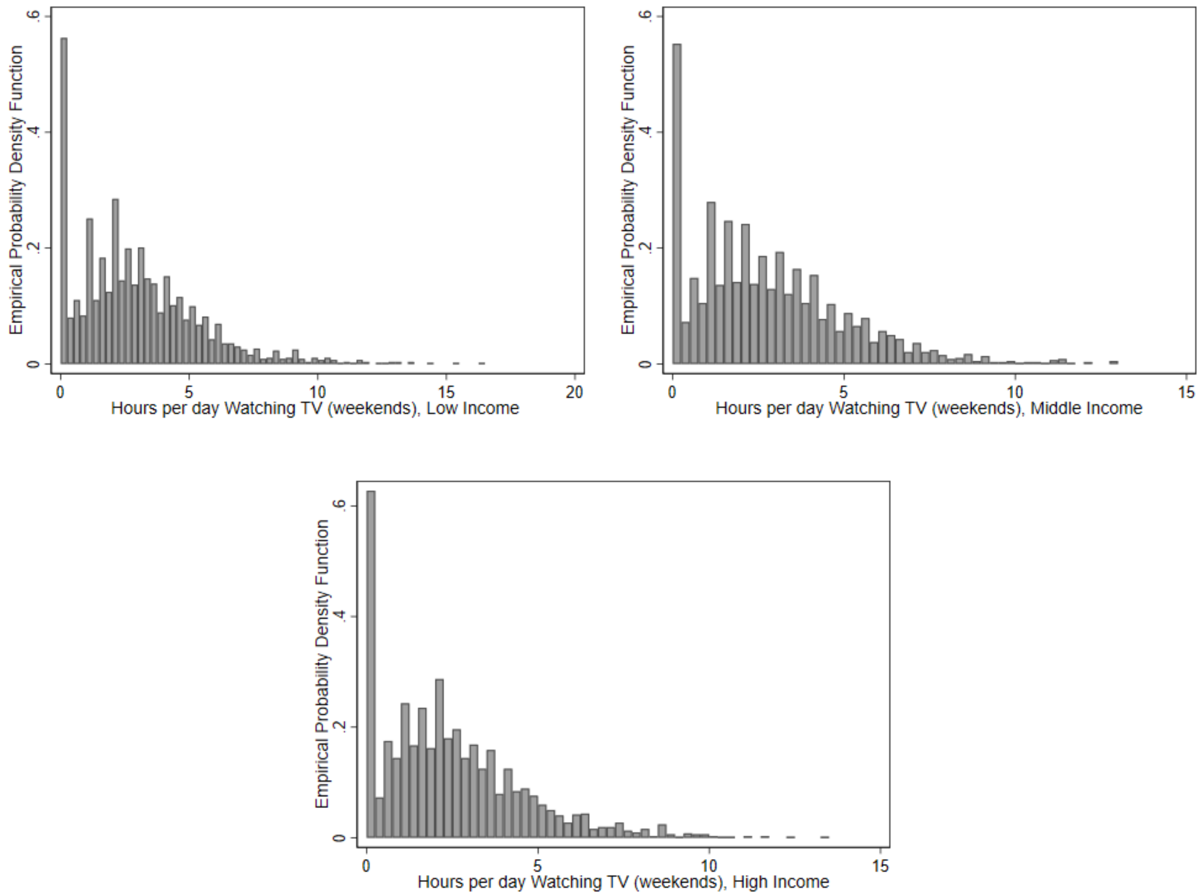
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by sex, using $bw = 1.4$. Source: CDS/PSID.

Figure A.40: Probability Distribution Function for Hours per day Watching TV (Weekends) Across Grades



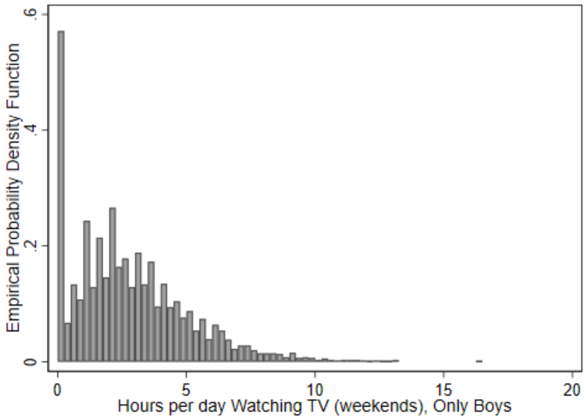
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by grade, using $bw = 1.4$. Source: CDS/PSID.

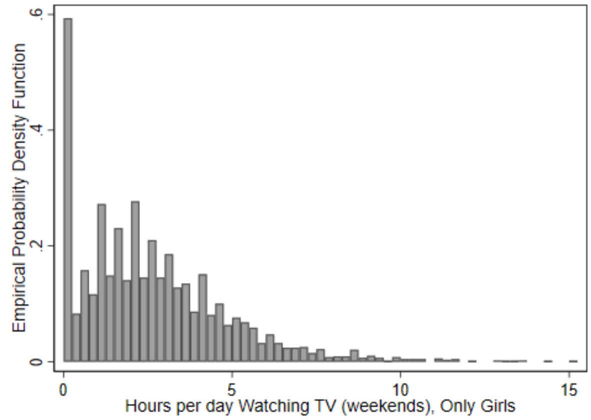
Figure A.41: Probability Distribution Function for Hours per day Watching TV (Weekends) Across Income Level



Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by income level, using $bw = 1.4$. Source: CDS/PSID.

Figure A.42: Probability Distribution Function for Hours per day Watching TV (Weekends) Across Sex





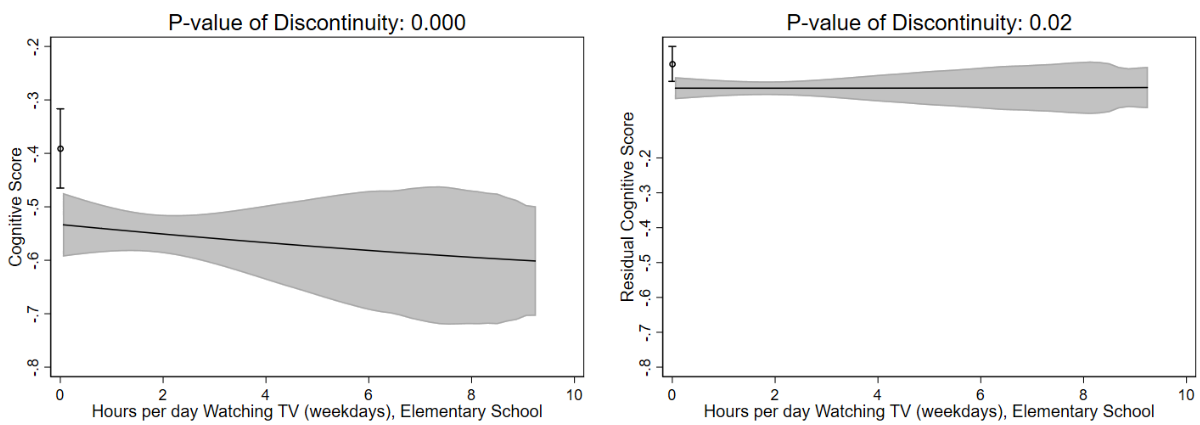
Notes: (1) These figures show the histogram of $H \geq 0$ for the full sample by sex, using $bw = 1.4$. Source: CDS/PSID.

A.6 Additional Figures for Discontinuity Plots

This section shows first the discontinuity plots for all outcomes by grade, income level, and sex for weekdays. Second, I also show the discontinuity plots for cognitive and non-cognitive skills for whole week and weekends. Third, I show the discontinuity plots that show evidence of selection by grade for weekdays.

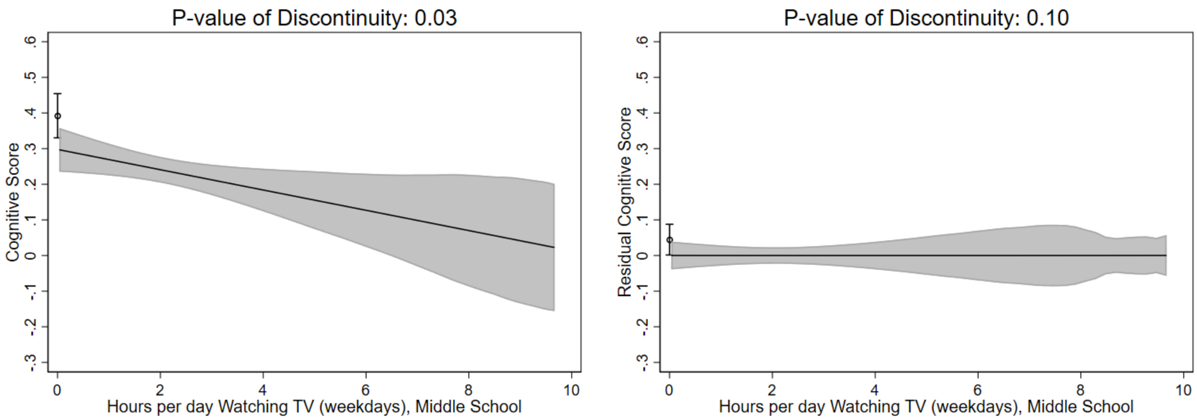
A.6.1 Discontinuity Plots for Cognitive Skills

Figure A.43: Evidence of Selection: Differences in Children's Cognitive Skills at $H = 0$ (Weekdays), Elementary School



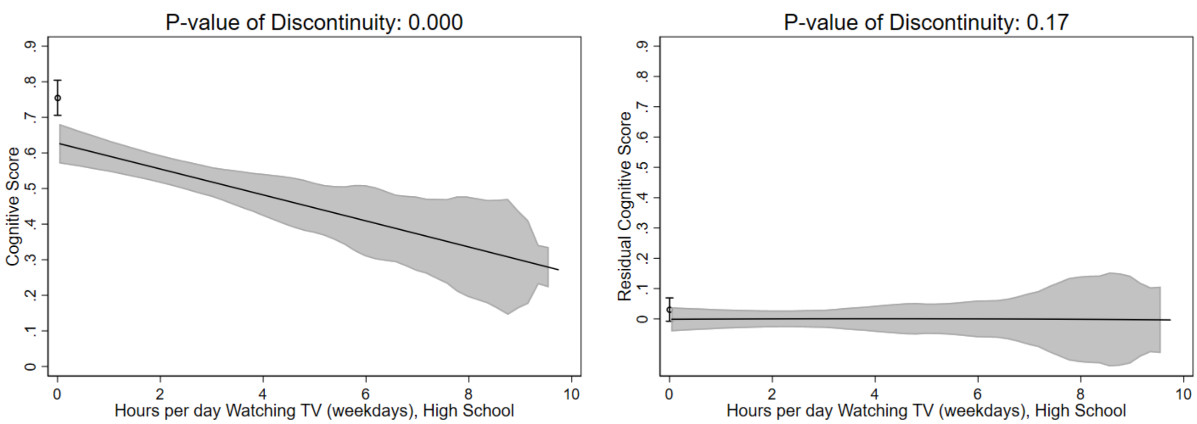
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.44: Evidence of Selection: Differences in Children's Cognitive Skills at $H = 0$ (Weekdays), Middle School



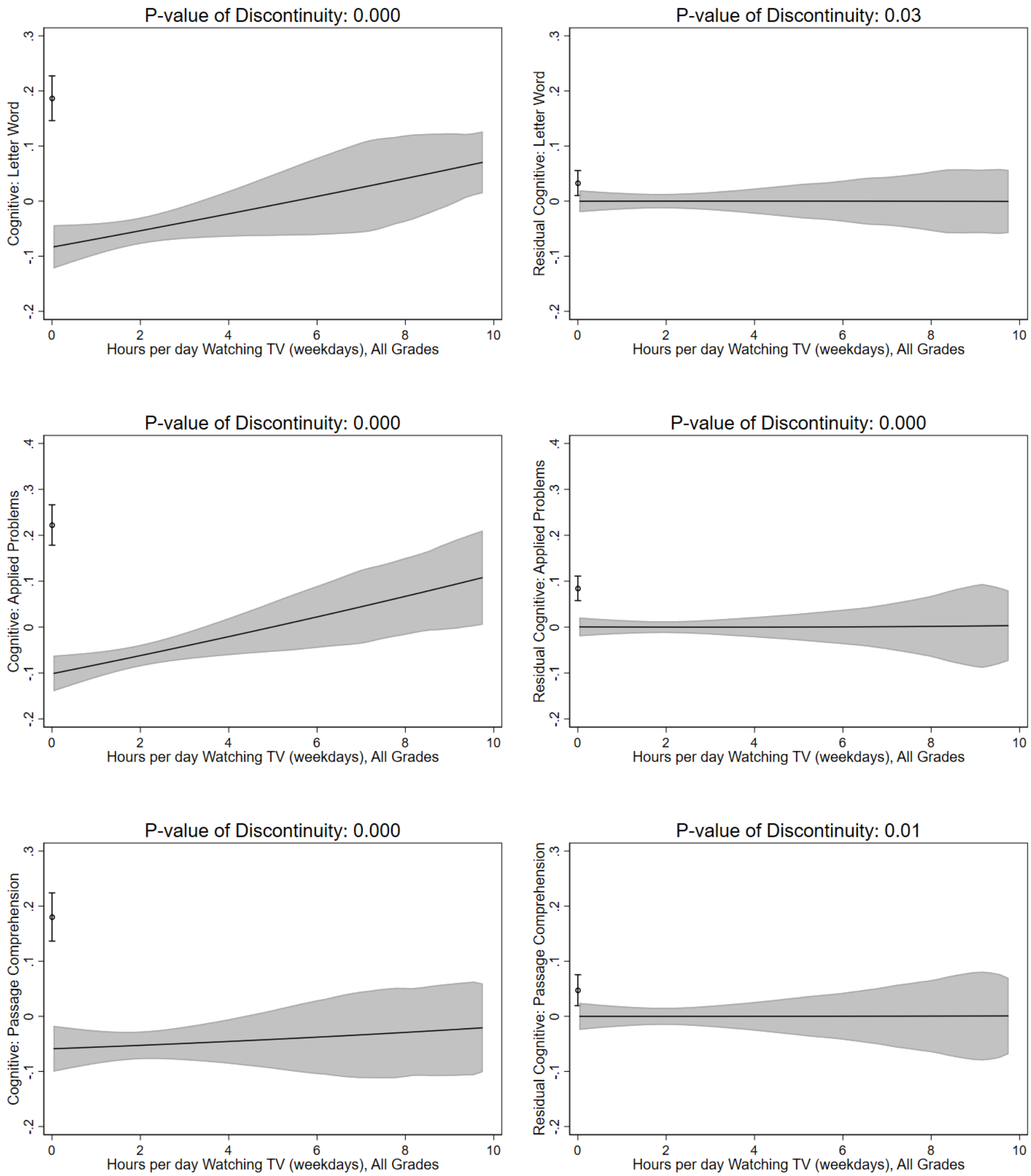
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.45: Evidence of Selection: Differences in Children's Cognitive Skills at $H = 0$ (Weekdays), High School



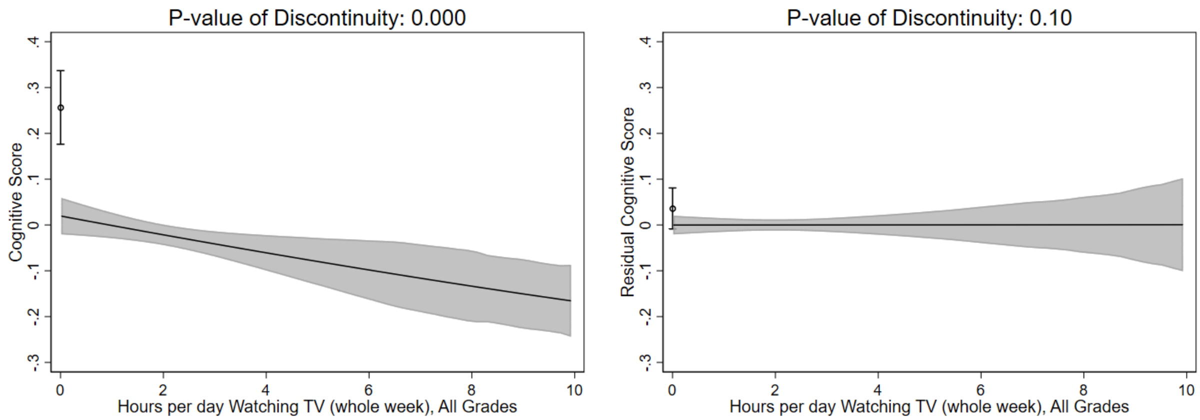
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.46: Evidence of Selection: Differences in Children's Cognitive Skills (Other Measures) at $H = 0$ (Weekdays)



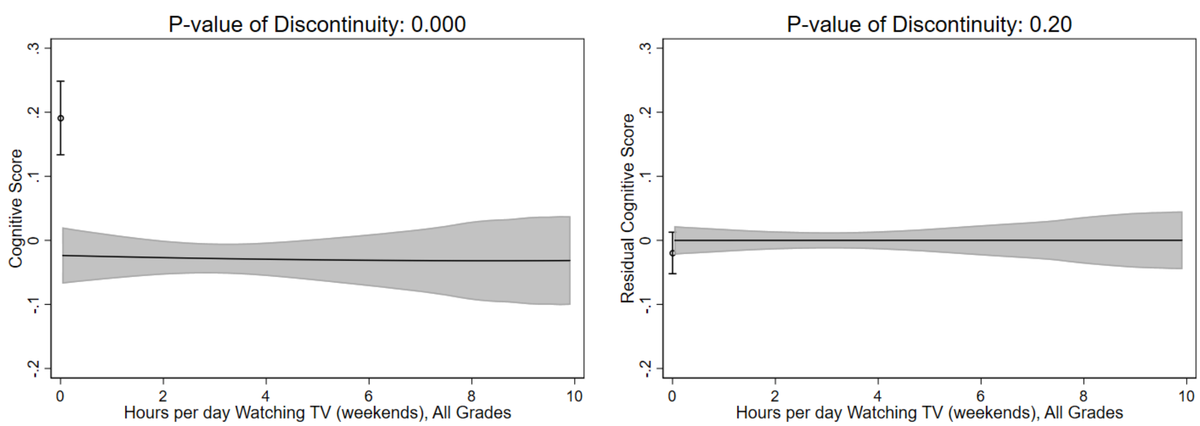
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.47: Evidence of Selection: Discontinuity in Children's Cognitive Skills at $H = 0$ (Whole Week)



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during the whole week (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

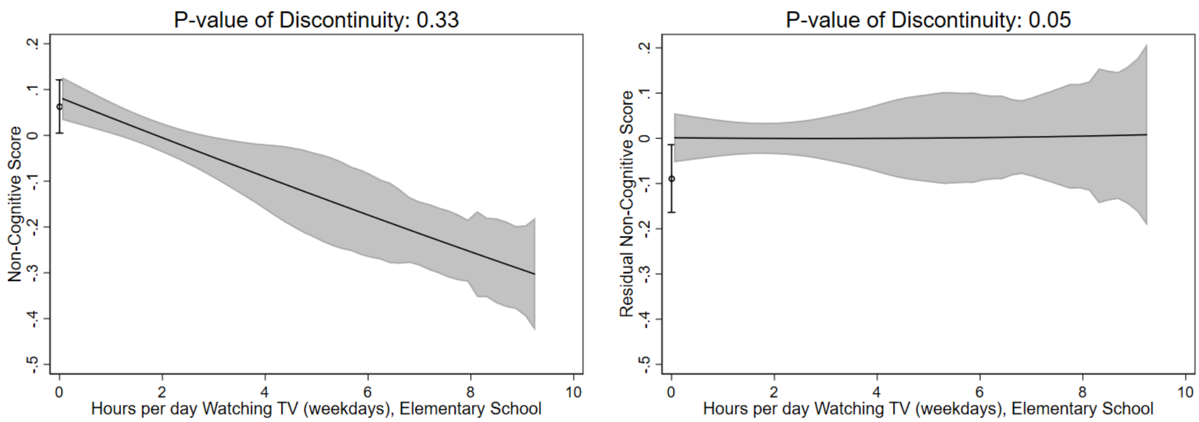
Figure A.48: Evidence of Selection: Discontinuity in Children's Cognitive Skills at $H = 0$ (Weekends)



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekends (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression—. Source: CDS/PSID.

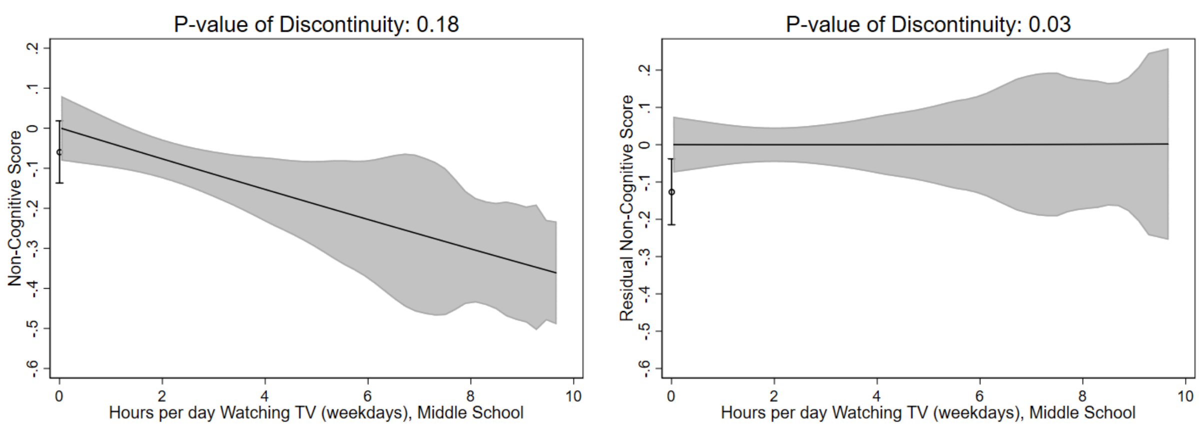
A.6.2 Discontinuity Plots for Non-Cognitive Skills

Figure A.49: Evidence of Selection: Differences in Children's Non-Cognitive Skills at $H = 0$ (Weekdays), Elementary School



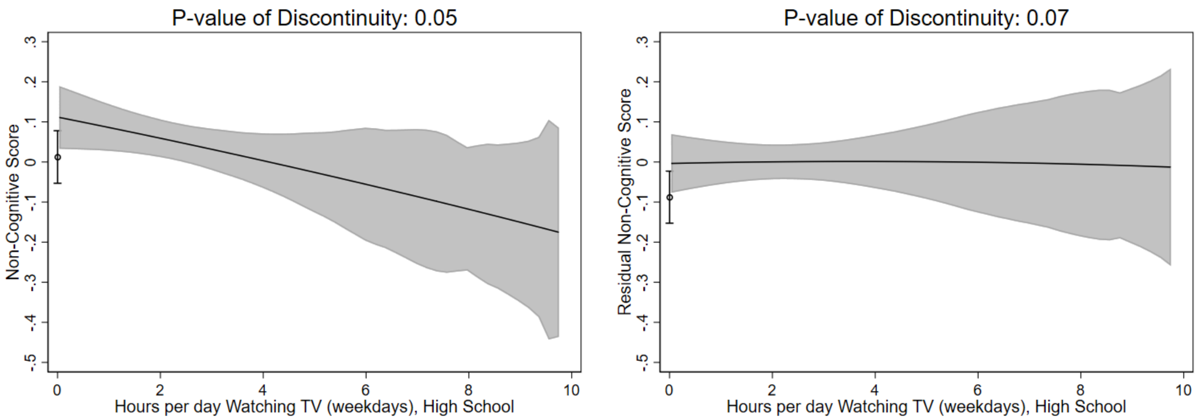
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.50: Evidence of Selection: Differences in Children's Non-Cognitive Skills at $H = 0$ (Weekdays), Middle School



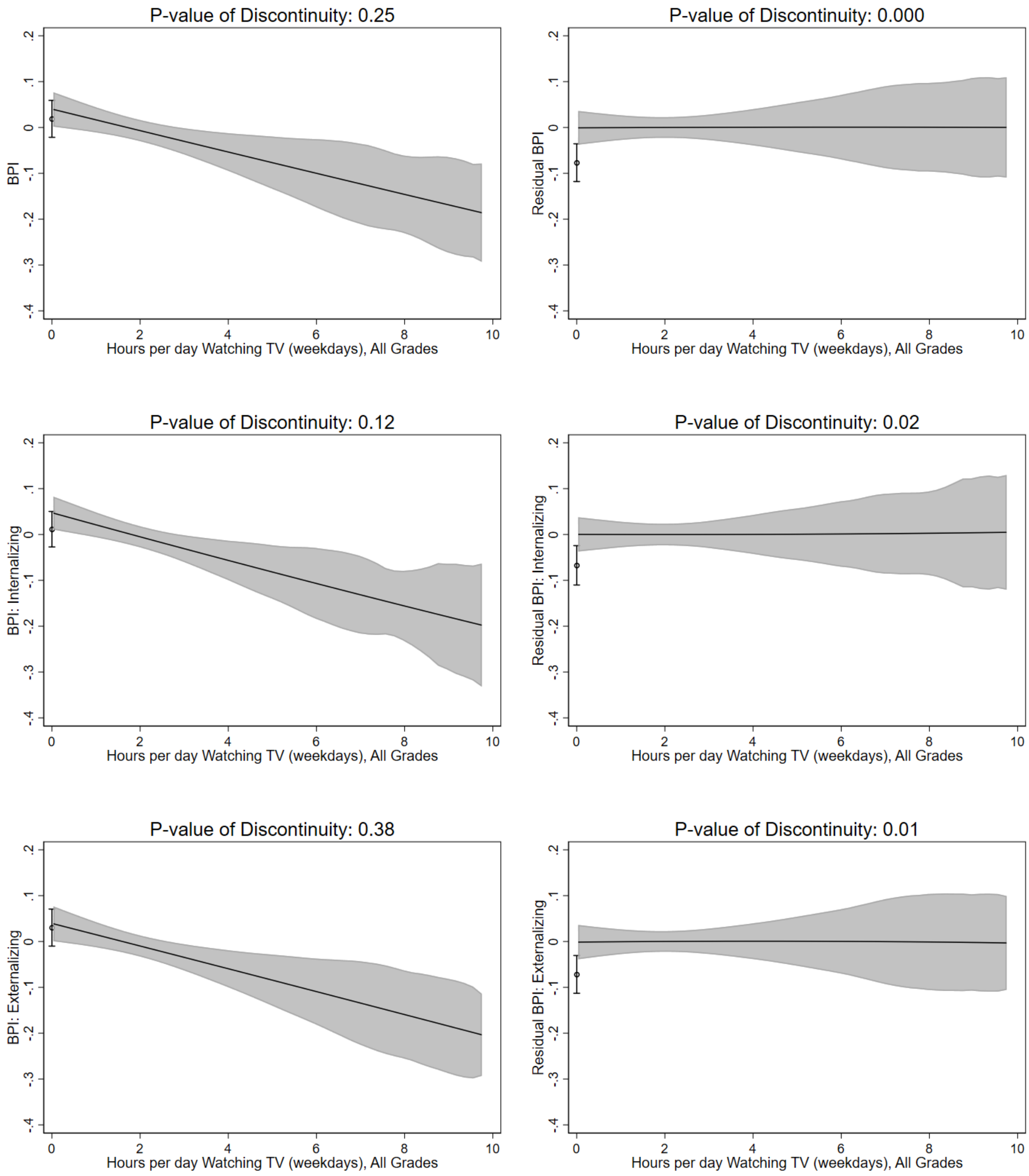
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.51: Evidence of Selection: Differences in Children's Non-Cognitive Skills at $H = 0$ (Weekdays), High School



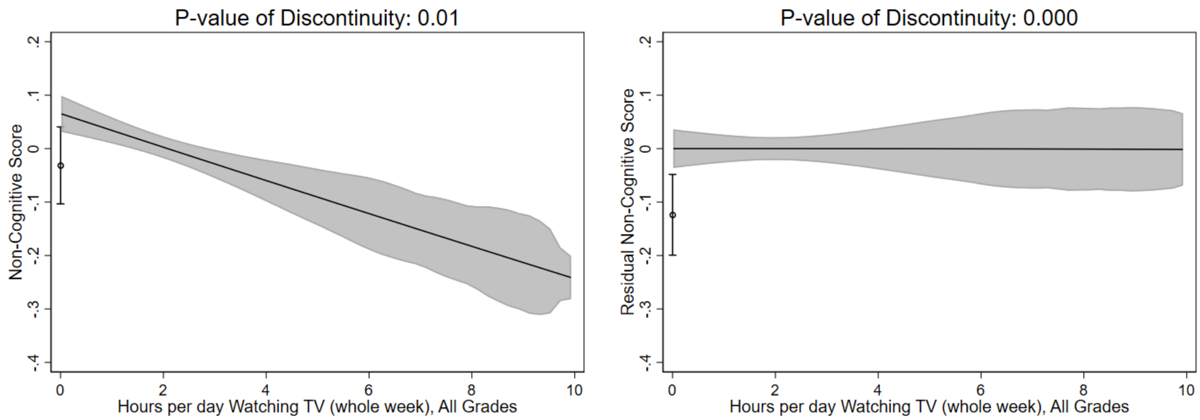
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.52: Evidence of Selection: Differences in Children's Non-Cognitive Skills (Other Measures) at $H = 0$ (Weekdays)



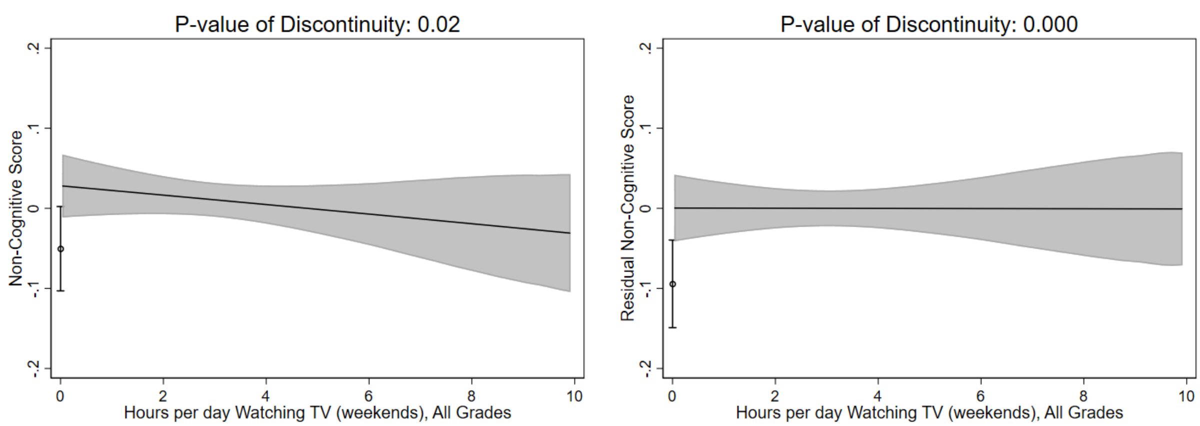
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

Figure A.53: Evidence of Selection: Discontinuity in Children's Non-Cognitive Skills at $H = 0$ (Whole Week)



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during the whole week (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

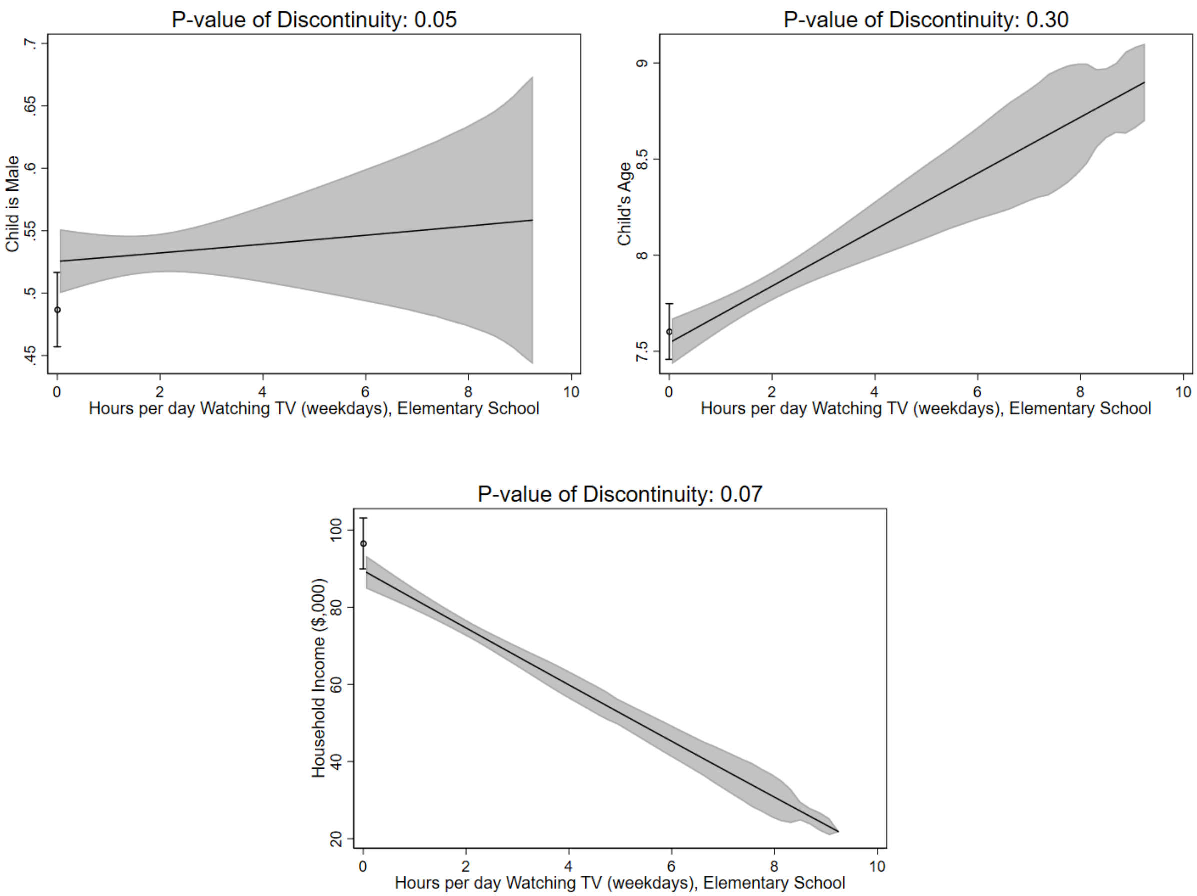
Figure A.54: Evidence of Selection: Discontinuity in Children's Non-Cognitive Skills at $H = 0$ (Weekends)



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekends (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. (4) The "residualized" variable use some covariates that enter nonparametrically in this regression. Source: CDS/PSID.

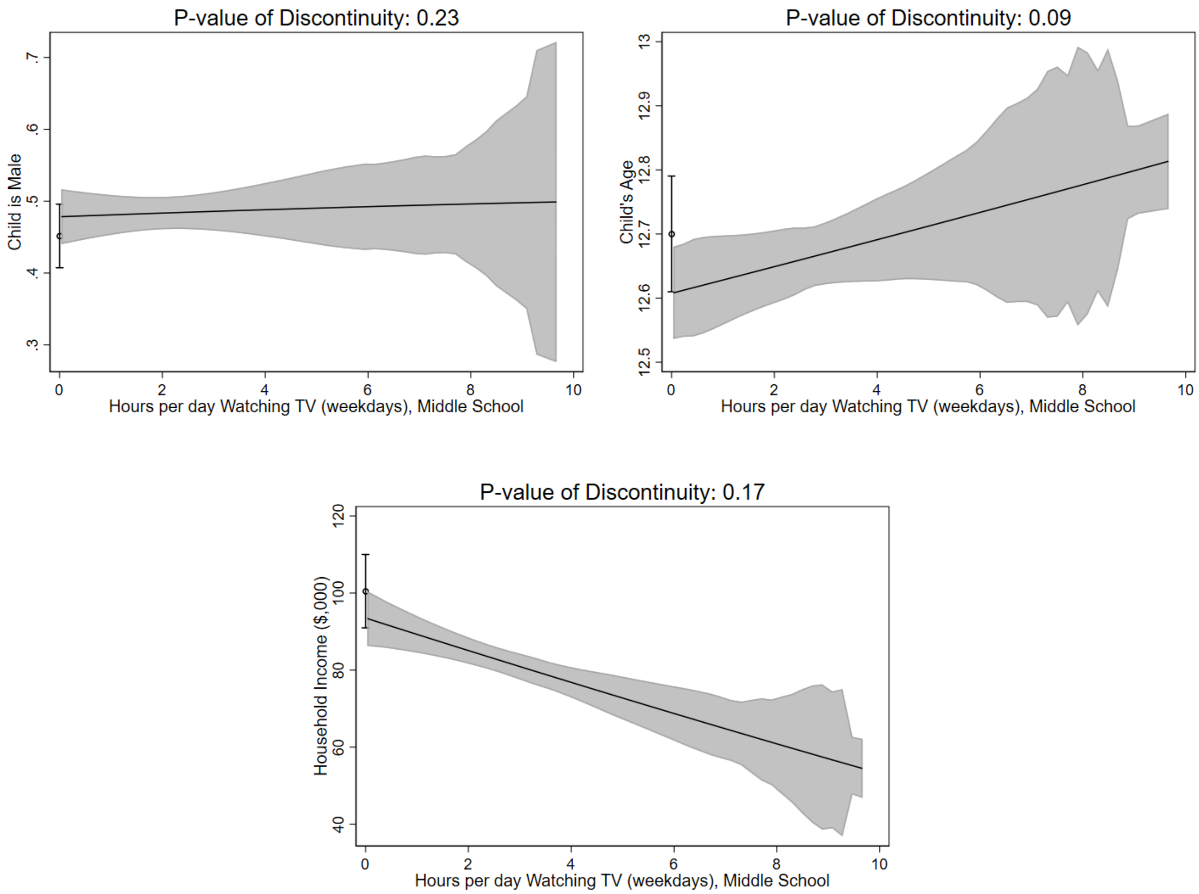
A.6.3 Discontinuity Plots for Evidence of Selection

Figure A.55: Evidence of Selection: Differences in Children's Characteristics at $H = 0$, Elementary School



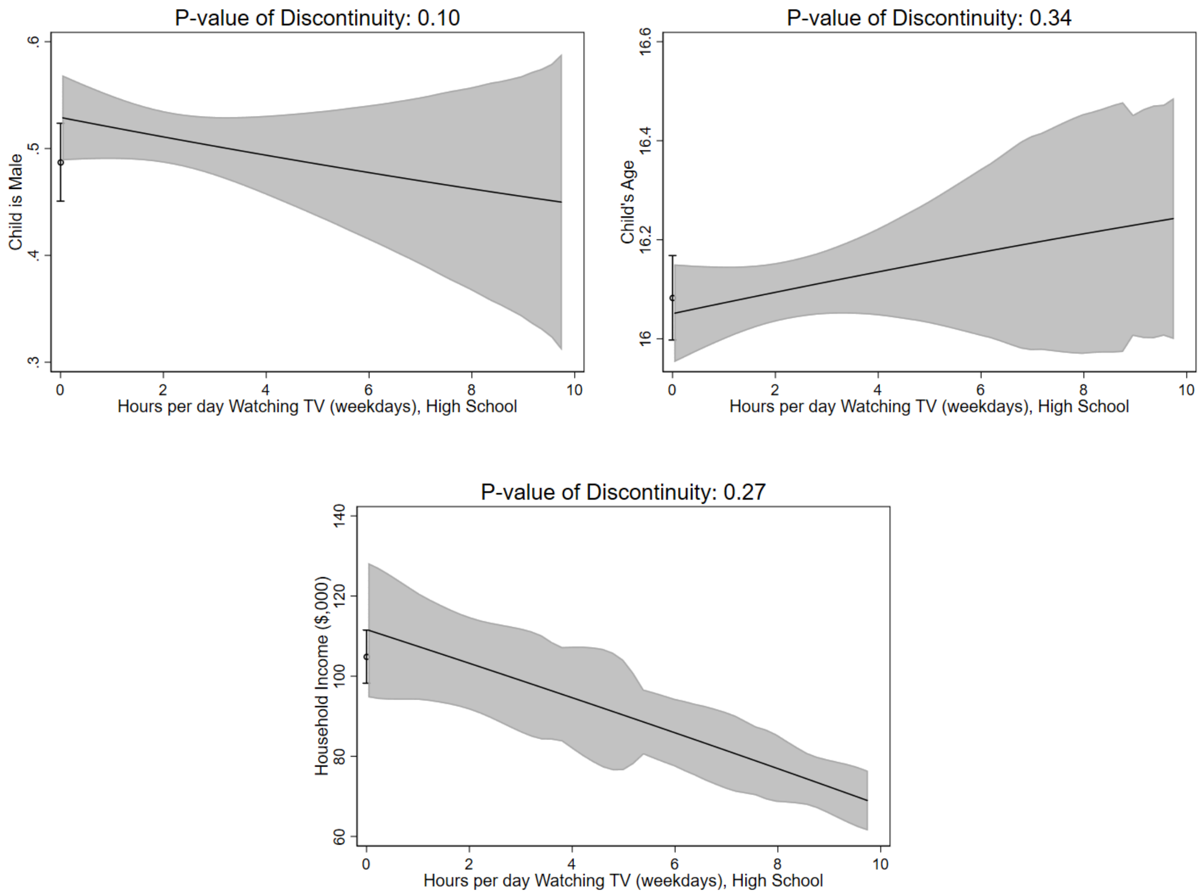
Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. Source: CDS/PSID.

Figure A.56: Evidence of Selection: Differences in Children's Characteristics at $H = 0$, Middle School



Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. Source: CDS/PSID.

Figure A.57: Evidence of Selection: Differences in Children's Characteristics at $H = 0$, High School

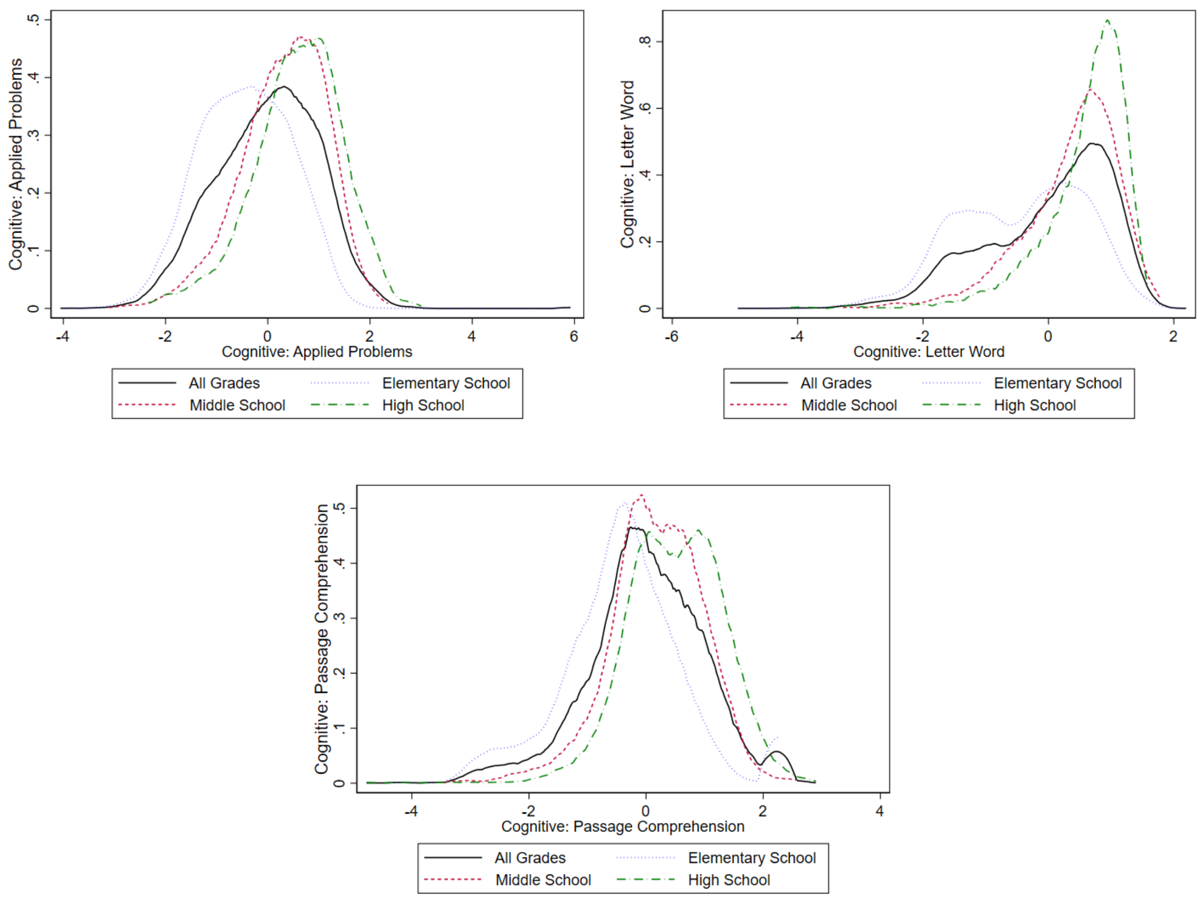


Note: (1) Each panel displays a plot of the local linear estimator predicting the expected value of a variable, conditional on the hours spent watching TV during weekdays (H), using $bw = 1.4$, accompanied by a 90% confidence interval. (2) The expected value for the variable among children who spent no time watching TV is also displayed, together with its 90% confidence interval. (3) The p-value for the test determining the presence of a discontinuity at zero is indicated in the header of each panel. Source: CDS/PSID.

A.7 Additional Figures for Outcomes Distribution

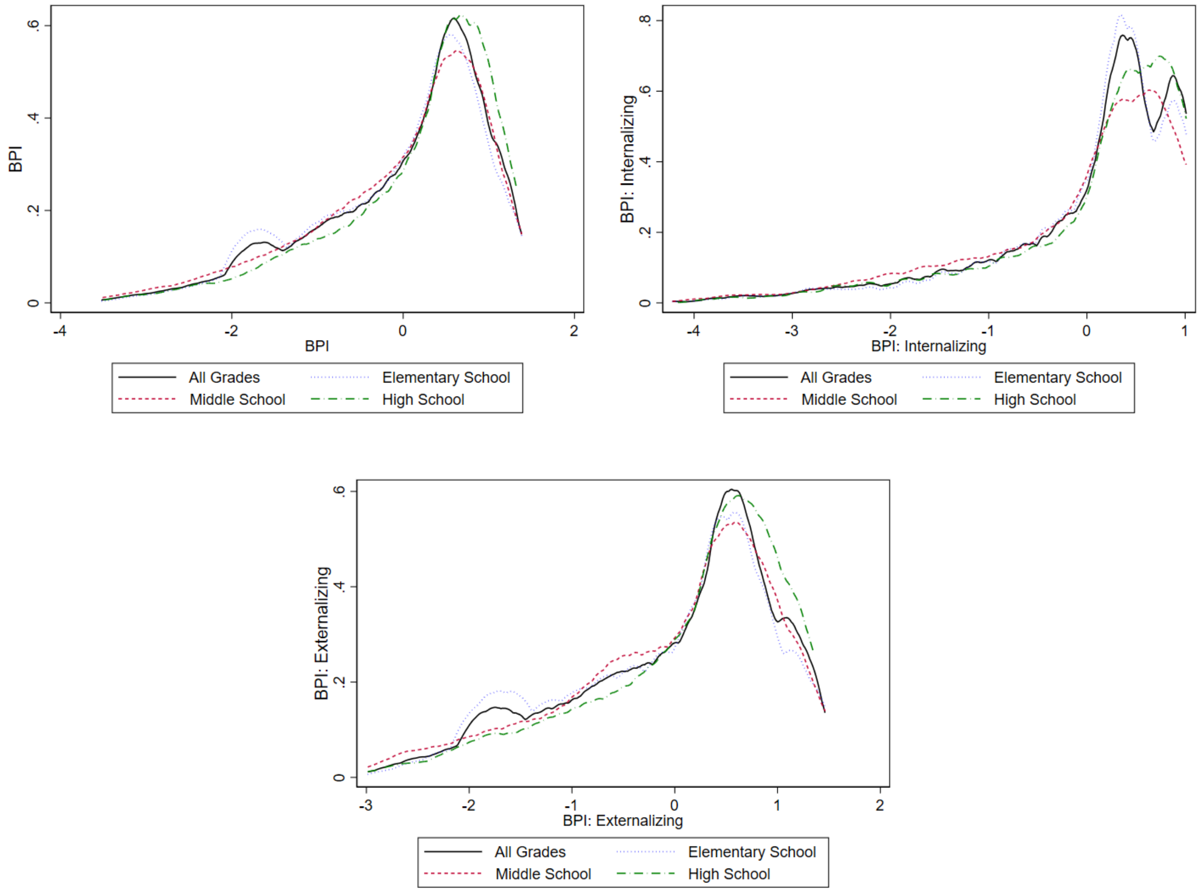
This section shows the distribution for other outcomes, as well as the distribution of cognitive and non-cognitive skills by income level, sex, and wave.

Figure A.58: Kernel Distribution of Other Measures of Cognitive Score, by Grade



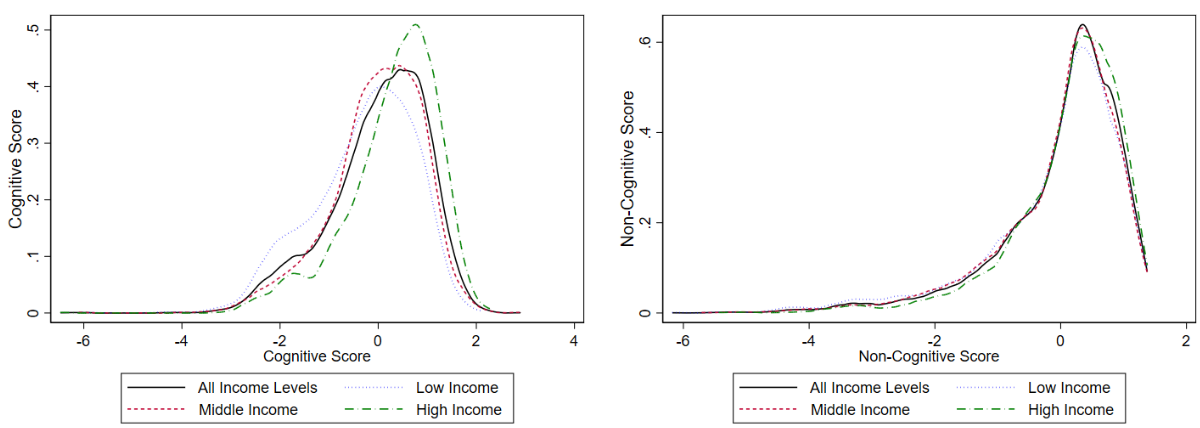
Notes: (1) This figure compiles data from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.59: Kernel Distribution of Other Measures of Non-Cognitive Score, by Grade



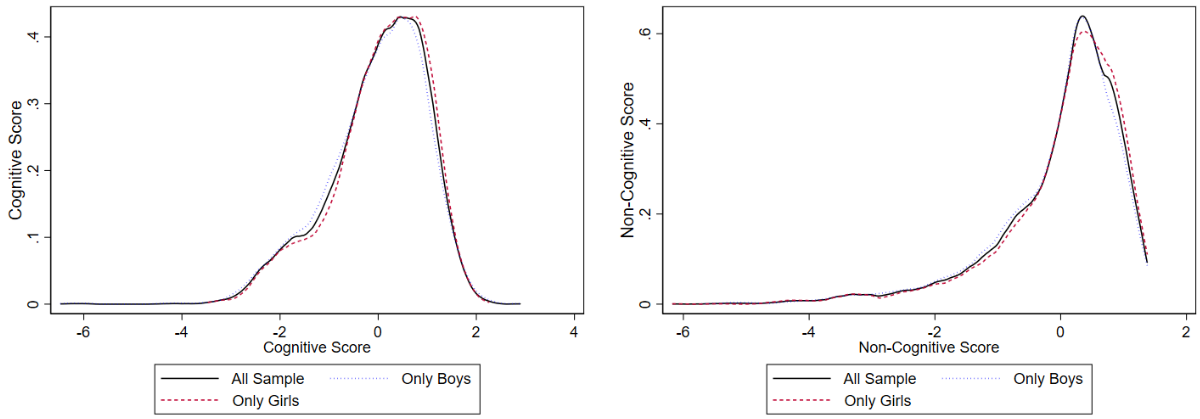
Notes: (1) This figure compiles data from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.60: Kernel Distribution of Cognitive and Non-Cognitive Scores, by Income Level



Notes: (1) This figure compiles data from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

Figure A.61: Kernel Distribution of Cognitive and Non-Cognitive Scores, by Sex



Notes: (1) This figure compiles data from the 1997, 2002, 2007, 2014, and 2019 waves. Source: CDS/PSID.

A.8 Additional Results Tables

This section shows the additional results for other outcomes and treatment variable (hours watching TV).

A.8.1 Additional Results for Non-Cognitive Measures

By Grade

Table A.8: Results for the effect of TV Watching during the Whole Week on Non-Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.025^{***}	0.008	-0.810^{***}	-0.178^{***}	-0.116^{***}
(N= 7,027)		(0.009)	(0.008)	(0.269)	(0.063)	(0.045)
	δ			0.810^{***}	0.178^{***}	0.116^{***}
				(0.267)	(0.060)	(0.041)
Elementary School	β	-0.032^{**}	0.011	−1.296	−0.185	−0.099
(N= 3,674)		(0.013)	(0.013)	(0.804)	(0.132)	(0.090)
	δ			1.300	0.190	0.105
				(0.800)	(0.128)	(0.086)
Middle School	β	−0.026	0.001	−0.817	-0.210^{*}	−0.132
(N= 1,675)		(0.017)	(0.017)	(0.589)	(0.125)	(0.087)
	δ			0.811	0.202^{*}	0.125
				(0.581)	(0.116)	(0.077)
High School	β	−0.008	0.008	-0.537^{*}	−0.138	−0.101
(N= 1,678)		(0.015)	(0.015)	(0.311)	(0.087)	(0.066)
	δ			0.535^{*}	0.136^{*}	0.099^{*}
				(0.306)	(0.080)	(0.059)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.9: Results for the effect of TV Watching during Weekends on Non-Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.001	0.013**	−0.130**	−0.058**	−0.046*
(N= 7,027)		(0.005)	(0.005)	(0.064)	(0.030)	(0.024)
	δ			0.137**	0.065**	0.052**
				(0.062)	(0.027)	(0.021)
Elementary School	β	−0.002	0.018**	−0.348**	−0.109*	−0.083*
(N= 3,674)		(0.008)	(0.008)	(0.165)	(0.056)	(0.043)
	δ			0.357**	0.118**	0.091**
				(0.161)	(0.052)	(0.039)
Middle School	β	−0.005	0.005	−0.158	−0.070	−0.050
(N= 1,675)		(0.010)	(0.010)	(0.124)	(0.056)	(0.046)
	δ			0.156	0.067	0.048
				(0.119)	(0.050)	(0.039)
High School	β	0.006	0.013	0.011	0.010	0.010
(N= 1,678)		(0.009)	(0.009)	(0.076)	(0.044)	(0.038)
	δ			0.002	0.003	0.003
				(0.071)	(0.038)	(0.032)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.10: Results for the effect of TV Watching during Weekdays on BPI, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.020^{**}	0.002	-0.144^{**}	-0.084^{**}	-0.071^{**}
(N= 6,795)		(0.008)	(0.008)	(0.058)	(0.035)	(0.030)
	δ			0.135^{**}	0.074^{**}	0.062^{**}
				(0.053)	(0.029)	(0.024)
Elementary School	β	-0.014	0.009	-0.158	-0.083	-0.063
(N= 3,463)		(0.012)	(0.012)	(0.102)	(0.054)	(0.045)
	δ			0.156^{*}	0.081^{*}	0.061
				(0.095)	(0.046)	(0.037)
Middle School	β	-0.033^{**}	-0.010	-0.195	-0.096	-0.083
(N= 1,663)		(0.015)	(0.015)	(0.143)	(0.076)	(0.065)
	δ			0.173	0.076	0.063
				(0.132)	(0.065)	(0.053)
High School	β	-0.019	0.002	-0.144^{**}	-0.095^{*}	-0.087^{*}
(N= 1,669)		(0.013)	(0.013)	(0.072)	(0.049)	(0.047)
	δ			0.128^{**}	0.079^{**}	0.072^{*}
				(0.062)	(0.039)	(0.037)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.11: Results for the effect of TV Watching during Weekdays on BPI: Internalizing, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.020**	−0.001	−0.101*	−0.062*	−0.055*
(N= 6,929)		(0.008)	(0.008)	(0.059)	(0.035)	(0.030)
	δ			0.092*	0.052*	0.045*
				(0.053)	(0.029)	(0.024)
Elementary School	β	−0.023*	−0.004	−0.163	−0.091	−0.069
(N= 3,595)		(0.012)	(0.012)	(0.102)	(0.055)	(0.046)
	δ			0.149	0.076*	0.056
				(0.093)	(0.046)	(0.037)
Middle School	β	−0.019	−0.005	−0.108	−0.065	−0.059
(N= 1,664)		(0.016)	(0.015)	(0.148)	(0.079)	(0.068)
	δ			0.096	0.052	0.046
				(0.137)	(0.068)	(0.056)
High School	β	−0.013	0.003	−0.070	−0.043	−0.037
(N= 1,670)		(0.015)	(0.014)	(0.076)	(0.054)	(0.051)
	δ			0.064	0.038	0.032
				(0.064)	(0.041)	(0.039)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.12: Results for the effect of TV Watching during Weekdays on BPI: Externalizing, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.023^{***}	-0.001	-0.158^{***}	-0.089^{**}	-0.073^{**}
(N= 6,797)		(0.008)	(0.008)	(0.058)	(0.035)	(0.031)
	δ			0.145^{***}	0.076^{***}	0.060^{**}
				(0.052)	(0.029)	(0.025)
Elementary School	β	-0.016	0.006	-0.102	-0.051	-0.038
(N= 3,464)		(0.012)	(0.012)	(0.107)	(0.057)	(0.048)
	δ			0.102	0.051	0.038
				(0.100)	(0.049)	(0.040)
Middle School	β	-0.040^{***}	-0.015	-0.223	-0.105	-0.090
(N= 1,664)		(0.015)	(0.015)	(0.138)	(0.073)	(0.062)
	δ			0.195	0.079	0.064
				(0.129)	(0.063)	(0.051)
High School	β	-0.021	-0.001	-0.184^{***}	-0.124^{**}	-0.114^{**}
(N= 1,669)		(0.014)	(0.014)	(0.071)	(0.049)	(0.047)
	δ			0.161^{***}	0.101^{***}	0.092^{**}
				(0.061)	(0.038)	(0.036)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Income Level

Table A.13: Results for the effect of TV Watching during the Whole Week on Non-Cognitive Score, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.025^{***}	0.008	-0.810^{***}	-0.178^{***}	-0.116^{**}
(N= 7,027)		(0.009)	(0.008)	(0.270)	(0.063)	(0.045)
	δ			0.810^{***}	0.178^{***}	0.116^{***}
				(0.267)	(0.059)	(0.041)
Low Income	β	-0.035^{**}	−0.004	−0.940	−0.192	−0.161
(N= 2,245)		(0.016)	(0.015)	(0.573)	(0.128)	(0.104)
	δ			0.928	0.181	0.149
				(0.568)	(0.122)	(0.098)
Middle Income	β	−0.011	0.020	−0.691	−0.124	−0.055
(N= 2,315)		(0.015)	(0.014)	(0.485)	(0.112)	(0.076)
	δ			0.706	0.139	0.071
				(0.479)	(0.105)	(0.068)
High Income	β	−0.007	0.006	−0.554	−0.152	−0.114
(N= 2,467)		(0.013)	(0.013)	(0.365)	(0.099)	(0.074)
	δ			0.553	0.151	0.112^{*}
				(0.360)	(0.093)	(0.067)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.14: Results for the effect of TV Watching during Weekends on Non-Cognitive Score, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.001	0.013**	−0.130**	−0.058**	−0.046**
(N= 7,027)		(0.005)	(0.005)	(0.063)	(0.029)	(0.023)
	δ			0.137**	0.065**	0.052***
				(0.060)	(0.026)	(0.020)
Low Income	β	0.008	0.023**	−0.242*	−0.089	−0.062
(N= 2,245)		(0.010)	(0.009)	(0.131)	(0.056)	(0.045)
	δ			0.255**	0.102**	0.075*
				(0.126)	(0.051)	(0.040)
Middle Income	β	−0.016	−0.002	−0.107	−0.067	−0.056
(N= 2,315)		(0.010)	(0.009)	(0.109)	(0.052)	(0.044)
	δ			0.101	0.059	0.048
				(0.104)	(0.045)	(0.037)
High Income	β	0.014	0.017*	−0.052	−0.015	−0.008
(N= 2,467)		(0.009)	(0.009)	(0.102)	(0.050)	(0.042)
	δ			0.066	0.028	0.021
				(0.097)	(0.045)	(0.037)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.15: Results for the effect of TV Watching during Weekdays on BPI, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.020**	0.002	−0.144***	−0.084**	−0.071**
(N= 6,795)		(0.008)	(0.008)	(0.055)	(0.032)	(0.029)
	δ			0.135***	0.074***	0.062***
				(0.050)	(0.027)	(0.023)
Low Income	β	−0.055***	−0.034**	0.004	−0.012	−0.019
(N= 2,149)		(0.014)	(0.014)	(0.118)	(0.063)	(0.055)
	δ			−0.035	−0.019	−0.013
				(0.108)	(0.053)	(0.044)
Middle Income	β	0.021	0.045***	−0.159	−0.078	−0.052
(N= 2,252)		(0.013)	(0.013)	(0.107)	(0.060)	(0.052)
	δ			0.190*	0.108**	0.082*
				(0.099)	(0.051)	(0.042)
High Income	β	−0.006	−0.003	−0.202***	−0.141***	−0.134***
(N= 2,394)		(0.013)	(0.013)	(0.075)	(0.051)	(0.048)
	δ			0.178***	0.115***	0.107***
				(0.066)	(0.040)	(0.037)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.16: Results for the effect of TV Watching during Weekdays on BPI: Internalizing, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.020^{***}	-0.001	-0.101^{*}	-0.062^{*}	-0.055^{*}
(N= 6,929)		(0.008)	(0.008)	(0.058)	(0.035)	(0.030)
	δ			0.092^{*}	0.052^{*}	0.045^{*}
				(0.053)	(0.029)	(0.024)
Low Income	β	-0.050^{***}	-0.036^{**}	0.046	0.011	-0.002
(N= 2,208)		(0.015)	(0.014)	(0.113)	(0.062)	(0.052)
	δ			-0.076	-0.041	-0.029
				(0.104)	(0.051)	(0.042)
Middle Income	β	0.017	0.042^{***}	-0.108	-0.052	-0.038
(N= 2,286)		(0.014)	(0.014)	(0.119)	(0.067)	(0.057)
	δ			0.140	0.082	0.067
				(0.111)	(0.058)	(0.048)
High Income	β	-0.012	-0.009	-0.171^{**}	-0.128^{**}	-0.124^{**}
(N= 2,435)		(0.013)	(0.013)	(0.078)	(0.053)	(0.050)
	δ			0.144^{**}	0.099^{**}	0.094^{**}
				(0.069)	(0.043)	(0.039)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.17: Results for the effect of TV Watching during Weekdays on BPI: Externalizing, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.023^{***}	-0.001	-0.158^{***}	-0.089^{**}	-0.073^{**}
(N= 6,797)		(0.008)	(0.008)	(0.058)	(0.036)	(0.032)
	δ			0.145^{***}	0.076^{***}	0.060^{**}
				(0.052)	(0.029)	(0.025)
Low Income	β	-0.055^{***}	-0.033^{**}	-0.006	-0.016	-0.018
(N= 2,150)		(0.015)	(0.015)	(0.118)	(0.063)	(0.053)
	δ			-0.025	-0.015	-0.012
				(0.108)	(0.053)	(0.043)
Middle Income	β	0.014	0.036^{***}	-0.159	-0.075	-0.048
(N= 2,253)		(0.014)	(0.013)	(0.112)	(0.063)	(0.055)
	δ			0.182^{*}	0.097^{*}	0.071
				(0.103)	(0.054)	(0.045)
High Income	β	-0.007	-0.003	-0.227^{***}	-0.151^{***}	-0.141^{***}
(N= 2,394)		(0.013)	(0.013)	(0.077)	(0.053)	(0.050)
	δ			0.200^{***}	0.124^{***}	0.113^{***}
				(0.068)	(0.043)	(0.039)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Sex

Table A.18: Results for the effect of TV Watching during the Whole Week on Non-Cognitive Score, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.025^{***}	0.008	-0.810^{***}	-0.178^{***}	-0.116^{***}
(N= 7,027)		(0.008)	(0.008)	(0.269)	(0.063)	(0.045)
	δ			0.810^{***}	0.178^{***}	0.116^{***}
				(0.266)	(0.059)	(0.041)
Only Boys	β	-0.021^{*}	0.020^{*}	-0.700^{*}	-0.142	-0.067
(N= 3,563)		(0.012)	(0.012)	(0.375)	(0.092)	(0.063)
	δ			0.713^{*}	0.154^{*}	0.081
				(0.371)	(0.087)	(0.058)
Only Girls	β	-0.026^{**}	-0.007	-0.979^{**}	-0.236^{***}	-0.179^{***}
(N= 3,464)		(0.012)	(0.012)	(0.409)	(0.090)	(0.068)
	δ			0.963^{**}	0.219^{***}	0.162^{***}
				(0.404)	(0.085)	(0.062)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.19: Results for the effect of TV Watching during Weekends on Non-Cognitive Score, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.001	0.013**	−0.130**	−0.058**	−0.046*
(N= 7,027)		(0.005)	(0.005)	(0.064)	(0.030)	(0.024)
	δ			0.137**	0.065**	0.052**
				(0.061)	(0.026)	(0.021)
Only Boys	β	0.000	0.016**	−0.092	−0.036	−0.029
(N= 3,563)		(0.008)	(0.007)	(0.093)	(0.043)	(0.036)
	δ			0.104	0.047	0.040
				(0.089)	(0.038)	(0.031)
Only Girls	β	0.000	0.009	−0.166*	−0.080**	−0.067**
(N= 3,464)		(0.008)	(0.008)	(0.088)	(0.040)	(0.033)
	δ			0.168**	0.080**	0.066**
				(0.084)	(0.036)	(0.028)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.20: Results for the effect of TV Watching during Weekdays on BPI, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.020^{**}	0.002	-0.144^{**}	-0.084^{**}	-0.071^{**}
(N= 6,795)		(0.008)	(0.008)	(0.061)	(0.036)	(0.032)
	δ			0.135^{**}	0.074^{**}	0.062^{**}
				(0.055)	(0.030)	(0.025)
Only Boys	β	-0.014	0.014	-0.191^{**}	-0.108^{**}	-0.089^{**}
(N= 3,457)		(0.011)	(0.011)	(0.081)	(0.046)	(0.040)
	δ			0.190^{**}	0.106^{***}	0.087^{***}
				(0.074)	(0.039)	(0.033)
Only Girls	β	-0.026^{**}	-0.015	-0.114	-0.070	-0.061
(N= 3,338)		(0.011)	(0.011)	(0.074)	(0.047)	(0.041)
	δ			0.090	0.047	0.038
				(0.066)	(0.038)	(0.033)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.21: Results for the effect of TV Watching during Weekdays on BPI: Internalizing, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.020^{**}	-0.001	-0.101^{*}	-0.062^{*}	-0.055^{*}
(N= 6,929)		(0.008)	(0.008)	(0.059)	(0.036)	(0.032)
	δ			0.092^{*}	0.052^{*}	0.045^{*}
				(0.054)	(0.030)	(0.025)
Only Boys	β	-0.011	0.013	-0.152^{*}	-0.086^{*}	-0.074^{*}
(N= 3,521)		(0.011)	(0.011)	(0.081)	(0.047)	(0.041)
	δ			0.152^{**}	0.086^{**}	0.073^{**}
				(0.075)	(0.039)	(0.033)
Only Girls	β	-0.030^{**}	-0.019	-0.056	-0.038	-0.037
(N= 3,408)		(0.012)	(0.012)	(0.080)	(0.051)	(0.045)
	δ			0.034	0.016	0.015
				(0.071)	(0.041)	(0.035)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.22: Results for the effect of TV Watching during Weekdays on BPI: Externalizing, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.023^{***}	-0.001	-0.158^{***}	-0.089^{***}	-0.073^{**}
(N= 6,797)		(0.008)	(0.008)	(0.056)	(0.034)	(0.030)
	δ			0.145^{***}	0.076^{***}	0.060^{**}
				(0.051)	(0.028)	(0.024)
Only Boys	β	-0.017	0.009	-0.209^{***}	-0.116^{**}	-0.093^{**}
(N= 3,457)		(0.011)	(0.011)	(0.081)	(0.048)	(0.043)
	δ			0.202^{***}	0.108^{***}	0.086^{**}
				(0.074)	(0.040)	(0.034)
Only Girls	β	-0.027^{**}	-0.016	-0.129^{*}	-0.080^{*}	-0.068
(N= 3,340)		(0.011)	(0.011)	(0.075)	(0.047)	(0.042)
	δ			0.103	0.055	0.043
				(0.067)	(0.039)	(0.033)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

A.8.2 Additional Results for Cognitive Measures

By Grade

Table A.23: Results for the effect of TV Watching during the Whole Week on Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.038^{***}	-0.018^{***}	0.229	0.047	0.025
(N= 5,781)		(0.009)	(0.006)	(0.183)	(0.044)	(0.032)
	δ			-0.245	-0.063	-0.040
				(0.181)	(0.041)	(0.029)
Elementary School	β	-0.041^{***}	-0.018^{*}	0.802	0.108	0.062
(N= 2,673)		(0.014)	(0.009)	(0.653)	(0.102)	(0.073)
	δ			-0.816	-0.122	-0.076
				(0.650)	(0.099)	(0.069)
Middle School	β	-0.043^{***}	-0.008	0.093	0.022	0.009
(N= 1,538)		(0.013)	(0.009)	(0.394)	(0.083)	(0.058)
	δ			-0.101	-0.029	-0.016
				(0.391)	(0.079)	(0.054)
High School	β	-0.070^{***}	-0.029^{***}	0.125	0.015	0.005
(N= 1,570)		(0.013)	(0.011)	(0.196)	(0.057)	(0.044)
	δ			-0.151	-0.042	-0.031
				(0.191)	(0.051)	(0.038)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.24: Results for the effect of TV Watching during Weekends on Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.021***	−0.006	−0.018	−0.012	−0.011
(N= 5,781)		(0.006)	(0.004)	(0.043)	(0.020)	(0.016)
	δ			0.012	0.005	0.005
				(0.041)	(0.018)	(0.014)
Elementary School	β	−0.023**	−0.011*	−0.007	−0.004	−0.007
(N= 2,673)		(0.009)	(0.006)	(0.118)	(0.040)	(0.031)
	δ			−0.003	−0.007	−0.003
				(0.116)	(0.037)	(0.028)
Middle School	β	−0.013	0.002	−0.061	−0.026	−0.022
(N= 1,538)		(0.009)	(0.006)	(0.080)	(0.036)	(0.029)
	δ			0.060	0.025	0.021
				(0.076)	(0.031)	(0.025)
High School	β	−0.030***	−0.009	0.017	0.008	0.007
(N= 1,570)		(0.008)	(0.006)	(0.051)	(0.029)	(0.025)
	δ			−0.024	−0.015	−0.014
				(0.047)	(0.024)	(0.020)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.25: Results for the effect of TV Watching during Weekdays on Cognitive: Applied Problems, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.027^{***}	-0.012^{**}	0.111^{***}	0.067^{***}	0.061^{***}
(N= 6,372)		(0.008)	(0.005)	(0.039)	(0.023)	(0.020)
	δ			-0.113^{***}	-0.068^{***}	-0.061^{***}
				(0.036)	(0.019)	(0.016)
Elementary School	β	-0.033^{***}	-0.011^{*}	0.143^{**}	0.073^{**}	0.059^{**}
(N= 3,260)		(0.011)	(0.007)	(0.060)	(0.031)	(0.026)
	δ			-0.145^{***}	-0.074^{***}	-0.060^{***}
				(0.056)	(0.027)	(0.022)
Middle School	β	-0.026^{**}	0.004	0.254^{***}	0.141^{***}	0.121^{***}
(N= 1,542)		(0.012)	(0.008)	(0.079)	(0.041)	(0.036)
	δ			-0.235^{***}	-0.121^{***}	-0.101^{***}
				(0.074)	(0.036)	(0.030)
High School	β	-0.064^{***}	-0.026^{**}	0.038	0.017	0.017
(N= 1,570)		(0.013)	(0.010)	(0.058)	(0.040)	(0.039)
	δ			-0.056	-0.035	-0.035
				(0.049)	(0.031)	(0.029)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.26: Results for the effect of TV Watching during Weekdays on Cognitive: Letter Word, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.026***	−0.016***	0.030	0.015	0.013
(N= 6,390)		(0.008)	(0.005)	(0.032)	(0.019)	(0.017)
	δ			−0.042	−0.027*	−0.025*
				(0.029)	(0.016)	(0.013)
Elementary School	β	−0.031**	−0.009	0.058	0.034	0.029
(N= 3,268)		(0.013)	(0.006)	(0.053)	(0.028)	(0.024)
	δ			−0.062	−0.038	−0.032
				(0.049)	(0.024)	(0.020)
Middle School	β	−0.043***	−0.019**	0.054	0.025	0.019
(N= 1,549)		(0.012)	(0.008)	(0.072)	(0.040)	(0.034)
	δ			−0.068	−0.039	−0.033
				(0.067)	(0.033)	(0.028)
High School	β	−0.051***	−0.022**	−0.025	−0.024	−0.023
(N= 1,573)		(0.011)	(0.009)	(0.050)	(0.035)	(0.034)
	δ			0.003	0.001	0.001
				(0.041)	(0.026)	(0.024)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.27: Results for the effect of TV Watching during Weekdays on Cognitive: Passage Comprehension, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.033^{***}	-0.016^{***}	0.067	0.033	0.028
(N= 5,806)		(0.008)	(0.006)	(0.042)	(0.025)	(0.022)
	δ			-0.076^{**}	-0.042^{**}	-0.037^{**}
				(0.038)	(0.021)	(0.018)
Elementary School	β	-0.050^{***}	-0.010	0.169^{**}	0.085^{**}	0.068^{**}
(N= 2,685)		(0.014)	(0.008)	(0.077)	(0.041)	(0.034)
	δ			-0.167^{**}	-0.083^{**}	-0.067^{**}
				(0.072)	(0.035)	(0.028)
Middle School	β	-0.022^{*}	-0.008	0.010	0.008	0.007
(N= 1,548)		(0.013)	(0.010)	(0.087)	(0.047)	(0.040)
	δ			-0.016	-0.014	-0.013
				(0.081)	(0.040)	(0.033)
High School	β	-0.054^{***}	-0.030^{***}	-0.005	-0.013	-0.014
(N= 1,573)		(0.013)	(0.011)	(0.057)	(0.040)	(0.038)
	δ			-0.022	-0.014	-0.013
				(0.047)	(0.029)	(0.028)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Income Level

Table A.28: Results for the effect of TV Watching during the Whole Week on Cognitive Score, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.038^{***}	-0.018^{***}	0.229	0.047	0.025
(N= 5,781)		(0.009)	(0.006)	(0.187)	(0.043)	(0.031)
	δ			-0.245	-0.063	-0.040
				(0.184)	(0.041)	(0.029)
Low Income	β	-0.020	-0.014	0.717^{*}	0.166^{**}	0.129^{*}
(N= 1,833)		(0.016)	(0.011)	(0.381)	(0.084)	(0.067)
	δ			-0.725^{*}	-0.172^{**}	-0.135^{**}
				(0.378)	(0.080)	(0.063)
Middle Income	β	-0.021	-0.016^{*}	0.569	0.113	0.053
(N= 1,891)		(0.015)	(0.009)	(0.355)	(0.080)	(0.058)
	δ			-0.580^{*}	-0.124^{*}	-0.065
				(0.352)	(0.075)	(0.053)
High Income	β	-0.017	-0.030^{***}	-0.180	-0.067	-0.053
(N= 2,057)		(0.014)	(0.010)	(0.260)	(0.066)	(0.049)
	δ			0.148	0.034	0.021
				(0.256)	(0.062)	(0.044)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.29: Results for the effect of TV Watching during Weekends on Cognitive Score, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.021***	−0.006*	−0.018	−0.012	−0.011
(N= 5,781)		(0.006)	(0.003)	(0.043)	(0.020)	(0.016)
	δ			0.012	0.005	0.005
				(0.041)	(0.018)	(0.014)
Low Income	β	−0.006	−0.002	0.008	0.011	0.011
(N= 1,833)		(0.010)	(0.006)	(0.089)	(0.038)	(0.030)
	δ			−0.010	−0.012	−0.012
				(0.086)	(0.035)	(0.027)
Middle Income	β	−0.017*	−0.005	0.020	0.007	0.007
(N= 1,891)		(0.009)	(0.006)	(0.067)	(0.033)	(0.029)
	δ			−0.024	−0.011	−0.010
				(0.064)	(0.030)	(0.025)
High Income	β	−0.013	−0.013**	−0.031	−0.029	−0.030
(N= 2,057)		(0.009)	(0.006)	(0.068)	(0.033)	(0.027)
	δ			0.017	0.014	0.014
				(0.065)	(0.029)	(0.024)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.30: Results for the effect of TV Watching during Weekdays on Cognitive: Applied Problems, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.027^{***}	-0.012^{**}	0.111^{***}	0.067^{***}	0.061^{***}
(N= 6,372)		(0.008)	(0.005)	(0.038)	(0.022)	(0.019)
	δ			-0.113^{***}	-0.068^{***}	-0.061^{***}
				(0.035)	(0.019)	(0.016)
Low Income	β	−0.013	−0.006	0.240^{***}	0.124^{***}	0.103^{***}
(N= 2,047)		(0.013)	(0.008)	(0.074)	(0.038)	(0.032)
	δ			-0.229^{***}	-0.114^{***}	-0.093^{***}
				(0.070)	(0.035)	(0.028)
Middle Income	β	0.001	−0.007	0.155^{**}	0.096^{**}	0.082^{**}
(N= 2,092)		(0.014)	(0.010)	(0.073)	(0.040)	(0.034)
	δ			-0.151^{**}	-0.090^{***}	-0.075^{***}
				(0.067)	(0.033)	(0.027)
High Income	β	-0.024^{*}	-0.024^{***}	−0.028	−0.019	−0.018
(N= 2,233)		(0.014)	(0.009)	(0.060)	(0.041)	(0.038)
	δ			0.003	−0.004	−0.005
				(0.052)	(0.032)	(0.029)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.31: Results for the effect of TV Watching during Weekdays on Cognitive: Letter Word, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.026^{***}	-0.016^{***}	0.030	0.015	0.013
(N= 6,390)		(0.008)	(0.005)	(0.033)	(0.020)	(0.018)
	δ			-0.042	-0.027^{*}	-0.025^{*}
				(0.030)	(0.016)	(0.014)
Low Income	β	-0.029^{*}	-0.023^{**}	0.045	0.016	0.009
(N= 2,053)		(0.016)	(0.010)	(0.072)	(0.042)	(0.036)
	δ			-0.064	-0.034	-0.027
				(0.065)	(0.033)	(0.027)
Middle Income	β	-0.003	-0.015^{**}	0.147^{**}	0.077^{**}	0.060^{*}
(N= 2,095)		(0.012)	(0.007)	(0.068)	(0.037)	(0.031)
	δ			-0.151^{**}	-0.081^{**}	-0.064^{**}
				(0.064)	(0.032)	(0.026)
High Income	β	-0.007	-0.013^{*}	-0.051	-0.032	-0.028
(N= 2,242)		(0.012)	(0.007)	(0.044)	(0.030)	(0.027)
	δ			0.034	0.016	0.012
				(0.038)	(0.023)	(0.021)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.32: Results for the effect of TV Watching during Weekdays on Cognitive: Passage Comprehension, by Income Level

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.033^{***}	-0.016^{***}	0.067	0.033	0.028
(N= 5,806)		(0.008)	(0.006)	(0.041)	(0.024)	(0.021)
	δ			-0.076^{**}	-0.042^{**}	-0.037^{**}
				(0.036)	(0.020)	(0.016)
Low Income	β	−0.013	−0.012	0.126	0.063	0.045
(N= 1,842)		(0.015)	(0.011)	(0.089)	(0.049)	(0.042)
	δ			−0.129	−0.065	−0.049
				(0.082)	(0.042)	(0.034)
Middle Income	β	−0.018	−0.015	0.115	0.058	0.045
(N= 1,899)		(0.013)	(0.009)	(0.078)	(0.045)	(0.037)
	δ			-0.122^{*}	-0.064^{*}	-0.051^{*}
				(0.072)	(0.038)	(0.031)
High Income	β	-0.023^{*}	-0.026^{***}	−0.032	−0.030	−0.030
(N= 2,065)		(0.013)	(0.009)	(0.053)	(0.036)	(0.034)
	δ			0.006	0.004	0.004
				(0.046)	(0.029)	(0.026)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Sex

Table A.33: Results for the effect of TV Watching during the Whole Week on Cognitive Score, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.038***	−0.018***	0.229	0.047	0.025
(N= 5,781)		(0.009)	(0.006)	(0.178)	(0.041)	(0.030)
	δ			−0.245	−0.063	−0.040
				(0.176)	(0.039)	(0.027)
Only Boys	β	−0.030**	−0.010	0.052	0.008	−0.006
(N= 2,891)		(0.014)	(0.009)	(0.249)	(0.062)	(0.043)
	δ			−0.061	−0.018	−0.004
				(0.246)	(0.058)	(0.039)
Only Girls	β	−0.043***	−0.029***	0.498*	0.096	0.068
(N= 2,890)		(0.012)	(0.007)	(0.265)	(0.060)	(0.048)
	δ			−0.522**	−0.119**	−0.091**
				(0.263)	(0.057)	(0.045)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.34: Results for the effect of TV Watching during Weekends on Cognitive Score, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.021***	−0.006	−0.018	−0.012	−0.011
(N= 5,781)		(0.006)	(0.003)	(0.042)	(0.020)	(0.016)
	δ			0.012	0.005	0.005
				(0.040)	(0.017)	(0.014)
Only Boys	β	−0.015*	−0.001	0.006	0.002	0.003
(N= 2,891)		(0.008)	(0.005)	(0.061)	(0.029)	(0.025)
	δ			−0.007	−0.003	−0.004
				(0.058)	(0.026)	(0.022)
Only Girls	β	−0.024***	−0.010**	−0.023	−0.020	−0.019
(N= 2,890)		(0.008)	(0.004)	(0.058)	(0.026)	(0.021)
	δ			0.012	0.009	0.008
				(0.055)	(0.023)	(0.018)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.35: Results for the effect of TV Watching during Weekdays on Cognitive: Applied Problems, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.027^{***}	-0.012^{**}	0.111^{***}	0.067^{***}	0.061^{***}
(N= 6,372)		(0.008)	(0.005)	(0.040)	(0.023)	(0.019)
	δ			-0.113^{***}	-0.068^{***}	-0.061^{***}
				(0.036)	(0.019)	(0.016)
Only Boys	β	-0.031^{***}	-0.012^{*}	0.083	0.051	0.049^{*}
(N= 3,217)		(0.012)	(0.007)	(0.059)	(0.033)	(0.029)
	δ			-0.088	-0.055^{**}	-0.051^{**}
				(0.055)	(0.028)	(0.023)
Only Girls	β	-0.022^{**}	-0.014^{**}	0.147^{***}	0.089^{***}	0.079^{***}
(N= 3,155)		(0.011)	(0.007)	(0.048)	(0.030)	(0.026)
	δ			-0.147^{***}	-0.088^{***}	-0.077^{***}
				(0.044)	(0.025)	(0.021)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.36: Results for the effect of TV Watching during Weekdays on Cognitive: Letter Word, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.026***	−0.016***	0.030	0.015	0.013
(N= 6,390)		(0.008)	(0.005)	(0.033)	(0.020)	(0.018)
	δ			−0.042	−0.027	−0.025*
				(0.030)	(0.016)	(0.014)
Only Boys	β	−0.029***	−0.013*	0.036	0.021	0.020
(N= 3,224)		(0.011)	(0.007)	(0.052)	(0.030)	(0.026)
	δ			−0.045	−0.029	−0.028
				(0.047)	(0.025)	(0.020)
Only Girls	β	−0.021**	−0.022***	0.029	0.012	0.007
(N= 3,166)		(0.011)	(0.006)	(0.039)	(0.025)	(0.022)
	δ			−0.046	−0.029	−0.024
				(0.035)	(0.020)	(0.018)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.37: Results for the effect of TV Watching during Weekdays on Cognitive: Passage Comprehension, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.033^{***}	-0.016^{***}	0.067	0.033	0.028
(N= 5,806)		(0.008)	(0.006)	(0.043)	(0.025)	(0.022)
	δ			-0.076^{*}	-0.042^{**}	-0.037^{**}
				(0.039)	(0.021)	(0.017)
Only Boys	β	-0.029^{**}	-0.009	0.039	0.017	0.013
(N= 2,906)		(0.012)	(0.008)	(0.065)	(0.037)	(0.032)
	δ			-0.045	-0.023	-0.019
				(0.059)	(0.030)	(0.026)
Only Girls	β	-0.035^{***}	-0.024^{***}	0.094^{*}	0.053	0.041
(N= 2,900)		(0.011)	(0.007)	(0.052)	(0.033)	(0.029)
	δ			-0.108^{**}	-0.065^{**}	-0.054^{**}
				(0.047)	(0.027)	(0.023)

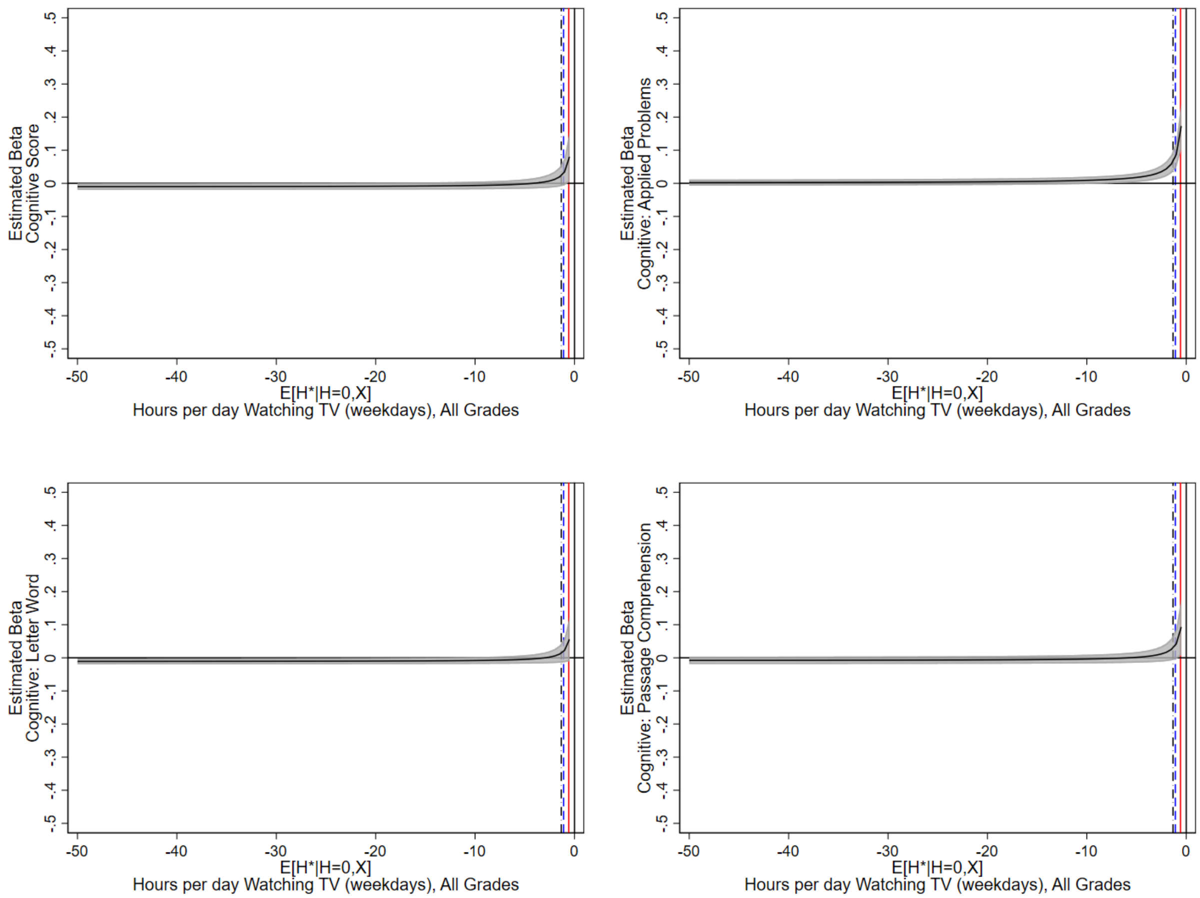
(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

A.9 Additional Figures for Robustness Analysis

This section shows the additional figures for the robustness analysis done in Section 1.5 of Chapter 1.

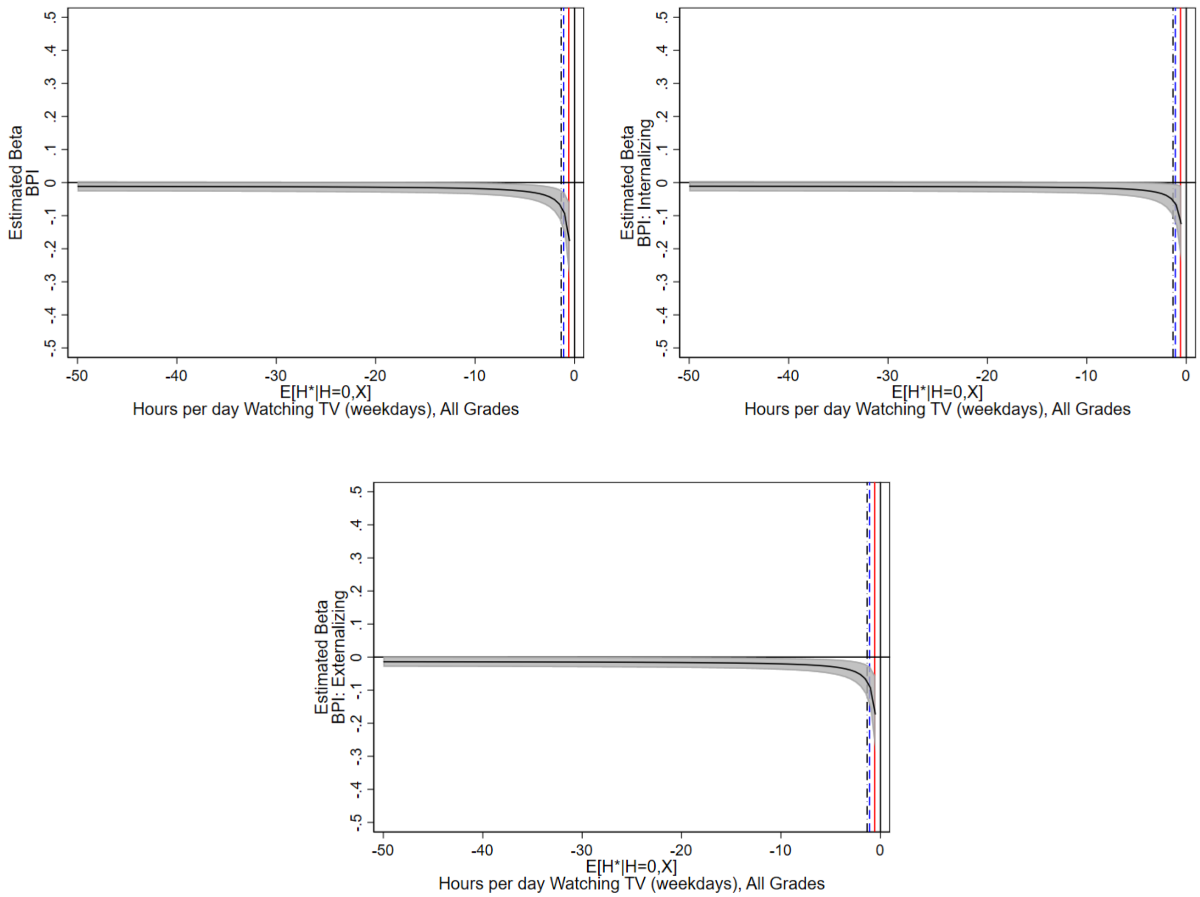
A.9.1 Robustness Analysis: Distributional Assumption

Figure A.62: Estimated β for each counterfactual value of $\tilde{\mathbb{E}}[H^*|H = 0]$, Cognitive Score, All Grades



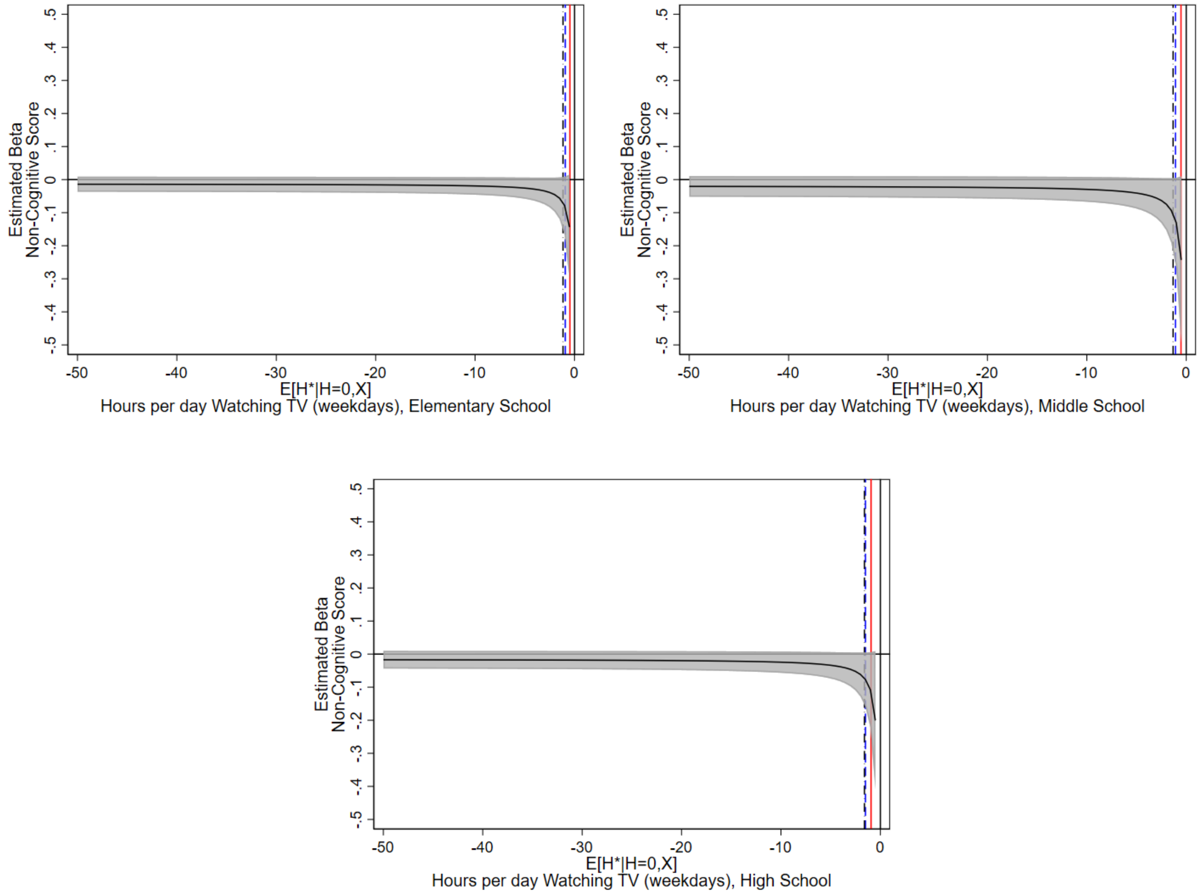
Note: (1) The black curve shows what would be the $\hat{\beta}$ obtained from the regression of Equation (6) for different counterfactual values of $\tilde{\mathbb{E}}[H^*|H = 0]$ with a 95% confidence interval. (2) The vertical lines represent the weighted average of the estimates of $\tilde{\mathbb{E}}[H^*|H = 0, X]$ across all $K = 10$ clusters, obtained from the distributional assumptions: Semiparametric Uniform (solid red line), Semiparametric Tobit (dashed blue line), and Nonparametric Tail Symmetry (dot-dashed black line). Source: PSID and CDS.

Figure A.63: Estimated β for each counterfactual value of $\tilde{\mathbb{E}}[H^*|H = 0]$, Non-Cognitive Score (Other Measures), All Grades



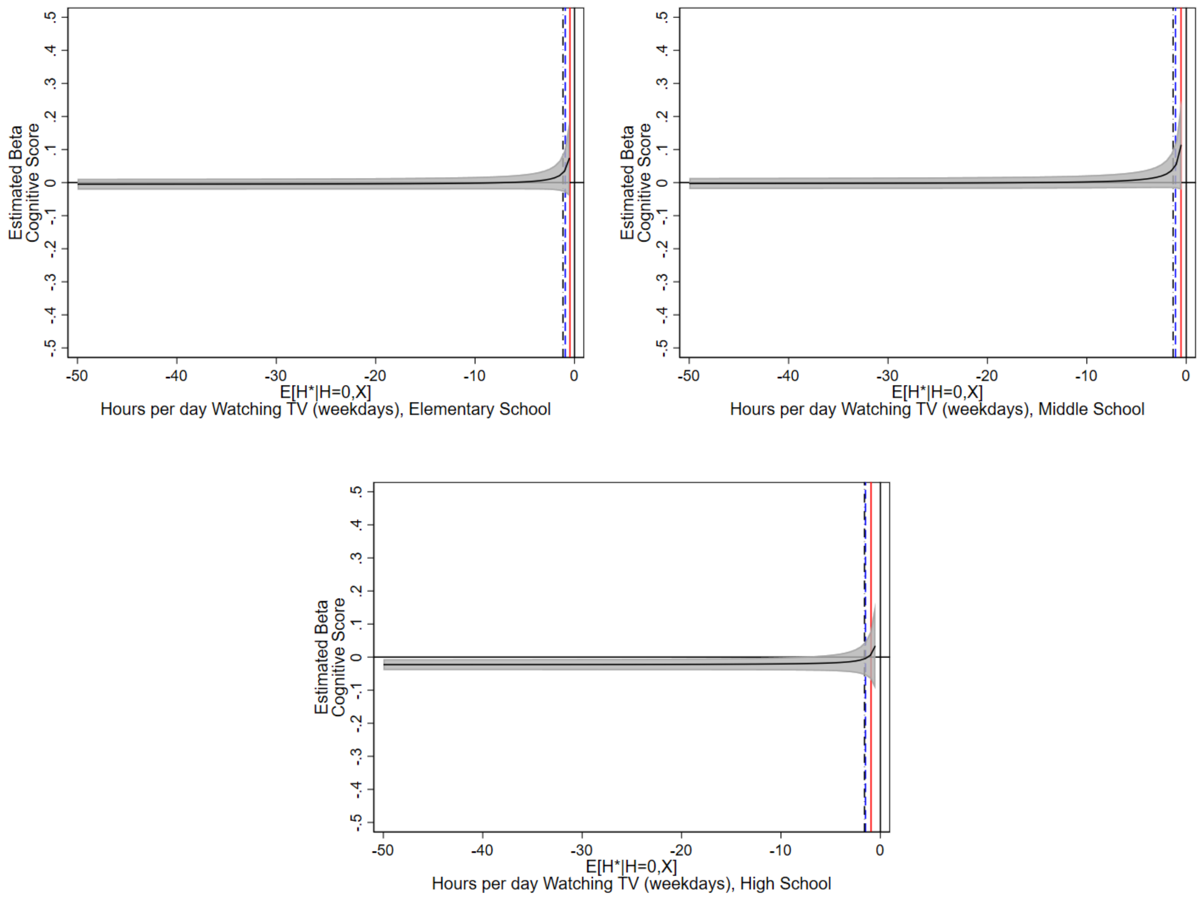
Note: (1) The black curve shows what would be the $\hat{\beta}$ obtained from the regression of Equation (6) for different counterfactual values of $\tilde{\mathbb{E}}[H^*|H = 0]$ with a 95% confidence interval. (2) The vertical lines represent the weighted average of the estimates of $\tilde{\mathbb{E}}[H^*|H = 0, X]$ across all $K = 10$ clusters, obtained from the distributional assumptions: Semiparametric Uniform (solid red line), Semiparametric Tobit (dashed blue line), and Nonparametric Tail Symmetry (dot-dashed black line). Source: PSID and CDS.

Figure A.64: Estimated β for each counterfactual value of $\tilde{\mathbb{E}}[H^*|H = 0]$, Non-Cognitive Score, by Grade



Note: (1) The black curve shows what would be the $\hat{\beta}$ obtained from the regression of Equation (6) for different counterfactual values of $\tilde{\mathbb{E}}[H^*|H = 0]$ with a 95% confidence interval. (2) The vertical lines represent the weighted average of the estimates of $\tilde{\mathbb{E}}[H^*|H = 0, X]$ across all $K = 10$ clusters, obtained from the distributional assumptions: Semiparametric Uniform (solid red line), Semiparametric Tobit (dashed blue line), and Nonparametric Tail Symmetry (dot-dashed black line). Source: PSID and CDS.

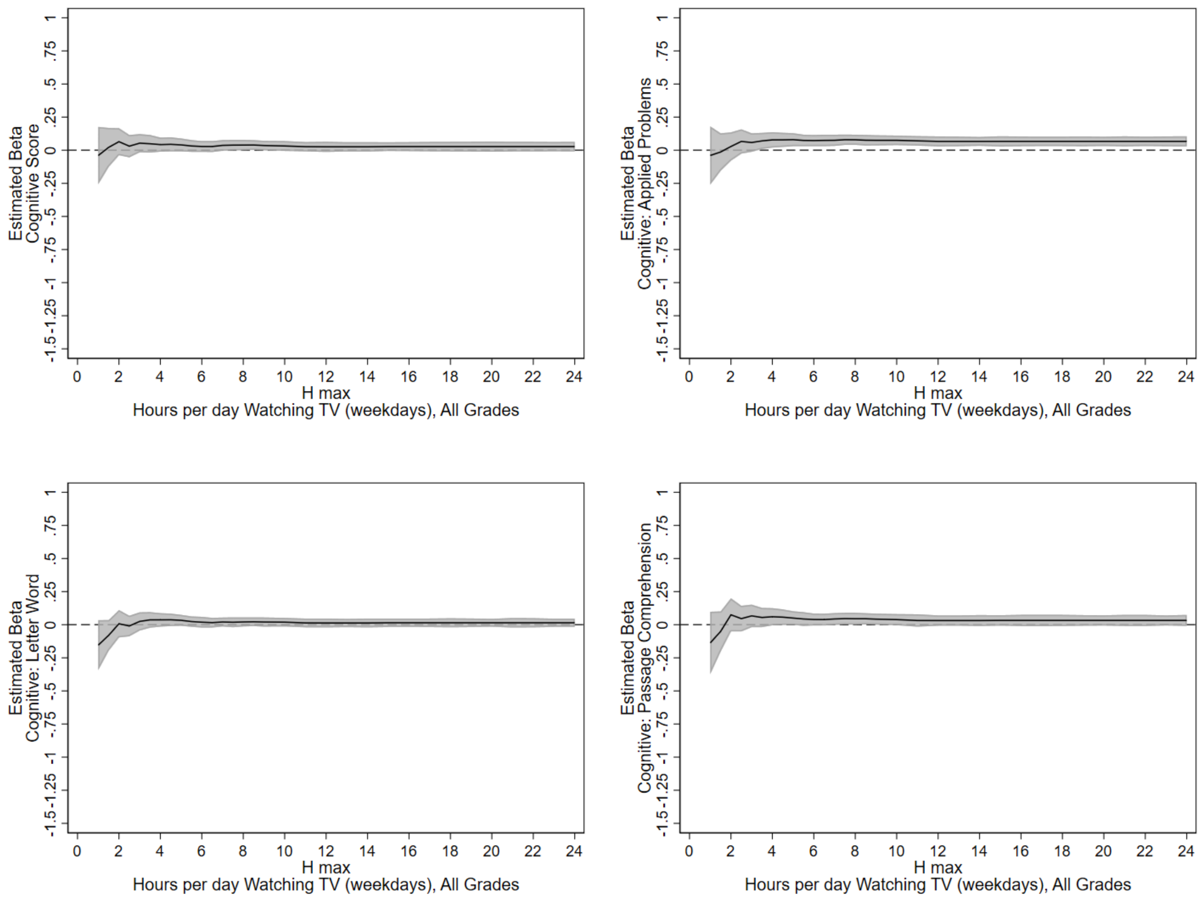
Figure A.65: Estimated β for each counterfactual value of $\tilde{\mathbb{E}}[H^*|H = 0]$, Cognitive Score, by Grade



Note: (1) The black curve shows what would be the $\hat{\beta}$ obtained from the regression of Equation (6) for different counterfactual values of $\tilde{\mathbb{E}}[H^*|H = 0]$ with a 95% confidence interval. (2) The vertical lines represent the weighted average of the estimates of $\tilde{\mathbb{E}}[H^*|H = 0, X]$ across all $K = 10$ clusters, obtained from the distributional assumptions: Semiparametric Uniform (solid red line), Semiparametric Tobit (dashed blue line), and Nonparametric Tail Symmetry (dot-dashed black line). Source: PSID and CDS.

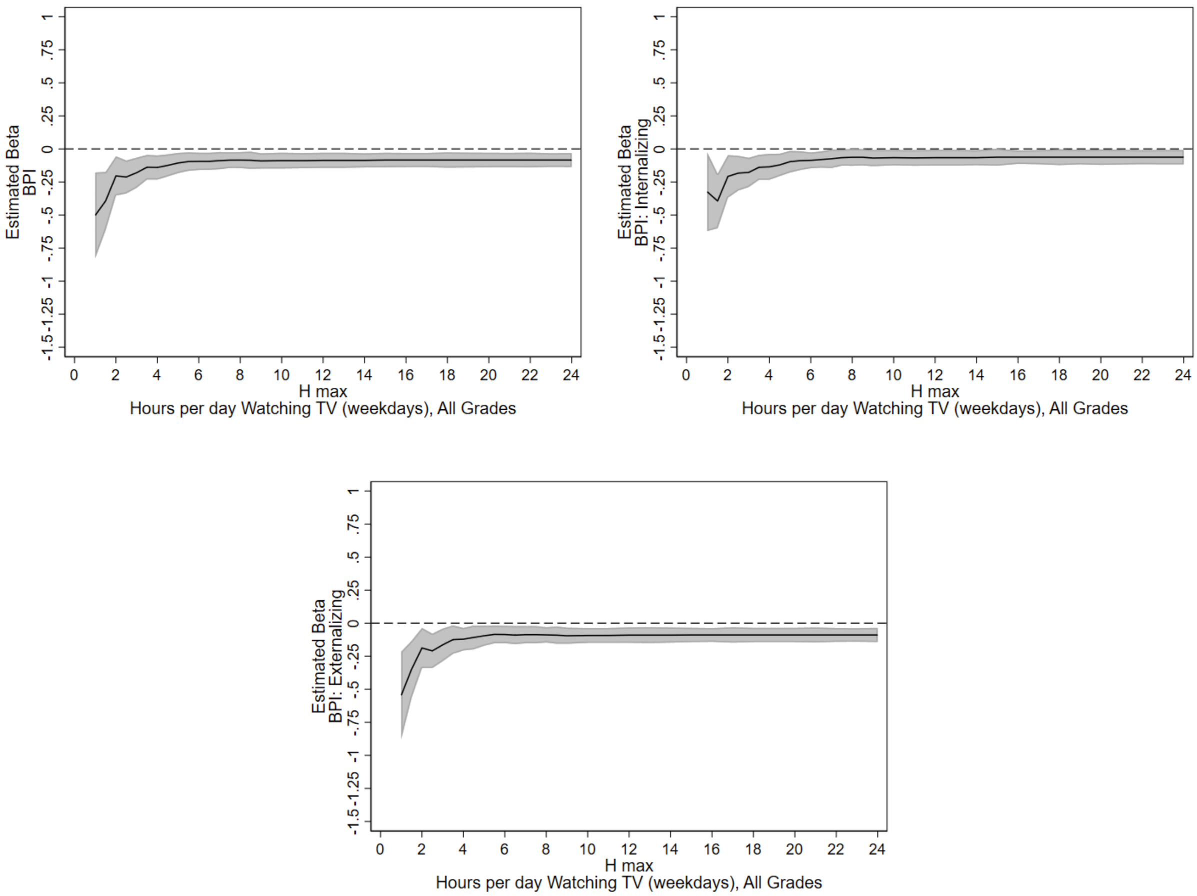
A.9.2 Robustness Analysis: Linearity Assumption

Figure A.66: Estimated β for different samples with $H \leq H_{max}$, Cognitive Score, All Grades



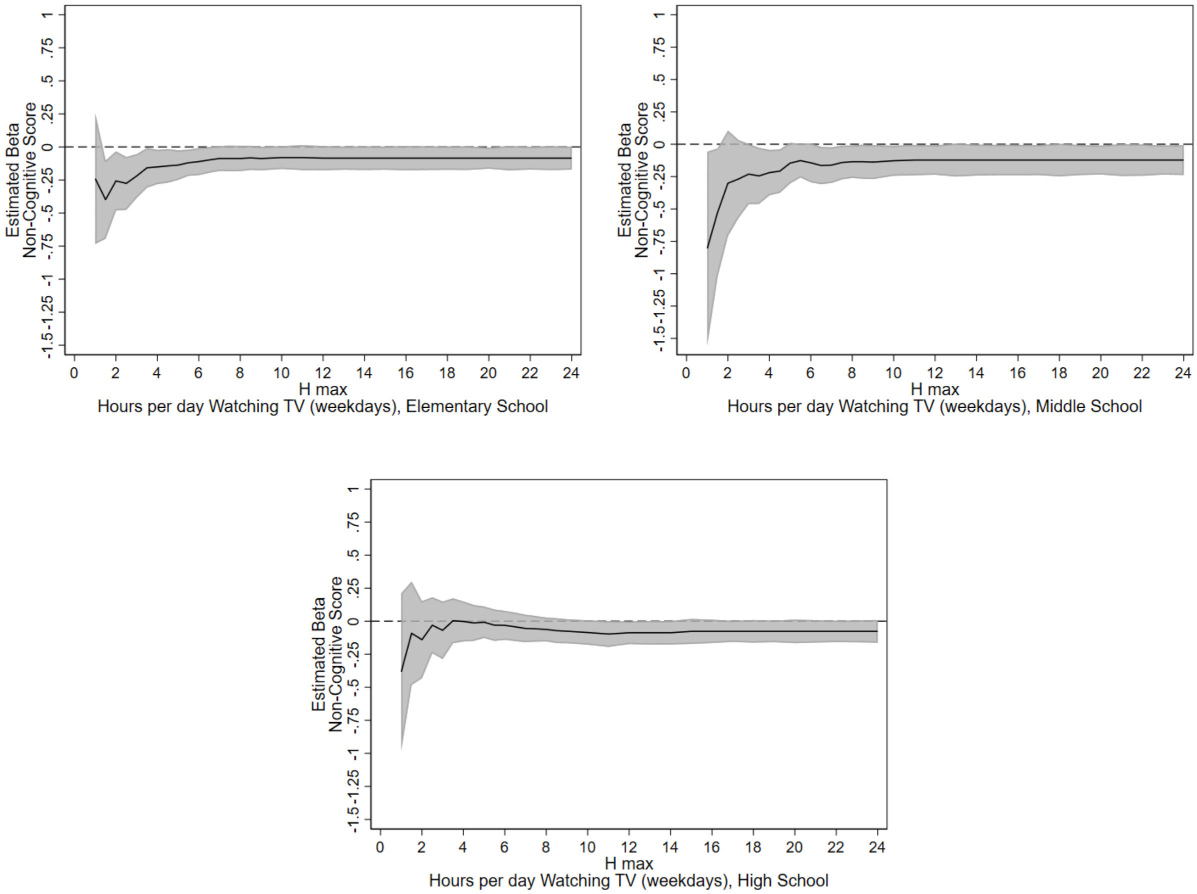
Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{max}$ and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for $H_{max} \geq 1$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.67: Estimated β for different samples with $H \leq H_{max}$, Non-Cognitive Score (Other Measures), All Grades



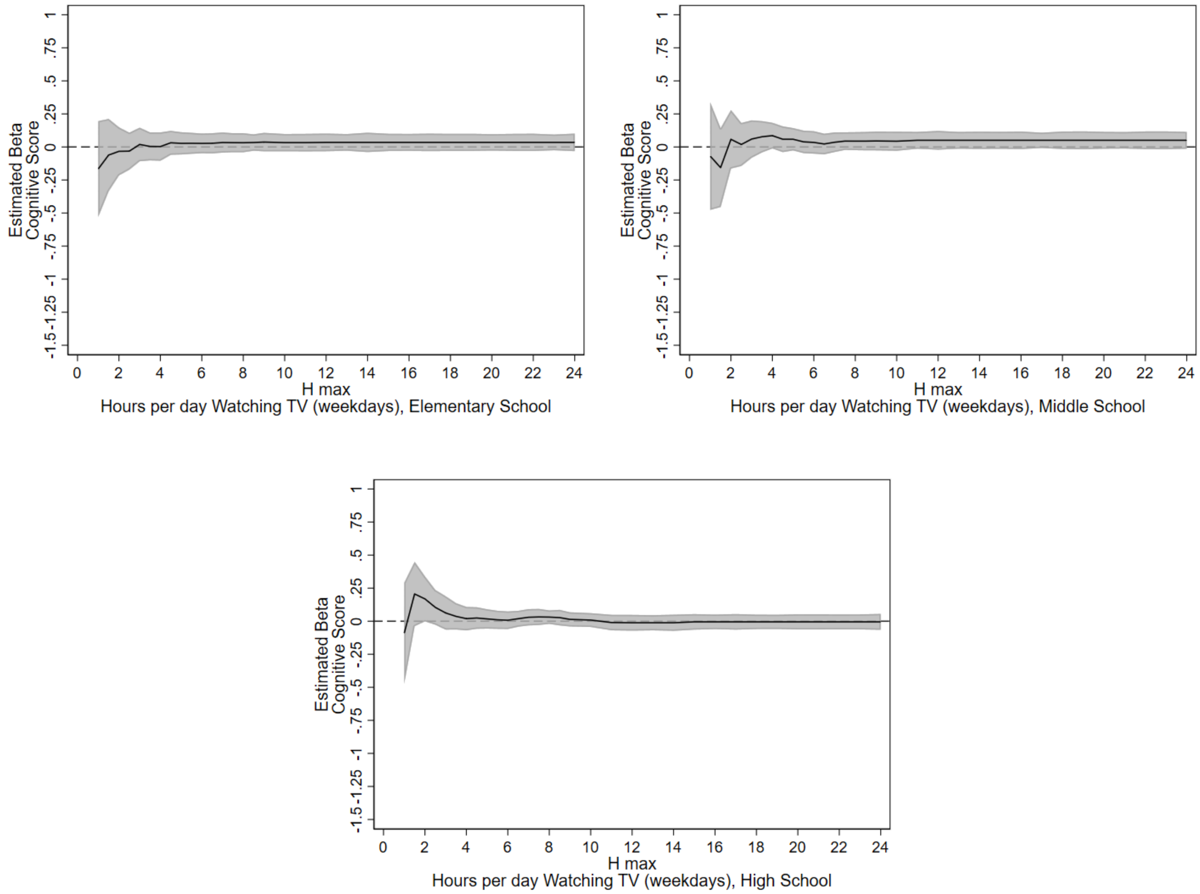
Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{max}$ and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for $H_{max} \geq 1$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.68: Estimated β for different samples with $H \leq H_{max}$, Non-Cognitive Score, by Grade



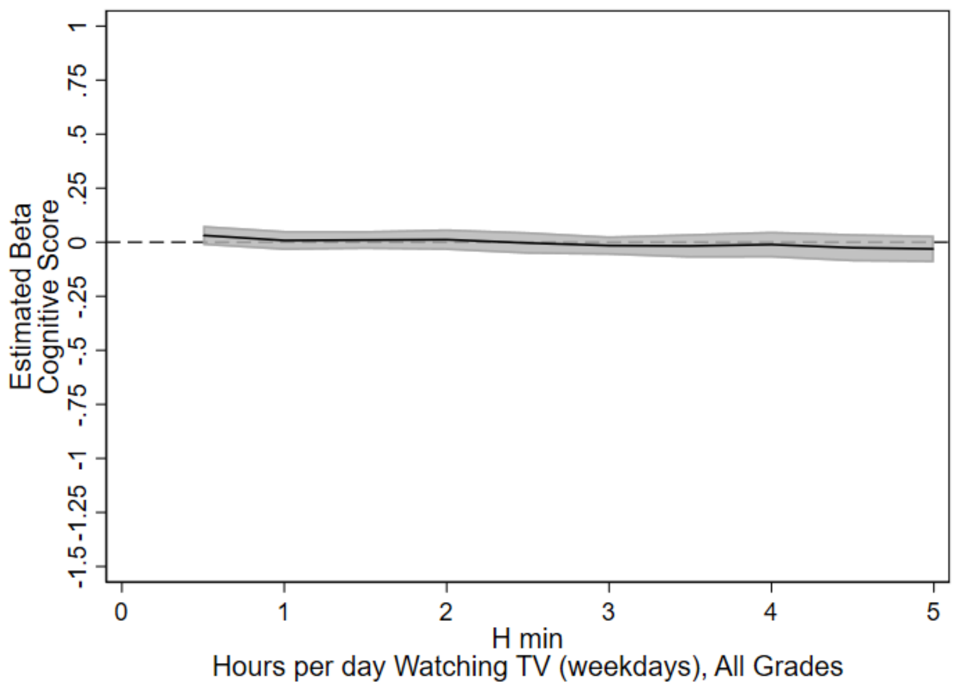
Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{max}$ and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for $H_{max} \geq 1$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.69: Estimated β for different samples with $H \leq H_{max}$, Cognitive Score, by Grade



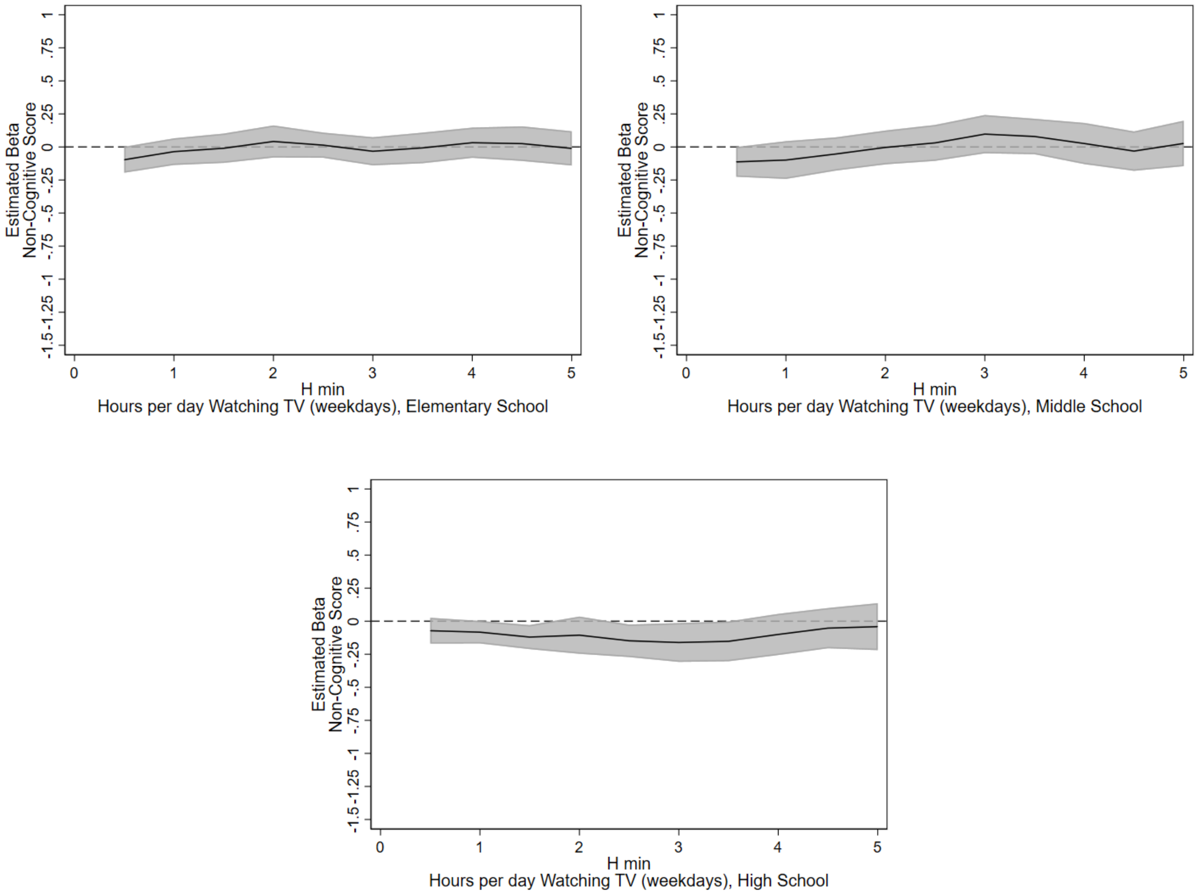
Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{max}$ and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for $H_{max} \geq 1$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.70: Estimated β for different samples with $H \geq H_{min}$, Cognitive Score, All Grades



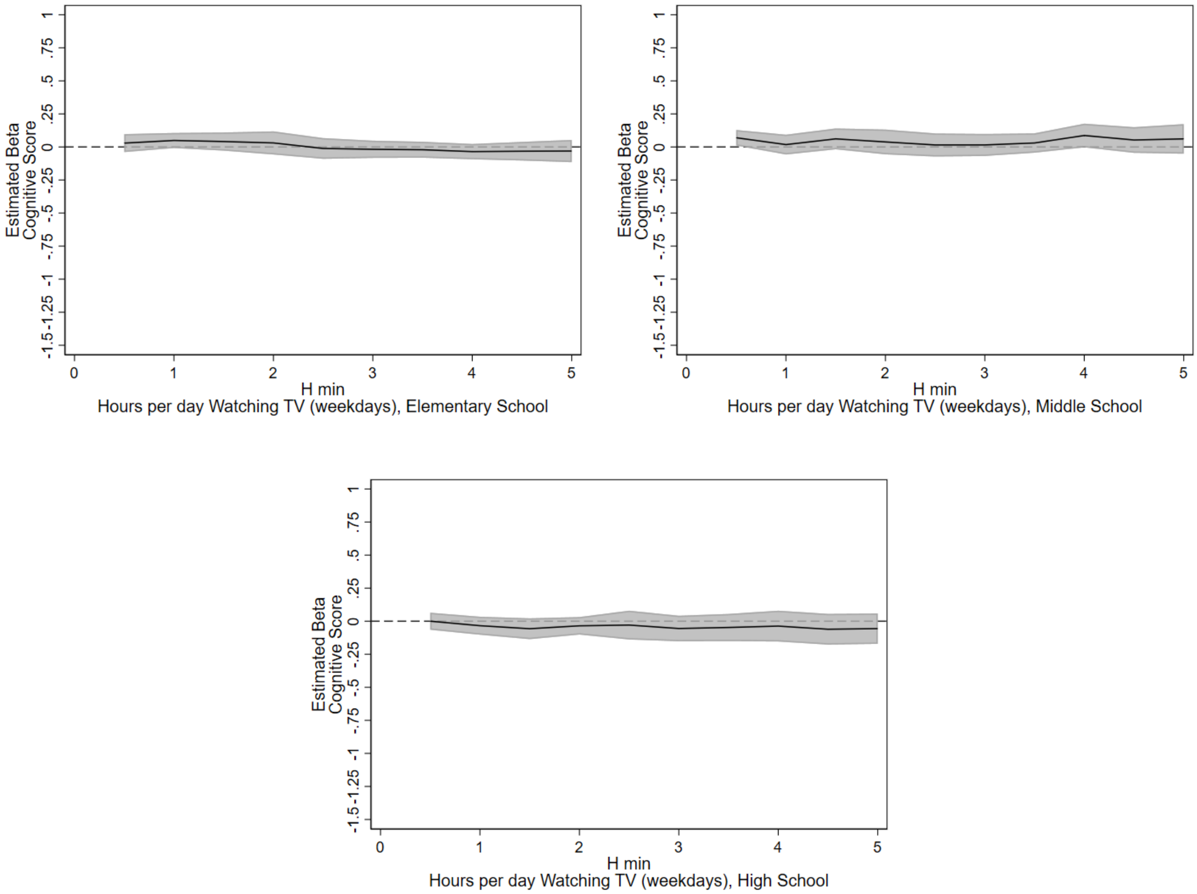
Note: (1) The black line shows estimates of β for restricted samples with $H \geq H_{min}$ and a 95% confidence interval. (2) Bootstraped standard errors using 50 bootstrap samples. (3) Estimates shown for $H_{min} \geq 0.5$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.71: Estimated β for different samples with $H \leq H_{min}$, Non-Cognitive Score, by Grade



Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{min}$ and a 95% confidence interval. (2) Bootstraped standard errors using 50 bootstrap samples. (3) Estimates shown for $H_{min} \geq 0.5$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

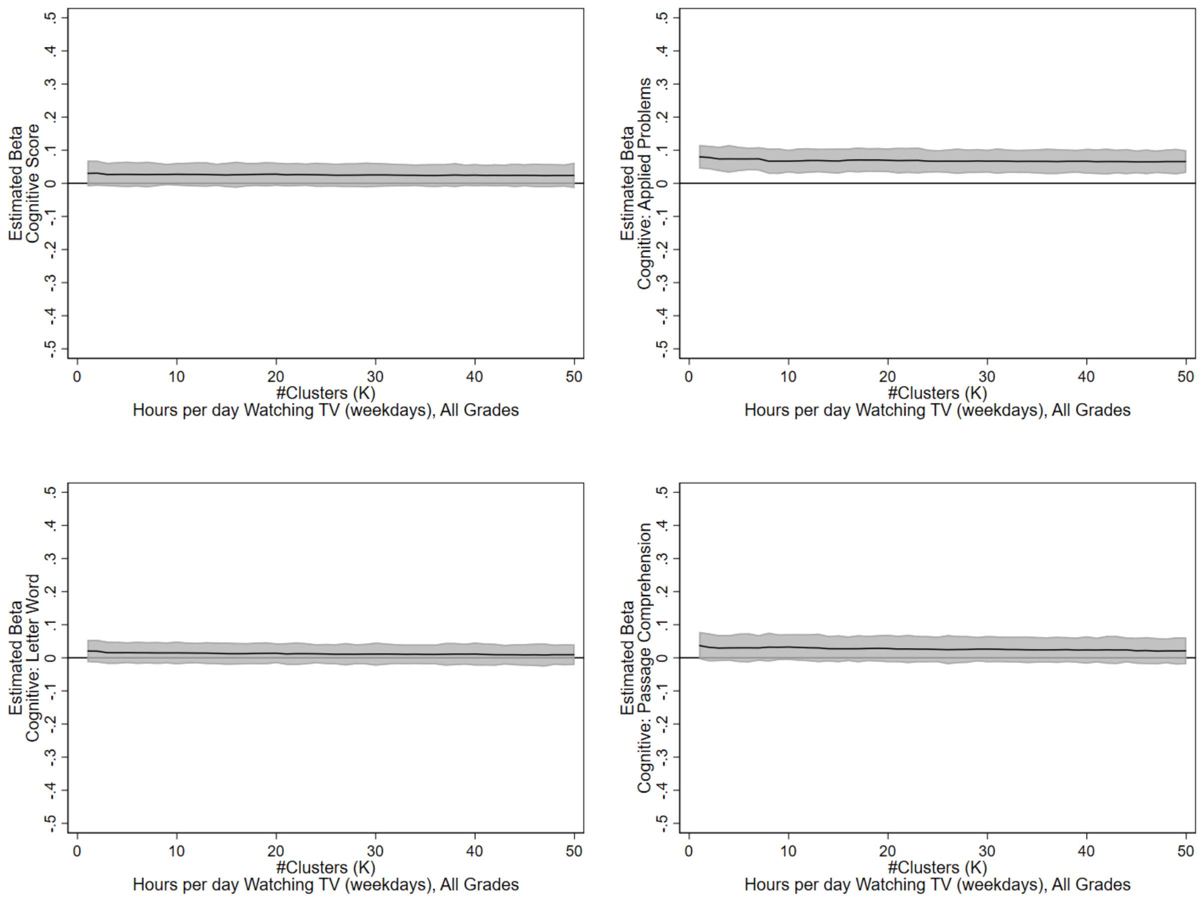
Figure A.72: Estimated β for different samples with $H \leq H_{min}$, Cognitive Score, by Grade



Note: (1) The black line shows estimates of β for restricted samples with $H \leq H_{min}$ and a 95% confidence interval. (2) Bootstraped standard errors using 50 bootstrap samples. (3) Estimates shown for $H_{min} \geq 0.5$ and distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

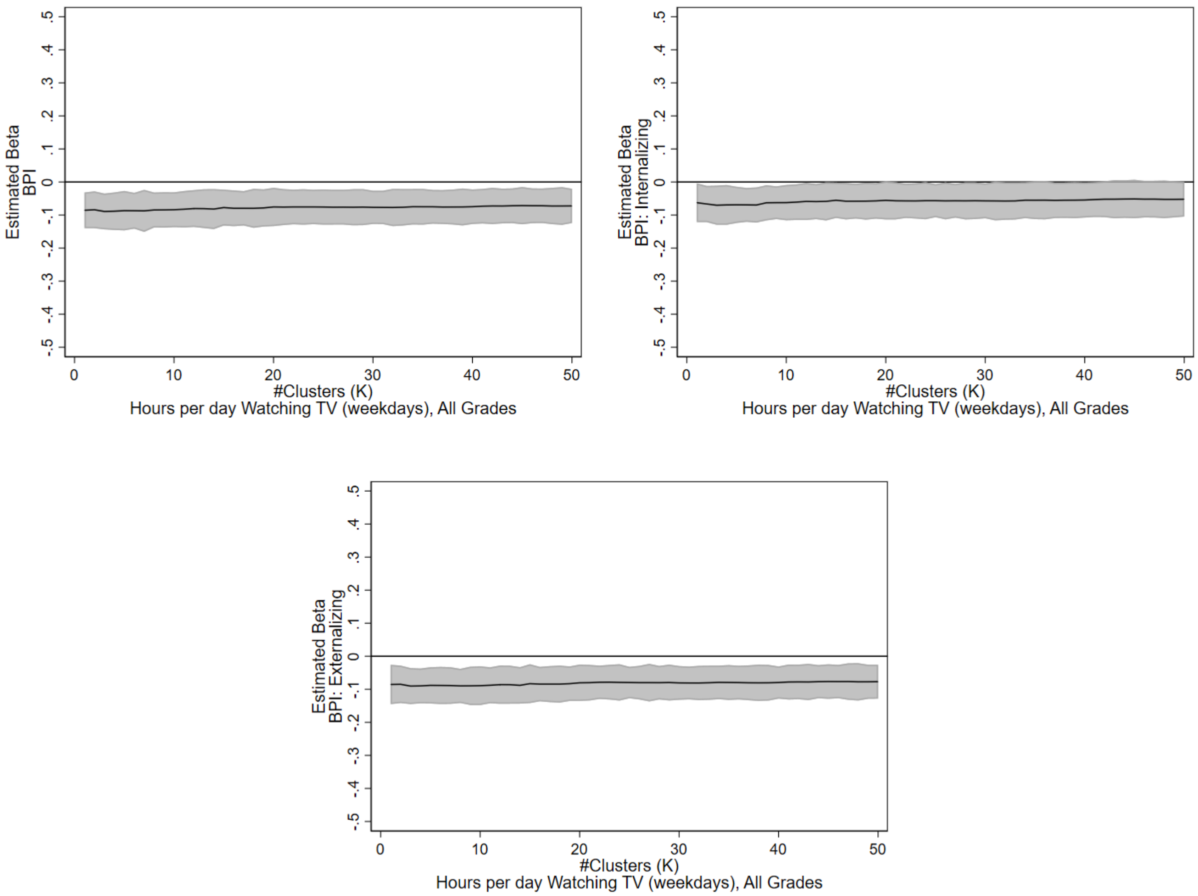
A.9.3 Robustness Analysis: Cluster Choice

Figure A.73: Estimated β for different number of clusters (K), Cognitive Score, All Grades



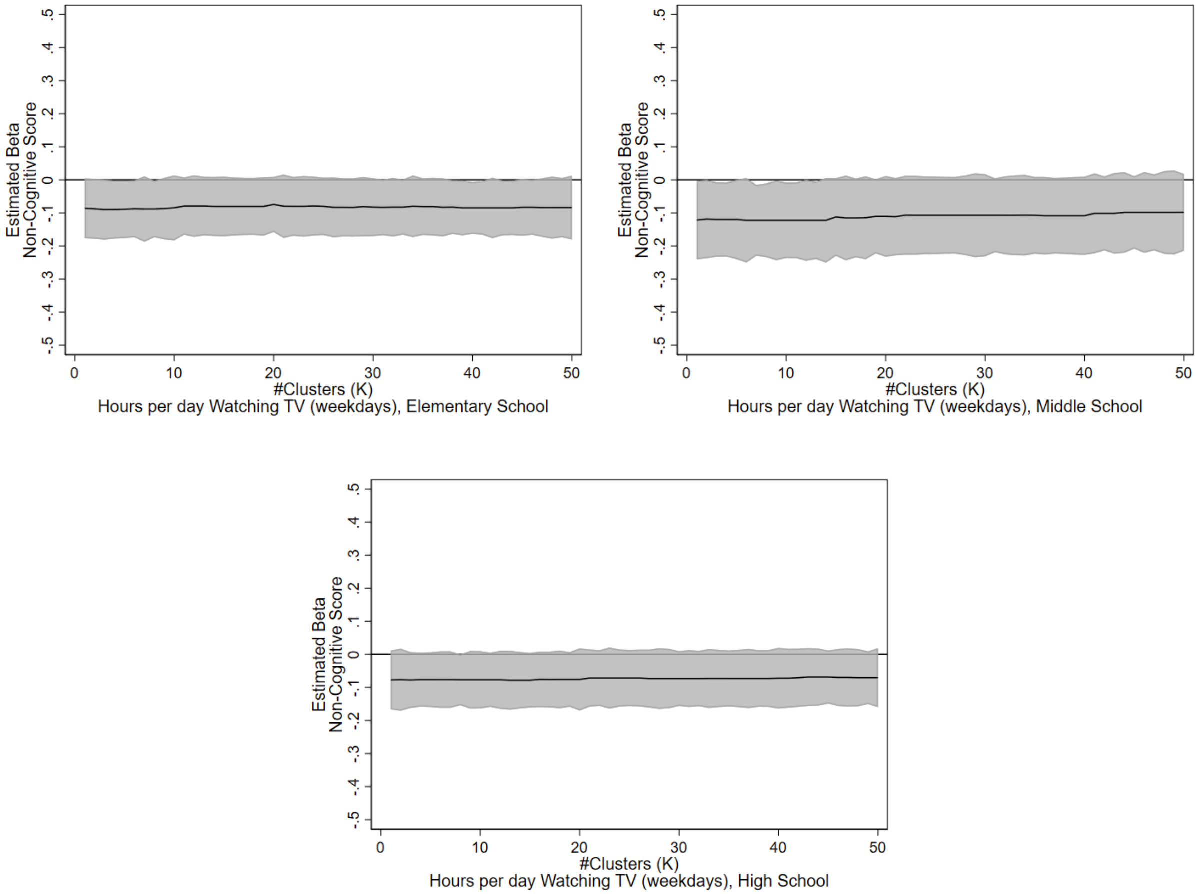
Note: (1) The black line shows estimates of β for different number of clusters (K) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.74: Estimated β for different number of clusters (K), Non-Cognitive Score (Other Measures), All Grades



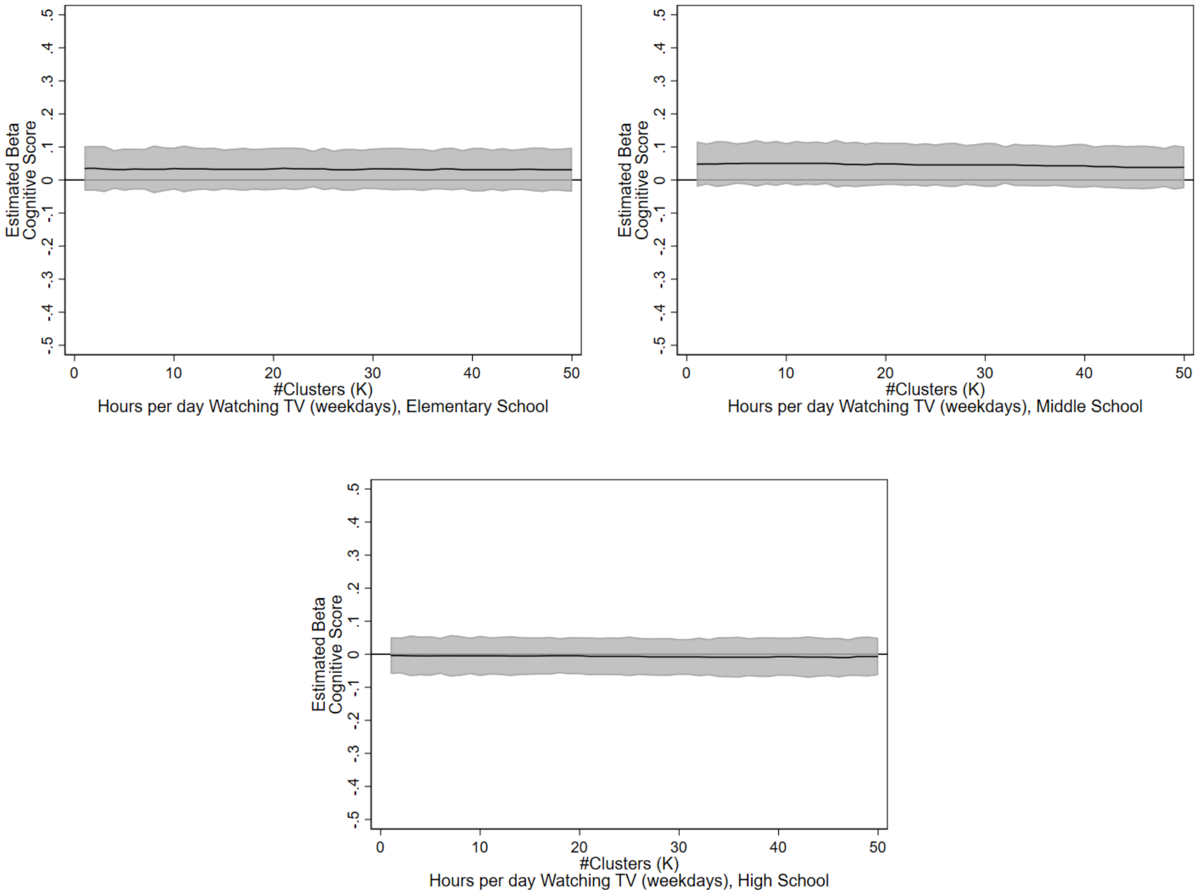
Note: (1) The black line shows estimates of β for different number of clusters (K) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.75: Estimated β for different number of clusters (K), Non-Cognitive Score, by Grade



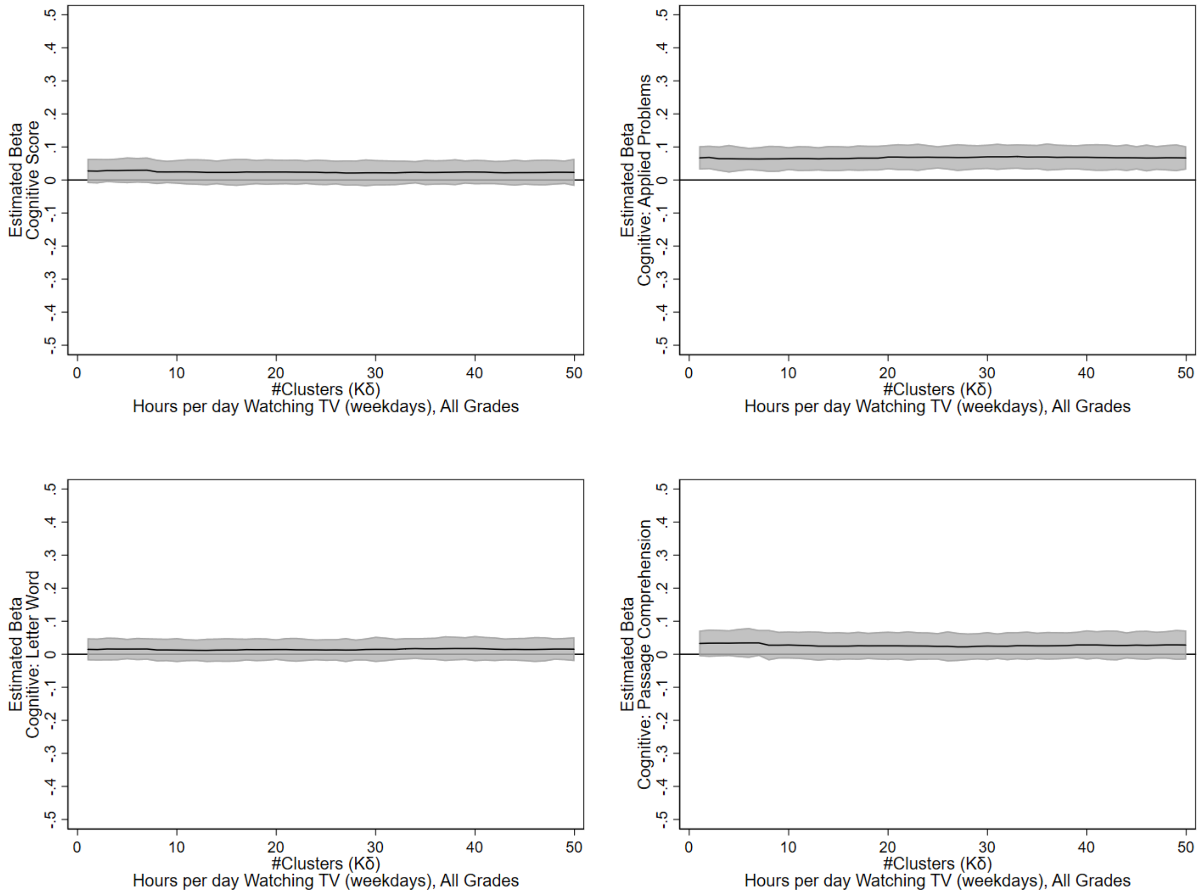
Note: (1) The black line shows estimates of β for different number of clusters (K) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.76: Estimated β for different number of clusters (K), Cognitive Score, by Grade



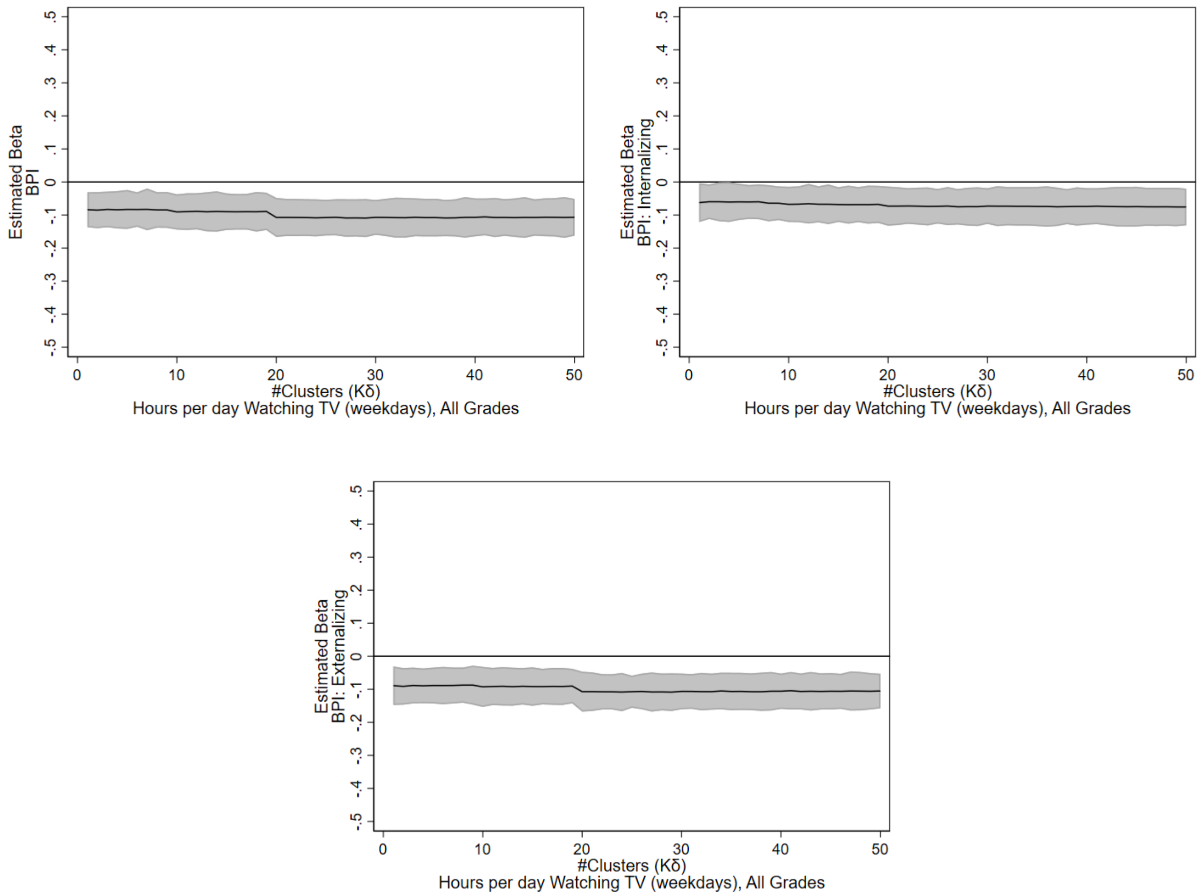
Note: (1) The black line shows estimates of β for different number of clusters (K) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.77: Estimated β for different number of δ clusters (K_δ), Cognitive Score, All Grades



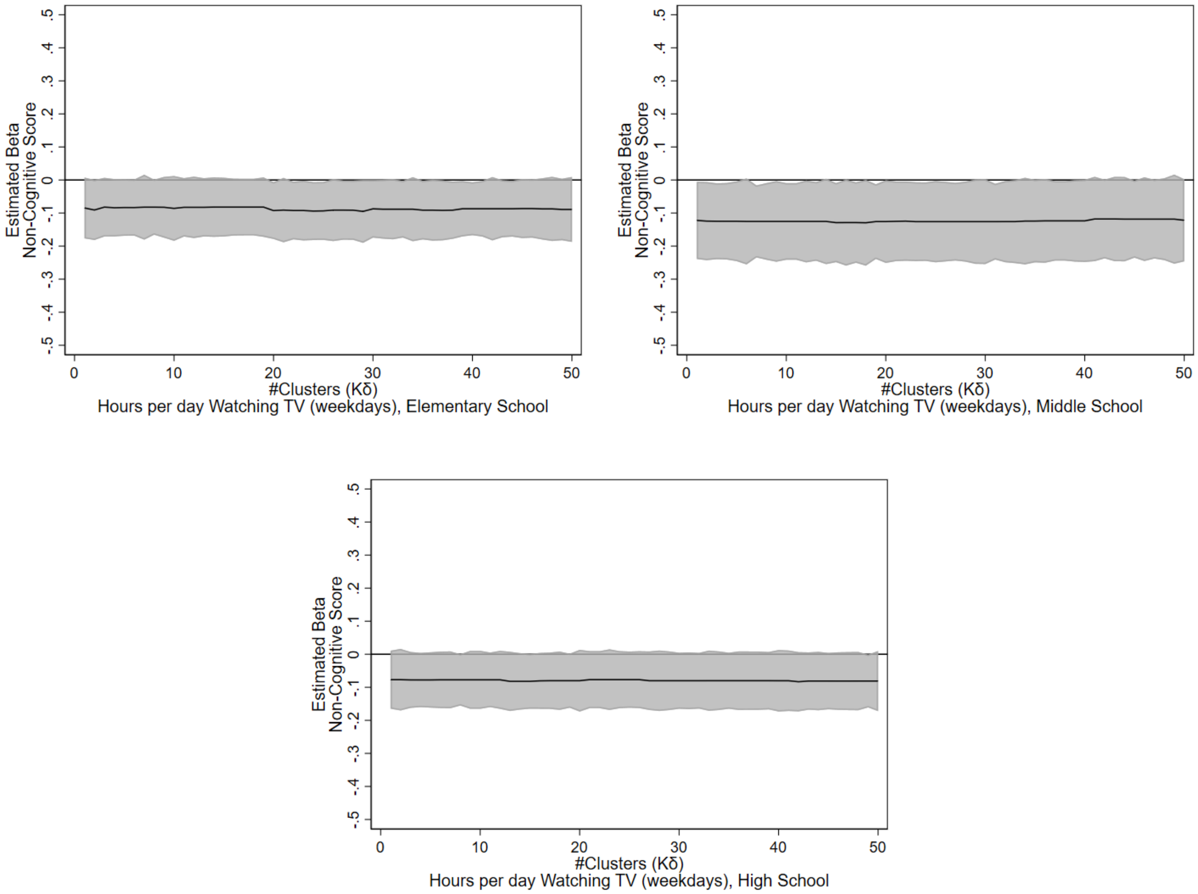
Note: (1) The black line shows estimates of β for different number of δ clusters (K_δ) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.78: Estimated β for different number of δ clusters (K_δ), Non-Cognitive Score (Other Measures), All Grades



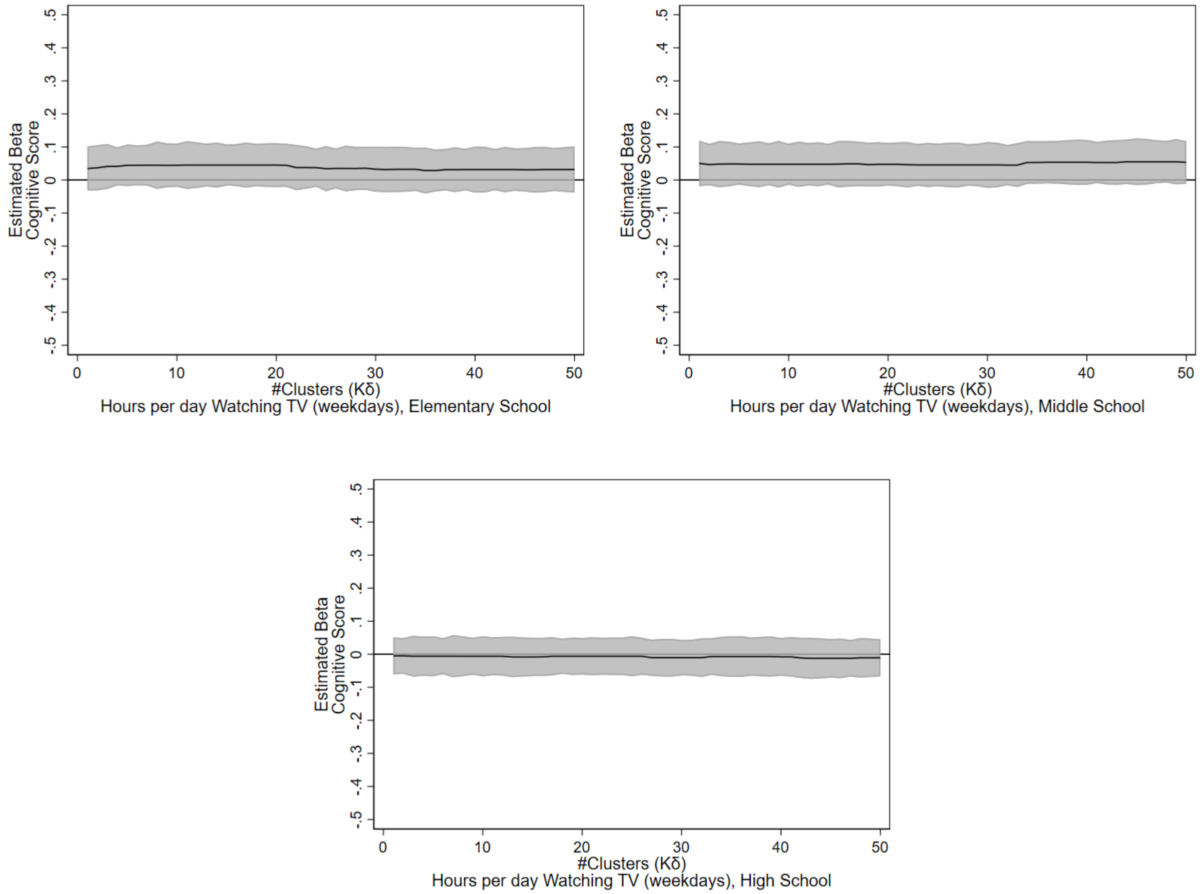
Note: (1) The black line shows estimates of β for different number of δ clusters (K_δ) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.79: Estimated β for different number of δ clusters (K_δ), Non-Cognitive Score, by Grade



Note: (1) The black line shows estimates of β for different number of δ clusters (K_δ) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

Figure A.80: Estimated β for different number of δ clusters (K_δ), Cognitive Score, by Grade



Note: (1) The black line shows estimates of β for different number of δ clusters (K_δ) and a 95% confidence interval. (2) Bootstraped standard errors using 250 bootstrap samples. (3) Estimates shown for distributional assumption Semiparametric Normal, although results are similar for other distributional assumptions. Also, from Section 1.5.2, the distributional assumption does not affect the results. Source: PSID and CDS.

A.9.4 Additional Tables for Cluster Robustness Analysis

Table A.38: Results for the effect of TV Watching during the Whole Week on Non-Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.025^{***}	0.008	-0.776^{***}	-0.169^{***}	-0.113^{**}
(N= 7,027)		(0.009)	(0.008)	(0.279)	(0.064)	(0.046)
	$F(\delta)$			1.802	1.786	1.733
				(0.848)	(0.852)	(0.860)
Elementary School	β	-0.032^{**}	0.011	-1.345	-0.195	-0.104
(N= 3,674)		(0.013)	(0.013)	(0.821)	(0.133)	(0.093)
	$F(\delta)$			1.642	1.543	1.412
				(0.835)	(0.840)	(0.855)
Middle School	β	-0.026	0.001	-0.822	-0.211^{*}	-0.137
(N= 1,675)		(0.017)	(0.017)	(0.585)	(0.125)	(0.087)
	$F(\delta)$			0.470	0.624	0.608
				(0.859)	(0.828)	(0.802)
High School	β	-0.008	0.008	-0.547^{*}	-0.138	-0.104
(N= 1,678)		(0.015)	(0.015)	(0.321)	(0.087)	(0.067)
	$F(\delta)$			0.699	0.620	0.625
				(0.816)	(0.844)	(0.843)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 10$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.39: Results for the effect of TV Watching during Weekends on Non-Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.001	0.013**	−0.120*	−0.054*	−0.042*
(N= 7,027)		(0.005)	(0.005)	(0.069)	(0.031)	(0.025)
	$F(\delta)$			1.705	1.777	1.807
				(0.825)	(0.826)	(0.825)
Elementary School	β	−0.002	0.018**	−0.384**	−0.117**	−0.083*
(N= 3,674)		(0.008)	(0.008)	(0.165)	(0.056)	(0.044)
	$F(\delta)$			2.190	2.116	2.087
				(0.766)	(0.781)	(0.785)
Middle School	β	−0.005	0.005	−0.149	−0.064	−0.045
(N= 1,675)		(0.010)	(0.010)	(0.127)	(0.057)	(0.046)
	$F(\delta)$			1.514	1.617	1.580
				(0.704)	(0.701)	(0.706)
High School	β	0.006	0.013	0.015	0.011	0.010
(N= 1,678)		(0.009)	(0.009)	(0.080)	(0.045)	(0.039)
	$F(\delta)$			0.022	0.015	0.014
				(0.998)	(0.999)	(0.999)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 10$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.40: Results for the effect of TV Watching during Weekdays on Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.028***	−0.018***	0.041	0.025	0.024
(N= 5,781)		(0.008)	(0.005)	(0.041)	(0.024)	(0.021)
	$F(\delta)$			1.431	1.448	1.532
				(0.890)	(0.888)	(0.879)
Elementary School	β	−0.030**	−0.012	0.073	0.045	0.037
(N= 2,673)		(0.013)	(0.008)	(0.074)	(0.039)	(0.033)
	$F(\delta)$			0.688	0.751	0.759
				(0.931)	(0.923)	(0.924)
Middle School	β	−0.041***	−0.011	0.083	0.048	0.040
(N= 1,538)		(0.011)	(0.008)	(0.076)	(0.040)	(0.034)
	$F(\delta)$			1.270	1.343	1.335
				(0.790)	(0.784)	(0.785)
High School	β	−0.061***	−0.028***	0.004	−0.006	−0.005
(N= 1,570)		(0.012)	(0.010)	(0.051)	(0.036)	(0.034)
	$F(\delta)$			1.204	1.011	1.001
				(0.762)	(0.787)	(0.788)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 10$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.41: Results for the effect of TV Watching during the Whole Week on Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.038***	−0.018***	0.167	0.039	0.021
(N= 5,781)		(0.009)	(0.006)	(0.197)	(0.046)	(0.034)
	$F(\delta)$			1.606	1.486	1.377
				(0.854)	(0.870)	(0.885)
Elementary School	β	−0.041***	−0.018*	0.911	0.124	0.071
(N= 2,673)		(0.014)	(0.009)	(0.669)	(0.104)	(0.075)
	$F(\delta)$			1.036	0.896	0.810
				(0.872)	(0.898)	(0.925)
Middle School	β	−0.043***	−0.008	0.131	0.030	0.016
(N= 1,538)		(0.013)	(0.009)	(0.408)	(0.084)	(0.059)
	$F(\delta)$			0.563	0.521	0.470
				(0.897)	(0.904)	(0.913)
High School	β	−0.070***	−0.029***	0.107	0.010	−0.004
(N= 1,570)		(0.013)	(0.011)	(0.208)	(0.058)	(0.046)
	$F(\delta)$			2.168	1.834	1.669
				(0.653)	(0.654)	(0.660)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 10$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table A.42: Results for the effect of TV Watching during Weekends on Cognitive Score, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.021***	−0.006	−0.035	−0.015	−0.012
(N= 5,781)		(0.006)	(0.004)	(0.045)	(0.020)	(0.017)
	$F(\delta)$			1.396	1.364	1.349
				(0.867)	(0.867)	(0.876)
Elementary School	β	−0.023**	−0.011*	0.021	0.003	−0.001
(N= 2,673)		(0.009)	(0.006)	(0.118)	(0.040)	(0.031)
	$F(\delta)$			0.753	0.784	0.800
				(0.922)	(0.912)	(0.907)
Middle School	β	−0.013	0.002	−0.043	−0.021	−0.019
(N= 1,538)		(0.009)	(0.006)	(0.087)	(0.037)	(0.030)
	$F(\delta)$			0.386	0.429	0.476
				(0.952)	(0.941)	(0.924)
High School	β	−0.030***	−0.009	0.016	0.007	0.006
(N= 1,570)		(0.008)	(0.006)	(0.053)	(0.029)	(0.025)
	$F(\delta)$			1.835	1.673	1.617
				(0.678)	(0.693)	(0.700)

(1) The table shows estimates of the effect of an additional hour of TV per day on a child's score. (2) Estimation using $K = 10$ and $K_\delta = 10$. (3) Bootstraped standard errors in parentheses using 500 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Appendix B

B.1 Comparing the Patterns of Adolescents Time Use: CDS vs. ATUS

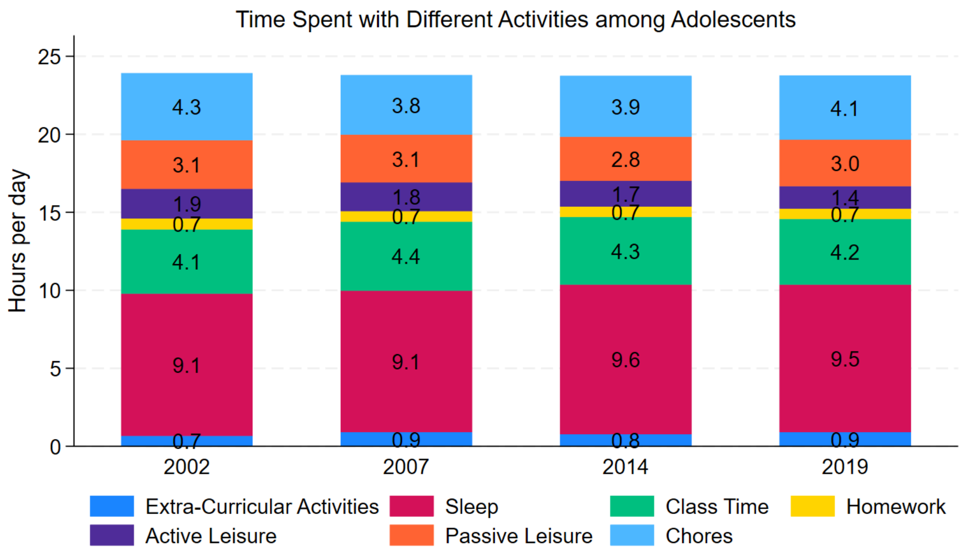
In this section, I document the patterns of TV and other forms of leisure consumption for the children population using two different datasets—the The Child Development Supplement (CDS) from the Panel Study of Income Dynamics (PSID) and the American Time Use Survey (ATUS) from the U.S. Bureau of Labor Statistics. The objective is to describe how children spend their time in typical days and understand how the habits of TV watching, mainly, have changed past the last decades.

One important aspect to highlight here though is that ATUS contains information only for adolescents from 15 to 18 years of age (adolescents), whereas the CDS contains data for children up to 18 years if age. Given this difference, and in order to keep the analysis comparable, I will focus first on children from 15 to 18 years of age for both datasets and time spent per week.

B.1.1 Adolescents' Leisure Consumption in the CDS/PSID

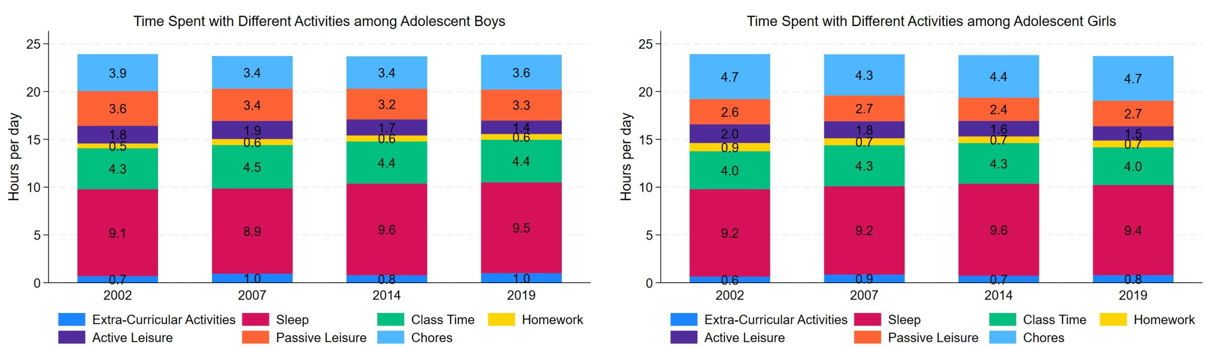
Figure B.1 shows the evolution of time share spent with groups of activities over the years for adolescents. There is not a big difference in the way adolescents spend their time over the years — they have been sleeping more, spending more time with extra-curricular activities and classes and less time with leisure. Figure B.2 shows the same breakdown by sex. Again, there is not an apparent difference between the time division over the years, although we observe that girls tend to spend more time with chores than boys and fewer time with passive leisure activities.

Figure B.1: Time Spent with Different Activities among Adolescents



Notes: (1) Panel shows the average number of hours per day spent on different categories of activities over a typical day. (2) Category "Other Activities" is not shown as the time spent is negligible (on average less than 15 minutes per day). (3) Wave 1997 is not shown to make it more comparable with the ATUS dataset. Source: CDS/PSID.

Figure B.2: Time Spent with Different Activities among Adolescents

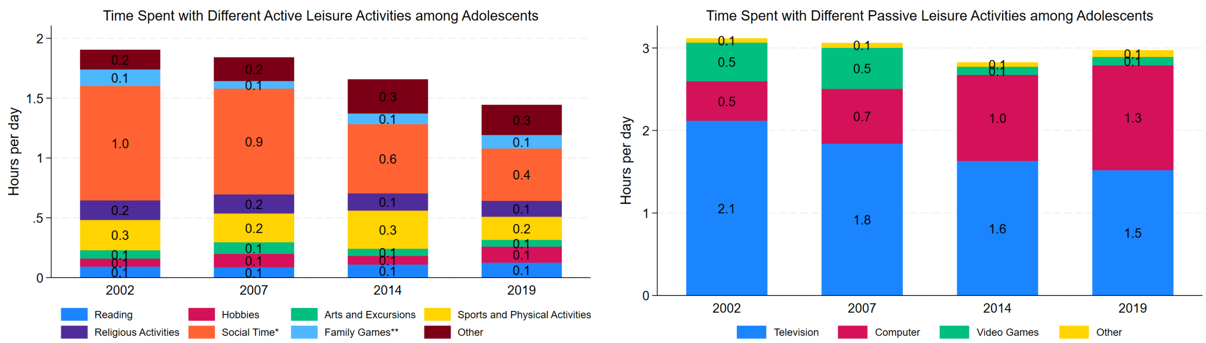


Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) Category "Other Activities" is not shown as the time spent is negligible (on average less than 15 minutes per day). (3) Wave 1997 is not shown to make it more comparable with the ATUS dataset. Source: CDS/PSID.

Taking a look at the leisure activities, Figure B.3 shows how much time adolescents spend on average per day with active and passive leisure activities. The left panel shows that, over the years, the overall time spent with active leisure decreased. The main decrease comes from social life: social time, time spent with conversations, socialization, and affection, have decreased by more than a half between 2002 and 2019.

That is not the case with passive leisure activities, as shown in the right panel—the average time spent with passive leisure activities barely changed over the years. However, adolescents have been watching less TV and using more the computer, what is expected as the technology and social media activities have became more and more appealing. Specifically about TV time, I consider as TV watching any time spent by the child watching TV shows, video, or movie in any type of device, as long as it is not related to playing games, surfing the we, or social media use[1], while computer time does not involve playing, but using the computer for activities other than for homework or working.

Figure B.3: Time Spent with Leisure Activities among Adolescents



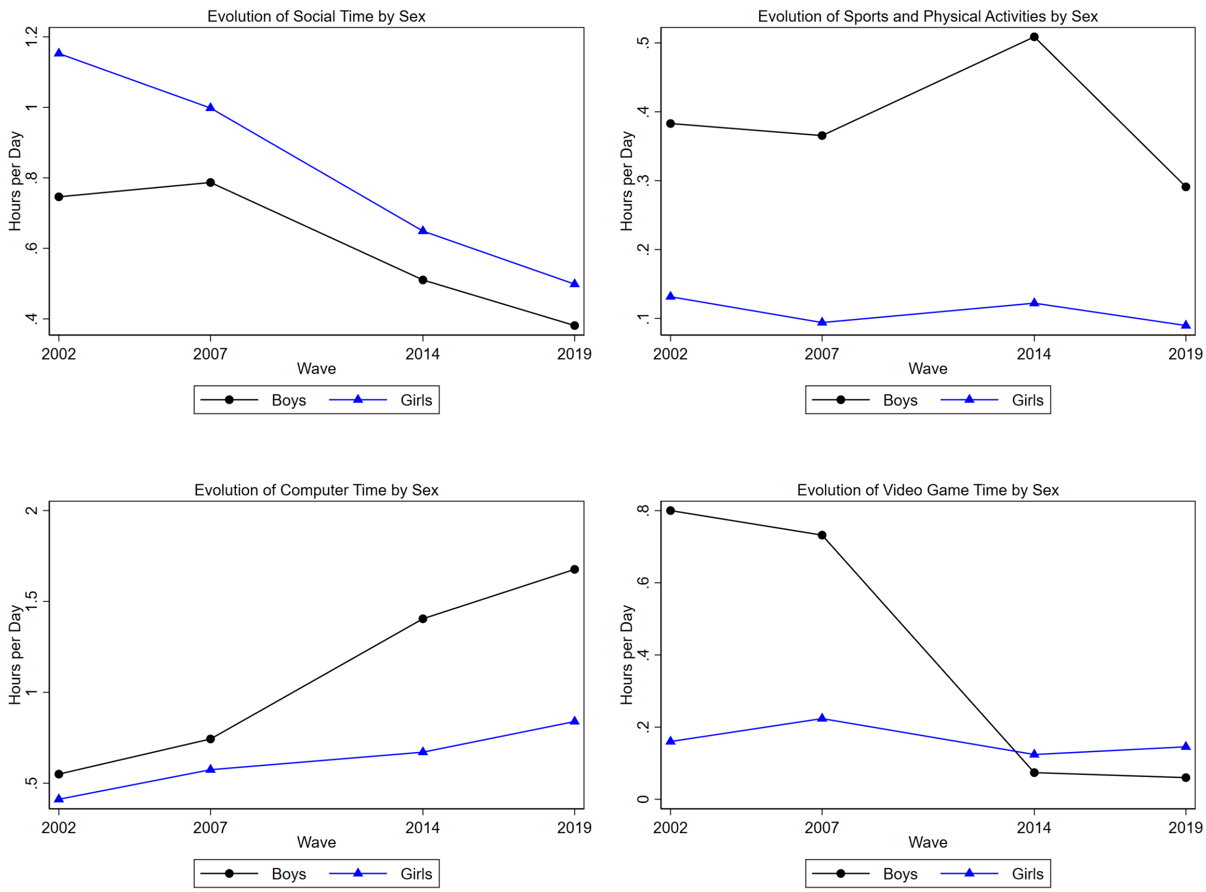
Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) Social time involves activities as conversations, socialization, and affection time. (3) Wave 1997 is not shown to make it more comparable with the ATUS dataset. Source: CDS/PSID.

Figure B.4 shows the evolution of time spent with selected leisure activities for male and female adolescents. Comparing the patterns between boys and girls, the later tend to spend more time with socialization and less time with computer use, physical activities, and video game (although in recent years girls spend almost as much time with video games than boys). However, the trend pattern is similar for both groups over the years.

Making a similar analysis by household income level, I do not observe different patterns across low-, middle-, and high-income families.

[1]Basically, any time under the activity code 9190.

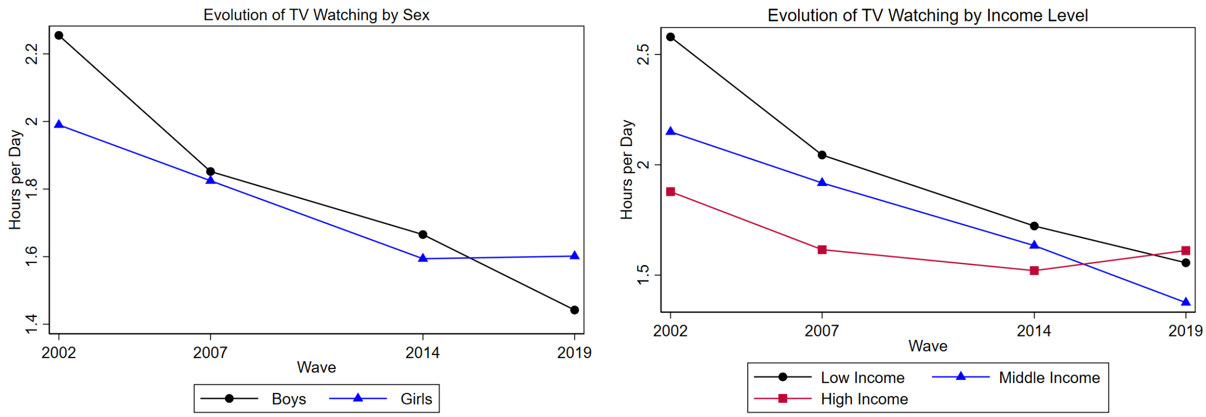
Figure B.4: Evolution of Selected Leisure Activities among Adolescents, by Sex



Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) Social time involves activities as conversations, socialization, and affection time. (3) Wave 1997 is not shown to make it more comparable with the ATUS dataset. Source: CDS/PSID.

Television is however an specific type of activity in the sense that it is a common habit despite sex or income level. The decrease in the time spent with TV happens for boys, girls, and all household income levels, as shown in Figure B.5, with a stronger persistence in the amount of time spent among girls and high-income families. Still, in 2019, adolescents spent on average 1.5 hour watching TV — that is 15.4% more than time spent with computers (1.3 hour/day) and 15 times more time spent with video games (0.10 hour/day). Adolescents who watched TV in 2019, (roughly 85% of the sample) spent 1.8 hour per day watching TV, 1.1 hour/day using the computer, and 0.1 hour playing video games. However, adolescents who did not watch TV in 2019 spent 2.1 hours/day using the computer and 0.2 hour playing video games.

Figure B.5: Evolution of Time Spent with TV among Adolescents



Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. (2) Wave 1997 is not shown to make it more comparable with the ATUS dataset. Source: CDS/PSID.

B.1.2 Adolescents' Leisure Consumption in the ATUS

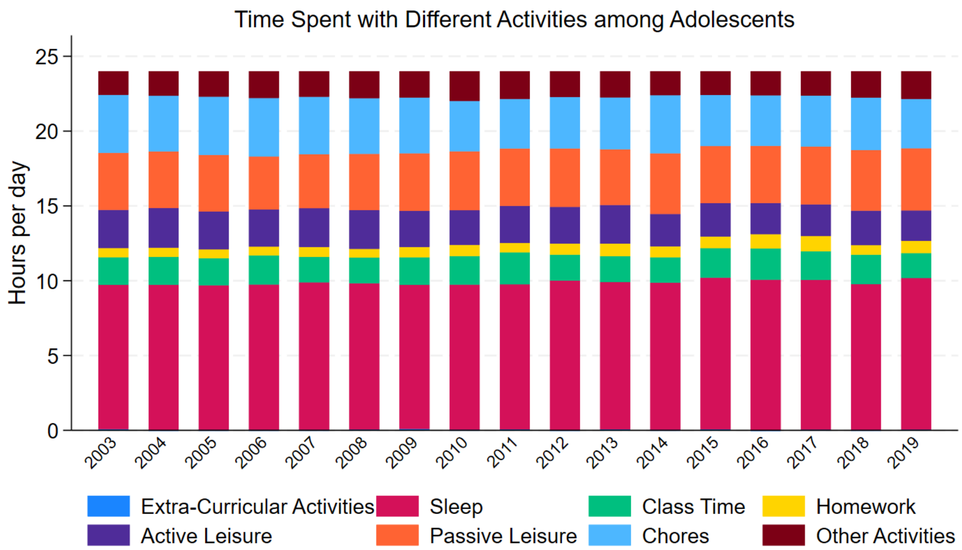
The American Time Use Survey (ATUS) is a continuous survey on time use in the United States. In the survey, individuals are randomly selected from a subset of households that have completed their eighth month of interviews for the Current Population Survey (CPS). ATUS respondents are interviewed only one time about how they spent their time on the previous day, where they were, and whom they were with. In terms of data collection, the time-use diary interview happens for most days of the year, including holidays, which I excluded from the sample. Interviewers report activities each individual performed in the previous day[2] (Hamermesh et al., 2005).

Starting with the official data collection in 2003, it is an yearly-based survey and I show the data available up to 2019 so it is comparable with the previous analysis. For the current analysis, the sample kept informant or person living in the household with age between 15 and 18 years. The activity codebook is different from the one in CDS, but it allows the grouping of activities within the same categories, although some differences are significant. For instance, time spent with extra-curricular activities is negligible in comparison with other groups of activities (less than 0.1 hour per day). On the other hand, time spent with other activities (remainder) is higher, reflecting both the fact that the activities coding in each survey is indeed different and differences in the data collection. Despite that, the patterns found in the CDS data above repeat here.

Figure B.6 shows the evolution of time share spent with groups of activities over the years for adolescents in ATUS. Again, adolescents have not changed their use of time over the years—they have been sleeping more, spending less time with classes but more time with homework, and less time with leisure in general. Figure B.7 shows the same breakdown by sex. Again, the same patterns repeat themselves.

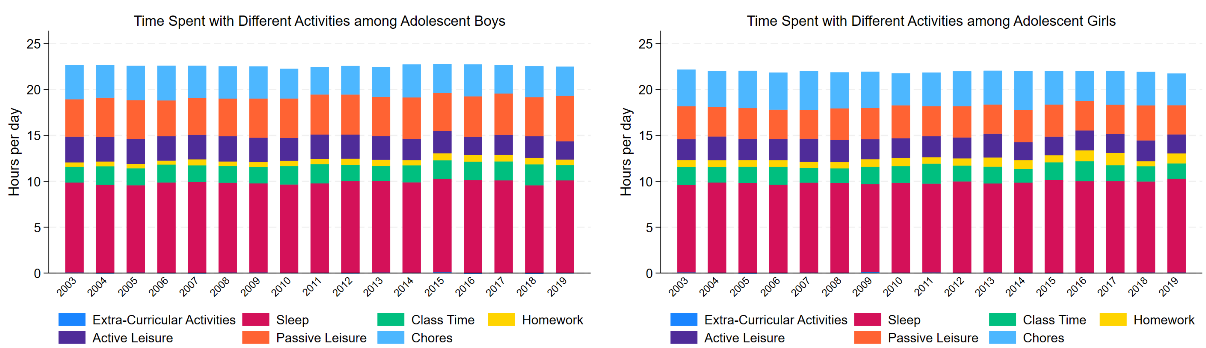
[2] More information can be found in the ATUS website, here.

Figure B.6: Time Spent with Different Activities among Adolescents, ATUS



Notes: (1) Panel show the average number of hours per day spent on different categories of activities over a typical day. Source: ATUS.

Figure B.7: Time Spent with Different Activities among Adolescents, ATUS

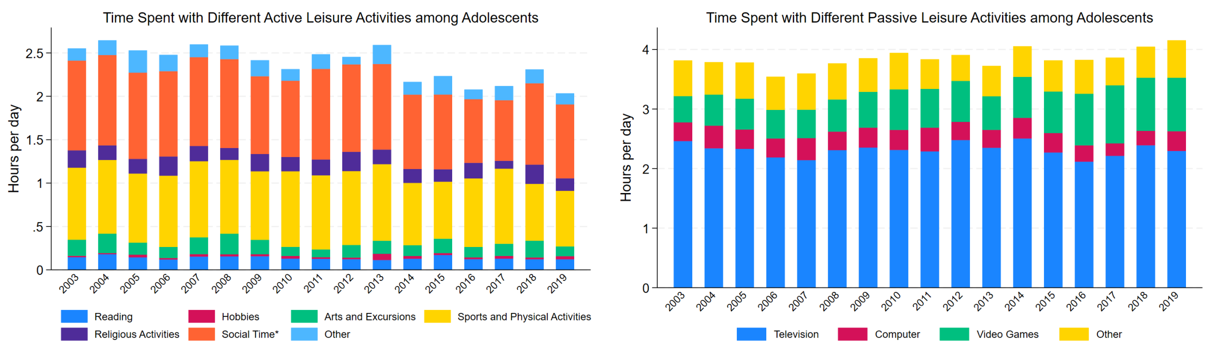


Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. Source: ATUS.

Taking a look at the leisure activities, Figure B.8 shows how much time adolescents spend on average per day with active and passive leisure activities. The left panel shows that, over the years, the overall time spent with active leisure decreased—just like in the CDS, there was a decrease in social life and sports between 2003 and 2019. In the same way, time spent with passive leisure activities, shown in the right panel, increased, especially time spent with video games. That is actually the most significant difference between ATUS and CDS, the measure of time spent playing video games.

On the other hand, and for the purposes of this paper, the time spent with TV is consistent with the time reported in the CDS, although a little higher on average. Adolescents have been watching less TV, but the decrease has not been as big as in the CDS data: in ATUS, hours of TV drop from 2.5 hours/day in 2003 to 2.3 hours/day in 2019, while in CDS, this change is of 0.6 hour/day.

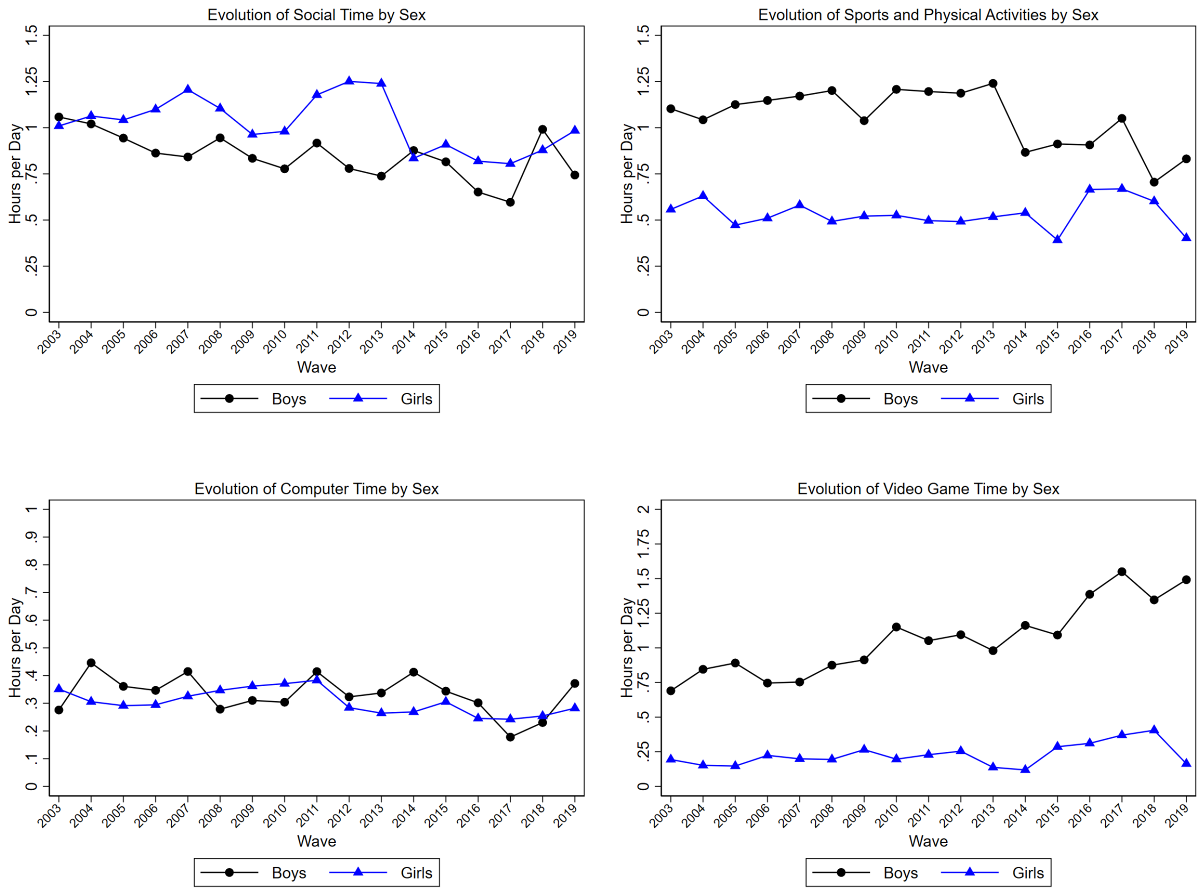
Figure B.8: Time Spent with Leisure Activities among Adolescents, ATUS



Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. Source:ATUS.

Figure B.9 shows the evolution of time spent with selected leisure activities for male and female adolescents. Again, the patterns are the same as seen in the CDS data, with the difference that boys spend significantly more time playing video games than girls. Making a similar analysis by household income level, I do not observe different patterns across low-, middle-, and high-income families.

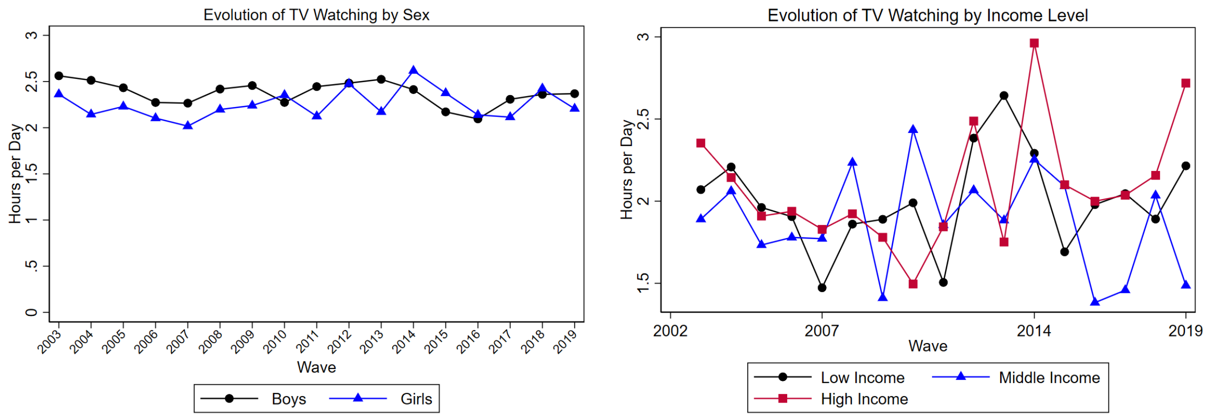
Figure B.9: Evolution of Selected Leisure Activities among Adolescents, by Sex, ATUS



Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. Source: ATUS.

For the purposes of this chapter, I want to show that the habits of TV consumption are similar when we compare different datasets. Figure B.10 show that, despite ATUS show a higher number of hours of TV, adolescents have been watching TV consistently over the years, with a very small variation between 2003 and 2019. Adolescents spent on average 2.3 hours watching TV — that is more than 7 times the average hours spent with computers (0.3 hour/day) and more than 3 times the time spent with video games (0.6 hour/day). Adolescents who watched TV in 2019, (roughly 76% of the sample) spent 3.1 hours per day watching TV, 0.2 hour/day using the computer, and 0.8 hour playing video games. However, adolescents who did not watch TV in 2019 spent 0.7 hour/day using the computer and 1.1 hour playing video games.

Figure B.10: Evolution of Time Spent with TV among Adolescents



Notes: (1) Panels show the average number of hours per day spent on different categories of activities over a typical day. Source: ATUS.

B.2 Additional Tables for Activities Time Evolution

This section shows the evolution of hours children spend on different activities groups per grade, income level, and sex, as well as the breakdown activities for active and passive leisure of this categories over the years. All figures are related to those shown in Section 2.2 of Chapter 2.

Table B.1: Hours per Day Spent with Different Activity Categories by Grade

Panel A: Hours per Day, Elementary School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.49	0.52	0.61	0.66	0.49	-0.01
Sleep	10.07	10.13	9.93	10.48	10.55	0.48***
Class Time	4.12	4.49	4.48	4.41	4.19	0.07
Homework	0.32	0.47	0.44	0.35	0.31	-0.02
Active Leisure	3.09	2.20	1.99	2.32	2.54	-0.55***
Passive Leisure	2.19	2.51	3.06	2.07	2.13	-0.06
Duties or Chores	3.48	3.57	3.33	3.43	3.47	-0.01
Other Activities	0.24	0.09	0.16	0.26	0.33	0.10*
Observations	1,228	964	103	700	679	

Panel B: Hours per Day, Middle School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.48	0.53	0.79	0.78	0.64	0.16**
Sleep	9.39	9.53	9.53	9.80	9.81	0.43***
Class Time	4.54	4.56	4.77	4.70	4.41	-0.13
Homework	0.60	0.63	0.54	0.53	0.50	-0.10*
Active Leisure	2.25	1.89	1.84	1.54	1.39	-0.86***
Passive Leisure	2.65	3.15	3.09	2.84	3.17	0.51***
Duties or Chores	3.88	3.61	3.23	3.42	3.61	-0.27**
Other Activities	0.21	0.10	0.21	0.39	0.48	0.27***
Observations	290	461	493	207	224	

Panel C: Hours per Day, High School

Activity Categories	1997	2002	2007	2014	2019	Difference 2002-2019
Extra-Curricular Activities		0.67	0.93	0.79	0.86	0.20**
Sleep		9.13	9.07	9.54	9.53	0.40***
Class Time		4.19	4.48	4.38	4.25	0.06
Homework		0.71	0.67	0.64	0.67	-0.04
Active Leisure		1.92	1.83	1.67	1.47	-0.44***
Passive Leisure		3.05	3.11	2.89	2.90	-0.14
Duties or Chores		4.25	3.74	3.81	4.05	-0.19
Other Activities		0.09	0.16	0.27	0.25	0.16***
Observations		605	609	225	239	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.2: Hours per Day Spent with Different Activity Categories by Income Level

Panel A: Hours per Day, Low-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.35	0.41	0.66	0.69	0.43	0.08
Sleep	10.00	9.86	9.45	10.18	10.39	0.39***
Class Time	4.24	4.35	4.60	4.53	4.05	-0.19
Homework	0.37	0.50	0.50	0.41	0.42	0.05
Active Leisure	2.88	1.98	1.79	1.92	1.93	-0.95***
Passive Leisure	2.47	3.09	3.19	2.48	2.57	0.10
Duties or Chores	3.36	3.68	3.49	3.35	3.57	0.20**
Other Activities	0.32	0.13	0.33	0.44	0.64	0.32***
Observations	508	544	343	443	407	

Panel B: Hours per Day, Middle-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.50	0.55	0.83	0.66	0.58	0.08
Sleep	9.96	9.79	9.41	10.27	10.24	0.28***
Class Time	4.26	4.47	4.62	4.40	4.29	0.03
Homework	0.36	0.53	0.50	0.40	0.37	0.01
Active Leisure	2.87	2.01	1.90	2.05	1.99	-0.88***
Passive Leisure	2.31	2.71	3.14	2.44	2.63	0.31***
Duties or Chores	3.52	3.84	3.48	3.52	3.69	0.17*
Other Activities	0.21	0.09	0.10	0.25	0.22	0.00
Observations	529	685	409	350	342	

Panel C: Hours per Day, High-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.63	0.69	1.00	0.79	0.78	0.15**
Sleep	9.85	9.51	9.17	10.05	9.94	0.09
Class Time	4.09	4.41	4.59	4.43	4.41	0.32***
Homework	0.40	0.67	0.76	0.52	0.46	0.06
Active Leisure	3.04	2.12	1.84	2.22	2.35	-0.69***
Passive Leisure	2.05	2.72	2.99	2.18	2.31	0.26**
Duties or Chores	3.80	3.81	3.51	3.69	3.61	-0.18**
Other Activities	0.16	0.06	0.14	0.12	0.15	-0.01
Observations	481	801	453	339	393	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.3: Hours per Day Spent with Different Activity Categories by Sex

Panel A: Hours per Day, Only Boys						
Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.53	0.55	0.83	0.70	0.63	0.10**
Sleep	9.90	9.68	9.23	10.13	10.19	0.28***
Class Time	4.23	4.47	4.68	4.50	4.33	0.10
Homework	0.36	0.51	0.56	0.44	0.39	0.03
Active Leisure	3.01	2.03	1.81	1.93	2.01	-1.00***
Passive Leisure	2.39	3.12	3.45	2.69	2.77	0.38***
Duties or Chores	3.40	3.56	3.20	3.34	3.38	-0.02
Other Activities	0.18	0.09	0.22	0.26	0.31	0.13**
Observations	785	1,018	611	570	579	

Panel B: Hours per Day, Only Girls						
Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Extra-Curricular Activities	0.45	0.59	0.86	0.72	0.56	0.11**
Sleep	9.98	9.71	9.44	10.21	10.20	0.21***
Class Time	4.17	4.37	4.52	4.42	4.16	-0.01
Homework	0.39	0.65	0.64	0.44	0.45	0.06*
Active Leisure	2.84	2.07	1.89	2.18	2.17	-0.67***
Passive Leisure	2.16	2.51	2.74	2.05	2.21	0.06
Duties or Chores	3.72	4.01	3.79	3.68	3.86	0.14*
Other Activities	0.29	0.10	0.13	0.31	0.38	0.09
Observations	733	1,012	594	562	563	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.4: Minutes per Day Spent with Different Active Leisure Activities by Grade

Panel A: Minutes per Day, Elementary School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	10.22	11.42	7.37	12.68	14.36	4.14***
Hobbies	6.01	6.20	8.69	5.96	8.08	2.08***
Arts and Excursions	4.11	2.67	2.06	3.22	4.57	0.46
Sports and Physical Activities	31.23	19.13	27.40	11.22	9.38	-21.85***
Religious Activities	8.90	11.07	9.97	7.44	8.48	-0.42
Socialization	44.96	19.30	20.32	24.62	26.54	-18.42***
Board and Family Games	70.56	58.50	33.57	70.07	74.74	4.18
Other Active Leisure Activities	9.20	3.89	9.76	4.18	6.25	-2.95***
Observations	1,228	964	103	700	679	

Panel B: Minutes per Day, Middle School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	7.47	11.60	8.23	7.72	10.80	3.33
Hobbies	5.37	6.96	7.24	3.63	4.97	-0.40
Arts and Excursions	5.18	5.12	3.24	3.26	3.72	-1.46
Sports and Physical Activities	36.22	21.90	21.40	14.40	14.62	-21.60***
Religious Activities	11.08	8.49	8.40	8.41	7.64	-3.44
Socialization	30.84	30.37	33.95	24.69	15.11	-15.73***
Board and Family Games	28.28	24.24	17.30	21.43	19.81	-8.48**
Other Active Leisure Activities	10.53	4.56	10.53	8.93	6.51	-4.02**
Observations	290	461	493	207	224	

Panel C: Minutes per Day, High School

Activity Categories	1997	2002	2007	2014	2019	Difference 2002-2019
Reading		6.33	5.13	8.18	8.19	1.87
Hobbies		4.01	7.34	3.93	8.30	4.29***
Arts and Excursions		4.45	6.04	4.06	5.03	0.59
Sports and Physical Activities		16.36	14.82	18.13	11.56	-4.80*
Religious Activities		10.68	9.36	8.76	7.22	-3.46**
Socialization		55.16	51.90	35.37	26.41	-28.75***
Board and Family Games		9.27	4.60	5.63	6.82	-2.45
Other Active Leisure Activities		8.69	10.69	16.09	14.85	6.17**
Observations		605	609	225	239	

Notes: (1) For the 1997 wave, there are no children in high school. The comparison is made relative to 2002 wave. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$.
Source: CDS/PSID.

Table B.5: Minutes per Day Spent with Different Active Leisure Activities by Income Level

Panel A: Minutes per Day, Low-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	7.06	7.80	4.14	8.29	8.55	1.49
Hobbies	4.54	3.24	3.98	3.12	4.16	-0.38
Arts and Excursions	1.77	2.68	2.61	3.90	4.36	2.59***
Sports and Physical Activities	34.88	19.80	21.64	11.28	7.26	-27.62***
Religious Activities	9.66	11.88	8.63	8.29	7.25	-2.41*
Socialization	46.67	33.22	40.31	29.58	24.07	-22.60***
Board and Family Games	61.16	36.46	18.10	46.69	55.19	-5.97
Other Active Leisure Activities	7.15	3.78	7.94	4.02	4.94	-2.21
Observations	508	544	343	443	407	

Panel B: Minutes per Day, Middle-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	8.12	8.63	5.06	12.25	13.76	5.64***
Hobbies	4.84	5.26	7.91	5.13	8.30	3.46***
Arts and Excursions	4.00	4.23	5.71	2.31	2.36	-1.64*
Sports and Physical Activities	34.05	19.70	18.60	14.31	11.52	-22.53***
Religious Activities	9.07	9.78	11.00	8.50	8.93	-0.14
Socialization	41.67	30.11	41.92	24.37	22.53	-19.13***
Board and Family Games	61.17	39.44	13.07	45.87	43.05	-18.11***
Other Active Leisure Activities	9.19	3.23	11.02	10.39	8.73	-0.46
Observations	529	685	409	350	342	

Panel C: Minutes per Day, High-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	14.21	12.52	9.82	12.84	15.13	0.91
Hobbies	8.46	7.79	9.56	7.75	10.31	1.85
Arts and Excursions	7.34	4.08	4.97	3.86	6.51	-0.83
Sports and Physical Activities	27.28	17.69	16.25	14.48	14.03	-13.25***
Religious Activities	9.23	9.85	7.53	6.71	8.11	-1.12
Socialization	38.27	34.06	42.96	25.57	26.00	-12.27***
Board and Family Games	65.32	32.86	7.14	53.15	49.95	-15.37***
Other Active Leisure Activities	12.17	8.54	12.08	8.79	10.83	-1.34
Observations	481	801	453	339	393	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.6: Minutes per Day Spent with Different Active Leisure Activities by Sex

Panel A: Minutes per Day, Only Boys

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	8.96	8.71	5.08	8.11	10.28	1.33
Hobbies	4.42	4.22	7.55	3.48	4.69	0.27
Arts and Excursions	4.72	4.06	4.07	3.17	4.40	-0.32
Sports and Physical Activities	42.95	25.49	28.10	17.48	13.98	-28.97***
Religious Activities	8.88	10.77	9.22	6.75	7.23	-1.65
Socialization	41.49	26.15	33.34	22.22	20.43	-21.06***
Board and Family Games	60.31	36.25	11.72	47.43	51.97	-8.34**
Other Active Leisure Activities	8.74	5.85	9.50	6.93	7.56	-1.18
Observations	785	1,018	611	570	579	

Panel B: Minutes per Day, Only Girls

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Reading	10.49	11.18	8.13	13.68	14.52	4.03***
Hobbies	7.45	7.23	7.27	6.80	10.42	2.97**
Arts and Excursions	3.88	3.44	5.05	3.63	4.60	0.73
Sports and Physical Activities	20.66	12.33	8.79	8.81	7.67	-12.99***
Religious Activities	9.78	9.97	8.81	9.03	8.89	-0.89
Socialization	43.09	38.88	50.61	31.38	28.22	-14.87***
Board and Family Games	64.81	35.84	12.84	49.32	47.47	-17.34***
Other Active Leisure Activities	10.22	5.09	11.61	7.91	8.66	-1.56
Observations	733	1,012	594	562	563	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.7: Minutes per Day Spent with Different Passive Leisure Activities by Grade

Panel A: Minutes per Day, Elementary School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	109.73	119.54	131.18	90.88	89.05	-20.68***
Computer Use	0.58	1.84	8.97	2.37	6.60	6.03***
Video Game	14.87	26.29	37.64	26.25	27.31	12.44***
Social Media	0.00	0.00	0.00	0.40	0.27	0.27*
Other Passive Leisure Activities	6.26	2.99	6.02	4.52	4.85	-1.40*
Observations	1,228	964	103	700	679	

Panel B: Minutes per Day, Middle School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	122.52	136.86	119.48	100.47	104.76	-17.77**
Computer Use	2.34	12.13	21.34	10.02	21.35	19.00***
Video Game	21.03	33.49	36.19	46.65	54.27	33.24***
Social Media	0.00	0.00	1.06	4.59	2.16	2.16***
Other Passive Leisure Activities	13.35	6.75	7.61	8.65	9.76	-3.58
Observations	290	461	493	207	224	

Panel C: Minutes per Day, High School

Activity Categories	1997	2002	2007	2014	2019	Difference 2002-2019
Watch TV		123.49	111.44	99.33	92.80	-30.68***
Computer Use		19.69	29.94	11.03	25.39	5.70
Video Game		30.61	33.30	45.00	45.75	15.14***
Social Media		0.00	1.94	8.03	4.59	4.59***
Other Passive Leisure Activities		9.09	9.87	10.21	10.33	1.23
Observations		605	609	225	239	

Notes: (1) For the 1997 wave, there are no children in high school. The comparison is made relative to 2002 wave. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$.
Source: CDS/PSID.

Table B.8: Minutes per Day Spent with Different Passive Leisure Activities by Income Level

Panel A: Minutes per Day, Low-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	125.37	146.96	127.91	101.72	98.81	-26.56***
Computer Use	0.39	4.37	19.34	3.62	12.29	11.90***
Video Game	15.80	28.16	33.50	35.63	36.10	20.30***
Social Media	0.00	0.00	1.45	2.30	1.46	1.46***
Other Passive Leisure Activities	6.42	5.85	9.33	5.63	7.04	0.62
Observations	508	544	343	443	407	

Panel B: Minutes per Day, Middle-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	114.88	120.84	119.23	98.29	94.93	-19.95***
Computer Use	1.11	7.09	26.83	8.08	11.52	10.41***
Video Game	15.23	29.27	34.67	29.78	42.51	27.28***
Social Media	0.00	0.00	0.98	2.83	1.13	1.13***
Other Passive Leisure Activities	7.52	5.54	6.92	7.28	8.61	1.09
Observations	529	685	409	350	342	

Panel C: Minutes per Day, High-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	95.27	112.76	105.18	80.52	85.07	-10.20**
Computer Use	1.25	15.03	26.65	5.26	16.26	15.01***
Video Game	17.22	29.88	36.05	35.24	31.57	14.34***
Social Media	0.00	0.00	1.78	3.02	1.99	1.99***
Other Passive Leisure Activities	8.97	5.64	9.60	6.51	5.45	-3.52***
Observations	481	801	453	339	393	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.9: Minutes per Day Spent with Different Passive Leisure Activities by Sex

Panel A: Minutes per Day, Only Boys

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	113.26	128.66	120.71	95.69	95.02	-18.24***
Computer Use	1.05	7.95	23.54	4.60	8.55	7.49***
Video Game	22.86	46.64	55.78	52.41	57.29	34.42***
Social Media	0.00	0.00	1.14	2.42	0.88	0.88***
Other Passive Leisure Activities	6.31	3.90	5.92	6.53	5.34	-0.97
Observations	785	1,018	611	570	579	

Panel B: Minutes per Day, Only Girls

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Watch TV	111.01	120.62	112.01	92.91	90.76	-20.26***
Computer Use	0.77	11.05	25.75	6.40	18.45	17.68***
Video Game	8.75	11.68	13.33	14.74	15.04	6.29***
Social Media	0.00	0.00	1.70	2.95	2.23	2.23***
Other Passive Leisure Activities	9.00	7.44	11.39	6.28	8.63	-0.38
Observations	733	1,012	594	562	563	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.10: Minutes per Day Spent with Different Duties and Chores by Grade

Panel A: Minutes per Day, Elementary School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Care for Others	1.64	1.19	2.85	0.52	0.49	-1.15***
Chores	19.28	18.75	23.71	16.44	15.24	-4.03***
Paid Work	0.49	0.09	0.76	0.25	0.24	-0.24
Travel Time	54.93	51.89	43.18	47.31	50.66	-4.26***
Shopping	15.60	12.94	14.92	12.41	11.90	-3.70***
Personal Care	49.59	63.40	53.61	56.29	54.71	5.12***
Meals	67.12	66.12	60.58	72.74	74.80	7.68***
Observations	1,228	964	103	700	679	

Panel B: Minutes per Day, Middle School

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Care for Others	3.39	2.55	2.43	2.69	2.36	-1.02
Chores	25.03	26.25	21.96	24.97	28.83	3.80
Paid Work	2.13	0.75	1.32	1.46	0.95	-1.18
Travel Time	64.44	56.02	48.04	46.31	49.42	-15.02***
Shopping	15.58	13.65	13.07	11.86	8.36	-7.22***
Personal Care	61.18	60.92	55.06	56.27	61.77	0.59
Meals	61.05	56.29	51.87	61.43	64.72	3.66
Observations	290	461	493	207	224	

Panel C: Minutes per Day, High School

Activity Categories	1997	2002	2007	2014	2019	Difference 2002-2019
Care for Others		2.96	4.30	6.25	2.14	-0.83
Chores		23.70	19.11	24.13	27.02	3.32
Paid Work		32.07	33.09	18.39	24.88	-7.19
Travel Time		66.74	56.62	54.99	51.88	-14.86***
Shopping		14.70	13.79	12.11	11.68	-3.02
Personal Care		64.59	55.71	62.19	66.16	1.57
Meals		50.21	41.71	50.78	59.59	9.38***
Observations		605	609	225	239	

Notes: (1) For the 1997 wave, there are no children in high school. The comparison is made relative to 2002 wave. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$.
Source: CDS/PSID.

Table B.11: Minutes per Day Spent with Different Duties and Chores by Income Level

Panel A: Minutes per Day, Low-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Care for Others	1.29	2.31	5.72	1.99	0.60	-0.69
Chores	18.60	19.54	23.64	16.71	15.82	-2.78
Paid Work	0.11	6.97	13.46	1.95	4.96	4.85***
Travel Time	50.79	54.80	47.95	44.73	45.82	-4.97**
Shopping	13.53	12.52	12.14	11.43	11.78	-1.75
Personal Care	54.18	65.60	59.65	59.97	67.57	13.39***
Meals	63.21	58.88	46.75	64.13	67.41	4.19**
Observations	508	544	343	443	407	

Panel B: Minutes per Day, Middle-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Care for Others	2.38	2.14	2.51	2.97	2.11	-0.27
Chores	19.63	24.30	21.76	21.15	22.88	3.24
Paid Work	0.95	8.79	18.07	5.31	3.68	2.73*
Travel Time	55.01	55.76	53.54	47.57	50.52	-4.49*
Shopping	16.18	14.60	14.69	12.68	11.22	-4.96***
Personal Care	52.14	64.97	52.43	55.86	57.18	5.03**
Meals	64.89	59.59	46.06	65.82	73.69	8.80***
Observations	529	685	409	350	342	

Panel C: Minutes per Day, High-income Families

Activity Categories	1997	2002	2007	2014	2019	Difference 1997-2019
Care for Others	2.24	1.73	2.46	1.21	1.03	-1.21*
Chores	23.07	21.52	17.44	21.53	22.91	-0.16
Paid Work	1.37	12.52	19.59	5.60	7.76	6.39***
Travel Time	64.94	60.20	53.57	54.90	55.84	-9.10***
Shopping	17.14	13.54	13.70	12.87	10.46	-6.68***
Personal Care	48.93	60.04	54.50	55.83	50.23	1.30
Meals	70.03	58.95	49.31	69.65	68.43	-1.60
Observations	481	801	453	339	393	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.12: Minutes per Day Spent with Different Duties and Chores by Sex

Panel A: Minutes per Day, Only Boys						
						Difference
Activity Categories	1997	2002	2007	2014	2019	1997-2019
Care for Others	1.26	1.07	2.07	1.07	0.65	-0.60
Chores	17.52	18.79	18.13	18.49	17.10	-0.42
Paid Work	0.66	8.72	15.80	4.00	4.08	3.42***
Travel Time	55.90	57.99	50.58	47.53	50.09	-5.81***
Shopping	13.90	11.51	10.14	11.08	9.00	-4.90***
Personal Care	48.43	56.14	47.67	53.36	52.22	3.79**
Meals	66.10	59.16	47.85	64.76	69.46	3.36**
Observations	785	1,018	611	570	579	

Panel B: Minutes per Day, Only Girls						
						Difference
Activity Categories	1997	2002	2007	2014	2019	1997-2019
Care for Others	2.74	2.98	4.78	3.06	1.77	-0.97
Chores	23.43	25.09	23.28	20.58	23.73	0.30
Paid Work	0.95	10.83	18.90	4.16	7.04	6.09***
Travel Time	57.65	56.52	53.38	49.79	51.27	-6.38***
Shopping	17.42	15.75	17.14	13.43	13.38	-4.04***
Personal Care	55.43	70.30	63.08	61.62	64.94	9.51***
Meals	65.81	59.14	47.10	67.87	69.83	4.02**
Observations	733	1,012	594	562	563	

Notes: (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

B.3 Regression Tables for Conditional Average Time Spent on Activities

This section shows the regression tables relative to Equation (10) of Chapter 2.

Table B.13: Coefficients on Year Dummies for Different Demographic Groups, Extra-Curricular Activities

	Coefficient on Year Dummy (Hours per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	0.02	0.25^{***}	0.24^{***}	0.16^{***}
	(0.03)	(0.04)	(0.04)	(0.04)
By Grade				
Elementary School	-0.00	0.10	0.23^{***}	0.05
	(0.04)	(0.09)	(0.04)	(0.05)
Middle School	0.04	0.32^{***}	0.32^{***}	0.19^{**}
	(0.07)	(0.07)	(0.08)	(0.08)
High School	-2.69	-2.43	-2.57	-2.46
	(4.02)	(4.02)	(4.02)	(4.02)
By Income Level				
Low-income Families	0.08	0.31^{***}	0.37^{***}	0.14^{**}
	(0.06)	(0.07)	(0.06)	(0.06)
Middle-income Families	-0.00	0.21^{***}	0.15^{**}	0.10
	(0.06)	(0.07)	(0.07)	(0.07)
High-income Families	-0.04	0.20^{***}	0.17^{**}	0.16^{**}
	(0.06)	(0.08)	(0.07)	(0.08)
By Sex				
Only Girls	0.10^{**}	0.34^{***}	0.30^{***}	0.16^{***}
	(0.05)	(0.06)	(0.05)	(0.06)
Only Boys	-0.06	0.15^{**}	0.19^{***}	0.15^{***}
	(0.05)	(0.06)	(0.05)	(0.06)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.14: Coefficients on Year Dummies for Different Demographic Groups, Sleep

	Coefficient on Year Dummy (Hours per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	0.35^{***}	0.23^{***}	0.52^{***}	0.53^{***}
	(0.05)	(0.07)	(0.06)	(0.06)
By Grade				
Elementary School	0.22^{***}	0.54^{***}	0.29^{***}	0.34^{***}
	(0.06)	(0.14)	(0.06)	(0.07)
Middle School	0.29^{***}	0.28^{***}	0.47^{***}	0.45^{***}
	(0.11)	(0.11)	(0.12)	(0.12)
High School	13.67^{**}	13.62^{**}	14.06^{**}	14.00^{**}
	(5.56)	(5.56)	(5.56)	(5.55)
By Income Level				
Low-income Families	0.30^{***}	0.17	0.44^{***}	0.73^{***}
	(0.11)	(0.14)	(0.12)	(0.12)
Middle-income Families	0.42^{***}	0.27^{**}	0.69^{***}	0.54^{***}
	(0.09)	(0.11)	(0.10)	(0.11)
High-income Families	0.32^{***}	0.24^{***}	0.42^{***}	0.30^{***}
	(0.08)	(0.09)	(0.09)	(0.09)
By Sex				
Only Girls	0.32^{***}	0.28^{***}	0.51^{***}	0.50^{***}
	(0.08)	(0.09)	(0.09)	(0.09)
Only Boys	0.36^{***}	0.17^{*}	0.51^{***}	0.54^{***}
	(0.08)	(0.09)	(0.08)	(0.09)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.15: Coefficients on Year Dummies for Different Demographic Groups, Class Time

Regression	Coefficient on Year Dummy (Hours per Day Relative to 1997) 2002	2007	2014	2019
All Sample	0.26***	0.45***	0.42***	0.28***
	(0.06)	(0.07)	(0.07)	(0.07)
By Grade				
Elementary School	0.23***	0.21	0.47***	0.33***
	(0.08)	(0.18)	(0.08)	(0.09)
Middle School	0.04	0.25**	0.16	-0.07
	(0.12)	(0.12)	(0.14)	(0.14)
High School	-6.60	-6.36	-6.57	-6.64
	(6.27)	(6.27)	(6.27)	(6.26)
By Income Level				
Low-income Families	0.22*	0.54***	0.53***	0.09
	(0.12)	(0.14)	(0.12)	(0.13)
Middle-income Families	0.22**	0.38***	0.22*	0.33***
	(0.10)	(0.12)	(0.11)	(0.12)
High-income Families	0.29***	0.42***	0.47***	0.43***
	(0.10)	(0.12)	(0.11)	(0.12)
By Sex				
Only Girls	0.29***	0.46***	0.43***	0.26***
	(0.09)	(0.11)	(0.10)	(0.10)
Only Boys	0.22***	0.43***	0.41***	0.29***
	(0.08)	(0.10)	(0.09)	(0.09)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.16: Coefficients on Year Dummies for Different Demographic Groups, Homework

	Coefficient on Year Dummy (Hours per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	0.08***	0.02	0.06**	0.02
	(0.02)	(0.03)	(0.03)	(0.03)
By Grade				
Elementary School	0.09***	-0.04	0.09***	0.01
	(0.02)	(0.05)	(0.02)	(0.02)
Middle School	0.01	-0.06	-0.05	-0.10
	(0.05)	(0.05)	(0.06)	(0.06)
High School	-4.84	-4.88	-4.93	-4.82
	(3.30)	(3.30)	(3.30)	(3.30)
By Income Level				
Low-income Families	0.06*	0.01	0.05	0.03
	(0.04)	(0.05)	(0.04)	(0.04)
Middle-income Families	0.07**	-0.02	0.02	-0.02
	(0.04)	(0.04)	(0.04)	(0.04)
High-income Families	0.08*	0.05	0.11**	0.03
	(0.05)	(0.06)	(0.05)	(0.06)
By Sex				
Only Girls	0.12***	0.01	0.05	0.05
	(0.04)	(0.04)	(0.04)	(0.04)
Only Boys	0.04	0.03	0.07**	-0.01
	(0.03)	(0.04)	(0.03)	(0.04)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.17: Coefficients on Year Dummies for Different Demographic Groups, Active Leisure

Regression	Coefficient on Year Dummy (Hours per Day Relative to 1997)			
	2002	2007	2014	2019
All Sample	-0.49***	-0.52***	-0.76***	-0.69***
	(0.06)	(0.07)	(0.06)	(0.06)
By Grade				
Elementary School	-0.64***	-0.52***	-0.91***	-0.66***
	(0.07)	(0.17)	(0.08)	(0.08)
Middle School	-0.45***	-0.50***	-0.75***	-0.95***
	(0.11)	(0.11)	(0.13)	(0.13)
High School	2.90	2.83	2.71	2.50
	(5.61)	(5.61)	(5.61)	(5.60)
By Income Level				
Low-income Families	-0.61***	-0.63***	-0.93***	-0.80***
	(0.11)	(0.13)	(0.11)	(0.11)
Middle-income Families	-0.51***	-0.51***	-0.66***	-0.86***
	(0.09)	(0.12)	(0.11)	(0.11)
High-income Families	-0.42***	-0.49***	-0.71***	-0.57***
	(0.10)	(0.12)	(0.11)	(0.11)
By Sex				
Only Girls	-0.41***	-0.41***	-0.58***	-0.51***
	(0.08)	(0.10)	(0.09)	(0.09)
Only Boys	-0.59***	-0.64***	-0.94***	-0.88***
	(0.08)	(0.10)	(0.09)	(0.09)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.18: Coefficients on Year Dummies for Different Demographic Groups, Passive Leisure

Regression	Coefficient on Year Dummy (Hours per Day Relative to 1997)			
	2002	2007	2014	2019
All Sample	0.31***	0.40***	0.05	0.17**
	(0.06)	(0.08)	(0.07)	(0.07)
By Grade				
Elementary School	0.25***	0.56***	-0.05	0.05
	(0.06)	(0.16)	(0.07)	(0.08)
Middle School	0.56***	0.48***	0.21	0.59***
	(0.15)	(0.15)	(0.18)	(0.17)
High School	4.93	4.94	4.64	4.59
	(7.39)	(7.39)	(7.39)	(7.39)
By Income Level				
Low-income Families	0.38***	0.33**	-0.02	-0.00
	(0.12)	(0.14)	(0.12)	(0.13)
Middle-income Families	0.23**	0.47***	0.10	0.34***
	(0.10)	(0.13)	(0.12)	(0.12)
High-income Families	0.35***	0.45***	0.07	0.26**
	(0.11)	(0.13)	(0.12)	(0.12)
By Sex				
Only Girls	0.17**	0.24**	-0.13	-0.02
	(0.08)	(0.10)	(0.09)	(0.09)
Only Boys	0.46***	0.55***	0.22**	0.37***
	(0.09)	(0.11)	(0.10)	(0.11)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.19: Coefficients on Year Dummies for Different Demographic Groups, Duties or Chores

	Coefficient on Year Dummy (Hours per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	0.01	-0.52***	-0.09	-0.07
	(0.05)	(0.06)	(0.06)	(0.06)
By Grade				
Elementary School	0.01	-0.31**	0.03	-0.07
	(0.05)	(0.13)	(0.06)	(0.06)
Middle School	-0.34***	-0.72***	-0.44***	-0.31**
	(0.10)	(0.10)	(0.12)	(0.12)
High School	17.80***	17.39***	17.71***	17.87***
	(6.66)	(6.66)	(6.66)	(6.65)
By Income Level				
Low-income Families	0.06	-0.40***	-0.05	0.09
	(0.10)	(0.12)	(0.10)	(0.10)
Middle-income Families	0.15*	-0.48***	-0.06	-0.07
	(0.09)	(0.11)	(0.10)	(0.11)
High-income Families	-0.26***	-0.73***	-0.19*	-0.35***
	(0.09)	(0.11)	(0.10)	(0.10)
By Sex				
Only Girls	-0.02	-0.53***	-0.09	-0.05
	(0.08)	(0.09)	(0.08)	(0.09)
Only Boys	0.02	-0.49***	-0.09	-0.10
	(0.07)	(0.09)	(0.08)	(0.08)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.20: Coefficients on Year Dummies for Different Demographic Groups, Sports and Physical Activities

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	-14.86***	-15.97***	-18.69***	-20.90***
	(1.36)	(1.67)	(1.50)	(1.56)
By Grade				
Elementary School	-13.24***	-11.99***	-17.81***	-19.09***
	(1.65)	(3.99)	(1.81)	(1.97)
Middle School	-17.12***	-18.12***	-24.98***	-23.77***
	(3.24)	(3.22)	(3.81)	(3.76)
High School	28.21	26.05	29.63	22.53
	(128.52)	(128.53)	(128.52)	(128.40)
By Income Level				
Low-income Families	-16.66***	-15.12***	-23.29***	-26.68***
	(2.61)	(3.18)	(2.66)	(2.83)
Middle-income Families	-16.51***	-19.58***	-20.08***	-23.62***
	(2.40)	(2.99)	(2.75)	(2.89)
High-income Families	-10.38***	-12.50***	-11.88***	-12.13***
	(2.15)	(2.58)	(2.45)	(2.51)
By Sex				
Only Girls	-7.28***	-10.26***	-10.75***	-11.91***
	(1.44)	(1.75)	(1.59)	(1.64)
Only Boys	-22.20***	-21.68***	-26.18***	-29.35***
	(2.28)	(2.81)	(2.51)	(2.61)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.21: Coefficients on Year Dummies for Different Demographic Groups, Socialization

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	-11.90***	-7.50***	-20.00***	-21.40***
	(2.06)	(2.51)	(2.26)	(2.35)
By Grade				
Elementary School	-18.83***	-11.65*	-25.96***	-21.22***
	(2.48)	(6.01)	(2.73)	(2.97)
Middle School	-5.94*	-2.39	-8.52**	-18.37***
	(3.60)	(3.57)	(4.23)	(4.18)
High School	228.47	226.98	212.62	202.93
	(236.11)	(236.12)	(236.10)	(235.88)
By Income Level				
Low-income Families	-16.37***	-16.70***	-22.40***	-27.81***
	(3.97)	(4.82)	(4.04)	(4.29)
Middle-income Families	-14.49***	-10.57***	-22.44***	-24.04***
	(3.30)	(4.11)	(3.78)	(3.98)
High-income Families	-5.80	2.19	-16.86***	-14.67***
	(3.53)	(4.25)	(4.02)	(4.12)
By Sex				
Only Girls	-10.51***	-5.09	-18.33***	-21.09***
	(2.97)	(3.60)	(3.28)	(3.39)
Only Boys	-13.40***	-9.69***	-21.93***	-22.08***
	(2.84)	(3.50)	(3.12)	(3.25)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.22: Coefficients on Year Dummies for Different Demographic Groups, Computer Use

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	3.79***	14.81***	3.07**	11.44***
	(1.17)	(1.42)	(1.28)	(1.33)
By Grade				
Elementary School	1.06*	7.18***	2.41***	6.54***
	(0.58)	(1.40)	(0.63)	(0.69)
Middle School	8.73***	18.10***	8.85**	20.28***
	(2.98)	(2.96)	(3.51)	(3.47)
High School	-188.59	-178.06	-197.52	-182.09
	(180.72)	(180.73)	(180.72)	(180.55)
By Income Level				
Low-income Families	0.43	11.50***	1.04	10.52***
	(1.74)	(2.11)	(1.77)	(1.88)
Middle-income Families	2.44	18.41***	6.20**	9.91***
	(2.12)	(2.64)	(2.42)	(2.55)
High-income Families	7.12***	14.06***	1.40	12.51***
	(2.17)	(2.61)	(2.48)	(2.54)
By Sex				
Only Girls	4.42**	14.97***	3.89**	15.96***
	(1.76)	(2.13)	(1.94)	(2.00)
Only Boys	3.40**	14.87***	2.49	7.19***
	(1.54)	(1.90)	(1.70)	(1.77)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.23: Coefficients on Year Dummies for Different Demographic Groups, Watch TV

Regression	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
	2002	2007	2014	2019
All Sample	11.02***	0.82	-17.73***	-20.45***
	(3.04)	(3.72)	(3.35)	(3.48)
By Grade				
Elementary School	8.59***	15.83**	-18.34***	-20.68***
	(3.33)	(8.04)	(3.65)	(3.98)
Middle School	17.04**	-1.82	-23.38***	-17.88**
	(7.06)	(7.02)	(8.31)	(8.21)
High School	444.73	433.24	418.58	408.12
	(349.43)	(349.45)	(349.43)	(349.10)
By Income Level				
Low-income Families	17.83***	-1.15	-21.00***	-31.82***
	(5.89)	(7.16)	(6.01)	(6.38)
Middle-income Families	5.68	2.77	-15.25***	-17.57***
	(5.07)	(6.32)	(5.81)	(6.11)
High-income Families	14.01***	6.76	-14.08**	-6.12
	(4.98)	(5.99)	(5.68)	(5.82)
By Sex				
Only Girls	6.91	-4.45	-18.03***	-22.84***
	(4.27)	(5.18)	(4.71)	(4.87)
Only Boys	15.37***	6.13	-17.57***	-17.74***
	(4.34)	(5.35)	(4.77)	(4.98)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.24: Coefficients on Year Dummies for Different Demographic Groups, Video Game

Regression	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
	2002	2007	2014	2019
All Sample	8.48***	11.00***	16.88***	21.45***
	(1.98)	(2.42)	(2.18)	(2.27)
By Grade				
Elementary School	8.72***	12.37***	13.98***	18.65***
	(1.87)	(4.52)	(2.05)	(2.24)
Middle School	15.18***	18.02***	26.88***	36.35***
	(4.71)	(4.68)	(5.54)	(5.47)
High School	46.27	44.80	54.60	54.62
	(253.01)	(253.02)	(253.00)	(252.77)
By Income Level				
Low-income Families	8.50**	11.74**	18.59***	22.00***
	(3.80)	(4.62)	(3.87)	(4.11)
Middle-income Families	9.61***	11.15***	13.12***	28.38***
	(3.33)	(4.15)	(3.82)	(4.02)
High-income Families	6.39*	9.12**	18.01***	14.96***
	(3.30)	(3.97)	(3.76)	(3.86)
By Sex				
Only Girls	3.63**	6.06***	6.74***	7.56***
	(1.64)	(1.99)	(1.81)	(1.87)
Only Boys	13.33***	15.40***	26.72***	35.29***
	(3.52)	(4.34)	(3.87)	(4.04)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.25: Coefficients on Year Dummies for Different Demographic Groups, Care for Others

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	-1.08**	-0.62	-0.40	-1.42***
	(0.47)	(0.58)	(0.52)	(0.54)
By Grade				
Elementary School	-0.47	-0.03	-0.99**	-0.91**
	(0.36)	(0.88)	(0.40)	(0.43)
Middle School	-0.76	-0.84	-0.50	-0.75
	(1.02)	(1.01)	(1.20)	(1.18)
High School	120.71*	122.36*	125.23*	120.48*
	(72.42)	(72.42)	(72.42)	(72.35)
By Income Level				
Low-income Families	-0.31	1.59	-0.08	-1.41
	(0.95)	(1.15)	(0.97)	(1.02)
Middle-income Families	-1.54*	-2.40**	-0.11	-1.12
	(0.87)	(1.08)	(0.99)	(1.04)
High-income Families	-1.26*	-0.81	-1.20	-1.57**
	(0.66)	(0.79)	(0.75)	(0.77)
By Sex				
Only Girls	-1.58*	-1.20	-0.51	-2.27**
	(0.83)	(1.01)	(0.92)	(0.95)
Only Boys	-0.53	0.09	-0.26	-0.60
	(0.47)	(0.58)	(0.51)	(0.54)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.26: Coefficients on Year Dummies for Different Demographic Groups, Paid Work

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	-0.38	-2.35	-2.47	0.03
	(1.47)	(1.80)	(1.62)	(1.68)
By Grade				
Elementary School	-0.44*	-0.20	-0.14	-0.12
	(0.23)	(0.57)	(0.26)	(0.28)
Middle School	-1.90*	-1.41	-0.67	-1.23
	(1.04)	(1.04)	(1.23)	(1.21)
High School	372.43	377.14	374.93	381.92
	(287.99)	(288.00)	(287.98)	(287.71)
By Income Level				
Low-income Families	1.04	-1.19	-1.81	2.18
	(2.34)	(2.84)	(2.38)	(2.53)
Middle-income Families	-0.15	-2.29	-2.63	-3.89
	(2.48)	(3.09)	(2.84)	(2.99)
High-income Families	-2.59	-4.08	-2.54	0.39
	(2.84)	(3.42)	(3.24)	(3.32)
By Sex				
Only Girls	-0.42	-1.59	-2.88	1.57
	(2.17)	(2.63)	(2.40)	(2.48)
Only Boys	-0.47	-2.91	-2.04	-1.61
	(2.00)	(2.47)	(2.20)	(2.30)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.27: Coefficients on Year Dummies for Different Demographic Groups, Travel Time

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	-2.84**	-11.71***	-8.48***	-6.70***
	(1.35)	(1.65)	(1.49)	(1.54)
By Grade				
Elementary School	-3.48**	-16.27***	-5.92***	-3.80**
	(1.56)	(3.78)	(1.71)	(1.87)
Middle School	-10.35***	-18.37***	-19.68***	-16.90***
	(2.96)	(2.94)	(3.48)	(3.44)
High School	-105.45	-114.69	-113.94	-116.51
	(148.24)	(148.25)	(148.24)	(148.10)
By Income Level				
Low-income Families	0.01	-11.14***	-6.68***	-6.54**
	(2.39)	(2.91)	(2.44)	(2.59)
Middle-income Families	-1.50	-8.82***	-8.77***	-5.34*
	(2.29)	(2.86)	(2.63)	(2.76)
High-income Families	-8.37***	-17.32***	-11.86***	-11.85***
	(2.37)	(2.86)	(2.70)	(2.77)
By Sex				
Only Girls	-4.49**	-11.12***	-8.19***	-7.67***
	(1.90)	(2.30)	(2.09)	(2.16)
Only Boys	-1.58	-12.66***	-9.13***	-6.28***
	(1.93)	(2.37)	(2.12)	(2.21)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.28: Coefficients on Year Dummies for Different Demographic Groups, Shopping

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	-2.04**	-2.64**	-2.98***	-6.26***
	(0.93)	(1.14)	(1.02)	(1.06)
By Grade				
Elementary School	-2.65**	0.16	-3.39***	-6.91***
	(1.08)	(2.61)	(1.19)	(1.29)
Middle School	-1.80	-2.97	-2.61	-7.39***
	(2.01)	(2.00)	(2.37)	(2.34)
High School	182.43*	182.04*	180.93*	179.64*
	(103.62)	(103.63)	(103.62)	(103.53)
By Income Level				
Low-income Families	-3.68**	-5.92***	-2.83	-5.10***
	(1.74)	(2.11)	(1.77)	(1.88)
Middle-income Families	-1.68	-2.13	-3.36*	-7.38***
	(1.58)	(1.96)	(1.80)	(1.90)
High-income Families	-1.58	-0.90	-3.81**	-6.99***
	(1.57)	(1.88)	(1.78)	(1.83)
By Sex				
Only Girls	-3.15**	-3.53**	-3.98**	-7.32***
	(1.46)	(1.78)	(1.61)	(1.67)
Only Boys	-0.80	-1.53	-1.98	-5.14***
	(1.16)	(1.43)	(1.27)	(1.33)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.29: Coefficients on Year Dummies for Different Demographic Groups, Personal Care

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	8.07***	-1.91	5.31***	5.50***
	(1.14)	(1.39)	(1.25)	(1.30)
By Grade				
Elementary School	9.35***	0.82	7.86***	5.96***
	(1.32)	(3.18)	(1.44)	(1.57)
Middle School	-1.41	-6.95***	-5.45*	0.09
	(2.67)	(2.66)	(3.15)	(3.11)
High School	202.19*	194.41*	200.56*	203.64*
	(114.70)	(114.71)	(114.70)	(114.59)
By Income Level				
Low-income Families	8.09***	-0.16	7.21***	13.62***
	(2.34)	(2.85)	(2.39)	(2.53)
Middle-income Families	10.53***	-3.57	3.03	4.39**
	(1.79)	(2.23)	(2.05)	(2.16)
High-income Families	5.68***	-1.83	6.27***	-1.19
	(1.84)	(2.22)	(2.10)	(2.15)
By Sex				
Only Girls	9.58***	-1.50	5.46***	7.36***
	(1.75)	(2.12)	(1.93)	(1.99)
Only Boys	6.62***	-1.88	5.32***	3.84**
	(1.46)	(1.80)	(1.61)	(1.68)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.30: Coefficients on Year Dummies for Different Demographic Groups, Meals

	Coefficient on Year Dummy (Minutes per Day Relative to 1997)			
Regression	2002	2007	2014	2019
All Sample	0.29	-6.58***	4.44***	6.18***
	(1.13)	(1.38)	(1.24)	(1.29)
By Grade				
Elementary School	-0.48	-0.34	5.10***	4.18**
	(1.39)	(3.37)	(1.53)	(1.67)
Middle School	-5.29**	-9.44***	0.99	3.20
	(2.45)	(2.43)	(2.88)	(2.85)
High School	203.45*	194.58*	203.05*	210.82*
	(108.06)	(108.07)	(108.06)	(107.96)
By Income Level				
Low-income Families	1.54	-4.47*	3.52	6.98***
	(2.18)	(2.64)	(2.22)	(2.35)
Middle-income Families	1.34	-7.11***	5.74***	8.82***
	(1.91)	(2.38)	(2.19)	(2.30)
High-income Families	-3.06*	-9.25***	3.01	0.45
	(1.82)	(2.19)	(2.07)	(2.12)
By Sex				
Only Girls	0.24	-7.39***	6.29***	6.72***
	(1.61)	(1.95)	(1.77)	(1.83)
Only Boys	0.16	-5.74***	2.48	5.48***
	(1.58)	(1.95)	(1.74)	(1.81)

Notes: (1) These are the coefficients and standard errors for the wave dummies plotted in Section 2.2. See notes to the figures for full sample and methodological descriptions. (2) Standard error in parentheses. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

B.4 Regression Tables for Estimated Causal Effect of TV Watching on Other Activities

This section shows the regression tables relative to Equation (10) of Chapter 2.

B.4.1 Substitution Regression Tables for Whole Week

By Grade

Table B.31: Results for the effect of TV Watching during the Whole Week on Extra-Curricular Activities, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.144***	−0.140***	0.380	0.000	−0.053
(N= 7,027)		(0.007)	(0.008)	(0.479)	(0.092)	(0.066)
	δ			−0.515	−0.134	−0.081
				(0.476)	(0.090)	(0.063)
Elementary School	β	−0.139***	−0.137***	1.438	0.134	0.021
(N= 3,674)		(0.009)	(0.010)	(1.022)	(0.155)	(0.112)
	δ			−1.567	−0.263*	−0.150
				(1.014)	(0.147)	(0.103)
Middle School	β	−0.142***	−0.127***	0.264	−0.052	−0.081
(N= 1,675)		(0.015)	(0.014)	(0.788)	(0.159)	(0.094)
	δ			−0.388	−0.072	−0.043
				(0.785)	(0.156)	(0.093)
High School	β	−0.164***	−0.148***	0.152	−0.073	−0.095
(N= 1,678)		(0.014)	(0.016)	(0.520)	(0.145)	(0.111)
	δ			−0.295	−0.071	−0.049
				(0.512)	(0.137)	(0.103)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.32: Results for the effect of TV Watching during the Whole Week on Sleep, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.071^{***}	-0.040^{***}	-0.783^{*}	-0.184^{**}	-0.129^{**}
(N= 7,027)		(0.015)	(0.014)	(0.408)	(0.090)	(0.055)
	δ			0.736^{*}	0.138	0.083
				(0.409)	(0.090)	(0.055)
Elementary School	β	-0.109^{***}	-0.067^{***}	−0.746	−0.143	−0.114
(N= 3,674)		(0.022)	(0.022)	(1.304)	(0.188)	(0.128)
	δ			0.676	0.074	0.045
				(1.298)	(0.181)	(0.117)
Middle School	β	-0.047^{*}	−0.044	−0.300	−0.143	−0.109
(N= 1,675)		(0.026)	(0.028)	(1.389)	(0.295)	(0.178)
	δ			0.254	0.095	0.061
				(1.375)	(0.281)	(0.166)
High School	β	0.008	−0.003	−0.465	−0.137	−0.116
(N= 1,678)		(0.026)	(0.028)	(0.586)	(0.160)	(0.120)
	δ			0.454	0.125	0.103
				(0.574)	(0.146)	(0.105)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.33: Results for the effect of TV Watching during the Whole Week on Class Time, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.224^{***}	-0.260^{***}	-2.891^{***}	-0.877^{***}	-0.700^{***}
(N= 7,027)		(0.016)	(0.017)	(0.607)	(0.108)	(0.073)
	δ			2.607^{***}	0.591^{***}	0.413^{***}
				(0.603)	(0.102)	(0.066)
Elementary School	β	-0.234^{***}	-0.286^{***}	-5.343^{***}	-1.060^{***}	-0.798^{***}
(N= 3,674)		(0.025)	(0.027)	(1.597)	(0.238)	(0.168)
	δ			5.033^{***}	0.751^{***}	0.488^{***}
				(1.585)	(0.225)	(0.159)
Middle School	β	-0.246^{***}	-0.268^{***}	-4.202^{***}	-1.117^{***}	-0.836^{***}
(N= 1,675)		(0.031)	(0.030)	(0.786)	(0.161)	(0.123)
	δ			3.901^{***}	0.815^{***}	0.535^{***}
				(0.770)	(0.144)	(0.106)
High School	β	-0.217^{***}	-0.218^{***}	-1.596^{***}	-0.584^{***}	-0.503^{***}
(N= 1,678)		(0.038)	(0.039)	(0.571)	(0.164)	(0.126)
	δ			1.354^{**}	0.343^{***}	0.261^{***}
				(0.542)	(0.132)	(0.095)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.34: Results for the effect of TV Watching during the Whole Week on Homework, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.061***	−0.068***	0.133	−0.056	−0.057
(N= 7,027)		(0.006)	(0.006)	(0.328)	(0.065)	(0.046)
	δ			−0.200	−0.012	−0.011
				(0.327)	(0.064)	(0.044)
Elementary School	β	−0.026***	−0.046***	−0.135	−0.076	−0.064
(N= 3,674)		(0.004)	(0.004)	(0.387)	(0.062)	(0.045)
	δ			0.088	0.029	0.017
				(0.384)	(0.059)	(0.041)
Middle School	β	−0.071***	−0.070***	−0.477	−0.201*	−0.155**
(N= 1,675)		(0.009)	(0.010)	(0.528)	(0.112)	(0.071)
	δ			0.404	0.126	0.081
				(0.524)	(0.107)	(0.066)
High School	β	−0.116***	−0.100***	0.060	−0.049	−0.039
(N= 1,678)		(0.011)	(0.011)	(0.447)	(0.112)	(0.086)
	δ			−0.157	−0.048	−0.056
				(0.443)	(0.109)	(0.081)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.35: Results for the effect of TV Watching during the Whole Week on Active Leisure, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.210^{***}	-0.181^{***}	-0.230	-0.156	-0.152^{*}
(N= 7,027)		(0.012)	(0.013)	(0.562)	(0.117)	(0.087)
	δ			0.048	-0.025	-0.028
				(0.561)	(0.117)	(0.086)
Elementary School	β	-0.235^{***}	-0.183^{***}	0.140	-0.127	-0.138
(N= 3,674)		(0.017)	(0.016)	(1.539)	(0.236)	(0.150)
	δ			-0.321	-0.054	-0.043
				(1.534)	(0.229)	(0.144)
Middle School	β	-0.197^{***}	-0.209^{***}	1.969^{*}	0.291	0.138
(N= 1,675)		(0.019)	(0.021)	(1.164)	(0.208)	(0.142)
	δ			-2.160^{*}	-0.479^{**}	-0.326^{**}
				(1.162)	(0.203)	(0.136)
High School	β	-0.139^{***}	-0.144^{***}	-0.720	-0.291^{*}	-0.264^{*}
(N= 1,678)		(0.022)	(0.021)	(0.508)	(0.163)	(0.135)
	δ			0.565	0.137	0.109
				(0.498)	(0.150)	(0.121)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.36: Results for the effect of TV Watching during the Whole Week on Passive Leisure (except TV), by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.041^{***}	-0.053^{***}	1.828^{***}	0.359^{***}	0.228^{***}
(N= 7,027)		(0.009)	(0.009)	(0.397)	(0.098)	(0.073)
	δ			-1.862^{***}	-0.394^{***}	-0.263^{***}
				(0.395)	(0.095)	(0.068)
Elementary School	β	-0.018	-0.026^{**}	0.601	0.075	0.023
(N= 3,674)		(0.012)	(0.012)	(1.192)	(0.172)	(0.143)
	δ			-0.625	-0.098	-0.047
				(1.185)	(0.165)	(0.135)
Middle School	β	-0.037^{*}	-0.026	1.448	0.274	0.147
(N= 1,675)		(0.021)	(0.019)	(1.071)	(0.179)	(0.129)
	δ			-1.461	-0.288	-0.162
				(1.067)	(0.175)	(0.123)
High School	β	-0.111^{***}	-0.113^{***}	1.945^{***}	0.437^{**}	0.328^{**}
(N= 1,678)		(0.022)	(0.022)	(0.731)	(0.170)	(0.133)
	δ			-2.022^{***}	-0.515^{***}	-0.404^{***}
				(0.731)	(0.171)	(0.132)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.37: Results for the effect of TV Watching during the Whole Week on Duties or Chores, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.195^{***}	-0.200^{***}	-1.105^{*}	-0.471^{***}	-0.385^{***}
(N= 7,027)		(0.011)	(0.012)	(0.634)	(0.129)	(0.089)
	δ			0.896	0.260^{**}	0.173^{**}
				(0.631)	(0.127)	(0.088)
Elementary School	β	-0.179^{***}	-0.184^{***}	-1.478	-0.425^{***}	-0.341^{***}
(N= 3,674)		(0.017)	(0.015)	(1.007)	(0.142)	(0.098)
	δ			1.288	0.233^{*}	0.149
				(1.004)	(0.138)	(0.093)
Middle School	β	-0.187^{***}	-0.185^{***}	-2.382^{*}	-0.722^{***}	-0.521^{***}
(N= 1,675)		(0.027)	(0.027)	(1.241)	(0.211)	(0.157)
	δ			2.179^{*}	0.516^{**}	0.316^{**}
				(1.232)	(0.203)	(0.149)
High School	β	-0.231^{***}	-0.242^{***}	-0.938	-0.447^{*}	-0.406^{**}
(N= 1,678)		(0.026)	(0.026)	(0.886)	(0.264)	(0.199)
	δ			0.683	0.192	0.150
				(0.877)	(0.251)	(0.185)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.38: Results for the effect of TV Watching during the Whole Week on Other Activities, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.053^{***}	-0.058^{***}	1.669^{**}	0.385^{***}	0.248^{***}
(N= 7,027)		(0.008)	(0.008)	(0.743)	(0.141)	(0.094)
	δ			-1.710^{**}	-0.423^{***}	-0.287^{***}
				(0.740)	(0.138)	(0.091)
Elementary School	β	-0.060^{***}	-0.071^{***}	4.523^{***}	0.623^{***}	0.409^{***}
(N= 3,674)		(0.015)	(0.019)	(1.423)	(0.204)	(0.146)
	δ			-4.572^{***}	-0.672^{***}	-0.458^{***}
				(1.416)	(0.197)	(0.137)
Middle School	β	-0.073^{***}	-0.072^{***}	2.680^{*}	0.671^{*}	0.418^{**}
(N= 1,675)		(0.018)	(0.021)	(1.442)	(0.349)	(0.198)
	δ			-2.729^{*}	-0.713^{**}	-0.461^{**}
				(1.442)	(0.348)	(0.196)
High School	β	-0.028^{**}	-0.032^{*}	0.562	0.144	0.094
(N= 1,678)		(0.014)	(0.017)	(0.494)	(0.147)	(0.115)
	δ			−0.583	−0.165	−0.115
				(0.496)	(0.151)	(0.118)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Income Level

Table B.39: Results for the effect of TV Watching during the Whole Week on Extra-Curricular Activities, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.144^{***}	-0.140^{***}	0.380	0.000	−0.053
(N= 7,027)		(0.007)	(0.008)	(0.399)	(0.081)	(0.056)
	δ			−0.515	-0.134^{*}	−0.081
				(0.398)	(0.080)	(0.055)
Low Income	β	-0.116^{***}	-0.111^{***}	0.885	0.144	0.054
(N= 2,245)		(0.012)	(0.011)	(0.855)	(0.159)	(0.123)
	δ			−0.987	−0.245	−0.157
				(0.851)	(0.156)	(0.121)
Middle Income	β	-0.127^{***}	-0.137^{***}	−0.034	−0.107	−0.152
(N= 2,315)		(0.012)	(0.013)	(0.889)	(0.205)	(0.137)
	δ			−0.102	−0.028	0.014
				(0.885)	(0.201)	(0.133)
High Income	β	-0.173^{***}	-0.179^{***}	0.026	−0.101	−0.125
(N= 2,467)		(0.012)	(0.012)	(0.682)	(0.168)	(0.126)
	δ			−0.202	−0.074	−0.050
				(0.677)	(0.162)	(0.120)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.40: Results for the effect of TV Watching during the Whole Week on Sleep, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.071^{***}	-0.040^{***}	-0.783	-0.184	-0.129
(N= 7,027)		(0.013)	(0.012)	(0.545)	(0.123)	(0.090)
	δ			0.736	0.138	0.083
				(0.537)	(0.115)	(0.082)
Low Income	β	-0.102^{***}	-0.068^{***}	-2.318	-0.580	-0.455
(N= 2,245)		(0.025)	(0.025)	(1.683)	(0.360)	(0.298)
	δ			2.231	0.491	0.368
				(1.665)	(0.342)	(0.280)
Middle Income	β	-0.091^{***}	-0.049^{**}	-0.021	-0.005	-0.023
(N= 2,315)		(0.023)	(0.024)	(0.843)	(0.195)	(0.134)
	δ			-0.027	-0.042	-0.024
				(0.840)	(0.190)	(0.127)
High Income	β	-0.050^{***}	0.006	-0.030	0.028	0.009
(N= 2,467)		(0.016)	(0.017)	(0.547)	(0.142)	(0.104)
	δ			0.035	-0.020	-0.003
				(0.540)	(0.134)	(0.097)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.41: Results for the effect of TV Watching during the Whole Week on Class Time, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.224^{***}	-0.260^{***}	-2.891^{***}	-0.877^{***}	-0.700^{***}
(N= 7,027)		(0.018)	(0.018)	(0.428)	(0.091)	(0.065)
	δ			2.607^{***}	0.591^{***}	0.413^{***}
				(0.429)	(0.091)	(0.066)
Low Income	β	-0.225^{***}	-0.251^{***}	-2.594^{**}	-0.832^{***}	-0.673^{***}
(N= 2,245)		(0.028)	(0.033)	(1.129)	(0.212)	(0.175)
	δ			2.324^{**}	0.558^{***}	0.402^{**}
				(1.126)	(0.208)	(0.172)
Middle Income	β	-0.224^{***}	-0.271^{***}	-2.626^{**}	-0.808^{***}	-0.609^{***}
(N= 2,315)		(0.030)	(0.029)	(1.059)	(0.206)	(0.154)
	δ			2.336^{**}	0.516^{***}	0.317^{**}
				(1.044)	(0.192)	(0.143)
High Income	β	-0.228^{***}	-0.271^{***}	-3.165^{***}	-0.975^{***}	-0.793^{***}
(N= 2,467)		(0.027)	(0.028)	(0.859)	(0.186)	(0.138)
	δ			2.859^{***}	0.669^{***}	0.487^{***}
				(0.849)	(0.177)	(0.128)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.42: Results for the effect of TV Watching during the Whole Week on Homework, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.061***	−0.068***	0.133	−0.056	−0.057
(N= 7,027)		(0.004)	(0.004)	(0.320)	(0.067)	(0.045)
	δ			−0.200	−0.012	−0.011
				(0.317)	(0.065)	(0.043)
Low Income	β	−0.038***	−0.044***	−0.014	−0.073	−0.055
(N= 2,245)		(0.008)	(0.007)	(0.545)	(0.113)	(0.101)
	δ			−0.030	0.028	0.011
				(0.544)	(0.112)	(0.099)
Middle Income	β	−0.057***	−0.068***	−0.479	−0.150	−0.114
(N= 2,315)		(0.007)	(0.007)	(0.610)	(0.126)	(0.071)
	δ			0.408	0.079	0.043
				(0.607)	(0.123)	(0.070)
High Income	β	−0.080***	−0.097***	0.454	0.022	0.000
(N= 2,467)		(0.010)	(0.011)	(0.471)	(0.111)	(0.082)
	δ			−0.544	−0.113	−0.090
				(0.465)	(0.105)	(0.076)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.43: Results for the effect of TV Watching during the Whole Week on Active Leisure, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.210***	−0.181***	−0.230	−0.156	−0.152*
(N= 7,027)		(0.015)	(0.015)	(0.509)	(0.118)	(0.080)
	δ			0.048	−0.025	−0.028
				(0.505)	(0.113)	(0.074)
Low Income	β	−0.182***	−0.186***	−1.608*	−0.475**	−0.391***
(N= 2,245)		(0.020)	(0.022)	(0.858)	(0.197)	(0.151)
	δ			1.410*	0.278	0.195
				(0.855)	(0.194)	(0.144)
Middle Income	β	−0.209***	−0.172***	0.436	0.008	−0.005
(N= 2,315)		(0.019)	(0.021)	(1.165)	(0.274)	(0.160)
	δ			−0.603	−0.172	−0.156
				(1.151)	(0.260)	(0.147)
High Income	β	−0.236***	−0.184***	0.285	−0.038	−0.086
(N= 2,467)		(0.018)	(0.019)	(0.745)	(0.178)	(0.125)
	δ			−0.463	−0.138	−0.091
				(0.735)	(0.169)	(0.116)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.44: Results for the effect of TV Watching during the Whole Week on Passive Leisure (except TV), by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.041^{***}	-0.053^{***}	1.828^{***}	0.359^{**}	0.228^{**}
(N= 7,027)		(0.008)	(0.008)	(0.620)	(0.143)	(0.099)
	δ			-1.862^{***}	-0.394^{***}	-0.263^{***}
				(0.614)	(0.136)	(0.094)
Low Income	β	-0.049^{***}	-0.047^{***}	1.610	0.351^{*}	0.264
(N= 2,245)		(0.015)	(0.017)	(1.106)	(0.209)	(0.176)
	δ			−1.643	-0.382^{*}	-0.295^{*}
				(1.103)	(0.207)	(0.174)
Middle Income	β	-0.064^{***}	-0.078^{***}	2.671^{**}	0.452^{*}	0.209
(N= 2,315)		(0.017)	(0.019)	(1.127)	(0.258)	(0.164)
	δ			-2.726^{**}	-0.509^{**}	-0.270^{*}
				(1.122)	(0.252)	(0.157)
High Income	β	0.002	−0.034	1.396^{*}	0.285^{*}	0.219^{*}
(N= 2,467)		(0.023)	(0.021)	(0.755)	(0.158)	(0.124)
	δ			-1.413^{*}	-0.303^{*}	-0.236^{*}
				(0.756)	(0.159)	(0.124)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.45: Results for the effect of TV Watching during the Whole Week on Duties or Chores, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.195^{***}	-0.200^{***}	-1.105	-0.471^{***}	-0.385^{***}
(N= 7,027)		(0.012)	(0.011)	(0.758)	(0.141)	(0.102)
	δ			0.896	0.260^{*}	0.173^{*}
				(0.754)	(0.137)	(0.098)
Low Income	β	-0.160^{***}	-0.176^{***}	-1.439	-0.512^{*}	-0.390^{*}
(N= 2,245)		(0.023)	(0.027)	(1.373)	(0.277)	(0.223)
	δ			1.252	0.322	0.203
				(1.357)	(0.261)	(0.207)
Middle Income	β	-0.196^{***}	-0.196^{***}	-1.913	-0.691^{***}	-0.531^{***}
(N= 2,315)		(0.021)	(0.020)	(1.345)	(0.262)	(0.166)
	δ			1.702	0.476^{*}	0.314^{**}
				(1.337)	(0.253)	(0.155)
High Income	β	-0.222^{***}	-0.228^{***}	-0.152	-0.306	-0.275^{*}
(N= 2,467)		(0.022)	(0.021)	(0.865)	(0.206)	(0.155)
	δ			-0.075	0.074	0.044
				(0.860)	(0.201)	(0.150)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.46: Results for the effect of TV Watching during the Whole Week on Other Activities, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.053***	−0.058***	1.669**	0.385***	0.248***
(N= 7,027)		(0.010)	(0.012)	(0.661)	(0.137)	(0.094)
	δ			−1.710***	−0.423***	−0.287***
				(0.660)	(0.137)	(0.093)
Low Income	β	−0.126***	−0.118***	4.478**	0.977**	0.647*
(N= 2,245)		(0.028)	(0.031)	(2.028)	(0.399)	(0.348)
	δ			−4.556**	−1.050***	−0.726**
				(2.030)	(0.402)	(0.349)
Middle Income	β	−0.031***	−0.030***	0.965	0.301	0.224*
(N= 2,315)		(0.012)	(0.010)	(0.874)	(0.187)	(0.126)
	δ			−0.987	−0.319*	−0.239*
				(0.872)	(0.185)	(0.123)
High Income	β	−0.013**	−0.013*	0.185	0.086	0.050
(N= 2,467)		(0.006)	(0.007)	(0.330)	(0.086)	(0.064)
	δ			−0.196	−0.095	−0.060
				(0.328)	(0.084)	(0.063)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Sex

Table B.47: Results for the effect of TV Watching during the Whole Week on Extra-Curricular Activities, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.144^{***}	-0.140^{***}	0.380	0.000	-0.053
(N= 7,027)		(0.007)	(0.007)	(0.321)	(0.065)	(0.045)
	δ			-0.515	-0.134^{**}	-0.081^{*}
				(0.319)	(0.064)	(0.044)
Only Boys	β	-0.142^{***}	-0.138^{***}	0.086	-0.073	-0.100
(N= 3,563)		(0.011)	(0.011)	(0.505)	(0.119)	(0.083)
	δ			-0.221	-0.062	-0.035
				(0.503)	(0.115)	(0.079)
Only Girls	β	-0.147^{***}	-0.141^{***}	0.610	0.059	-0.017
(N= 3,464)		(0.011)	(0.011)	(0.663)	(0.138)	(0.109)
	δ			-0.744	-0.191	-0.117
				(0.662)	(0.137)	(0.106)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.48: Results for the effect of TV Watching during the Whole Week on Sleep, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.071^{***}	-0.040^{***}	-0.783	-0.184	-0.129
(N= 7,027)		(0.015)	(0.015)	(0.581)	(0.123)	(0.082)
	δ			0.736	0.138	0.083
				(0.580)	(0.121)	(0.079)
Only Boys	β	-0.081^{***}	-0.052^{***}	-0.737	-0.176	-0.123
(N= 3,563)		(0.018)	(0.018)	(0.738)	(0.178)	(0.115)
	δ			0.678	0.119	0.067
				(0.733)	(0.173)	(0.109)
Only Girls	β	-0.058^{***}	-0.029^{**}	-0.731	-0.197	-0.174
(N= 3,464)		(0.017)	(0.014)	(0.653)	(0.148)	(0.120)
	δ			0.695	0.160	0.137
				(0.648)	(0.143)	(0.114)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.49: Results for the effect of TV Watching during the Whole Week on Class Time, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.224^{***}	-0.260^{***}	-2.891^{***}	-0.877^{***}	-0.700^{***}
(N= 7,027)		(0.012)	(0.012)	(0.485)	(0.102)	(0.076)
	δ			2.607^{***}	0.591^{***}	0.413^{***}
				(0.482)	(0.097)	(0.070)
Only Boys	β	-0.211^{***}	-0.240^{***}	-3.639^{***}	-1.014^{***}	-0.748^{***}
(N= 3,563)		(0.035)	(0.031)	(0.820)	(0.171)	(0.125)
	δ			3.366^{***}	0.740^{***}	0.476^{***}
				(0.808)	(0.161)	(0.115)
Only Girls	β	-0.242^{***}	-0.285^{***}	-1.885^{***}	-0.690^{***}	-0.614^{***}
(N= 3,464)		(0.023)	(0.020)	(0.721)	(0.155)	(0.132)
	δ			1.585^{**}	0.388^{***}	0.311^{**}
				(0.710)	(0.142)	(0.121)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.50: Results for the effect of TV Watching during the Whole Week on Homework, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.061^{***}	-0.068^{***}	0.133	-0.056	-0.057
(N= 7,027)		(0.005)	(0.005)	(0.429)	(0.080)	(0.057)
	δ			-0.200	-0.012	-0.011
				(0.428)	(0.079)	(0.056)
Only Boys	β	-0.054^{***}	-0.059^{***}	-0.357	-0.149^{*}	-0.116^{**}
(N= 3,563)		(0.006)	(0.007)	(0.390)	(0.081)	(0.057)
	δ			0.296	0.086	0.054
				(0.387)	(0.078)	(0.054)
Only Girls	β	-0.068^{***}	-0.078^{***}	0.582	0.039	0.013
(N= 3,464)		(0.008)	(0.009)	(0.409)	(0.094)	(0.063)
	δ			-0.653	-0.112	-0.086
				(0.408)	(0.092)	(0.061)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.51: Results for the effect of TV Watching during the Whole Week on Active Leisure, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.210***	−0.181***	−0.230	−0.156	−0.152**
(N= 7,027)		(0.014)	(0.013)	(0.463)	(0.097)	(0.073)
	δ			0.048	−0.025	−0.028
				(0.462)	(0.095)	(0.071)
Only Boys	β	−0.214***	−0.193***	−0.070	−0.147	−0.156
(N= 3,563)		(0.016)	(0.016)	(0.736)	(0.168)	(0.113)
	δ			−0.121	−0.044	−0.034
				(0.731)	(0.161)	(0.106)
Only Girls	β	−0.205***	−0.169***	−0.339	−0.138	−0.135
(N= 3,464)		(0.018)	(0.019)	(0.786)	(0.162)	(0.117)
	δ			0.168	−0.029	−0.032
				(0.777)	(0.152)	(0.106)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.52: Results for the effect of TV Watching during the Whole Week on Passive Leisure (except TV), by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.041^{***}	-0.053^{***}	1.828^{***}	0.359^{***}	0.228^{**}
(N= 7,027)		(0.010)	(0.010)	(0.627)	(0.130)	(0.097)
	δ			-1.862^{***}	-0.394^{***}	-0.263^{***}
				(0.624)	(0.126)	(0.092)
Only Boys	β	-0.066^{***}	-0.075^{***}	2.385^{**}	0.508^{**}	0.290^{**}
(N= 3,563)		(0.019)	(0.020)	(1.022)	(0.203)	(0.131)
	δ			-2.435^{**}	-0.557^{***}	-0.341^{***}
				(1.023)	(0.204)	(0.130)
Only Girls	β	-0.025^{**}	-0.027^{**}	0.996^{*}	0.162	0.113
(N= 3,464)		(0.012)	(0.011)	(0.552)	(0.114)	(0.077)
	δ			-1.013^{*}	-0.181^{*}	-0.132^{*}
				(0.548)	(0.109)	(0.072)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.53: Results for the effect of TV Watching during the Whole Week on Duties or Chores, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.195^{***}	-0.200^{***}	-1.105^{**}	-0.471^{***}	-0.385^{***}
(N= 7,027)		(0.014)	(0.013)	(0.496)	(0.098)	(0.064)
	δ			0.896^{*}	0.260^{***}	0.173^{***}
				(0.497)	(0.099)	(0.065)
Only Boys	β	-0.176^{***}	-0.183^{***}	-1.092	-0.442^{***}	-0.329^{***}
(N= 3,563)		(0.018)	(0.018)	(0.870)	(0.164)	(0.112)
	δ			0.900	0.247	0.136
				(0.864)	(0.159)	(0.108)
Only Girls	β	-0.206^{***}	-0.217^{***}	-1.234	-0.490^{**}	-0.420^{**}
(N= 3,464)		(0.014)	(0.014)	(1.080)	(0.215)	(0.168)
	δ			1.007	0.261	0.192
				(1.076)	(0.211)	(0.163)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.54: Results for the effect of TV Watching during the Whole Week on Other Activities, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.053^{***}	-0.058^{***}	1.669^{**}	0.385^{***}	0.248^{***}
(N= 7,027)		(0.007)	(0.009)	(0.722)	(0.133)	(0.092)
	δ			-1.710^{**}	-0.423^{***}	-0.287^{***}
				(0.722)	(0.133)	(0.092)
Only Boys	β	-0.055^{***}	-0.061^{***}	2.426^{**}	0.492^{**}	0.283
(N= 3,563)		(0.013)	(0.015)	(1.186)	(0.240)	(0.175)
	δ			-2.462^{**}	-0.528^{**}	-0.322^{*}
				(1.182)	(0.238)	(0.171)
Only Girls	β	-0.049^{***}	-0.055^{***}	1.001	0.255^{*}	0.234
(N= 3,464)		(0.012)	(0.013)	(0.656)	(0.149)	(0.146)
	δ			-1.045	-0.297^{**}	-0.272^{*}
				(0.651)	(0.144)	(0.140)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

B.4.2 Substitution Regression Tables for Weekdays

By Grade

Table B.55: Results for the effect of TV Watching during Weekdays on Extra-Curricular Activities, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.169^{***}	-0.164^{***}	0.112	0.004	-0.019
(N= 7,027)		(0.007)	(0.007)	(0.095)	(0.050)	(0.041)
	δ			-0.253^{***}	-0.144^{***}	-0.121^{***}
				(0.090)	(0.046)	(0.037)
Elementary School	β	-0.172^{***}	-0.166^{***}	0.094	-0.046	-0.067
(N= 3,674)		(0.010)	(0.011)	(0.157)	(0.084)	(0.069)
	δ			-0.243	-0.104	-0.084
				(0.148)	(0.074)	(0.059)
Middle School	β	-0.161^{***}	-0.150^{***}	0.525^{***}	0.205^{***}	0.153^{***}
(N= 1,675)		(0.014)	(0.015)	(0.149)	(0.068)	(0.056)
	δ			-0.632^{***}	-0.312^{***}	-0.260^{***}
				(0.141)	(0.059)	(0.049)
High School	β	-0.183^{***}	-0.166^{***}	0.041	-0.034	-0.042
(N= 1,678)		(0.014)	(0.014)	(0.103)	(0.068)	(0.063)
	δ			-0.183^{**}	-0.109^{*}	-0.101^{**}
				(0.092)	(0.057)	(0.051)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.56: Results for the effect of TV Watching during Weekdays on Sleep, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.026**	0.006	−0.276***	−0.144***	−0.115**
(N= 7,027)		(0.012)	(0.013)	(0.088)	(0.051)	(0.046)
	δ			0.260***	0.129***	0.101**
				(0.083)	(0.045)	(0.040)
Elementary School	β	−0.058***	−0.016	−0.478***	−0.256***	−0.214***
(N= 3,674)		(0.020)	(0.018)	(0.178)	(0.098)	(0.082)
	δ			0.432***	0.210**	0.168**
				(0.163)	(0.082)	(0.067)
Middle School	β	−0.020	−0.016	−0.063	−0.044	−0.042
(N= 1,675)		(0.027)	(0.025)	(0.213)	(0.113)	(0.098)
	δ			0.043	0.024	0.022
				(0.199)	(0.098)	(0.083)
High School	β	0.065*	0.056	−0.055	−0.012	−0.009
(N= 1,678)		(0.033)	(0.037)	(0.165)	(0.119)	(0.114)
	δ			0.097	0.056	0.053
				(0.127)	(0.080)	(0.076)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.57: Results for the effect of TV Watching during Weekdays on Class Time, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.419^{***}	-0.444^{***}	-1.378^{***}	-1.013^{***}	-0.948^{***}
(N= 7,027)		(0.019)	(0.019)	(0.167)	(0.097)	(0.086)
	δ			0.858^{***}	0.488^{***}	0.420^{***}
				(0.150)	(0.080)	(0.069)
Elementary School	β	-0.475^{***}	-0.509^{***}	-1.722^{***}	-1.155^{***}	-1.048^{***}
(N= 3,674)		(0.032)	(0.033)	(0.256)	(0.135)	(0.116)
	δ			1.135^{***}	0.566^{***}	0.459^{***}
				(0.230)	(0.108)	(0.090)
Middle School	β	-0.396^{***}	-0.414^{***}	-1.556^{***}	-1.049^{***}	-0.961^{***}
(N= 1,675)		(0.050)	(0.047)	(0.244)	(0.126)	(0.109)
	δ			1.068^{***}	0.556^{***}	0.468^{***}
				(0.224)	(0.104)	(0.088)
High School	β	-0.390^{***}	-0.383^{***}	-1.039^{***}	-0.820^{***}	-0.794^{***}
(N= 1,678)		(0.036)	(0.037)	(0.187)	(0.123)	(0.115)
	δ			0.576^{***}	0.357^{***}	0.332^{***}
				(0.161)	(0.097)	(0.089)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.58: Results for the effect of TV Watching during Weekdays on Homework, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.078^{***}	-0.086^{***}	-0.083^{*}	-0.095^{***}	-0.102^{***}
(N= 7,027)		(0.005)	(0.005)	(0.049)	(0.027)	(0.021)
	δ			-0.003	0.008	0.013
				(0.047)	(0.024)	(0.019)
Elementary School	β	-0.047^{***}	-0.066^{***}	-0.086	-0.068^{*}	-0.073^{**}
(N= 3,674)		(0.008)	(0.008)	(0.075)	(0.041)	(0.036)
	δ			0.019	0.002	0.006
				(0.072)	(0.038)	(0.032)
Middle School	β	-0.093^{***}	-0.094^{***}	-0.297^{***}	-0.215^{***}	-0.200^{***}
(N= 1,675)		(0.010)	(0.010)	(0.105)	(0.057)	(0.051)
	δ			0.190^{*}	0.106^{**}	0.090^{**}
				(0.100)	(0.051)	(0.044)
High School	β	-0.122^{***}	-0.109^{***}	-0.087	-0.095	-0.104^{*}
(N= 1,678)		(0.014)	(0.013)	(0.093)	(0.061)	(0.058)
	δ			-0.019	-0.012	-0.004
				(0.086)	(0.053)	(0.050)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.59: Results for the effect of TV Watching during Weekdays on Active Leisure, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.108^{***}	-0.093^{***}	0.111	0.037	0.030
(N= 7,027)		(0.012)	(0.012)	(0.127)	(0.075)	(0.067)
	δ			-0.188	-0.112^{*}	-0.103^{*}
				(0.120)	(0.067)	(0.058)
Elementary School	β	-0.083^{***}	-0.060^{***}	0.353^{*}	0.159	0.134
(N= 3,674)		(0.019)	(0.019)	(0.208)	(0.116)	(0.099)
	δ			-0.387^{**}	-0.192^{**}	-0.165^{**}
				(0.192)	(0.097)	(0.080)
Middle School	β	-0.123^{***}	-0.131^{***}	0.308	0.103	0.075
(N= 1,675)		(0.020)	(0.018)	(0.288)	(0.146)	(0.120)
	δ			-0.411	-0.205	-0.176^{*}
				(0.272)	(0.131)	(0.105)
High School	β	-0.095^{***}	-0.101^{***}	-0.109	-0.105	-0.102
(N= 1,678)		(0.025)	(0.026)	(0.152)	(0.103)	(0.102)
	δ			0.007	0.003	0.001
				(0.135)	(0.084)	(0.083)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.60: Results for the effect of TV Watching during Weekdays on Passive Leisure (except TV), by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.020^{**}	-0.024^{**}	0.213^{***}	0.113^{**}	0.095^{**}
(N= 7,027)		(0.010)	(0.011)	(0.078)	(0.045)	(0.038)
	δ			-0.218^{***}	-0.118^{***}	-0.099^{***}
				(0.073)	(0.039)	(0.032)
Elementary School	β	-0.004	-0.004	0.284^{***}	0.159^{***}	0.137^{***}
(N= 3,674)		(0.009)	(0.009)	(0.087)	(0.048)	(0.041)
	δ			-0.269^{***}	-0.143^{***}	-0.120^{***}
				(0.080)	(0.041)	(0.034)
Middle School	β	-0.008	0.004	0.063	0.031	0.028
(N= 1,675)		(0.022)	(0.021)	(0.128)	(0.065)	(0.056)
	δ			-0.056	-0.024	-0.020
				(0.120)	(0.055)	(0.045)
High School	β	-0.074^{***}	-0.073^{***}	0.107	0.036	0.024
(N= 1,678)		(0.022)	(0.020)	(0.128)	(0.090)	(0.086)
	δ			-0.158	-0.089	-0.078
				(0.114)	(0.074)	(0.070)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.61: Results for the effect of TV Watching during Weekdays on Duties or Chores, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.137^{***}	-0.149^{***}	0.005	-0.079^{*}	-0.104^{**}
(N= 7,027)		(0.011)	(0.010)	(0.082)	(0.048)	(0.041)
	δ			-0.142^{*}	−0.060	−0.038
				(0.080)	(0.044)	(0.036)
Elementary School	β	-0.119^{***}	-0.130^{***}	−0.134	−0.125	-0.138^{*}
(N= 3,674)		(0.013)	(0.015)	(0.168)	(0.086)	(0.072)
	δ			0.004	−0.004	0.007
				(0.160)	(0.076)	(0.060)
Middle School	β	-0.128^{***}	-0.130^{***}	-0.471^{**}	-0.287^{**}	-0.266^{***}
(N= 1,675)		(0.026)	(0.027)	(0.206)	(0.118)	(0.103)
	δ			0.318	0.137	0.116
				(0.201)	(0.112)	(0.096)
High School	β	-0.177^{***}	-0.197^{***}	0.055	−0.023	−0.030
(N= 1,678)		(0.027)	(0.026)	(0.146)	(0.094)	(0.090)
	δ			−0.222	-0.143^{*}	-0.135^{*}
				(0.135)	(0.083)	(0.079)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.62: Results for the effect of TV Watching during Weekdays on Other Activities, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.043***	−0.045***	0.297***	0.177***	0.162***
(N= 7,027)		(0.007)	(0.008)	(0.064)	(0.034)	(0.028)
	δ			−0.314***	−0.191***	−0.173***
				(0.061)	(0.031)	(0.025)
Elementary School	β	−0.043**	−0.050**	0.690***	0.334***	0.270***
(N= 3,674)		(0.020)	(0.021)	(0.155)	(0.074)	(0.059)
	δ			−0.692***	−0.336***	−0.272***
				(0.156)	(0.075)	(0.060)
Middle School	β	−0.071***	−0.068***	0.490**	0.255**	0.213**
(N= 1,675)		(0.019)	(0.019)	(0.199)	(0.106)	(0.096)
	δ			−0.521***	−0.283***	−0.240**
				(0.197)	(0.104)	(0.094)
High School	β	−0.023***	−0.025***	0.086	0.052	0.057*
(N= 1,678)		(0.008)	(0.009)	(0.052)	(0.033)	(0.031)
	δ			−0.098*	−0.064*	−0.067**
				(0.052)	(0.033)	(0.031)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Income Level

Table B.63: Results for the effect of TV Watching during Weekdays on Extra-Curricular Activities, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.169***	−0.164***	0.112	0.004	−0.019
(N= 7,027)		(0.007)	(0.006)	(0.076)	(0.046)	(0.040)
	δ			−0.253***	−0.144***	−0.121***
				(0.072)	(0.040)	(0.034)
Low Income	β	−0.146***	−0.139***	0.246*	0.062	0.025
(N= 2,245)		(0.014)	(0.014)	(0.127)	(0.060)	(0.052)
	δ			−0.358***	−0.176***	−0.139***
				(0.125)	(0.059)	(0.050)
Middle Income	β	−0.158***	−0.164***	−0.106	−0.093	−0.097*
(N= 2,315)		(0.010)	(0.012)	(0.130)	(0.063)	(0.053)
	δ			−0.054	−0.062	−0.057
				(0.124)	(0.058)	(0.047)
High Income	β	−0.192***	−0.192***	0.087	−0.005	−0.020
(N= 2,467)		(0.014)	(0.017)	(0.105)	(0.066)	(0.060)
	δ			−0.249***	−0.155***	−0.141***
				(0.094)	(0.056)	(0.050)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.64: Results for the effect of TV Watching during Weekdays on Sleep, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.026	0.006	−0.276**	−0.144*	−0.115*
(N= 7,027)		(0.016)	(0.015)	(0.127)	(0.074)	(0.065)
	δ			0.260**	0.129**	0.101*
				(0.116)	(0.062)	(0.052)
Low Income	β	−0.051*	−0.017	−0.645**	−0.343***	−0.270***
(N= 2,245)		(0.028)	(0.030)	(0.250)	(0.130)	(0.103)
	δ			0.586**	0.285**	0.214**
				(0.234)	(0.113)	(0.086)
Middle Income	β	−0.033	0.002	0.003	0.023	0.034
(N= 2,315)		(0.028)	(0.028)	(0.162)	(0.100)	(0.083)
	δ			−0.001	−0.018	−0.027
				(0.140)	(0.075)	(0.058)
High Income	β	−0.010	0.043**	−0.182	−0.086	−0.064
(N= 2,467)		(0.023)	(0.021)	(0.138)	(0.092)	(0.085)
	δ			0.201	0.108	0.088
				(0.124)	(0.078)	(0.071)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.65: Results for the effect of TV Watching during Weekdays on Class Time, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.419^{***}	-0.444^{***}	-1.378^{***}	-1.013^{***}	-0.948^{***}
(N= 7,027)		(0.022)	(0.022)	(0.122)	(0.067)	(0.060)
	δ			0.858^{***}	0.488^{***}	0.420^{***}
				(0.111)	(0.058)	(0.050)
Low Income	β	-0.416^{***}	-0.442^{***}	-1.722^{***}	-1.127^{***}	-1.008^{***}
(N= 2,245)		(0.038)	(0.040)	(0.255)	(0.145)	(0.136)
	δ			1.193^{***}	0.598^{***}	0.479^{***}
				(0.232)	(0.118)	(0.105)
Middle Income	β	-0.437^{***}	-0.469^{***}	-1.508^{***}	-1.080^{***}	-0.988^{***}
(N= 2,315)		(0.041)	(0.041)	(0.254)	(0.130)	(0.110)
	δ			0.967^{***}	0.532^{***}	0.439^{***}
				(0.225)	(0.100)	(0.080)
High Income	β	-0.410^{***}	-0.441^{***}	-1.193^{***}	-0.948^{***}	-0.921^{***}
(N= 2,467)		(0.040)	(0.038)	(0.158)	(0.121)	(0.122)
	δ			0.670^{***}	0.421^{***}	0.394^{***}
				(0.136)	(0.098)	(0.097)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.66: Results for the effect of TV Watching during Weekdays on Homework, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.078***	−0.086***	−0.083	−0.095***	−0.102***
(N= 7,027)		(0.005)	(0.006)	(0.054)	(0.029)	(0.025)
	δ			−0.003	0.008	0.013
				(0.050)	(0.025)	(0.021)
Low Income	β	−0.054***	−0.061***	−0.301***	−0.191***	−0.174***
(N= 2,245)		(0.009)	(0.009)	(0.100)	(0.051)	(0.041)
	δ			0.223**	0.113**	0.095***
				(0.095)	(0.045)	(0.035)
Middle Income	β	−0.073***	−0.083***	−0.143	−0.118**	−0.112**
(N= 2,315)		(0.009)	(0.010)	(0.095)	(0.053)	(0.046)
	δ			0.056	0.031	0.025
				(0.090)	(0.048)	(0.041)
High Income	β	−0.102***	−0.116***	−0.007	−0.048	−0.057
(N= 2,467)		(0.011)	(0.013)	(0.094)	(0.063)	(0.058)
	δ			−0.097	−0.057	−0.048
				(0.087)	(0.055)	(0.050)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.67: Results for the effect of TV Watching during Weekdays on Active Leisure, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.108***	−0.093***	0.111	0.037	0.030
(N= 7,027)		(0.011)	(0.013)	(0.115)	(0.068)	(0.057)
	δ			−0.188*	−0.112*	−0.103**
				(0.110)	(0.061)	(0.050)
Low Income	β	−0.086***	−0.088***	0.092	0.009	−0.005
(N= 2,245)		(0.016)	(0.019)	(0.222)	(0.122)	(0.106)
	δ			−0.167	−0.085	−0.070
				(0.210)	(0.108)	(0.091)
Middle Income	β	−0.100***	−0.081***	0.417**	0.192*	0.140
(N= 2,315)		(0.026)	(0.024)	(0.206)	(0.115)	(0.092)
	δ			−0.463**	−0.238**	−0.187**
				(0.192)	(0.101)	(0.079)
High Income	β	−0.130***	−0.103***	0.002	−0.019	−0.009
(N= 2,467)		(0.024)	(0.024)	(0.158)	(0.103)	(0.094)
	δ			−0.093	−0.070	−0.077
				(0.143)	(0.086)	(0.077)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.68: Results for the effect of TV Watching during Weekdays on Passive Leisure (except TV), by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.020^{*}	-0.024^{**}	0.213^{**}	0.113^{**}	0.095^{**}
(N= 7,027)		(0.011)	(0.011)	(0.084)	(0.050)	(0.043)
	δ			-0.218^{***}	-0.118^{***}	-0.099^{***}
				(0.076)	(0.042)	(0.035)
Low Income	β	-0.033^{**}	-0.031^{*}	0.345^{**}	0.174^{**}	0.141^{**}
(N= 2,245)		(0.013)	(0.016)	(0.150)	(0.075)	(0.069)
	δ			-0.350^{**}	-0.179^{***}	-0.145^{**}
				(0.143)	(0.066)	(0.058)
Middle Income	β	-0.024	-0.029	0.120	0.056	0.041
(N= 2,315)		(0.021)	(0.021)	(0.130)	(0.074)	(0.063)
	δ			-0.139	-0.074	-0.059
				(0.121)	(0.065)	(0.054)
High Income	β	0.008	-0.015	0.224^{*}	0.126^{*}	0.104
(N= 2,467)		(0.022)	(0.022)	(0.116)	(0.073)	(0.065)
	δ			-0.212^{*}	-0.117^{*}	-0.098^{*}
				(0.109)	(0.064)	(0.055)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_{\delta} = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.69: Results for the effect of TV Watching during Weekdays on Duties or Chores, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.137^{***}	-0.149^{***}	0.005	-0.079	-0.104^{**}
(N= 7,027)		(0.015)	(0.014)	(0.097)	(0.054)	(0.046)
	δ			-0.142	-0.060	-0.038
				(0.090)	(0.047)	(0.039)
Low Income	β	-0.109^{***}	-0.125^{***}	-0.178	-0.144	-0.142
(N= 2,245)		(0.017)	(0.017)	(0.240)	(0.127)	(0.107)
	δ			0.049	0.016	0.014
				(0.230)	(0.116)	(0.096)
Middle Income	β	-0.152^{***}	-0.155^{***}	0.135	-0.035	-0.069
(N= 2,315)		(0.022)	(0.021)	(0.226)	(0.118)	(0.091)
	δ			-0.270	-0.104	-0.073
				(0.213)	(0.106)	(0.079)
High Income	β	-0.150^{***}	-0.164^{***}	0.007	-0.071	-0.090
(N= 2,467)		(0.019)	(0.017)	(0.130)	(0.081)	(0.069)
	δ			-0.153	-0.077	-0.061
				(0.117)	(0.068)	(0.057)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.70: Results for the effect of TV Watching during Weekdays on Other Activities, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.043^{***}	-0.045^{***}	0.297^{***}	0.177^{***}	0.162^{***}
(N= 7,027)		(0.008)	(0.009)	(0.071)	(0.036)	(0.030)
	δ			-0.314^{***}	-0.191^{***}	-0.173^{***}
				(0.069)	(0.036)	(0.029)
Low Income	β	-0.104^{***}	-0.097^{***}	1.163^{***}	0.559^{***}	0.433^{***}
(N= 2,245)		(0.026)	(0.026)	(0.308)	(0.148)	(0.119)
	δ			-1.174^{***}	-0.573^{***}	-0.448^{***}
				(0.309)	(0.149)	(0.118)
Middle Income	β	-0.023^{**}	-0.021^{**}	0.083	0.056	0.051
(N= 2,315)		(0.009)	(0.010)	(0.113)	(0.068)	(0.061)
	δ			−0.097	−0.067	−0.061
				(0.108)	(0.063)	(0.055)
High Income	β	-0.012^{**}	-0.013^{**}	0.062^{*}	0.051^{**}	0.057^{**}
(N= 2,467)		(0.005)	(0.005)	(0.032)	(0.021)	(0.024)
	δ			-0.066^{**}	-0.054^{***}	-0.058^{***}
				(0.031)	(0.019)	(0.021)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Sex

Table B.71: Results for the effect of TV Watching during Weekdays on Extra-Curricular Activities, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.169^{***}	-0.164^{***}	0.112	0.004	-0.019
(N= 7,027)		(0.007)	(0.007)	(0.078)	(0.042)	(0.035)
	δ			-0.253^{***}	-0.144^{***}	-0.121^{***}
				(0.075)	(0.038)	(0.032)
Only Boys	β	-0.161^{***}	-0.156^{***}	0.078	-0.015	-0.032
(N= 3,563)		(0.010)	(0.010)	(0.119)	(0.062)	(0.050)
	δ			-0.216^{*}	-0.122^{**}	-0.105^{**}
				(0.113)	(0.055)	(0.044)
Only Girls	β	-0.179^{***}	-0.171^{***}	0.129	0.019	-0.003
(N= 3,464)		(0.012)	(0.012)	(0.085)	(0.052)	(0.045)
	δ			-0.273^{***}	-0.162^{***}	-0.139^{***}
				(0.081)	(0.048)	(0.040)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.72: Results for the effect of TV Watching during Weekdays on Sleep, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.026^{*}	0.006	-0.276^{***}	-0.144^{***}	-0.115^{**}
(N= 7,027)		(0.016)	(0.013)	(0.094)	(0.056)	(0.050)
	δ			0.260^{***}	0.129^{***}	0.101^{**}
				(0.088)	(0.048)	(0.042)
Only Boys	β	-0.040^{*}	-0.014	-0.132	-0.075	-0.063
(N= 3,563)		(0.021)	(0.020)	(0.158)	(0.087)	(0.072)
	δ			0.109	0.053	0.042
				(0.143)	(0.071)	(0.056)
Only Girls	β	-0.011	0.029	-0.378^{***}	-0.208^{***}	-0.170^{**}
(N= 3,464)		(0.018)	(0.020)	(0.119)	(0.080)	(0.072)
	δ			0.370^{***}	0.201^{***}	0.165^{***}
				(0.103)	(0.061)	(0.053)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_{\delta} = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.73: Results for the effect of TV Watching during Weekdays on Class Time, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.419^{***}	-0.444^{***}	-1.378^{***}	-1.013^{***}	-0.948^{***}
(N= 7,027)		(0.024)	(0.022)	(0.156)	(0.089)	(0.074)
	δ			0.858^{***}	0.488^{***}	0.420^{***}
				(0.138)	(0.071)	(0.057)
Only Boys	β	-0.400^{***}	-0.418^{***}	-1.750^{***}	-1.181^{***}	-1.081^{***}
(N= 3,563)		(0.023)	(0.025)	(0.168)	(0.095)	(0.083)
	δ			1.235^{***}	0.661^{***}	0.559^{***}
				(0.160)	(0.082)	(0.072)
Only Girls	β	-0.441^{***}	-0.478^{***}	-1.014^{***}	-0.835^{***}	-0.794^{***}
(N= 3,464)		(0.030)	(0.034)	(0.170)	(0.110)	(0.104)
	δ			0.487^{***}	0.303^{***}	0.261^{***}
				(0.153)	(0.091)	(0.083)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.74: Results for the effect of TV Watching during Weekdays on Homework, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.078***	−0.086***	−0.083	−0.095***	−0.102***
(N= 7,027)		(0.006)	(0.006)	(0.055)	(0.031)	(0.026)
	δ			−0.003	0.008	0.013
				(0.053)	(0.028)	(0.023)
Only Boys	β	−0.075***	−0.078***	−0.168**	−0.135***	−0.130***
(N= 3,563)		(0.006)	(0.007)	(0.072)	(0.040)	(0.035)
	δ			0.083	0.049	0.044
				(0.068)	(0.036)	(0.030)
Only Girls	β	−0.081***	−0.094***	−0.012	−0.063	−0.077**
(N= 3,464)		(0.009)	(0.009)	(0.075)	(0.045)	(0.038)
	δ			−0.075	−0.026	−0.014
				(0.071)	(0.040)	(0.033)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.75: Results for the effect of TV Watching during Weekdays on Active Leisure, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.108^{***}	-0.093^{***}	0.111	0.037	0.030
(N= 7,027)		(0.012)	(0.013)	(0.108)	(0.062)	(0.052)
	δ			-0.188^{*}	-0.112^{**}	-0.103^{**}
				(0.102)	(0.056)	(0.046)
Only Boys	β	-0.104^{***}	-0.096^{***}	0.036	−0.010	−0.006
(N= 3,563)		(0.020)	(0.020)	(0.147)	(0.081)	(0.069)
	δ			−0.123	−0.074	−0.076
				(0.139)	(0.071)	(0.058)
Only Girls	β	-0.112^{***}	-0.088^{***}	0.159	0.072	0.049
(N= 3,464)		(0.020)	(0.023)	(0.149)	(0.096)	(0.082)
	δ			-0.225^{*}	-0.136^{*}	-0.113^{*}
				(0.132)	(0.077)	(0.063)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.76: Results for the effect of TV Watching during Weekdays on Passive Leisure (except TV), by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.020^{*}	-0.024^{**}	0.213^{***}	0.113^{***}	0.095^{***}
(N= 7,027)		(0.011)	(0.012)	(0.068)	(0.040)	(0.036)
	δ			-0.218^{***}	-0.118^{***}	-0.099^{***}
				(0.063)	(0.035)	(0.030)
Only Boys	β	-0.033^{***}	-0.036^{**}	0.419^{***}	0.217^{***}	0.177^{***}
(N= 3,563)		(0.013)	(0.014)	(0.146)	(0.079)	(0.067)
	δ			-0.423^{***}	-0.219^{***}	-0.180^{***}
				(0.140)	(0.072)	(0.060)
Only Girls	β	−0.009	−0.009	0.025	0.019	0.016
(N= 3,464)		(0.010)	(0.011)	(0.058)	(0.037)	(0.034)
	δ			−0.031	−0.024	−0.021
				(0.054)	(0.033)	(0.029)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.77: Results for the effect of TV Watching during Weekdays on Duties or Chores, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.137^{***}	-0.149^{***}	0.005	-0.079	-0.104^{*}
(N= 7,027)		(0.011)	(0.011)	(0.120)	(0.066)	(0.057)
	δ			-0.142	-0.060	-0.038
				(0.111)	(0.058)	(0.048)
Only Boys	β	-0.142^{***}	-0.154^{***}	0.156	0.001	-0.039
(N= 3,563)		(0.014)	(0.015)	(0.111)	(0.056)	(0.046)
	δ			-0.287^{***}	-0.134^{***}	-0.096^{**}
				(0.106)	(0.051)	(0.041)
Only Girls	β	-0.128^{***}	-0.146^{***}	-0.149	-0.157^{**}	-0.160^{**}
(N= 3,464)		(0.016)	(0.016)	(0.141)	(0.080)	(0.064)
	δ			0.003	0.009	0.012
				(0.129)	(0.069)	(0.055)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.78: Results for the effect of TV Watching during Weekdays on Other Activities, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.043^{***}	-0.045^{***}	0.297^{***}	0.177^{***}	0.162^{***}
(N= 7,027)		(0.010)	(0.010)	(0.103)	(0.056)	(0.048)
	δ			-0.314^{***}	-0.191^{***}	-0.173^{***}
				(0.102)	(0.054)	(0.046)
Only Boys	β	-0.045^{***}	-0.048^{***}	0.359^{***}	0.199^{***}	0.175^{***}
(N= 3,563)		(0.010)	(0.010)	(0.092)	(0.049)	(0.038)
	δ			-0.378^{***}	-0.213^{***}	-0.188^{***}
				(0.091)	(0.047)	(0.036)
Only Girls	β	-0.041^{***}	-0.043^{***}	0.240^{***}	0.152^{***}	0.138^{***}
(N= 3,464)		(0.012)	(0.012)	(0.088)	(0.054)	(0.048)
	δ			-0.257^{***}	-0.166^{***}	-0.150^{***}
				(0.086)	(0.050)	(0.043)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

B.4.3 Substitution Regression Tables for Weekends

By Grade

Table B.79: Results for the effect of TV Watching during Weekends on Extra-Curricular Activities, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.093^{***}	-0.092^{***}	0.228^{**}	0.061	0.030
(N= 7,027)		(0.006)	(0.006)	(0.110)	(0.047)	(0.039)
	δ			-0.307^{***}	-0.139^{***}	-0.107^{***}
				(0.109)	(0.046)	(0.037)
Elementary School	β	-0.086^{***}	-0.088^{***}	0.525^{*}	0.140	0.083
(N= 3,674)		(0.011)	(0.012)	(0.296)	(0.096)	(0.073)
	δ			-0.599^{**}	-0.212^{**}	-0.155^{**}
				(0.296)	(0.095)	(0.072)
Middle School	β	-0.095^{***}	-0.085^{***}	0.151	−0.021	−0.051
(N= 1,675)		(0.011)	(0.010)	(0.190)	(0.074)	(0.059)
	δ			−0.226	−0.058	−0.030
				(0.186)	(0.069)	(0.053)
High School	β	-0.107^{***}	-0.102^{***}	0.148	0.053	0.034
(N= 1,678)		(0.014)	(0.016)	(0.175)	(0.099)	(0.087)
	δ			−0.232	−0.135	−0.115
				(0.171)	(0.094)	(0.082)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.80: Results for the effect of TV Watching during Weekends on Sleep, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.100^{***}	-0.099^{***}	-1.046^{***}	-0.541^{***}	-0.447^{***}
(N= 7,027)		(0.012)	(0.013)	(0.209)	(0.086)	(0.072)
	δ			0.909^{***}	0.401^{***}	0.307^{***}
				(0.199)	(0.076)	(0.062)
Elementary School	β	-0.112^{***}	-0.109^{***}	-1.780^{***}	-0.682^{***}	-0.545^{***}
(N= 3,674)		(0.015)	(0.016)	(0.389)	(0.128)	(0.103)
	δ			1.631^{***}	0.532^{***}	0.395^{***}
				(0.379)	(0.118)	(0.091)
Middle School	β	-0.098^{***}	-0.104^{***}	-0.896^{**}	-0.471^{***}	-0.395^{***}
(N= 1,675)		(0.023)	(0.024)	(0.394)	(0.148)	(0.122)
	δ			0.762^{**}	0.334^{**}	0.257^{**}
				(0.383)	(0.137)	(0.113)
High School	β	-0.080^{***}	-0.081^{***}	-0.751^{***}	-0.459^{***}	-0.400^{***}
(N= 1,678)		(0.020)	(0.020)	(0.213)	(0.118)	(0.103)
	δ			0.622^{***}	0.329^{***}	0.269^{***}
				(0.197)	(0.100)	(0.085)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.81: Results for the effect of TV Watching during Weekends on Class Time, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.007***	−0.006***	0.017	0.003	0.001
(N= 7,027)		(0.002)	(0.002)	(0.040)	(0.016)	(0.013)
	δ			−0.022	−0.008	−0.007
				(0.039)	(0.016)	(0.012)
Elementary School	β	−0.008***	−0.006**	−0.012	−0.012	−0.010
(N= 3,674)		(0.003)	(0.003)	(0.086)	(0.028)	(0.022)
	δ			0.006	0.006	0.004
				(0.084)	(0.026)	(0.020)
Middle School	β	−0.005	−0.005	0.027	0.011	0.008
(N= 1,675)		(0.003)	(0.003)	(0.051)	(0.025)	(0.021)
	δ			−0.030	−0.014	−0.011
				(0.051)	(0.024)	(0.020)
High School	β	−0.008*	−0.008*	0.028	0.013	0.010
(N= 1,678)		(0.004)	(0.005)	(0.055)	(0.029)	(0.024)
	δ			−0.033	−0.018	−0.015
				(0.054)	(0.028)	(0.023)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.82: Results for the effect of TV Watching during Weekends on Homework, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.021***	−0.019***	0.036	−0.009	−0.013
(N= 7,027)		(0.004)	(0.004)	(0.083)	(0.033)	(0.027)
	δ			−0.053	−0.010	−0.005
				(0.081)	(0.031)	(0.025)
Elementary School	β	−0.009***	−0.009***	−0.100	−0.040	−0.032
(N= 3,674)		(0.003)	(0.003)	(0.076)	(0.027)	(0.020)
	δ			0.089	0.028	0.020
				(0.073)	(0.024)	(0.017)
Middle School	β	−0.021***	−0.017***	−0.040	−0.029	−0.022
(N= 1,675)		(0.005)	(0.006)	(0.081)	(0.037)	(0.030)
	δ			0.022	0.011	0.004
				(0.077)	(0.032)	(0.025)
High School	β	−0.045***	−0.035***	0.007	−0.011	−0.016
(N= 1,678)		(0.009)	(0.007)	(0.121)	(0.072)	(0.062)
	δ			−0.038	−0.021	−0.016
				(0.113)	(0.062)	(0.053)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.83: Results for the effect of TV Watching during Weekends on Active Leisure, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.368***	−0.354***	−0.850***	−0.553***	−0.513***
(N= 7,027)		(0.014)	(0.012)	(0.187)	(0.082)	(0.063)
	δ			0.476***	0.181**	0.140**
				(0.180)	(0.075)	(0.056)
Elementary School	β	−0.446***	−0.421***	−1.021**	−0.625***	−0.591***
(N= 3,674)		(0.021)	(0.023)	(0.445)	(0.155)	(0.121)
	δ			0.586	0.190	0.154
				(0.440)	(0.150)	(0.113)
Middle School	β	−0.315***	−0.319***	−0.780**	−0.458***	−0.384***
(N= 1,675)		(0.022)	(0.022)	(0.357)	(0.141)	(0.111)
	δ			0.443	0.126	0.057
				(0.351)	(0.132)	(0.100)
High School	β	−0.271***	−0.278***	−0.470*	−0.388***	−0.376***
(N= 1,678)		(0.024)	(0.024)	(0.265)	(0.143)	(0.123)
	δ			0.179	0.096	0.083
				(0.251)	(0.128)	(0.107)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.84: Results for the effect of TV Watching during Weekends on Passive Leisure (except TV), by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.089^{***}	-0.110^{***}	0.604^{***}	0.202^{**}	0.132^{*}
(N= 7,027)		(0.010)	(0.010)	(0.170)	(0.083)	(0.068)
	δ			-0.685^{***}	-0.282^{***}	-0.213^{***}
				(0.168)	(0.079)	(0.064)
Elementary School	β	-0.043^{***}	-0.065^{***}	0.255	0.033	0.020
(N= 3,674)		(0.012)	(0.011)	(0.295)	(0.097)	(0.076)
	δ			−0.312	−0.091	−0.077
				(0.291)	(0.093)	(0.072)
Middle School	β	-0.136^{***}	-0.140^{***}	0.662	0.260	0.152
(N= 1,675)		(0.020)	(0.018)	(0.414)	(0.163)	(0.143)
	δ			-0.771^{*}	-0.363^{**}	-0.258^{*}
				(0.406)	(0.155)	(0.132)
High School	β	-0.140^{***}	-0.149^{***}	0.479^{*}	0.185	0.138
(N= 1,678)		(0.020)	(0.022)	(0.245)	(0.134)	(0.116)
	δ			-0.584^{**}	-0.291^{**}	-0.243^{**}
				(0.234)	(0.121)	(0.102)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.85: Results for the effect of TV Watching during Weekends on Duties or Chores, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	−0.260***	−0.254***	−0.715***	−0.493***	−0.442***
(N= 7,027)		(0.011)	(0.010)	(0.198)	(0.085)	(0.068)
	δ			0.443**	0.217***	0.166***
				(0.191)	(0.077)	(0.060)
Elementary School	β	−0.224***	−0.220***	−0.747**	−0.414***	−0.368***
(N= 3,674)		(0.014)	(0.014)	(0.307)	(0.105)	(0.083)
	δ			0.514*	0.180*	0.134*
				(0.305)	(0.101)	(0.079)
Middle School	β	−0.263***	−0.261***	−0.773**	−0.515***	−0.453***
(N= 1,675)		(0.019)	(0.020)	(0.363)	(0.159)	(0.129)
	δ			0.492	0.230	0.170
				(0.350)	(0.145)	(0.114)
High School	β	−0.313***	−0.306***	−0.947***	−0.661***	−0.612***
(N= 1,678)		(0.025)	(0.025)	(0.256)	(0.144)	(0.129)
	δ			0.595**	0.309**	0.259**
				(0.238)	(0.124)	(0.109)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.86: Results for the effect of TV Watching during Weekends on Other Activities, by Grade

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Grades	β	-0.061^{***}	-0.066^{***}	0.727^{***}	0.330^{***}	0.252^{***}
(N= 7,027)		(0.011)	(0.012)	(0.176)	(0.076)	(0.060)
	δ			-0.761^{***}	-0.360^{***}	-0.281^{***}
				(0.177)	(0.077)	(0.060)
Elementary School	β	-0.072^{***}	-0.081^{***}	1.881^{***}	0.601^{***}	0.442^{***}
(N= 3,674)		(0.012)	(0.014)	(0.403)	(0.141)	(0.128)
	δ			-1.915^{***}	-0.633^{***}	-0.474^{***}
				(0.400)	(0.138)	(0.124)
Middle School	β	-0.068^{***}	-0.069^{***}	0.649	0.224	0.145
(N= 1,675)		(0.020)	(0.019)	(0.428)	(0.178)	(0.143)
	δ			−0.691	−0.266	−0.190
				(0.426)	(0.176)	(0.141)
High School	β	-0.036^{*}	-0.041^{**}	0.506^{***}	0.268^{***}	0.222^{***}
(N= 1,678)		(0.019)	(0.020)	(0.168)	(0.095)	(0.086)
	δ			-0.508^{***}	-0.269^{***}	-0.222^{**}
				(0.170)	(0.096)	(0.086)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Income Level

Table B.87: Results for the effect of TV Watching during Weekends on Extra-Curricular Activities, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.093^{***}	-0.092^{***}	0.228^{*}	0.061	0.030
(N= 7,027)		(0.006)	(0.006)	(0.132)	(0.059)	(0.050)
	δ			-0.307^{**}	-0.139^{**}	-0.107^{**}
				(0.130)	(0.056)	(0.047)
Low Income	β	-0.066^{***}	-0.068^{***}	0.543^{***}	0.193^{**}	0.136^{**}
(N= 2,245)		(0.007)	(0.007)	(0.193)	(0.075)	(0.058)
	δ			-0.588^{***}	-0.238^{***}	-0.181^{***}
				(0.190)	(0.073)	(0.055)
Middle Income	β	-0.084^{***}	-0.086^{***}	0.303	0.079	0.047
(N= 2,315)		(0.012)	(0.013)	(0.282)	(0.118)	(0.095)
	δ			−0.373	−0.150	−0.119
				(0.275)	(0.112)	(0.089)
High Income	β	-0.123^{***}	-0.127^{***}	−0.114	−0.110	−0.118
(N= 2,467)		(0.010)	(0.011)	(0.215)	(0.094)	(0.075)
	δ			−0.013	−0.015	−0.008
				(0.207)	(0.086)	(0.068)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.88: Results for the effect of TV Watching during Weekends on Sleep, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.100^{***}	-0.099^{***}	-1.046^{***}	-0.541^{***}	-0.447^{***}
(N= 7,027)		(0.009)	(0.010)	(0.192)	(0.072)	(0.054)
	δ			0.909^{***}	0.401^{***}	0.307^{***}
				(0.190)	(0.070)	(0.052)
Low Income	β	-0.146^{***}	-0.133^{***}	-1.569^{***}	-0.751^{***}	-0.595^{***}
(N= 2,245)		(0.021)	(0.023)	(0.370)	(0.147)	(0.115)
	δ			1.384^{***}	0.563^{***}	0.410^{***}
				(0.364)	(0.140)	(0.110)
Middle Income	β	-0.128^{***}	-0.116^{***}	-1.337^{***}	-0.708^{***}	-0.602^{***}
(N= 2,315)		(0.018)	(0.018)	(0.319)	(0.121)	(0.100)
	δ			1.173^{***}	0.539^{***}	0.434^{***}
				(0.308)	(0.109)	(0.088)
High Income	β	-0.047^{***}	-0.036^{*}	-0.252	-0.152	-0.137^{*}
(N= 2,467)		(0.017)	(0.019)	(0.197)	(0.095)	(0.079)
	δ			0.206	0.104	0.089
				(0.185)	(0.082)	(0.066)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.89: Results for the effect of TV Watching during Weekends on Class Time, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.007^{***}	-0.006^{***}	0.017	0.003	0.001
(N= 7,027)		(0.002)	(0.002)	(0.034)	(0.015)	(0.012)
	δ			−0.022	−0.008	−0.007
				(0.034)	(0.014)	(0.012)
Low Income	β	-0.008^{***}	-0.007^{**}	0.067	0.023	0.015
(N= 2,245)		(0.003)	(0.003)	(0.054)	(0.024)	(0.019)
	δ			−0.071	−0.028	−0.019
				(0.053)	(0.023)	(0.018)
Middle Income	β	-0.009^{**}	-0.008^{***}	0.028	0.002	0.001
(N= 2,315)		(0.004)	(0.003)	(0.046)	(0.021)	(0.019)
	δ			−0.034	−0.009	−0.008
				(0.045)	(0.019)	(0.017)
High Income	β	-0.004^{***}	-0.003^{**}	−0.034	−0.020	−0.018
(N= 2,467)		(0.002)	(0.001)	(0.026)	(0.014)	(0.012)
	δ			0.030	0.015	0.013
				(0.025)	(0.012)	(0.010)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.90: Results for the effect of TV Watching during Weekends on Homework, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.021***	−0.019***	0.036	−0.009	−0.013
(N= 7,027)		(0.003)	(0.003)	(0.075)	(0.031)	(0.024)
	δ			−0.053	−0.010	−0.005
				(0.073)	(0.028)	(0.022)
Low Income	β	−0.012**	−0.011**	0.133	0.030	0.013
(N= 2,245)		(0.005)	(0.005)	(0.121)	(0.038)	(0.026)
	δ			−0.139	−0.038	−0.022
				(0.118)	(0.036)	(0.024)
Middle Income	β	−0.013**	−0.012**	−0.069	−0.040	−0.034
(N= 2,315)		(0.006)	(0.006)	(0.090)	(0.040)	(0.034)
	δ			0.054	0.025	0.019
				(0.088)	(0.037)	(0.031)
High Income	β	−0.033***	−0.038***	0.010	−0.029	−0.035
(N= 2,467)		(0.008)	(0.007)	(0.172)	(0.073)	(0.055)
	δ			−0.046	−0.008	−0.002
				(0.166)	(0.068)	(0.051)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.91: Results for the effect of TV Watching during Weekends on Active Leisure, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.368^{***}	-0.354^{***}	-0.850^{***}	-0.553^{***}	-0.513^{***}
(N= 7,027)		(0.011)	(0.012)	(0.181)	(0.083)	(0.067)
	δ			0.476^{***}	0.181^{**}	0.140^{**}
				(0.175)	(0.076)	(0.060)
Low Income	β	-0.351^{***}	-0.358^{***}	-1.216^{***}	-0.693^{***}	-0.599^{***}
(N= 2,245)		(0.019)	(0.019)	(0.429)	(0.178)	(0.140)
	δ			0.827^{**}	0.305^{*}	0.214^{*}
				(0.415)	(0.164)	(0.125)
Middle Income	β	-0.373^{***}	-0.356^{***}	-0.467	-0.385^{**}	-0.394^{***}
(N= 2,315)		(0.020)	(0.021)	(0.408)	(0.176)	(0.147)
	δ			0.106	0.026	0.034
				(0.397)	(0.164)	(0.135)
High Income	β	-0.384^{***}	-0.351^{***}	-0.940^{***}	-0.605^{***}	-0.541^{***}
(N= 2,467)		(0.018)	(0.021)	(0.308)	(0.149)	(0.130)
	δ			0.561^{*}	0.228^{*}	0.167
				(0.295)	(0.135)	(0.116)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.92: Results for the effect of TV Watching during Weekends on Passive Leisure (except TV), by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.089^{***}	-0.110^{***}	0.604^{***}	0.202^{***}	0.132^{**}
(N= 7,027)		(0.011)	(0.011)	(0.168)	(0.069)	(0.055)
	δ			-0.685^{***}	-0.282^{***}	-0.213^{***}
				(0.166)	(0.067)	(0.054)
Low Income	β	-0.091^{***}	-0.096^{***}	0.311	0.063	0.015
(N= 2,245)		(0.011)	(0.011)	(0.333)	(0.127)	(0.098)
	δ			−0.393	−0.145	−0.099
				(0.323)	(0.118)	(0.088)
Middle Income	β	-0.113^{***}	-0.134^{***}	1.075^{***}	0.436^{***}	0.345^{***}
(N= 2,315)		(0.017)	(0.017)	(0.294)	(0.109)	(0.099)
	δ			-1.162^{***}	-0.519^{***}	-0.428^{***}
				(0.291)	(0.105)	(0.094)
High Income	β	-0.055^{***}	-0.092^{***}	0.355^{*}	0.132	0.101
(N= 2,467)		(0.014)	(0.015)	(0.211)	(0.086)	(0.069)
	δ			-0.426^{**}	-0.202^{**}	-0.170^{***}
				(0.206)	(0.081)	(0.064)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.93: Results for the effect of TV Watching during Weekends on Duties or Chores, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	−0.260***	−0.254***	−0.715***	−0.493***	−0.442***
(N= 7,027)		(0.009)	(0.010)	(0.151)	(0.058)	(0.044)
	δ			0.443***	0.217***	0.166***
				(0.150)	(0.057)	(0.042)
Low Income	β	−0.209***	−0.214***	−0.974**	−0.557***	−0.474***
(N= 2,245)		(0.016)	(0.019)	(0.390)	(0.148)	(0.111)
	δ			0.733*	0.313**	0.231**
				(0.381)	(0.138)	(0.102)
Middle Income	β	−0.232***	−0.239***	−1.194***	−0.712***	−0.632***
(N= 2,315)		(0.020)	(0.022)	(0.377)	(0.148)	(0.131)
	δ			0.918**	0.431***	0.351***
				(0.365)	(0.135)	(0.118)
High Income	β	−0.332***	−0.329***	−0.217	−0.297*	−0.308**
(N= 2,467)		(0.019)	(0.020)	(0.352)	(0.159)	(0.128)
	δ			−0.107	−0.028	−0.018
				(0.340)	(0.147)	(0.116)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.94: Results for the effect of TV Watching during Weekends on Other Activities, by Qses

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Income Levels	β	-0.061^{***}	-0.066^{***}	0.727^{***}	0.330^{***}	0.252^{***}
(N= 7,027)		(0.009)	(0.011)	(0.225)	(0.088)	(0.071)
	δ			-0.761^{***}	-0.360^{***}	-0.281^{***}
				(0.222)	(0.087)	(0.070)
Low Income	β	-0.117^{***}	-0.113^{***}	1.706^{***}	0.691^{***}	0.490^{***}
(N= 2,245)		(0.018)	(0.016)	(0.459)	(0.171)	(0.127)
	δ			-1.753^{***}	-0.733^{***}	-0.535^{***}
				(0.452)	(0.167)	(0.123)
Middle Income	β	-0.047^{***}	-0.049^{***}	0.662^{**}	0.328^{***}	0.269^{***}
(N= 2,315)		(0.014)	(0.015)	(0.273)	(0.111)	(0.096)
	δ			-0.683^{**}	-0.343^{***}	-0.284^{***}
				(0.269)	(0.109)	(0.094)
High Income	β	-0.022^{**}	-0.024^{**}	0.191	0.080	0.057
(N= 2,467)		(0.009)	(0.010)	(0.224)	(0.088)	(0.070)
	δ			−0.206	−0.094	−0.071
				(0.219)	(0.086)	(0.067)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

By Sex

Table B.95: Results for the effect of TV Watching during Weekends on Extra-Curricular Activities, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.093^{***}	-0.092^{***}	0.228	0.061	0.030
(N= 7,027)		(0.008)	(0.008)	(0.147)	(0.060)	(0.047)
	δ			-0.307^{**}	-0.139^{**}	-0.107^{**}
				(0.145)	(0.059)	(0.045)
Only Boys	β	-0.094^{***}	-0.090^{***}	0.118	0.017	0.007
(N= 3,563)		(0.008)	(0.009)	(0.159)	(0.065)	(0.053)
	δ			-0.199	-0.097	-0.086^{*}
				(0.154)	(0.060)	(0.049)
Only Girls	β	-0.094^{***}	-0.093^{***}	0.345^{*}	0.104	0.061
(N= 3,464)		(0.010)	(0.010)	(0.207)	(0.080)	(0.059)
	δ			-0.421^{**}	-0.178^{**}	-0.135^{**}
				(0.205)	(0.078)	(0.056)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.96: Results for the effect of TV Watching during Weekends on Sleep, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.100^{***}	-0.099^{***}	-1.046^{***}	-0.541^{***}	-0.447^{***}
(N= 7,027)		(0.013)	(0.014)	(0.186)	(0.079)	(0.067)
	δ			0.909^{***}	0.401^{***}	0.307^{***}
				(0.181)	(0.072)	(0.059)
Only Boys	β	-0.103^{***}	-0.098^{***}	-1.142^{***}	-0.575^{***}	-0.493^{***}
(N= 3,563)		(0.013)	(0.013)	(0.263)	(0.107)	(0.089)
	δ			1.001^{***}	0.432^{***}	0.351^{***}
				(0.253)	(0.097)	(0.078)
Only Girls	β	-0.094^{***}	-0.105^{***}	-0.940^{***}	-0.512^{***}	-0.423^{***}
(N= 3,464)		(0.015)	(0.015)	(0.337)	(0.135)	(0.104)
	δ			0.803^{**}	0.369^{***}	0.281^{***}
				(0.325)	(0.123)	(0.092)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.97: Results for the effect of TV Watching during Weekends on Class Time, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.007^{***}	-0.006^{***}	0.017	0.003	0.001
(N= 7,027)		(0.002)	(0.002)	(0.036)	(0.016)	(0.013)
	δ			−0.022	−0.008	−0.007
				(0.035)	(0.015)	(0.012)
Only Boys	β	-0.006^{***}	-0.006^{***}	−0.024	−0.016	−0.011
(N= 3,563)		(0.002)	(0.002)	(0.039)	(0.016)	(0.014)
	δ			0.018	0.009	0.005
				(0.038)	(0.015)	(0.013)
Only Girls	β	-0.008^{**}	-0.006^{**}	0.069	0.025	0.019
(N= 3,464)		(0.004)	(0.003)	(0.068)	(0.027)	(0.019)
	δ			−0.072	−0.028	−0.022
				(0.067)	(0.026)	(0.018)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.98: Results for the effect of TV Watching during Weekends on Homework, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.021***	−0.019***	0.036	−0.009	−0.013
(N= 7,027)		(0.004)	(0.004)	(0.084)	(0.031)	(0.023)
	δ			−0.053	−0.010	−0.005
				(0.083)	(0.030)	(0.022)
Only Boys	β	−0.020***	−0.019***	0.077	0.010	0.002
(N= 3,563)		(0.005)	(0.005)	(0.125)	(0.050)	(0.040)
	δ			−0.093	−0.027	−0.019
				(0.122)	(0.047)	(0.037)
Only Girls	β	−0.021***	−0.019***	−0.013	−0.029	−0.028
(N= 3,464)		(0.006)	(0.005)	(0.128)	(0.049)	(0.034)
	δ			−0.005	0.009	0.008
				(0.126)	(0.046)	(0.032)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.99: Results for the effect of TV Watching during Weekends on Active Leisure, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	−0.368***	−0.354***	−0.850***	−0.553***	−0.513***
(N= 7,027)		(0.010)	(0.011)	(0.147)	(0.061)	(0.051)
	δ			0.476***	0.181***	0.140***
				(0.142)	(0.057)	(0.047)
Only Boys	β	−0.365***	−0.351***	−0.836***	−0.543***	−0.510***
(N= 3,563)		(0.017)	(0.016)	(0.213)	(0.097)	(0.084)
	δ			0.465**	0.174**	0.141*
				(0.205)	(0.089)	(0.075)
Only Girls	β	−0.373***	−0.357***	−0.920***	−0.568***	−0.521***
(N= 3,464)		(0.018)	(0.015)	(0.269)	(0.119)	(0.103)
	δ			0.541**	0.191*	0.145
				(0.263)	(0.112)	(0.095)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.100: Results for the effect of TV Watching during Weekends on Passive Leisure (except TV), by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.089^{***}	-0.110^{***}	0.604^{***}	0.202^{***}	0.132^{**}
(N= 7,027)		(0.011)	(0.010)	(0.183)	(0.076)	(0.064)
	δ			-0.685^{***}	-0.282^{***}	-0.213^{***}
				(0.180)	(0.073)	(0.060)
Only Boys	β	-0.142^{***}	-0.160^{***}	0.744^{**}	0.238^{*}	0.147
(N= 3,563)		(0.017)	(0.016)	(0.309)	(0.132)	(0.112)
	δ			-0.866^{***}	-0.360^{***}	-0.272^{***}
				(0.302)	(0.125)	(0.104)
Only Girls	β	-0.047^{***}	-0.054^{***}	0.479^{**}	0.176^{*}	0.123^{*}
(N= 3,464)		(0.011)	(0.012)	(0.242)	(0.096)	(0.074)
	δ			-0.512^{**}	-0.208^{**}	-0.156^{**}
				(0.236)	(0.090)	(0.068)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_{\delta} = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

Table B.101: Results for the effect of TV Watching during Weekends on Duties or Chores, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.260^{***}	-0.254^{***}	-0.715^{***}	-0.493^{***}	-0.442^{***}
(N= 7,027)		(0.013)	(0.012)	(0.181)	(0.074)	(0.058)
	δ			0.443^{**}	0.217^{***}	0.166^{***}
				(0.177)	(0.070)	(0.054)
Only Boys	β	-0.214^{***}	-0.215^{***}	-0.741^{**}	-0.478^{***}	-0.448^{***}
(N= 3,563)		(0.016)	(0.016)	(0.299)	(0.121)	(0.101)
	δ			0.505^{*}	0.238^{**}	0.207^{**}
				(0.293)	(0.115)	(0.095)
Only Girls	β	-0.298^{***}	-0.297^{***}	-0.769^{***}	-0.520^{***}	-0.472^{***}
(N= 3,464)		(0.019)	(0.019)	(0.262)	(0.121)	(0.096)
	δ			0.453^{*}	0.202^{*}	0.155^{*}
				(0.256)	(0.115)	(0.090)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

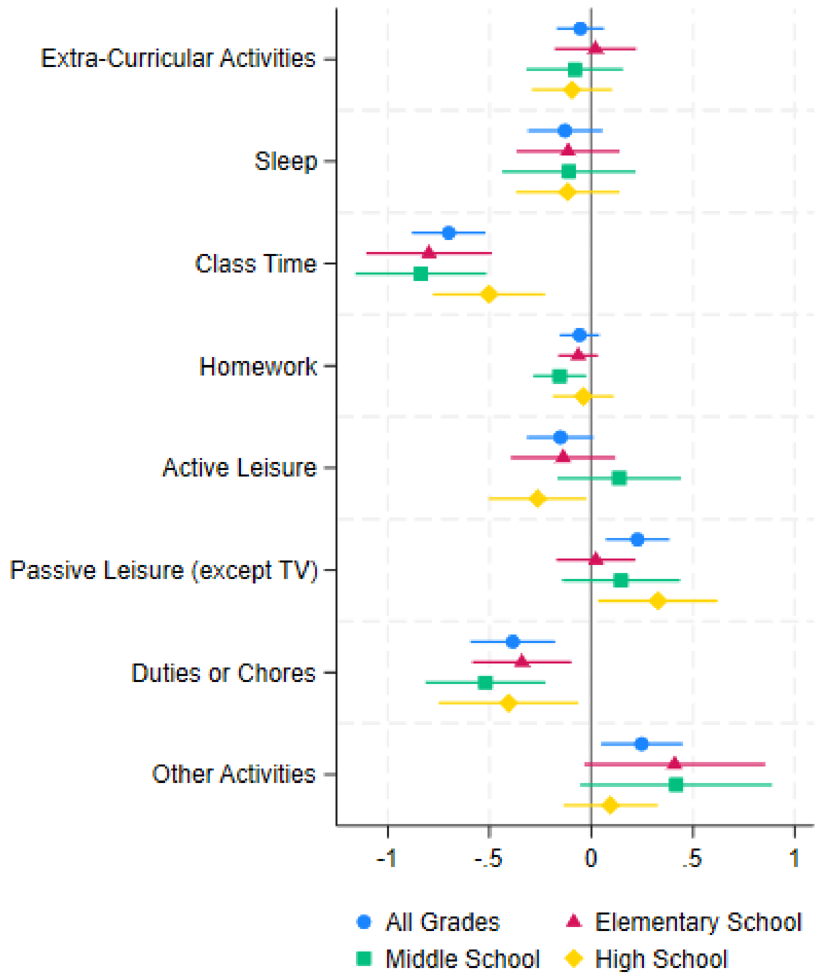
Table B.102: Results for the effect of TV Watching during Weekends on Other Activities, by Sex

		(1) Uncorrected No Controls	(2) Uncorrected w/ Controls	(3) Semip. Uniform	(4) Semip. Normal	(5) Nonp. Tail Symmetric
All Sample	β	-0.061^{***}	-0.066^{***}	0.727^{***}	0.330^{***}	0.252^{***}
(N= 7,027)		(0.009)	(0.010)	(0.217)	(0.093)	(0.078)
	δ			-0.761^{***}	-0.360^{***}	-0.281^{***}
				(0.216)	(0.092)	(0.076)
Only Boys	β	-0.056^{***}	-0.061^{***}	0.804^{***}	0.347^{***}	0.306^{***}
(N= 3,563)		(0.013)	(0.014)	(0.303)	(0.114)	(0.106)
	δ			-0.830^{***}	-0.370^{***}	-0.325^{***}
				(0.301)	(0.113)	(0.103)
Only Girls	β	-0.065^{***}	-0.070^{***}	0.749^{***}	0.324^{***}	0.243^{***}
(N= 3,464)		(0.012)	(0.013)	(0.288)	(0.111)	(0.090)
	δ			-0.787^{***}	-0.357^{***}	-0.276^{***}
				(0.285)	(0.109)	(0.085)

(1) The table shows estimates of the effect of an additional hour of TV per day on the time spent on another activity. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$. Source: CDS/PSID.

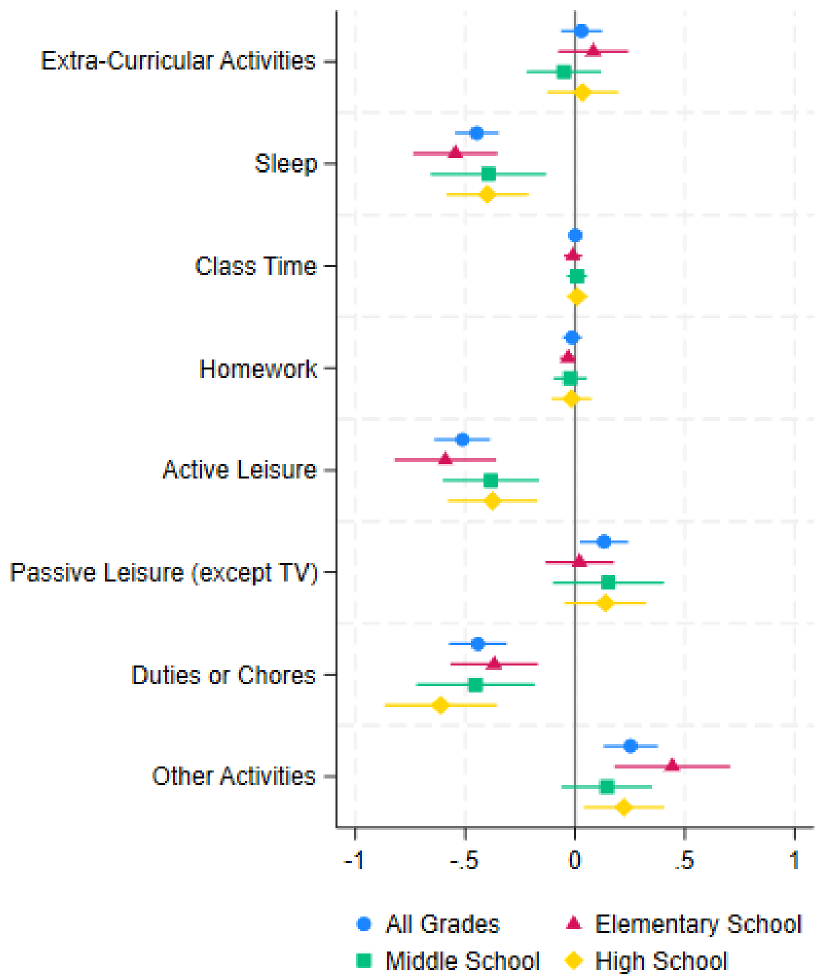
B.5 Substitution: Additional Estimated Coefficients for Whole Week and Weekends

Figure B.11: Estimated β Coefficients for Different Groups of Activities during the Whole Week, by Grade



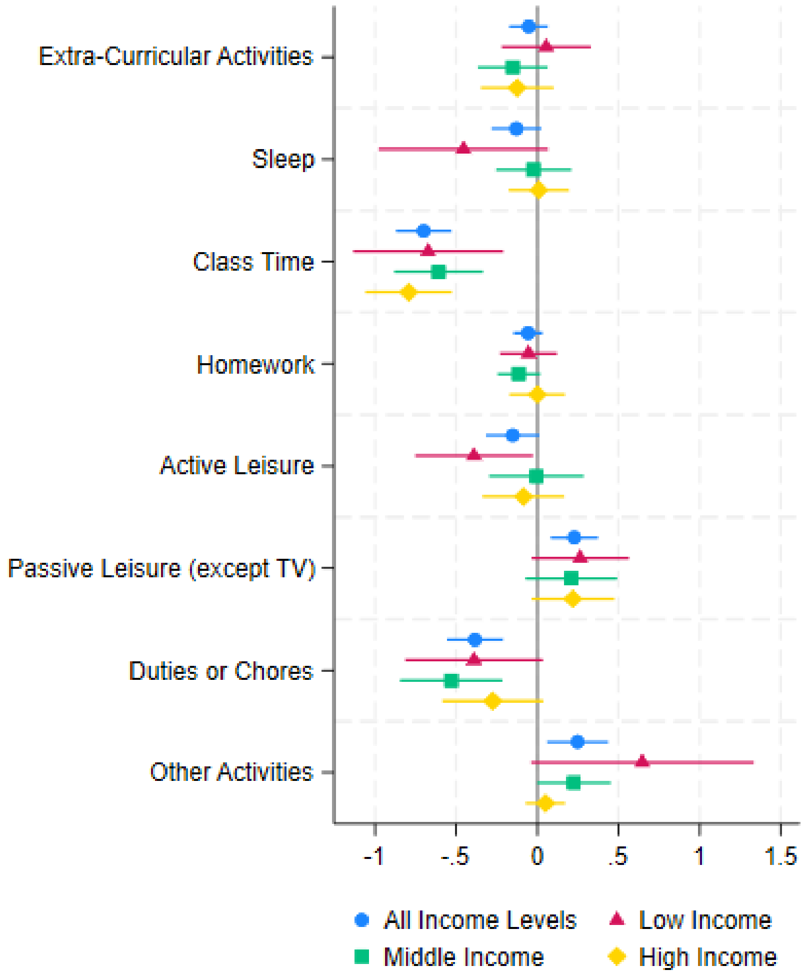
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.12: Estimated β Coefficients for Different Groups of Activities during Weekends, by Grade



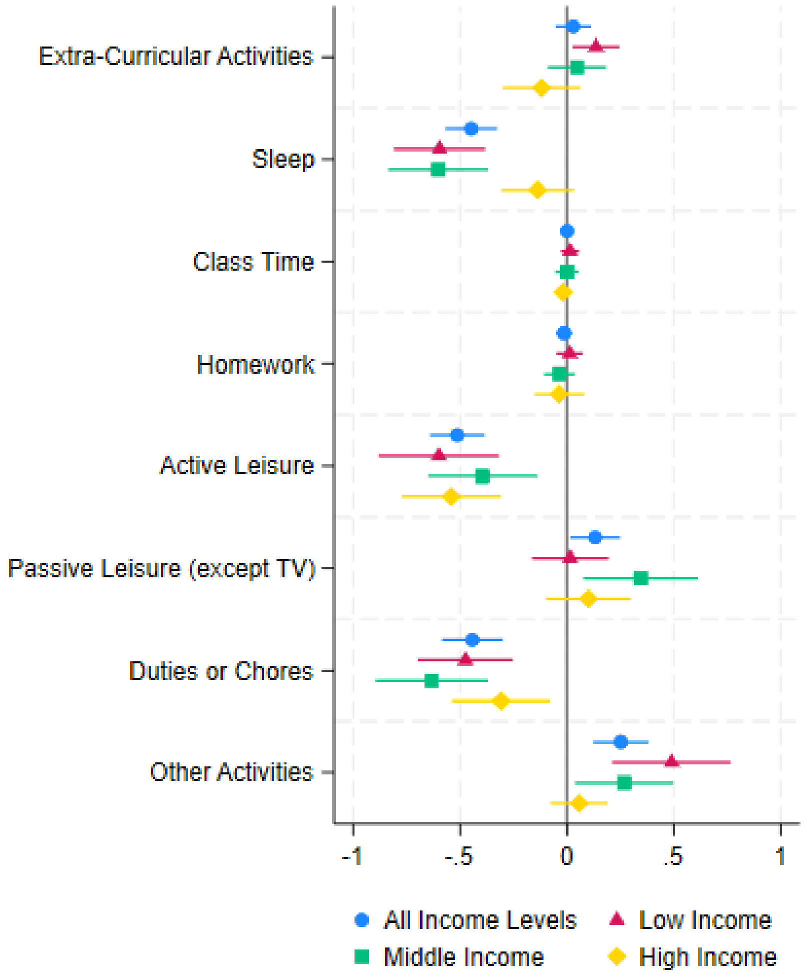
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.13: Estimated β Coefficients for Different Groups of Activities during the Whole Week, by Income Level



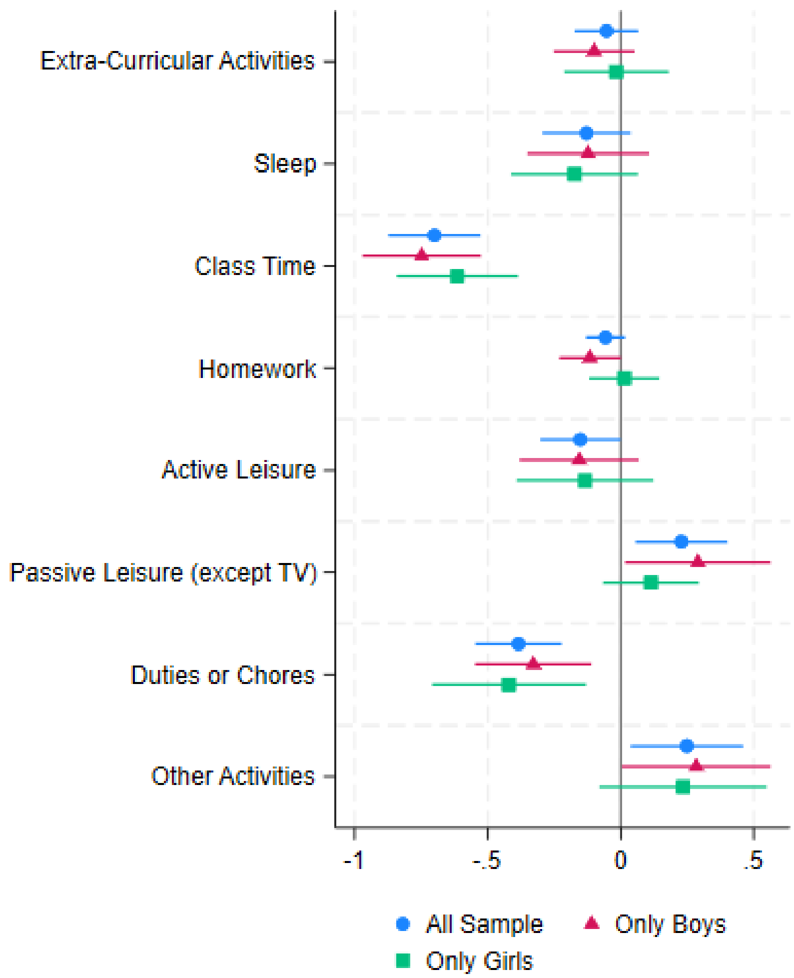
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.14: Estimated β Coefficients for Different Groups of Activities during Weekends, by Income Level



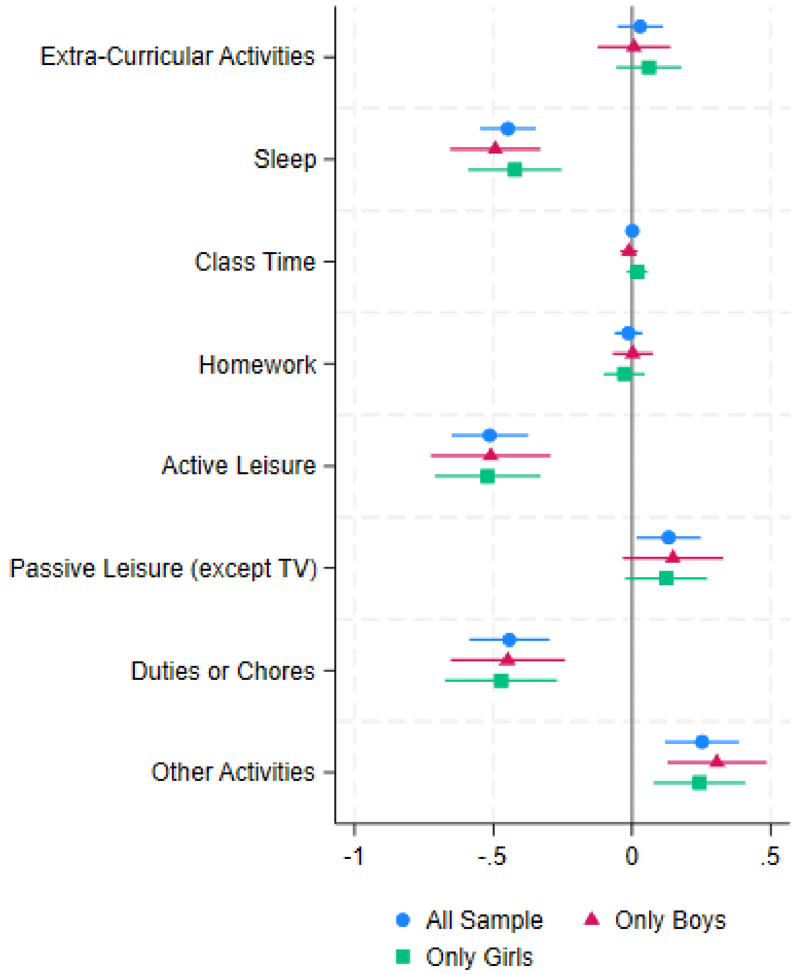
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.15: Estimated β Coefficients for Different Groups of Activities during the Whole Week, by Sex



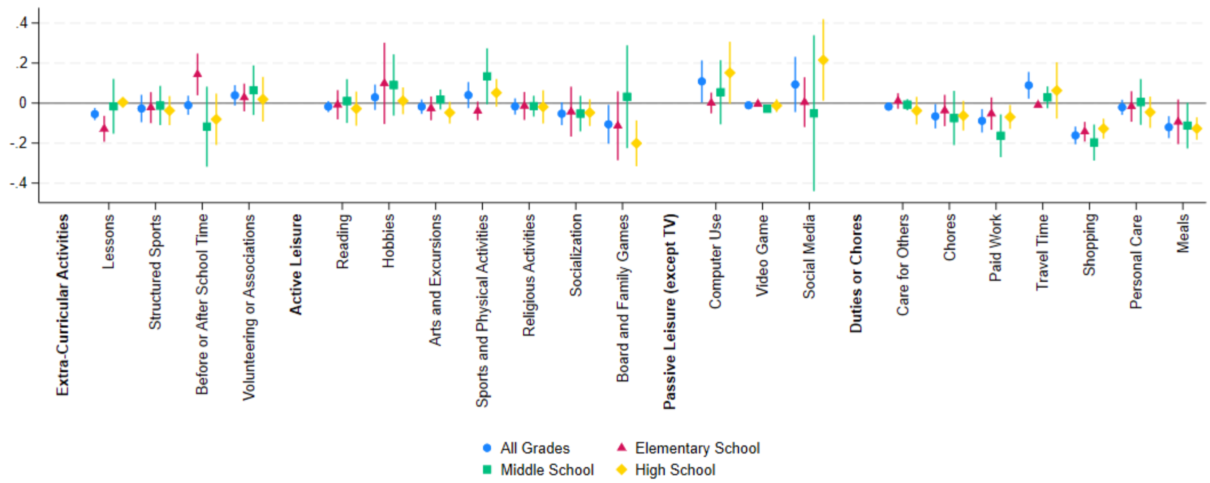
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.16: Estimated β Coefficients for Different Groups of Activities during Weekends, by Sex



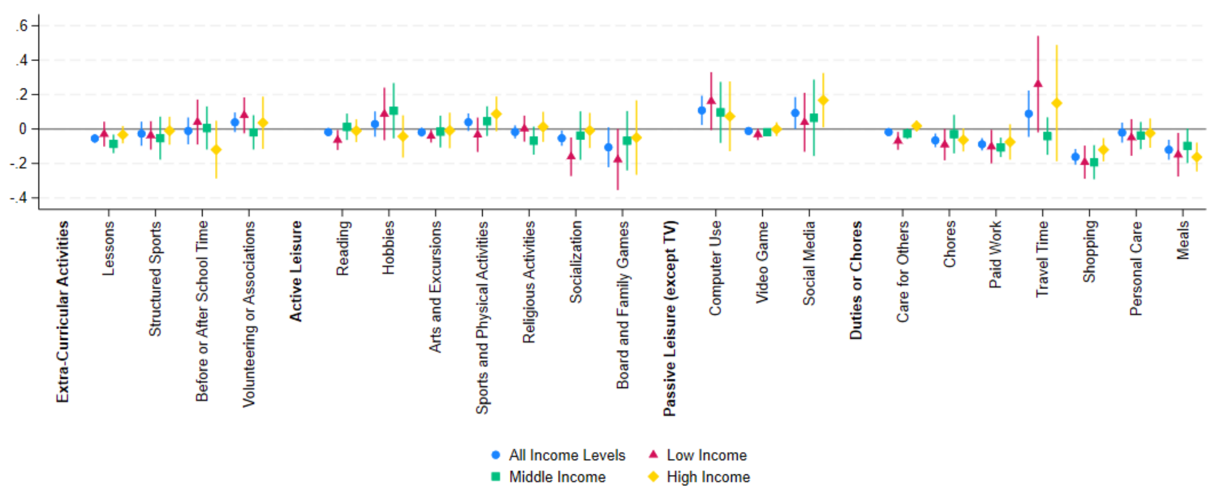
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.17: Estimated β Coefficients for Different Breakdowns of Activities during the Whole Week, by Grade



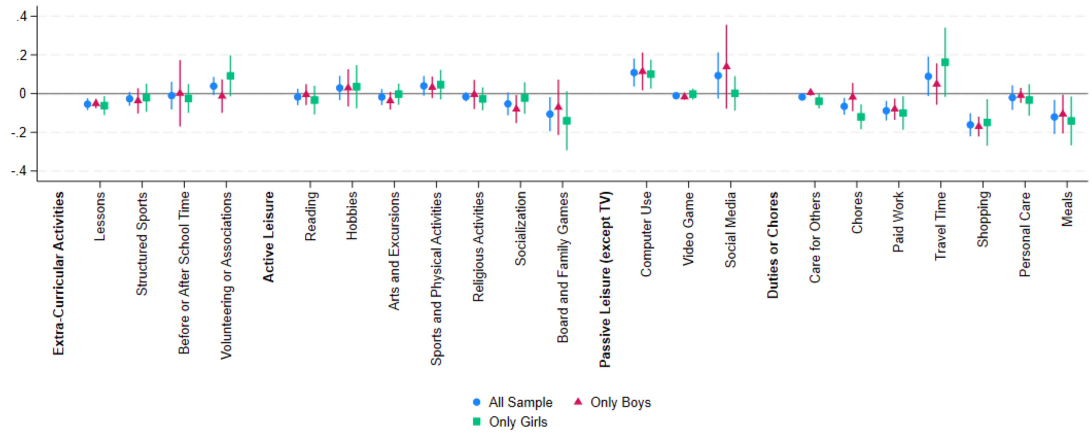
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.18: Estimated β Coefficients for Different Breakdowns of Activities during the Whole Week, by Income Level



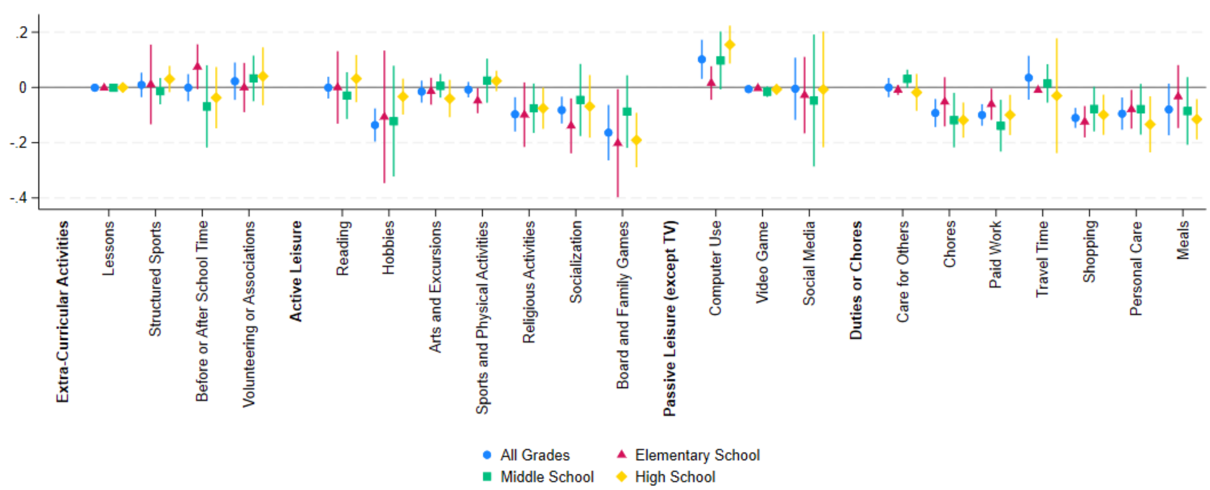
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.19: Estimated β Coefficients for Different Breakdowns of Activities during the Whole Week, by Sex



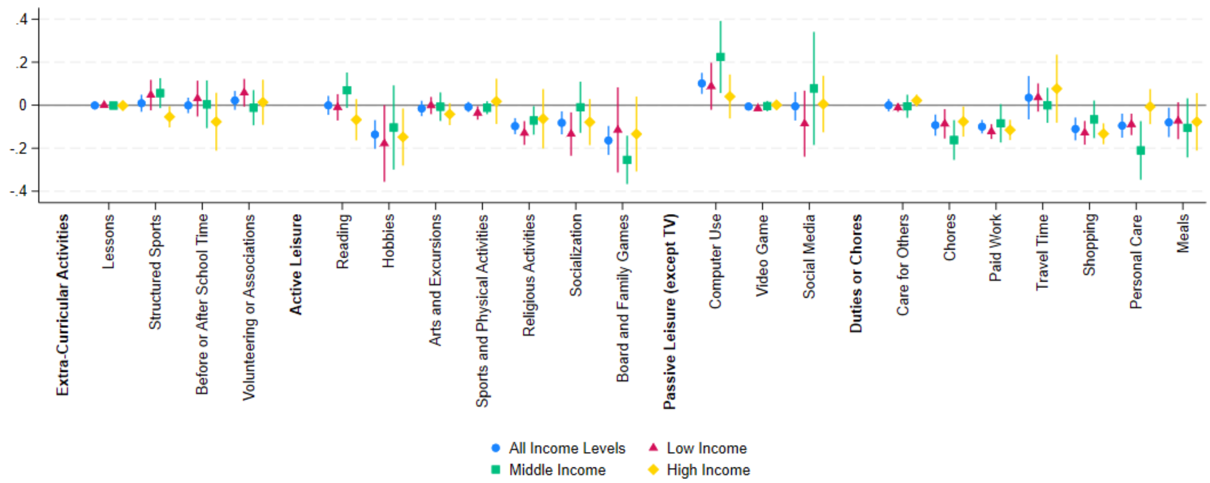
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.20: Estimated β Coefficients for Different Breakdowns of Activities during Weekends, by Grade



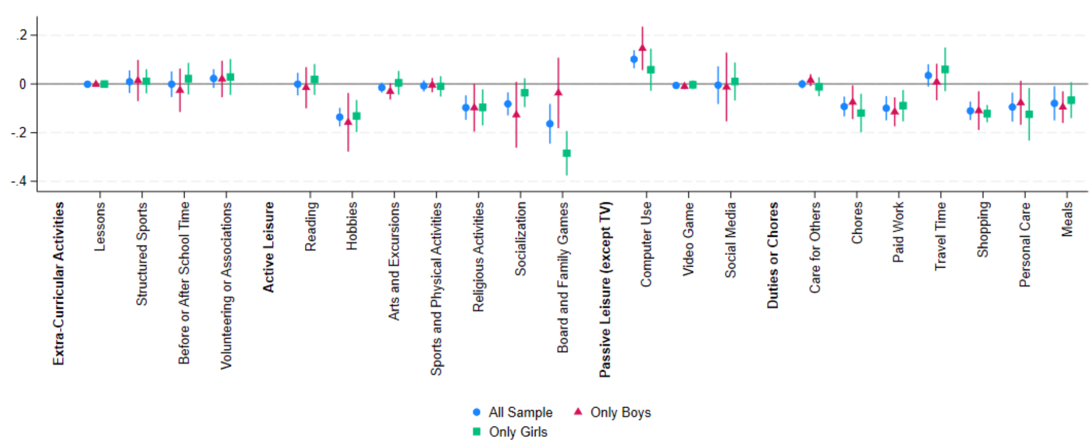
(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.21: Estimated β Coefficients for Different Breakdowns of Activities during Weekends, by Income Level



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

Figure B.22: Estimated β Coefficients for Different Breakdowns of Activities during Weekends, by Sex



(1) The figure shows estimates of the effect of an additional hour of TV per day on other group of activities. (2) Estimation using $K = 10$ and $K_\delta = 1$. (3) Bootstraped standard errors in parentheses using 100 bootstrap samples. (4) The list of controls in X includes: child's sex, race, age, age squared, whether the mother is alive, whether the father is alive, whether the mother was married at birth, household income, income terciles, grade, and wave indicators, whether the child is on private school, and whether the child is home-schooled. (5) Full tables of results can be found in the Appendix B. (6) Graph shows a 95% confidence interval using the Nonparametric Tail Symmetry distribution. Source: CDS/PSID.

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