Collegio Carlo Alberto

CENTRE FOR **H**OUSEHOLD,
INCOME, **L**ABOUR AND
DEMOGRAPHIC ECONOMICS

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No. 21
December 2013

CHILD WORKING PAPERS

www.carloalberto.org/child-collegiocarloalberto/working-papers

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UNIVERSITÀ DEGLI STUDI DI TORINO

The Riskiest of Them All: Parental Supervision and Adolescent Behaviors

Sarah Grace See*

November 15, 2013

Abstract

Adolescents with higher parental supervision are associated with lower participation in health risk behaviors. Using weekly hour measurements of supervision derived from time diaries, I confirm this general negative relationship with a sample of 10 to 25 years old from the PSID-CDS and PSID-TA. Parental supervision from fathers and mothers are also looked at separately and are entered into the model in lagged forms to avoid endogeneity bias. Results from household and individual fixed effects underline the relative importance of fathers in mitigating cigarette smoking in the past month, regularly alcohol drinking in the past year, and marijuana smoking in the past month. The research highlights the need to account for unobserved heterogeneity and supports the idea of looking at the different roles each parent play in affecting child outcomes.

Keywords Smoking; Drinking; Marijuana; Time Supervision

JEL Classification I12, J12, J13

1 Introduction

The importance of examining teenage health risk behaviors is two-fold. First, they refer to a crucial period that is marked by vulnerability and susceptibility to societal influences such as parents (Bantle and Haisken-DeNew, 2002), siblings (Altonji et al., 2013; Argys et al., 2006; Bard and Rodgers, 2003; Fagan and Najman, 2003), and peers (Clark and Lohéac, 2007). For instance, not only are later-borns more likely to engage in health risk behaviors such as smoking, drinking (Averett et al., 2011), and delinquency (Fagan and Najman, 2003), but they are also more likely to start initiation at an earlier age. The latter is associated with higher persistence and state dependence, such that those who started smoking earlier are more likely to continue doing so (Gruber, 2001). There is also evidence of positive (older) sibling and peer influence on drinking and unprotected sex (Duncan et al., 2005; Gardner and Steinberg, 2005; Card and Giuliano, 2011), substance use (Clark and Lohéac, 2007; Powell et al., 2005), being overweight (Trogdon et al., 2008), and truancy (Duarte et al., 2011). Second, engaging in such behaviors is negatively associated with the future well-being, education, and labor market outcomes of individuals (Balsa et al., 2011; DeSimone, 2010; Flouri and Buchanan, 2002). For instance, early smokers are found to perform academically worse than their non-smoking counterparts (Ellickson et al., 2001). Alcohol drinking is found to affect brain development and learning mechanisms (Renna, 2008), which may then affect academic and cognitive achievements. Alcohol use and underage drinking have similar findings on educational attainment and years of completed schooling (Chatterji, 2006; Cook and Moore, 1993; Mullahy and Sindelar, 1994), although magnitudes are smaller after taking into account unobserved heterogeneity (Balsa et al., 2011). Meanwhile, attempts to establish causality provide conflicting results, with Williams et al. (2003) finding an overall negative effect and Dee and Evans (2003) finding no such evidence.

In the household context, increased parental supervision and decreased self-care are two sides of the same coin that are commonly suggested to mitigate adolescents' participation in risky behaviors (Aizer, 2004). Parental supervision,

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or even participation in adult-supervised after-school activities, provides a “guard” against teenagers’ engagement to risky activities. It also decreases the susceptibility to societal influences, as well as the opportunities and incentives to partake in these activities (Amato and Rivera, 1999; Amato and Fowler, 2002; Browning et al., 2005).

Existing researches point out that unsupervised children and youths are more likely to engage in risky behaviors such as skipping school, getting drunk or high with drugs, stealing, and hurting someone (Aizer, 2004; Averett et al., 2011). Children who do not receive adult supervision after school, also called “latchkey children”, are found to be the ones to most likely engage in substance use and other risky behaviors including sex (Coley et al., 2008), are more likely to have behavior problems (Vandell and Ramanan, 1991), and are also more likely to experience depression and score lower academically (Richardson et al., 1993), as compared to those who arrive home with the mother or other adults present. Eighth-graders who participated in adult-supervised after-school activities are also found to use drugs significantly less often than those who are not involved in such activities (Jenkins, 1996).

With respect to sibling influence, coupled with the evidence that later-borns are also less supervised than the first-borns (Price, 2008), the difference in risk behaviors across siblings is suggested to be due to differences in parental control (Bègue and Roché, 2005) and supervision (Averett et al., 2011). Using a survey questionnaire, Bègue and Roché (2005) found that middle-borns are more likely to be involved in delinquent behaviors and are also less supervised than the first-borns, and concluded that differential parental control partly explains the role of ordinal position in delinquent behavior.

While the literature points to a general negative impact of parental supervision on health risk behaviors, the findings are based on measures of supervision such as parental employment status or number of working hours as proxy variables, dichotomous self-reported indicators of being able to go out at night without the parents, respect of curfew, not telling the parents where one is going to be (Bègue and Roché, 2005), or dichotomous or categorical indicators of parental presence during different periods of the day (Aizer, 2004). Employment variables, aside from being more readily available, also provide more exogeneity than do time variables, especially that the latter is dependent on the former. However, the relationship between parental employment and child outcomes remains ambiguous. Johnson et al. (2013) investigated possible mechanisms of how employment affects child behavior, one of which is decreased time availability. While this is potentially true, employed mothers may make up for lost time from working by decreasing their own leisure time and effectively spending the same quality time as unemployed mothers do (Bianchi, 2000; Huston and Aronson, 2005). Cawley and Liu (2012) and Fertig et al. (2009) are some studies that looked at time as a mechanism for how parental employment affects child obesity, though not in the context of causality.

Attempts to achieve causality (e.g., older sibling influence (Altonji et al., 2013; Ouyang, 2004)), reduce endogeneity bias, and address the issue of unobserved heterogeneity (Aizer, 2004; Anderson et al., 2003) are made possible through family fixed effects and instrumental variables approaches but existing studies remain limited in number. Aside from this, there is rampant use of contemporaneous measurements of risky behaviors and parental time, which raises the issue of simultaneity: do teenagers engage in risky behaviors as a consequence of the time spent with parents, or do parents spend time with their teenage offspring based on the latter’s behaviors?

Despite the relevant role of teenage behavior in economic outcomes and the role that family plays in it, there are surprisingly relatively few studies examining how parental practices affect the relationship between self-care or parental supervision and adolescent behaviors (Gruber, 2001). Researches on parental role in shaping child outcomes have mainly focused on parental time investments as inputs in the cognitive, achievement, and education production of their offspring (Leibowitz, 1974; Todd and Wolpin, 2007). Fertig et al. (2009) is an exception, though the study used contemporaneous measurements of time and Body Mass Index, raising the issue of simultaneity.

The collection of time diaries, especially one taking the point of view of the child, provides a breakthrough in the availability of a direct measure of parental time supervision and makes it possible to derive new insights into the role of parents in determining child outcomes. Utilizing this information, this research tests the relationship between parental supervision and adolescent health risk behaviors of cigarette smoking, marijuana smoking, and alcohol drinking using a sample of adolescents 10 to 25 years old from the Child Development Supplement (CDS) and Transition to Adulthood (TA) of the Panel Study of Income Dynamics (PSID). Direct measurements of supervision using the time each parent spent with the child were considered, aggregated into weekly hours. Parental time from fathers and mothers are also looked at separately, disentangling the paternal role from the maternal role and their relative importance in determining particular teenage behaviors. This is consistent with the recent changes in household structure (Hofferth,

2006), increased female labor force participation, maternal work schedules (Richardson et al., 1993), and child care choices (Aizer, 2004). Maternal role has been relatively more explored in cognitive and educational outcomes, while paternal role has been investigated with respect to behavioral and non-cognitive outcomes (Cobb-Clark and Tekin, 2013). With a panel dataset, this analysis uses lagged measurements of parental time to address the potential issue of simultaneity between contemporaneous behaviors and supervision, a solution also adopted in Zick et al. (2001). Lastly, the identification strategies rely on a household fixed effects approach that is made possible due to the observation of biological siblings in the dataset, and an individual fixed effects approach that is made possible due to repeated observations of the same individual in the dataset.

The paper is organized as follows. The data and sample are described in Section 2. This is followed by the estimation strategy in Section 3, and the empirical results in Section 4. The overall result points to the relative importance of fathers' time supervision in mitigating teenage health risk behaviors, and also provides new evidence on the importance of taking into account unobserved family-specific and individual-specific characteristics in examining the effect of parents on teenage behaviors. Section 5 concludes.

2 Data

The data used in the analysis is from the Child Development Supplement (CDS) and Transition to Adulthood (TA) of the Panel Study of Income Dynamics (PSID), which contain information on siblings' time use and health risk behaviors, as well as various covariates to control for child and family characteristics.

The PSID is a longitudinal study that began in 1968, containing information on the socio-economic, demographic, and psychological well-being of United States individuals. A separate survey with PSID children less than 13 years old was began in 1997 focusing on the human capital development of the interviewed children. Measures include those of the home environment, family processes, time diaries, school environment, and cognitive, emotional, and physical performances. The CDS currently has three waves, following the original sampled children until age 18 – the 2002/03 and 2007 waves. Upon reaching the age of 18, the interviewed children were either transferred to the TA, where they were asked about life goals and expectations about the future, or to the main PSID if they have become household heads themselves. The TA supplement was started in 2005, and currently has the additional TA2007, TA2009, and TA2011 waves.

The CDS sample contains up to two randomly-chosen eligible children, allowing for the use of household fixed effects as an identification strategy. The analysis uses a sample of 1,378 observations 10 to 25 years old born in intact families having no missing information on the relevant variables. The sample was derived by pooling CDS1997, CDS2002/03, CDS2007, and TA2007, and then constructing the lagged time supervision variables¹. Questions on the health risk behaviors were first asked to 10-year old children in the second wave, effectively removing the 1997 wave of the sample. However, this is not a problem since the time variables were already brought along in lagged forms. I then dropped the observations with missing information on (lagged) time supervision, child and family characteristics, health risk variables; and kept observations living with both biological parents when the time supervision was observed.

The summary statistics of the relevant variables for the sample are shown in Table 1. Less than half of the sample is composed of male adolescents (47.82%); 22% is Black, and 61% has older siblings.

[Insert Table 1 here]

Among the questions related to the children's engagement in the health risk behaviors, I have chosen: cigarette smoking over the past month, with 10.67% of the sample having done so, marijuana smoking over the past month at 16.11%, and regular alcohol drinking (at least once a week over the past year) at 8.27%. A comparison between the CDS and TA samples shows significantly higher percentages of participation in health risk behaviors among the TA respondents which is consistent with higher ages.

The measurements of parental supervision are calculated directly from the time diaries, which contain detailed information about the activities performed by each interviewed child on a representative weekday and a representative weekend, how long the activities were performed, and with whom. While the survey provides information about the

¹To illustrate, lagged time supervision in 2002/03 refer to time spent in 1997. Lagged time supervision in 2007 (CDS or TA) refer to time spent in 2002. Because of the reference in constructing the lagged variables, I have chosen to include only TA2007, which coincides with the CDS2007.

time with whom the child interacted with, the research focuses only on parental time, which is believed to be crucial for a child's outcome (Aizer, 2004; Price, 2008). When proxied with parental employment, parental time has been found to have ambiguous effects on child outcomes (Blau and Grossberg, 1992; James-Burdumy, 2005). This is due to associated unobservables that may confound employment and child outcomes. Moreover, employed mothers may not necessarily spend less time with their children than do unemployed mothers, as shown by Bianchi (2000) and Huston and Aronson (2005), when employed mothers compensate for work hours by spending more of their available time with their children and less time on other activities such as leisure. In this respect, although time measurements are more endogenous than employment, the former allows for disentangling the work hours from the actual time spent with the children. Parents may also allocate time differently among their offspring Price (2008), which can only be captured with time supervision measured in hours, and not by parental employment.

The analysis uses weekly hour measurements of time supervision, constructed by multiplying the weekday measure by 5, multiplying the weekend measure by 2, and summing the two values. The amounts of supervision from fathers and from mothers are also differentiated, allowing for a comparison of their relative importance in determining the teenage offspring's behavior. This is contrary to a general parental supervision indicator used in the literature. The following measurements of time supervision are used here in lagged form (taken from the previous wave) to address the issue of simultaneity: total time supervision, total quality time supervision, time doing engaged developmental activities², time having meals together, and time doing organized activities³. The first two measures aggregate active engagement and passive participation, wherein the latter connotes only physical (and not active) presence. The averages with mothers are higher than with the fathers, at 35.78, 15.39, 1.75, and 3.87 weekly hours, respectively, while that with the fathers are at 25.40, 10.95, 1.13, and 3.07 weekly hours.

Table 2 shows comparisons of participation in health risk behaviors according to the supervision received from mothers and from fathers. Receipt of more time supervision, regardless of the parent, is associated with a lower share of health risk behaviors. For instance, 7.78% of cigarette smokers, 13.30% of alcohol drinkers, and 5.37% of marijuana smokers spent at least 35 hours a week with moms, as compared to 13.71% of cigarette smokers, 19.08% alcohol drinkers, and 11.33% marijuana smokers who spent less than 35 hours a week with moms. Meanwhile, 8.82% of cigarette smokers, 13.90% of alcohol drinkers, and 6.73% of marijuana smokers received more than 25 weekly hours with dads, compared to 12.41%, 18.19%, and 9.73% who received less than 25 weekly hours.

[Insert Table 2 here]

Looking at quality time and engaged developmental activities, the pattern stated above still holds, particularly for cigarette and marijuana smoking. While more quality time and engaged developmental activities are still associated with lower shares of regular alcohol drinkers, the difference between those who received more and those who received less are not statistically significant, except with engaged developmental activities with dads.

More time on meals and engaged organized activities with either parent are similarly associated with lower participation in health risk behaviors, although differences are seen between fathers and mothers in terms of drinking. While there are significant differences between alcohol drinkers who received more and who received less time from mothers, there are no such differences with time spent with fathers.

The other important variable highly related to the variables of interest is parental employment. Both the intensive and extensive margins of parental employment are considered⁴. The former is a dummy variable taking a value of 1 if the mother or father worked in the past wave, and 0 otherwise. The extensive margins are weekly work hours of each parent in the past wave, and weekly work hours of each parent averaged from the child's birth until the previous wave. Mothers who worked in the previous wave comprise 79.17% of the sample, at an average of 23.89 hours a week, while 97.17% of fathers worked in the last wave, at an average of 43.20 hours a week. The extensive margins averaged from child's birth are a bit lower, at 21.50 weekly hours for moms and 42.78 weekly hours for dads.

The other household characteristics include (1) family income averaged from child's birth until the previous wave entered in the regression estimations in logarithmic form, (2) maternal age at childbirth, (3) each parent's completed years of education, (4) total number of children in the family, and (5) the corresponding parent's behavior (smoking and

²Includes reading, playing (not sports), helping with homework, talking or listening, helping or teaching, arts and crafts

³Includes sports, attending performing arts and visiting museums, participating in religious activities

⁴The tables presented here show only parental employment in the intensive margins, but the estimated coefficients of parental time supervision are comparable with the use of extensive margins anyway.

alcohol drinking). These could be correlated to the child’s risky behavior, to the household environment, and parental time with the child. For instance, family income and parental employment may influence the parents’ decision on how much time to spend with their children as a result of the income or substitution effects of work and leisure. Parental education may be correlated with time and parenting skills. A family with more offspring may limit parents’ ability to supervise. Lastly, those with parents who smoke are also more likely to smoke, having a role model in the parents (Bantle and Haiken-DeNew, 2002).

Child-specific characteristics include age and age squared, a male gender indicator, a dummy variable for black race, and a birth order variable indicating whether the child has an older sibling. Older individuals are predicted to be more risky and are more likely to engage in risky behaviors. This is true for males, as well as for later-born offspring (Averett et al., 2011).

The Behavioral Problem Index (BPI) in lagged form is used to proxy for the type or character of child, such that a higher index suggests more behavior problems. This index was developed by James Peterson and Nicholas Zill (Peterson and Zill, 1986), consisting of 30 questions asked to the primary caregiver of children at least 3 years old regarding the child’s sudden mood swings, emotional well-being, and violent tendencies. Including this as a regressor attempts to capture the child-specific behavior that may be correlated with the decision of the parents on how to allocate their time to different offspring.

3 Empirical Strategy

To test for the role of parental time supervision in determining teenage health risk behaviors, I consider a reduced-form child production function model (Becker and Tomes, 1976; Aizer, 2004), in which a family maximizes utility that is a function of various inputs, one of which is parental time devoted to the child. To increase the sample size, the model is estimated on the sample pooling over the two periods of observation (2002, 2007) controlling for child- and household-specific characteristics:

$$Risk_{ijt} = \beta_0 + \beta_1 Time_{it-1} + \beta_2 T2_t + \beta_3 \mathbf{X}_{ijt} + \beta_4 \mathbf{X}_i + \beta_5 \mathbf{Z}_j + \epsilon_{ijt} \quad (1)$$

where the error term ϵ_{ijt} is a two-way component:

$$\epsilon_{ijt} = \psi_j + \rho_{ijt}$$

with a household-specific unobserved heterogeneity (ψ_j) and an idiosyncratic heterogeneity component (ρ_{ijt}). The dependent variable $Risk_{ijt}$ stands for the different risky behaviors observed at each period t of a child i born in family j ; $Time_i$ is the parental time received by the child in lagged $(t - 1)$ measures; $T2_t$ is a dummy variable that indicates the period of observation; $\mathbf{X}_{ijt}$ is a vector of child- and household-specific time-varying characteristics such as the child’s age; $\mathbf{X}_i$ stands for the observable individual-level variables including child’s race, gender, and maternal childbirth age; and $\mathbf{Z}_j$ is a vector of household-specific characteristics including family size, parental years of education, and lagged parental employment status.

The effect of parental time supervision is given by β_1 in model (1), through estimations using (1) a linear probability model, where all the right-hand side variables are assumed to be orthogonal to $\psi_{j(t)}$, (2) a family fixed effects model that allows for the identification of the effect of parental time supervision net of unobserved family-specific components that are possibly correlated with the observed regressors, while the idiosyncratic error is still assumed to be orthogonal to the inputs and that there is time-constant family unobserved heterogeneity, $\psi_{j(t)} = \psi_j$, and (3) a child fixed effects model that removes unobserved time-invariant child-specific characteristics that may be correlated with the observed regressors.

The family fixed effects estimations are effective in reducing endogeneity bias if there are no differences in how parents allocate time according to child-specific characteristics such as being a “problem” kid. Table 3 reports the estimates of time supervision according to the reported BPI. Panel A reports the results for time spent with moms, while Panel B reports that with dads. Having a high BPI is associated with less total and quality time spent with moms, and engaged developmental activities with dads. However, this is only due to omitted variables and unobserved household heterogeneity, and the results support the use of family fixed effects to estimate the impact of parental time supervision on teenage health risk behaviors.

[Insert Table 3 here]

4 Results

To answer whether teenage risky behaviors are indeed influenced by parental time supervision, the dichotomous measurements of risk behaviors are regressed on lagged measurements of time supervision with each parent. The measurements were aggregated to minimize being affected by measurement error caused by more refined definitions of parental supervision (e.g. time spent reading or watching TV). Indeed, the results show higher standard errors with more refined measurements of time supervision. Distinguishing time spent with fathers and with mothers allows for the determination of the relative role of each parent in influencing health risk behaviors. The results are arranged according to specifications obtained using OLS, with standard errors corrected for the correlation of error terms within a family (between siblings), followed by that using family fixed effects, and then that using individual fixed effects.

Table 4 shows a summary of the estimated coefficients of health risk behaviors on the different measures of time supervisions from fathers and from mothers, followed by tables showing the full results.

[Insert Tables 4, 5, 6, 7 here]

While OLS results show general negative results, only total time with fathers is negative and statistically significant for alcohol drinking and marijuana smoking. Time with mothers are not significant. For instance, an additional hour per week with the dads five years prior decreases the probability of regular alcohol drinking by 0.17 percentage points, from 16.11% to 15.94%. This relationship is consistent with the pattern seen in Table 2.

The existing literature on parental time inputs and child outcomes is criticized for not taking into account unobserved parent and child characteristics that may be correlated with both variables of interest – parental time to the offspring and the teenage behavior (Aizer, 2004; Gruber, 2001). If the unobserved household characteristics are correlated with them, using an OLS regression will provide biased estimates of the effect of parental time on adolescent behaviors. The same is true if parental supervision decision is correlated with unobserved household characteristics. As long as parental time allocation to offspring within the family is not correlated with the adolescent's engaging in negative behavior, the estimates from a family fixed effect approach should provide unbiased results.

To account for the possibility that parental supervision may be influenced by unobserved characteristics that are related to the adolescent behaviors, a family fixed effects estimation is implemented to control for time-invariant family characteristics and avoid omitted variable (or endogeneity) bias. The coefficients of maternal time supervision are still not significant, while that for lagged paternal time supervision shows statistically significant results. To illustrate, an additional weekly hour with the father decreases the probability of cigarette smoking by 4.5 percentage points, the probability of marijuana smoking by 3.7 percentage points. The emerging result with respect to fathers using household fixed effects estimation emphasizes the importance of accounting for unobserved family-specific heterogeneity in estimating the effect of parental time supervision on health risk behaviors.

The bias in OLS may also be illustrated with the results of marijuana smoking. The magnitude of the paternal time influence is negative and larger with the fixed effects estimation, suggesting that some unobserved family-specific characteristics related with parental time supervision are causing an upward bias in the OLS estimation.

Some results also emerge after accounting for individual-level heterogeneity, mainly supporting the relative role of fathers. A weekly hour increase of time supervision with dads decrease the probability of marijuana smoking by 1.8 percentage points, which is lower than the magnitude obtained using family fixed effects but higher than the estimate from OLS. This provides further evidence on the biased estimates from OLS.

The weekly hours of parental supervision seem to have varying effects in teenagers based on the latter's gender as well. Table 8 show the regression estimates including an interaction term between the time supervision variables and the child's gender. More total time from dads mitigate cigarette smoking for male adolescents, but more engaged organized activities with mom increase the likelihood of cigarette smoking and regular alcohol drinking. Results with interaction terms of time variables with child's age and lagged BPI score did not show a specific and consistent pattern.

[Insert Tables 8 here]

In summary, once unobserved household-specific or individual-level heterogeneity are accounted for, time supervision from dads are found to have a mitigating role in adolescent health risk behaviors of cigarette smoking, alcohol drinking, and marijuana smoking. This suggests that the maternal time “influence” observed in simple correlations are simply driven by failure to account for confounding characteristics that cause the overestimated and biased result.

5 Conclusions

This research tested the empirical relationship between parental supervision and the likelihood of teenage health risk behaviors using a sample of adolescents from the PSID-CDS and PSID-TA. Using weekly hour measurements of time supervision from each parent, the negative associations found in the descriptives are due to omitted variables that proved to be confounding factors. Adding these covariates in the regression estimations using OLS have shown non-significant results. However, once time-invariant household-level heterogeneity are controlled for using family fixed effects, the paternal role in mitigating participation in health risk behaviors emerges. This is also in line with Cobb-Clark and Tekin (2013), who found among a sample of National Longitudinal Survey of Adolescent Health adolescents that boys without father figures are more likely to engage in delinquent behaviors, pointing out the important role of fathers in the behavioral outcomes of teenagers.

The general result points to the importance of taking into account unobserved household-specific characteristics in examining the effect of paternal supervision on teenage risk behaviors, as well as disentangling the influence of each parent. However, the fact that the analysis looked at parental supervision from five years ago may bring forth new problems. The underlying assumption so far has been that the pre-conditions are the same as when the risk behaviors are observed, or that nothing happens in between that induce the parents to change their behavior. This is addressed as best I could by applying an individual fixed effects approach.⁵

This study complements the various literature that look at time use as a mechanism through which parental employment affects child outcomes, such as Fertig et al. (2009). Although employment variables are more exogenous than time supervision variables, taking the former to proxy for the latter in determining child outcomes provide an incomplete picture. The question on how employment affects child behavior still remains, and time supervision provides a potential more direct channel. One interesting point is the apparently different ways that fathers and mothers allocate their time, particularly in line with employment, as for instance investigated by Cawley and Liu (2012). While this particular argument leads to a different discussion is beyond the scope of my paper, it nevertheless emphasizes the need to look at each parent separate in determining their relative roles in child outcomes.

References

- Aizer, A. (2004). Home Alone: Supervision After School and Child Behavior. *Journal of Public Economics*, 88(9-10):1835–1848.
- Altonji, J., Cattan, S., and Ware, I. (2013). Identifying Sibling Influence on Teenage Substance Use. IFS Working Papers W13/04, Institute for Fiscal Studies.
- Amato, P. R. and Fowler, F. (2002). Parenting Practices, Child Adjustment, and Family Diversity. *Journal of Marriage and Family*, 64(3):703–716.
- Amato, P. R. and Rivera, F. (1999). Paternal Involvement and Children’s Behavior Problems. *Journal of Marriage and Family*, 61(2):pp. 375–384.
- Anderson, P. M., Butcher, K. F., and Levine, P. B. (2003). Maternal Employment and Overweight Children. *Journal of Health Economics*, 22(3):477 – 504.
- Argys, L. M., Rees, D. I., Averett, S. L., and Witoonchart, B. (2006). Birth Order and Risky Adolescent Behavior. *Economic Inquiry*, 44(2):215–233.

⁵I thank one of the referees for pointing this out.

- Averett, S., Argys, L., and Rees, D. (2011). Older Siblings and Adolescent Risky Behavior: Does Parenting Play a Role? *Journal of Population Economics*, 24(3):957–978.
- Balsa, A. I., Giuliano, L. M., and French, M. T. (2011). The Effects of Alcohol Use on Academic Achievement in High School. *Economics of Education Review*, 30(1):1 – 15.
- Bantle, C. and Haisken-DeNew, J. P. (2002). Smoke Signals: The Intergenerational Transmission of Smoking Behavior. Discussion Papers of DIW Berlin 277, DIW Berlin, German Institute for Economic Research.
- Bard, D. E. and Rodgers, J. L. (2003). Sibling Influence on Smoking Behavior: A Within-Family Look at Explanations for a Birth-Order Effect. *Journal of Applied Social Psychology*, 33(9):1773–1795.
- Becker, G. S. and Tomes, N. (1976). Child Endowments and the Quantity and Quality of Children. *Journal of Political Economy*, 84(4):pp. S143–S162.
- Bègue, L. and Roché, S. (2005). Birth Order and Youth Delinquent Behaviour Testing the Differential Parental Control Hypothesis in a French Representative Sample. *Psychology, Crime and Law*, 11(1):73–85.
- Bianchi, S. (2000). Maternal Employment and Time with Children: Dramatic Change or Surprising Discontinuity? *Demography*, 37:401–414.
- Blau, F. D. and Grossberg, A. J. (1992). Maternal Labor Supply and Children’s Cognitive Development. *The Review of Economics and Statistics*, 74(3):474–81.
- Browning, C. R., Leventhal, T., and Brooks-Gunn, J. (2005). Sexual Initiation in Early Adolescence: The Nexus of Parental and Community Control. *American Sociological Review*, 70(5):758–778.
- Card, D. and Giuliano, L. (2011). Peer Effects and Multiple Equilibria in the Risky Behavior of Friends. Working Paper 17088, National Bureau of Economic Research.
- Cawley, J. and Liu, F. (2012). Maternal Employment and Childhood Obesity: A Search for Mechanisms in Time Use Data. *Economics and Human Biology*, 10(4):352 – 364.
- Chatterji, P. (2006). Does Alcohol Use During High School Affect Educational Attainment?: Evidence from the National Education Longitudinal Study. *Economics of Education Review*, 25(5):482 – 497.
- Clark, A. E. and Lohéac, Y. (2007). ”It wasn’t me, it was them!” Social Influence in Risky Behavior by Adolescents. *Journal of Health Economics*, 26(4):763 – 784.
- Cobb-Clark, D. A. and Tekin, E. (2013). Fathers and Youths’ Delinquent Behavior. *Review of Economics of the Household*, pages 1 – 32.
- Coley, R. L., Medeiros, B. L., and Schindler, H. S. (2008). Using Sibling Differences to Estimate Effects of Parenting on Adolescent Sexual Risk Behaviors. *Journal of Adolescent Health*, 43(2):133 – 140.
- Cook, P. J. and Moore, M. J. (1993). Drinking and Schooling. *Journal of Health Economics*, 12(4):411 – 429.
- Dee, T. S. and Evans, W. N. (2003). Teen Drinking and Educational Attainment: Evidence from Two-Sample Instrumental Variables Estimates. *Journal of Labor Economics*, 21(1):178–209.
- DeSimone, J. (2010). Drinking and Academic Performance in High School. *Applied Economics*, 42(12):1481–1497.
- Duarte, R., Escario, J.-J., and Molina, J. A. (2011). Peer Effects, Unobserved Factors and Risk Behaviours in Adolescence. *Revista de Economía Aplicada*, 29(55):125–152.
- Duncan, G., Boisjoly, J., Kremer, M., Levy, D., and Eccles, J. (2005). Peer Effects in Drug Use and Sex Among College Students. *Journal of Abnormal Child Psychology*, 33(3):375–385.

- Ellickson, P. L., Tucker, J. S., and Klein, D. J. (2001). High-risk Behaviors Associated with Early Smoking: Results from a 5-year Follow-up. *Journal of Adolescent Health*, 28(6):465 – 473.
- Fagan, A. A. and Najman, J. M. (2003). Sibling Influences on Adolescent Delinquent Behaviour: An Australian Longitudinal Study. *Journal of Adolescence*, 26(5):546 – 558.
- Fertig, A., Glomm, G., and Tchernis, R. (2009). The connection between maternal employment and childhood obesity: inspecting the mechanisms. *Review of Economics of the Household*, 7(3):227–255.
- Flouri, E. and Buchanan, A. (2002). Childhood Predictors of Labor Force Participation in Adult Life. *Journal of Family and Economic Issues*, 23(2):101–120.
- Gardner, M. and Steinberg, L. (2005). Peer Influence on Risk Taking, Risk Preference, and Risky Decision Making in Adolescence and Adulthood: An Experimental Study. *Developmental Psychology*, 41(4):625–635.
- Gruber, J. (2001). *Risky Behavior among Youths: An Economic Analysis*. Number grub01-1 in NBER Books. National Bureau of Economic Research, Inc.
- Hofferth, S. L. (2006). Residential Father Family Type and Child Well-being: Investment Versus Selection. *Demography*, 43(1):53–77.
- Huston, A. C. and Aronson, S. R. (2005). Mothers' Time With Infant and Time in Employment as Predictors of Mother-Child Relationships and Children's Early Development. *Child Development*, 76(2):467–482.
- James-Burdumy, S. (2005). The Effect of Maternal Labor Force Participation on Child Development. *Journal of Labor Economics*, 23(1):177–211.
- Jenkins, J. (1996). The Influence of Peer Affiliation and Student Activities on Adolescent Drug Involvement. *Adolescence*, 31(122):297–306.
- Johnson, S., Li, J., Kendall, G., Strazdins, L., and Jacoby, P. (2013). Mothers' and Fathers' Work Hours, Child Gender, and Behavior in Middle Childhood. *Journal of Marriage and Family*, 75(1):56–74.
- Leibowitz, A. (1974). Home Investments in Children. *Journal of Political Economy*, 82(2):pp. S111–S131.
- Mullahy, J. and Sindelar, J. (1994). Alcoholism and Income: The Role of Indirect Effects. *The Milbank Quarterly*, 72(2):359–75.
- Ouyang, L. (2004). Sibling Effects on Teen Risky Behaviors. Duke University Working Paper.
- Peterson, J. L. and Zill, N. (1986). Marital Disruption, Parent-Child Relationships, and Behavior Problems in Children. *Journal of Marriage and Family*, 48(2):295–307.
- Powell, L. M., Tauras, J. A., and Ross, H. (2005). The Importance of Peer Effects, Cigarette Prices and Tobacco Control Policies for Youth Smoking Behavior. *Journal of Health Economics*, 24(5):950 – 968.
- Price, J. (2008). Parent-Child Quality Time: Does Birth Order Matter? *Journal of Human Resources*, 43(1):240–265.
- Renna, F. (2008). Alcohol Abuse, Alcoholism, and Labor Market Outcomes: Looking for the Missing Link. *Industrial and Labor Relations Review*, 62(1).
- Richardson, J., Radziszewska, B., Dent, C., and Flay, B. (1993). Relationship Between After-school Care of Adolescents and Substance Use, Risk Taking, Depressed Mood, and Academic Achievement. *Pediatrics*, 92(1):32–8.
- Todd, P. E. and Wolpin, K. I. (2007). The Production of Cognitive Achievement in Children: Home, School, and Racial Test Score Gaps. *Journal of Human Capital*, 1(1):91–136.
- Trogon, J. G., Nonnemaker, J., and Pais, J. (2008). Peer Effects in Adolescent Overweight. *Journal of Health Economics*, 27(5):1388–1399.

- Vandell, D. L. and Ramanan, J. (1991). Children of National Longitudinal Survey of Youth: Choices in After-School Care and Child Development. *Developmental Psychology*, 27(4):637–643.
- Williams, J., Powell, L., and Wechsler, H. (2003). Does alcohol consumption reduce human capital accumulation? Evidence from the College Alcohol Study. *Applied Economics*, 35(10):1227–1239.
- Zick, C. D., Bryant, W., and Osterbacka, E. (2001). Mothers' Employment, Parental Involvement, and the Implications for Intermediate Child Outcomes. *Social Science Research*, 30(1):25 – 49.

Table 1: Summary Statistics

	Full Sample 10-25 Years Old		CDS 10-18 Years Old		TA 18-25 Years Old	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Smoked cigarette(s) in the past month	0.1067	0.3088	0.0684	0.2526	0.1961	0.3975
Drank alcohol at least once a week in the past year	0.1611	0.3678	0.1306	0.3371	0.2324	0.4229
Smoked marijuana in the past month	0.0827	0.2756	0.0611	0.2397	0.1332	0.3402
Age	15.6901	3.2505	13.9254	1.8996	19.814	1.5908
Male	0.4782	0.4997	0.4943	0.5002	0.4407	0.4971
With older sibling	0.6081	0.4883	0.6000	0.4902	0.6271	0.4842
Black race	0.2213	0.4153	0.2073	0.4055	0.2542	0.4360
Behavioral Problem Index (2)	7.4347	5.7027	7.4881	5.5946	7.3099	5.9525
Mom's age at childbirth	28.6756	4.9074	28.8363	4.9894	28.3002	4.6948
Mom's highest educational attainment	13.3505	2.5259	13.3896	2.5518	13.2591	2.4649
Dad's highest education attainment	13.4739	2.6502	13.4290	2.7005	13.5787	2.5288
Mom worked in previous wave	0.7917	0.4062	0.7782	0.4156	0.8232	0.3819
Dad worked in previous wave	0.9717	0.1659	0.9710	0.1679	0.9734	0.1612
Mom's average work hours (1, 2)	23.8878	18.2703	22.3231	18.1714	27.5438	17.9975
Dad's average work hours (1, 2)	43.2023	12.9913	43.2235	13.0172	43.1526	12.9464
Mom's average work hours (1, 3)	21.5023	13.5879	20.9763	13.9266	22.7313	12.6932
Dad's average work hours (1, 3)	42.7802	9.4244	42.8851	9.7967	42.5352	8.4973
Mom smokes	0.1531	0.3602	0.1534	0.3605	0.1525	0.3600
Dad smokes	0.1633	0.3698	0.1648	0.3712	0.1598	0.3669
Mom drinks	0.6567	0.4750	0.6715	0.4699	0.6223	0.4854
Dad drinks	0.6626	0.4730	0.6777	0.4676	0.6271	0.4842
Annual family income, deflated (2)	74338.61	79178.67	69143.13	61653.17	86478.17	108850.90
Annual family income, deflated (3)	61902.42	44902.66	60115.77	40631.49	66077.05	53394.77
Total time supervision from mom (1, 2)	35.7753	17.3269	38.2011	15.8025	30.1073	19.3167
Total time supervision from dad (1, 2)	25.4004	16.5374	26.0624	15.3267	23.8536	18.9998
Total quality time from mom (1, 2)	15.3904	10.1062	17.4682	9.7913	10.5356	9.1272
Total quality time from dad (1, 2)	10.9508	8.6693	11.9559	8.4117	8.6024	8.8168
Engaged developmental activities with mom (1, 2)	1.7510	3.1432	2.1114	3.2652	0.9089	2.6570
Engaged developmental activities with dad (1, 2)	1.1347	2.4711	1.3265	2.5620	0.6864	2.1823
Engaged meal activities with mom (1, 2)	3.8682	3.0613	4.2425	2.9768	2.9935	3.0808
Engaged meal activities with dad (1, 2)	3.0656	2.9051	3.3014	2.8148	2.5145	3.0389
Engaged organized activities with mom (1, 2)	1.2613	2.8688	1.3581	2.8642	1.0352	2.8701
Engaged organized activities with dad (1, 2)	1.0651	2.6667	1.1812	2.7221	0.7938	2.5148
Observations	1378		965		413	

(1) Hours per week, (2) Measured in previous wave, (3) Averaged from child's birth until previous wave

Table 2: Participation in Health Risk Behaviors by Parental Time Supervision

	Smoking	Drinking	Marijuana	Smoking	Drinking	Marijuana
Total Time Supervision						
Less than 35 weekly hours with mom	0.1371	0.1908	0.1133	0.1241	0.1819	0.0973
35 weekly hours or more with mom	0.0778	0.1330	0.0537	0.0882	0.1390	0.0673
Mean Comparison Test	0.0593***	0.0578***	0.0595***	0.0359***	0.0429**	0.0301**
Total Quality Time Supervision						
Less than 15 weekly hours with mom	0.1432	0.1733	0.1050	0.1346	0.1731	0.0948
15 weekly hours or more with mom	0.0651	0.1473	0.0574	0.0754	0.1477	0.0692
Mean Comparison Test	0.0781***	0.0260	0.0477***	0.0592***	0.0254	0.0255*
Engaged Developmental Activities						
Less than 2 weekly hours with mom	0.1187	0.1699	0.0942	0.1196	0.01717	0.0913
2 weekly hours or more with mom	0.0773	0.1397	0.0549	0.0565	0.1214	0.0495
Mean Comparison Test	0.0414**	0.0303	0.0393**	0.0631**	0.0515**	0.0419**
Engaged Meal Activities						
Less than 3 weekly hours with mom	0.1498	0.1835	0.1111	0.1332	0.1758	0.0959
3 weekly hours or more with mom	0.0740	0.1441	0.0612	0.0650	0.1435	0.0670
Mean Comparison Test	0.0759***	0.0394**	0.0499***	0.0582***	0.0322	0.0289*
Engaged Organized Activities						
Less than 1 weekly hour with mom	0.1127	0.1715	0.0896	0.1105	0.1626	0.0849
1 weekly hour or more with mom	0.0882	0.1294	0.0618	0.0919	0.1555	0.0742
Mean Comparison Test	0.0245	0.0421*	0.0278	0.0186	0.0071	0.0107

*** significant at 1% level, ** significant at 5% level, * significant at 10% level

Table 3: Parental Time Supervision on Child BPI

Total Supervision	(A) Mom		(B) Dad		Household FE		Household FE	
	OLS	Without controls	With controls	Without controls	With controls	Without controls	With controls	With controls
BPI last wave		-0.1513* (0.087)	-0.1261 (0.083)	0.1201 (0.158)	0.1817 (0.161)	-0.0608 (0.082)	-0.0942 (0.083)	0.1408 (0.132)
Total Quality								
	OLS			Household FE		OLS		Household FE
	Without controls			Without controls		Without controls		Without controls
BPI last wave	-0.1183** (0.048)	-0.0967** (0.043)	-0.0338 (0.086)	-0.0306 (0.083)	-0.0466 (0.043)	0.0233 (0.074)	-0.0550 (0.041)	0.0233 (0.074)
Engaged Developmental								
	OLS			Household FE		OLS		Household FE
	Without controls			Without controls		Without controls		Without controls
BPI last wave	0.0074 (0.014)	0.0141 (0.014)	-0.0207 (0.023)	-0.0108 (0.023)	-0.5349** (0.256)	0.2588 (0.571)	-0.4757* (0.280)	0.2588 (0.571)
Engaged Meals								
	OLS			Household FE		OLS		Household FE
	Without controls			Without controls		Without controls		Without controls
BPI last wave	-0.0249 (0.015)	-0.0222 (0.015)	0.0004 (0.022)	0.0013 (0.021)	-0.0152 (0.015)	0.0131 (0.017)	-0.0141 (0.015)	0.0131 (0.017)
Engaged Organized								
	OLS			Household FE		OLS		Household FE
	Without controls			Without controls		Without controls		Without controls
BPI last wave	-0.0074 (0.014)	-0.0092 (0.014)	-0.0172 (0.016)	-0.0192 (0.016)	0.0037 (0.014)	0.0173 (0.023)	-0.0032 (0.013)	0.0173 (0.023)

Controls include child's age, child's age squared, mother's work status when time supervision was observed; male, indicator for having at least one older sibling, black race, family size, mother's age at childbirth, mother's highest educational attainment, father's educational attainment, wave indicator, deflated family income averaged from child's birth until period of observation. Similar estimates were obtained when controlling for parental work at the extensive margin (i.e., average weekly work hours at previous wave, weekly work hours averaged from child's birth until previous wave). Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 4: Probability of Health Risk Behaviors on Parental Time Supervision

	Smoked cigarettes in past month			Drank alcohol regularly in past year			Smoked marijuana in past month		
	OLS	Family FE	Child FE	OLS	Family FE	Child FE	OLS	Family FE	Child FE
With mom	-0.0006 (0.001)	0.0042** (0.002)	0.0003 (0.001)	-0.0006 (0.001)	0.0011 (0.002)	0.0006 (0.001)	-0.0003 (0.001)	0.0016 (0.001)	-0.0000 (0.001)
With dad	-0.0006 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)	-0.0013* (0.001)	-0.0009 (0.002)	-0.0003 (0.001)	-0.0010* (0.001)	-0.0037** (0.002)	-0.0018* (0.001)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Total quality time									
With mom	-0.0012 (0.001)	0.0047** (0.002)	-0.0004 (0.002)	-0.0002 (0.001)	0.0022 (0.003)	0.0029 (0.002)	-0.0001 (0.001)	0.0031 (0.002)	0.0009 (0.002)
With dad	-0.0003 (0.001)	-0.0033 (0.003)	-0.0025 (0.002)	-0.0024 (0.001)	-0.0014 (0.004)	-0.0034 (0.003)	-0.0004 (0.001)	-0.0008 (0.003)	-0.0043** (0.002)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Engaged developmental activities									
With mom	-0.0004 (0.003)	-0.0012 (0.006)	0.0067 (0.005)	0.0007 (0.003)	0.0065 (0.008)	0.0031 (0.007)	0.0038 (0.004)	0.0074 (0.008)	0.0061 (0.005)
With dad	0.0008 (0.004)	-0.0002 (0.006)	0.0001 (0.005)	-0.0054 (0.004)	-0.0199** (0.010)	-0.0166* (0.009)	0.0009 (0.004)	-0.0042 (0.006)	-0.0104* (0.006)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Engaged meal activities									
With mom	-0.0046 (0.004)	0.0171* (0.010)	0.0101 (0.008)	0.0026 (0.005)	0.0043 (0.011)	-0.0035 (0.011)	-0.0024 (0.004)	-0.0005 (0.008)	0.0027 (0.008)
With dad	-0.0003 (0.004)	-0.0236** (0.010)	-0.0162** (0.008)	-0.0035 (0.005)	-0.0098 (0.012)	0.0061 (0.011)	-0.0028 (0.004)	-0.0020 (0.009)	-0.0070 (0.006)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Engaged organized activities									
With mom	-0.0028 (0.004)	0.0094 (0.011)	-0.0058 (0.006)	-0.0048 (0.005)	0.0122 (0.009)	0.0082 (0.008)	-0.0029 (0.003)	0.0066 (0.010)	-0.0016 (0.005)
With dad	0.0068 (0.005)	-0.0171* (0.010)	0.0055 (0.009)	0.0006 (0.005)	-0.0121 (0.010)	-0.0077 (0.009)	-0.0004 (0.003)	0.0130 (0.010)	0.0024 (0.005)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023

Time supervision measured in hours per week, previous wave. Controls include child's age, child's age squared at the time when health risk behaviors were observed; male, indicator for having at least one older sibling, black race, family size, mother's age at childbirth, mother's highest educational attainment, father's educational attainment, wave indicator, deflated family income averaged from child's birth until period of observation, mother's work status, father's work status, and child's BPI score at previous wave. Similar coefficients were obtained when controlling for parental work at the extensive margin (i.e., average weekly work hours at previous wave, weekly work hours averaged from child's birth until previous wave). Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 5: Probability of Cigarette Smoking in the Past Month

Smoking	(1) OLS	Family FE	Child FE	(2) OLS	Family FE	Child FE	(3) OLS	Family FE	Child FE	(4) OLS	Family FE	Child FE	(5) OLS	Family FE	Child FE
Age	0.0322 (0.025)	0.0512 (0.058)	0.0707 (0.066)	0.0266 (0.026)	0.0326 (0.058)	0.0717 (0.066)	0.0285 (0.025)	0.0327 (0.060)	0.0583 (0.067)	0.0301 (0.025)	0.0293 (0.058)	0.0617 (0.066)	0.0258 (0.025)	0.0409 (0.060)	0.0517 (0.066)
Age squared	-0.0002 (0.001)	-0.0007 (0.001)	-0.0012 (0.001)	-0.0001 (0.001)	-0.0004 (0.001)	-0.0011 (0.001)	-0.0001 (0.001)	-0.0004 (0.001)	-0.0012 (0.001)	-0.0002 (0.001)	-0.0002 (0.001)	-0.0012 (0.001)	-0.0000 (0.001)	-0.0005 (0.001)	-0.0010 (0.001)
Male	-0.0345** (0.016)	-0.0306 (0.036)	-0.0305 (0.036)	-0.0341** (0.016)	-0.0519 (0.036)	-0.0519 (0.036)	-0.0338** (0.016)	-0.0562 (0.035)	-0.0562 (0.035)	-0.0333** (0.016)	-0.0482 (0.035)	-0.0482 (0.035)	-0.0380** (0.016)	-0.0509 (0.034)	-0.0509 (0.034)
With older sibling	0.0087 (0.017)	-0.0087 (0.037)	-0.0087 (0.037)	0.0086 (0.017)	-0.0113 (0.038)	-0.0113 (0.038)	0.0088 (0.017)	-0.0109 (0.038)	-0.0109 (0.038)	0.0078 (0.017)	-0.0083 (0.037)	-0.0083 (0.037)	0.0099 (0.017)	-0.0111 (0.037)	-0.0111 (0.037)
Black	-0.0235 (0.022)	-0.0235 (0.022)	-0.0235 (0.022)	-0.0215 (0.022)	-0.0215 (0.022)	-0.0215 (0.022)	-0.0179 (0.022)	-0.0179 (0.022)	-0.0179 (0.022)	-0.0224 (0.022)	-0.0179 (0.022)	-0.0179 (0.022)	-0.0174 (0.022)	-0.0179 (0.022)	-0.0179 (0.022)
Mom's age, childbirth	-0.0003 (0.002)	0.0091 (0.035)	-0.0004 (0.035)	-0.0004 (0.002)	0.0017 (0.035)	0.0017 (0.035)	-0.0006 (0.002)	0.0054 (0.035)	0.0054 (0.035)	-0.0006 (0.002)	0.0074 (0.035)	0.0074 (0.035)	-0.0006 (0.002)	0.0075 (0.035)	0.0075 (0.035)
Mom's education	-0.0008 (0.005)	-0.0008 (0.005)	-0.0008 (0.005)	-0.0005 (0.005)	-0.0005 (0.005)	-0.0005 (0.005)	-0.0009 (0.005)	-0.0009 (0.005)	-0.0009 (0.005)	-0.0008 (0.005)	-0.0009 (0.005)	-0.0009 (0.005)	-0.0012 (0.005)	-0.0009 (0.005)	-0.0009 (0.005)
Dad's education	-0.0063 (0.004)	-0.0063 (0.004)	-0.0063 (0.004)	-0.0064 (0.005)	-0.0064 (0.005)	-0.0064 (0.005)	-0.0067 (0.005)	-0.0067 (0.005)	-0.0067 (0.005)	-0.0066 (0.005)	-0.0066 (0.005)	-0.0066 (0.005)	-0.0069 (0.005)	-0.0066 (0.005)	-0.0066 (0.005)
Year 2007	-0.0405** (0.017)	-0.0521 (0.232)	-0.0521 (0.232)	-0.0462*** (0.018)	-0.0462*** (0.018)	-0.0462*** (0.018)	-0.0385** (0.017)	-0.0385** (0.017)	-0.0385** (0.017)	-0.0389** (0.017)	-0.0389** (0.017)	-0.0389** (0.017)	-0.0357** (0.017)	-0.0357** (0.017)	-0.0357** (0.017)
Family size	-0.0093 (0.009)	-0.0093 (0.009)	-0.0093 (0.009)	-0.0084 (0.009)	-0.0084 (0.009)	-0.0084 (0.009)	-0.0080 (0.009)	-0.0080 (0.009)	-0.0080 (0.009)	-0.0085 (0.009)	-0.0085 (0.009)	-0.0085 (0.009)	-0.0089 (0.009)	-0.0085 (0.009)	-0.0085 (0.009)
Log of family income#	-0.0005 (0.020)	0.3446 (0.405)	-0.0804 (0.120)	0.0021 (0.019)	0.2850 (0.408)	-0.0853 (0.120)	0.0043 (0.019)	0.2470 (0.407)	-0.0843 (0.120)	0.0045 (0.019)	0.3319 (0.412)	-0.0748 (0.118)	0.0058 (0.020)	0.2923 (0.405)	-0.0747 (0.116)
Mom worked, previous wave	-0.0049 (0.021)	-0.0049 (0.021)	-0.0049 (0.021)	-0.0070 (0.021)	-0.0070 (0.021)	-0.0070 (0.021)	-0.0029 (0.021)	-0.0029 (0.021)	-0.0029 (0.021)	-0.0029 (0.021)	-0.0029 (0.021)	-0.0029 (0.021)	-0.0025 (0.020)	-0.0025 (0.020)	-0.0025 (0.020)
Dad worked, previous wave	-0.1213** (0.070)	-0.1213** (0.070)	-0.1213** (0.070)	-0.1192** (0.069)	-0.1192** (0.069)	-0.1192** (0.069)	-0.1195** (0.070)	-0.1195** (0.070)	-0.1195** (0.070)	-0.1192** (0.070)	-0.1192** (0.070)	-0.1192** (0.070)	-0.1153** (0.070)	-0.1153** (0.070)	-0.1153** (0.070)
Total time with mom, previous wave	-0.0006 (0.001)	0.0042** (0.002)	0.0003 (0.001)	0.0003 (0.001)	0.0042** (0.002)	0.0003 (0.001)	0.0003 (0.001)	0.0042** (0.002)	0.0003 (0.001)	0.0003 (0.001)	0.0042** (0.002)	0.0003 (0.001)	0.0003 (0.001)	0.0042** (0.002)	0.0003 (0.001)
Total time with dad, previous wave	-0.0006 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)	-0.0012 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)	-0.0012 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)	-0.0012 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)	-0.0012 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)
Total quality time with mom, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Total quality time with dad, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Engaged developmental activities with mom, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Engaged developmental activities with dad, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Engaged meal activities with mom, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Engaged developmental activities with dad, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Engaged organized activities with mom, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Engaged organized activities with dad, previous wave	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)	-0.0006 (0.001)
Mom smokes	0.0735 (0.009)	0.0735 (0.009)	0.0735 (0.009)	0.0713 (0.008)	0.0735 (0.009)	0.0735 (0.009)	0.0651 (0.009)	0.0735 (0.009)	0.0735 (0.009)	0.0651 (0.009)	0.0735 (0.009)	0.0735 (0.009)	0.0651 (0.009)	0.0735 (0.009)	0.0735 (0.009)
Dad smokes	0.0070 (0.006)	0.0070 (0.006)	0.0070 (0.006)	0.0066 (0.006)	0.0070 (0.006)	0.0070 (0.006)	0.0066 (0.006)	0.0070 (0.006)	0.0070 (0.006)	0.0066 (0.006)	0.0070 (0.006)	0.0070 (0.006)	0.0066 (0.006)	0.0070 (0.006)	0.0070 (0.006)
BMI, previous wave	0.0061*** (0.002)	0.0105*** (0.004)	0.0105*** (0.004)	0.0066*** (0.002)	0.0105*** (0.004)	0.0105*** (0.004)	0.0066*** (0.002)	0.0105*** (0.004)	0.0105*** (0.004)	0.0066*** (0.002)	0.0105*** (0.004)	0.0105*** (0.004)	0.0066*** (0.002)	0.0105*** (0.004)	0.0105*** (0.004)
Constant	-0.0672 (0.265)	-0.1699 (4.246)	-0.2430 (1.408)	-0.0588 (0.267)	-3.5266 (4.247)	-0.2790 (1.410)	-0.1233 (0.262)	-3.1855 (4.218)	-0.4489 (1.435)	-0.1084 (0.260)	-4.1773 (4.207)	-0.3045 (1.407)	-0.1164 (0.261)	-3.8301 (4.251)	-0.3730 (1.382)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of CHILDID68	0.102	0.088	0.065	0.101	0.068	0.068	0.100	0.060	0.065	0.102	0.075	0.071	0.101	0.067	0.063
Number of MOMID21	1,062	1,062	1,023	1,062	1,062	1,023	1,062	1,062	1,023	1,062	1,062	1,023	1,062	1,062	1,023

Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 6: Probability of Regular Alcohol Drinking

Drinking	(1) OLS	Family FE	Child FE	(2) OLS	Family FE	Child FE	(3) OLS	Family FE	Child FE	(4) OLS	Family FE	Child FE	(5) OLS	Family FE	Child FE
Age	0.0424 (0.029)	-0.0672 (0.066)	0.0680 (0.068)	0.0366 (0.029)	-0.0708 (0.064)	0.0862 (0.069)	0.0351 (0.029)	-0.0577 (0.065)	0.0835 (0.069)	0.0367 (0.029)	-0.0712 (0.064)	0.0669 (0.069)	0.0370 (0.029)	-0.0661 (0.064)	0.0760 (0.076)
Age squared	0.0000 (0.001)	0.0035** (0.002)	-0.0008 (0.001)	0.0002 (0.001)	0.0035*** (0.002)	-0.0010 (0.001)	0.0002 (0.001)	0.0032* (0.002)	-0.0008 (0.001)	0.0002 (0.001)	0.0036** (0.002)	-0.0008 (0.001)	0.0002 (0.001)	0.0035** (0.002)	-0.0010 (0.001)
Male	0.0168 (0.018)	-0.0479 (0.034)	0.0185 (0.018)	0.0185 (0.018)	-0.0519 (0.035)	0.0185 (0.018)	0.0155 (0.019)	-0.0450 (0.034)	0.0141 (0.019)	0.0141 (0.019)	-0.0503 (0.034)	0.0132 (0.019)	0.0132 (0.019)	-0.0514 (0.034)	0.0132 (0.019)
With older sibling	-0.0017 (0.020)	-0.0137 (0.039)	-0.0024 (0.020)	-0.0024 (0.020)	-0.0141 (0.039)	-0.0022 (0.020)	-0.0019 (0.020)	-0.0121 (0.039)	-0.0009 (0.020)	-0.0009 (0.020)	-0.0142 (0.039)	-0.0001 (0.020)	-0.0001 (0.020)	-0.0136 (0.039)	-0.0001 (0.020)
Black	-0.0551*** (0.024)			-0.0515*** (0.024)			-0.0476** (0.024)			-0.0462* (0.024)			-0.0436* (0.024)		
Mom's age, childbirth	0.0046** (0.002)	0.0116 (0.035)		0.0043** (0.002)	0.0089 (0.035)		0.0040* (0.002)	0.0131 (0.035)		0.0040* (0.002)	0.0117 (0.035)		0.0041* (0.002)	0.0115 (0.035)	
Mom's education	0.0039 (0.006)			0.0040 (0.006)			0.0042 (0.006)			0.0039 (0.006)			0.0044 (0.006)		
Dad's education	0.0012 (0.005)			0.0009 (0.005)			0.0003 (0.005)			0.0005 (0.005)			0.0006 (0.005)		
Year 2007	-0.2571*** (0.021)		-0.2213 (0.298)	-0.2622*** (0.022)		-0.2668 (0.301)	-0.2544*** (0.022)		-0.2398 (0.304)	-0.2545*** (0.021)		-0.2216 (0.304)	-0.2560*** (0.021)		-0.2368 (0.304)
Family size	0.0033 (0.009)			0.0047 (0.009)			0.0047 (0.009)			0.0053 (0.009)			0.0056 (0.009)		
Log of family income#	0.0074 (0.025)	-0.2906 (0.465)	-0.1651 (0.154)	0.0119 (0.025)	-0.2932 (0.464)	-0.1702 (0.152)	0.0134 (0.025)	-0.3323 (0.467)	-0.1602 (0.152)	0.0138 (0.025)	-0.2766 (0.466)	-0.1634 (0.153)	0.0112 (0.025)	-0.2628 (0.471)	-0.1600 (0.149)
Mom worked, previous wave	0.0240 (0.022)		-0.0615 (0.062)	0.0242 (0.022)		-0.0801 (0.062)	0.0245 (0.022)		-0.0582 (0.061)	0.0260 (0.022)		-0.0677 (0.063)	0.0248 (0.022)		-0.0609 (0.061)
Dad worked, previous wave	-0.0154 (0.058)		0.0060 (0.040)	-0.0175 (0.058)		0.0022 (0.044)	-0.0080 (0.058)		0.0125 (0.064)	-0.0128 (0.059)		0.0238 (0.037)	-0.0068 (0.058)		0.0284 (0.054)
Total supervision from mom, previous wave	-0.0006 (0.001)	0.0011 (0.002)	0.0006 (0.001)												
Total supervision from dad, previous wave	-0.0013* (0.001)	-0.0009 (0.002)	-0.0003 (0.001)												
Total quality supervision from mom, previous wave				-0.0002 (0.001)	0.0022 (0.003)	0.0029 (0.002)									
Total quality supervision from dad, previous wave				-0.0024 (0.001)	-0.0014 (0.004)	-0.0034 (0.003)									
Engaged developmental activities from mom, previous wave															
Engaged developmental Activities from dad, previous wave															
Engaged meal activities with mom, previous wave															
Engaged developmental activities with dad, previous wave															
Engaged organized activities with mom, previous wave															
Engaged organized activities with dad, previous wave															
Mom drinks	0.0483 (0.066)		-0.0572 (0.059)	0.0513 (0.065)		-0.0654 (0.061)	0.0474 (0.066)		-0.0936* (0.052)	0.0506 (0.066)		-0.0777 (0.062)	-0.0048 (0.066)	0.0122 (0.069)	0.0082 (0.068)
Dad drinks	0.0007 (0.066)		0.0587 (0.088)	-0.0024 (0.065)		0.0082 (0.093)	0.0039 (0.066)		0.0988 (0.085)	0.0008 (0.067)		0.0818 (0.096)	0.0020 (0.066)	-0.0121 (0.010)	-0.0077 (0.069)
BPI, previous wave	0.0004 (0.002)	0.0059 (0.004)	0.0024 (0.005)	0.0005 (0.002)	0.0061 (0.004)	0.0024 (0.005)	0.0007 (0.002)	0.0067 (0.004)	0.0025 (0.005)	0.0006 (0.002)	0.0061 (0.004)	0.0026 (0.005)	0.0006 (0.002)	0.0063 (0.004)	0.0020 (0.005)
Constant	-0.6128** (0.312)	3.1143 (3.105)	1.2413 (1.760)	-0.6336** (0.313)	3.2652 (3.086)	1.0993 (1.741)	-0.6640** (0.310)	3.4643 (3.095)	0.9582 (1.769)	-0.6872** (0.310)	3.0268 (3.120)	1.2310 (1.774)	-0.6692** (0.310)	2.8163 (3.138)	1.1057 (1.729)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
R-squared	0.170	0.131	0.017	0.168	0.131	0.022	0.166	0.140	0.026	0.165	0.132	0.017	0.166	0.134	0.019
Number of CHLIDID68															
Number of MOMID2n		1,062	1,023		1,062	1,023		1,062	1,023		1,062	1,023		1,062	1,023

Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 7: Probability of Marijuana Smoking in the Past Month

	(1)	(2)	(3)	(4)	(5)
Marijuana	OLS	Family FE	Child FE	Family FE	Child FE
Age	0.0545** (0.022)	-0.0253 (0.053)	0.1138** (0.053)	-0.0452 (0.053)	0.0938* (0.056)
Age squared	-0.0012* (0.001)	-0.0010 (0.001)	-0.0016 (0.001)	-0.0006 (0.001)	-0.0015 (0.001)
Male	0.0040 (0.014)	-0.0307 (0.029)	0.0024 (0.014)	-0.0424 (0.032)	0.0016 (0.014)
With older sibling	-0.0111 (0.016)	0.0297 (0.035)	-0.0109 (0.017)	0.0278 (0.034)	-0.0102 (0.017)
Black	-0.0119 (0.018)	-0.0068 (0.018)	-0.0051 (0.018)	-0.0102 (0.018)	-0.0043 (0.018)
Mom's age, childbirth	0.0020 (0.002)	-0.0787** (0.031)	0.0017 (0.002)	-0.0814*** (0.031)	0.0017 (0.002)
Mom's education	0.0032 (0.005)	0.0032 (0.005)	0.0033 (0.005)	0.0028 (0.005)	0.0037 (0.005)
Dad's education	-0.0016 (0.004)	-0.0016 (0.004)	-0.0020 (0.004)	-0.0020 (0.004)	-0.0020 (0.004)
Year 2007	-0.0129 (0.015)	-0.0126 (0.015)	-0.0126 (0.015)	-0.0117 (0.015)	-0.0125 (0.015)
Family size	0.0032 (0.007)	0.0044 (0.007)	0.0045 (0.007)	0.0042 (0.007)	0.0049 (0.007)
Log of family income#	0.0230 (0.021)	0.5701 (0.359)	0.1065 (0.116)	0.5267 (0.358)	0.1183 (0.114)
Mom worked, previous wave	0.0307* (0.016)	0.0443 (0.016)	0.0310* (0.016)	0.0340** (0.016)	0.0397 (0.016)
Dad worked, previous wave	-0.1274** (0.064)	0.0110 (0.064)	0.0129** (0.065)	-0.1210* (0.065)	0.0039 (0.061)
Total supervision from mom, previous wave	-0.0003 (0.001)	0.0016 (0.001)	-0.0000 (0.001)	0.0000 (0.001)	0.0000 (0.001)
Total supervision from dad, previous wave	-0.0010* (0.001)	-0.0037** (0.002)	-0.0018* (0.001)	-0.0018* (0.001)	-0.0018* (0.001)
Total quality supervision from mom, previous wave					
Total quality supervision from dad, previous wave					
Engaged developmental activities from mom, previous wave					
Engaged developmental Activities from dad, previous wave					
Engaged meal activities with mom, previous wave					
Engaged developmental activities with dad, previous wave					
Engaged organized activities with mom, previous wave					
Engaged organized activities with dad, previous wave					
Mom smokes	0.1648*** (0.055)	0.1570*** (0.054)	0.1517*** (0.054)	0.1584*** (0.053)	0.1535*** (0.053)
Dad smokes	-0.1109** (0.048)	-0.1065** (0.049)	-0.1064** (0.049)	-0.1032** (0.048)	-0.1004** (0.048)
BPI, previous wave	0.0037** (0.002)	0.0031 (0.004)	0.0038** (0.002)	0.0033** (0.004)	0.0038** (0.002)
Constant	-0.6949*** (0.251)	-3.1888 (4.031)	-2.3387* (1.375)	-2.3325 (4.003)	-2.2396 (1.387)
Observations	1,378	1,378	1,378	1,378	1,378
R-squared	0.072	0.056	0.071	0.042	0.061
Number of CHILDID68					
Number of MOMID2n					

Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 8: Probability of Health Risk Behaviors on Time Supervision and Child's Gender

	Smoked cigarettes in past month			Drank alcohol regularly in past year			Smoked marijuana in past month		
	OLS	Family FE	Child FE	OLS	Family FE	Child FE	OLS	Family FE	Child FE
Total time									
With mom	-0.0002 (0.001)	0.0034* (0.002)	-0.0001 (0.001)	-0.0010 (0.001)	-0.0002 (0.002)	0.0008 (0.001)	-0.0009 (0.001)	0.0006 (0.002)	-0.0024* (0.001)
With dad	-0.0008 (0.001)	-0.0029 (0.002)	0.0007 (0.001)	-0.0014 (0.001)	0.0002 (0.002)	0.0005 (0.001)	-0.0003 (0.001)	-0.0033* (0.002)	0.0007 (0.001)
Male	-0.0176 (0.044)	0.0206 (0.080)		-0.0188 (0.048)	-0.0922 (0.086)		-0.0028 (0.040)	-0.0897 (0.069)	
Male * Mom	-0.0007 (0.001)	0.0011 (0.002)	0.0004 (0.002)	0.0008 (0.001)	0.0027 (0.002)	-0.0006 (0.003)	0.0012 (0.001)	0.0022 (0.002)	0.0049** (0.002)
Male * Dad	0.0003 (0.001)	-0.0035* (0.002)	-0.0045** (0.002)	0.0002 (0.001)	-0.0019 (0.003)	-0.0020 (0.003)	-0.0014 (0.001)	-0.0007 (0.002)	-0.0056*** (0.002)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Total quality time									
With mom	-0.0003 (0.002)	0.0044 (0.003)	-0.0024 (0.002)	0.0014 (0.002)	0.0026 (0.003)	0.0042 (0.003)	0.0001 (0.001)	0.0026 (0.003)	-0.0022 (0.002)
With dad	-0.0019 (0.002)	-0.0023 (0.004)	0.0015 (0.003)	-0.0026 (0.002)	0.0016 (0.004)	-0.0020 (0.003)	-0.0003 (0.001)	-0.0013 (0.003)	0.0018 (0.003)
Male	-0.0387 (0.033)	-0.0406 (0.068)		0.0598* (0.036)	0.0246 (0.065)		0.0089 (0.030)	-0.0721 (0.058)	
Male * Mom	-0.0018 (0.002)	0.0004 (0.004)	0.0034 (0.003)	-0.0031 (0.003)	-0.0014 (0.004)	-0.0032 (0.004)	-0.0003 (0.002)	0.0010 (0.003)	0.0053* (0.003)
Male * Dad	0.0029 (0.002)	-0.0016 (0.004)	-0.0073** (0.004)	0.0005 (0.003)	-0.0057 (0.005)	-0.0025 (0.005)	-0.0001 (0.002)	0.0011 (0.004)	-0.0110*** (0.004)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Engaged developmental activities									
With mom	0.0004 (0.004)	0.0065 (0.005)	0.0082 (0.006)	0.0009 (0.004)	0.0185* (0.010)	0.0042 (0.007)	0.0049 (0.004)	0.0109 (0.008)	0.0058 (0.004)
With dad	0.0039 (0.005)	-0.0058 (0.006)	0.0058 (0.009)	-0.0076 (0.005)	-0.0290** (0.014)	-0.0077 (0.010)	0.0027 (0.005)	-0.0041 (0.006)	-0.0023 (0.008)
Male	-0.0246 (0.020)	-0.0447 (0.040)		0.0110 (0.022)	-0.0270 (0.039)		0.0119 (0.018)	-0.0336 (0.036)	
Male * Mom	-0.0032 (0.005)	-0.0167 (0.014)	-0.0045 (0.008)	0.0003 (0.006)	-0.0264 (0.017)	-0.0040 (0.014)	-0.0034 (0.006)	-0.0084 (0.015)	-0.0010 (0.007)
Male * Dad	-0.0054 (0.008)	0.0096 (0.009)	-0.0134 (0.011)	0.0038 (0.007)	0.0154 (0.017)	-0.0203 (0.018)	-0.0031 (0.008)	0.0004 (0.009)	-0.0180 (0.011)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Engaged meal activities									
With mom	-0.0047 (0.006)	0.0124 (0.012)	0.0099 (0.010)	0.0061 (0.007)	-0.0023 (0.012)	-0.0118 (0.013)	-0.0068 (0.004)	-0.0035 (0.010)	0.0039 (0.010)
With dad	0.0013 (0.006)	-0.0209* (0.012)	-0.0129 (0.010)	-0.0069 (0.007)	-0.0071 (0.012)	0.0105 (0.012)	0.0012 (0.004)	-0.0033 (0.010)	-0.0065 (0.008)
Male	-0.0228 (0.029)	-0.0726 (0.055)		0.0200 (0.033)	-0.0955* (0.056)		-0.0072 (0.025)	-0.0927** (0.047)	
Male * Mom	-0.0002 (0.007)	0.0111 (0.013)	0.0002 (0.016)	-0.0065 (0.008)	0.0158 (0.013)	0.0175 (0.022)	0.0084 (0.007)	0.0080 (0.010)	-0.0026 (0.016)
Male * Dad	-0.0038 (0.008)	-0.0060 (0.013)	-0.0095 (0.016)	0.0063 (0.009)	-0.0053 (0.016)	-0.0074 (0.023)	-0.0076 (0.007)	0.0046 (0.012)	-0.0020 (0.013)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023
Engaged organized activities									
With mom	-0.0035 (0.005)	-0.0016 (0.013)	-0.0077 (0.009)	-0.0107* (0.006)	-0.0034 (0.010)	0.0041 (0.010)	-0.0064** (0.003)	0.0057 (0.009)	-0.0128 (0.008)
With dad	-0.0015 (0.006)	-0.0119 (0.012)	-0.0010 (0.012)	0.0077 (0.008)	0.0085 (0.011)	-0.0108 (0.011)	0.0009 (0.004)	-0.0082 (0.013)	0.0143* (0.008)
Male	-0.0536*** (0.018)	-0.0626 (0.038)		0.0116 (0.021)	-0.0541 (0.040)		-0.0041 (0.016)	-0.0778** (0.032)	
Male * Mom	0.0029 (0.008)	0.0235* (0.013)	0.0049 (0.012)	0.0115 (0.009)	0.0351*** (0.012)	0.0097 (0.015)	0.0072 (0.006)	-0.0006 (0.017)	0.0235** (0.010)
Male * Dad	0.0120 (0.009)	-0.0121 (0.014)	0.0090 (0.017)	-0.0125 (0.010)	-0.0363*** (0.014)	0.0033 (0.016)	-0.0031 (0.006)	0.0306* (0.018)	-0.0208** (0.010)
Observations	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378	1,378
Number of families		1,062			1,062			1,062	
Number of teenagers			1,023			1,023			1,023

Time supervision measured in hours per week, previous wave. Controls include child's age, child's age squared at the time when health risk behaviours were observed; male, indicator for having at least one older sibling, black race, family size, mother's age at childbirth, mother's highest educational attainment, father's educational attainment, wave indicator, deflated family income averaged from child's birth until period of observation, mother's work status, father's work status, and child's BPI score at previous wave. Similar coefficients were obtained when controlling for parental work at the extensive margin (i.e., average weekly work hours at previous wave, weekly work hours averaged from child's birth until previous wave). Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 1: Probability of Cigarette Smoking (without BPI)

Smoking	(1)	(2)	(3)	(4)	(5)
Age	0.0389 (0.026)	0.0326 (0.026)	0.0352 (0.026)	0.0366 (0.025)	0.0322 (0.026)
Age squared	-0.0004 (0.001)	-0.0003 (0.001)	-0.0003 (0.001)	-0.0004 (0.001)	-0.0002 (0.001)
Male	-0.0272* (0.016)	-0.0267* (0.016)	-0.0284* (0.016)	-0.0280* (0.016)	-0.0306* (0.016)
With older sibling	0.0074 (0.017)	0.0073 (0.017)	0.0075 (0.017)	0.0064 (0.017)	0.0087 (0.018)
Black	-0.0254 (0.022)	-0.0235 (0.022)	-0.0193 (0.022)	-0.0243 (0.022)	-0.0188 (0.022)
Mom's age, childbirth	-0.0003 (0.002)	-0.0004 (0.002)	-0.0006 (0.002)	-0.0006 (0.002)	-0.0006 (0.002)
Mom's education	-0.0004 (0.005)	-0.0002 (0.005)	-0.0006 (0.005)	-0.0005 (0.005)	-0.0009 (0.005)
Dad's education	-0.0067 (0.005)	-0.0068 (0.005)	-0.0072 (0.005)	-0.0070 (0.005)	-0.0074 (0.005)
Year 2007	-0.0374** (0.017)	-0.0441** (0.018)	-0.0349** (0.017)	-0.0356** (0.017)	-0.0323** (0.017)
Family size	-0.0072 (0.009)	-0.0063 (0.009)	-0.0058 (0.009)	-0.0064 (0.009)	-0.0068 (0.009)
Log of family income#	-0.0043 (0.020)	-0.0016 (0.019)	-0.0009 (0.019)	0.0011 (0.019)	0.0022 (0.020)
Mom worked, previous wave	-0.0063 (0.021)	-0.0388 (0.024)	-0.0362 (0.021)	-0.0418 (0.021)	-0.0036 (0.021)
Dad worked, previous wave	-0.1297* (0.070)	-0.0491 (0.061)	-0.0584 (0.059)	0.0064 (0.068)	0.0435 (0.073)
Total supervision from mom, previous wave	-0.0006 (0.001)	0.0045** (0.002)	0.0005 (0.001)	-0.0001 (0.001)	-0.0001 (0.001)
Total supervision from dad, previous wave	-0.0006 (0.001)	-0.0045** (0.002)	-0.0012 (0.001)	-0.0002 (0.001)	-0.0002 (0.001)
Total quality supervision from mom, previous wave	-0.0014 (0.001)	0.0045* (0.002)	-0.0003 (0.002)	-0.0003 (0.002)	-0.0003 (0.002)
Total quality supervision from dad, previous wave	-0.0003 (0.001)	-0.0033 (0.004)	-0.0025 (0.002)	-0.0025 (0.002)	-0.0025 (0.002)
Engaged developmental activities from mom, previous wave					
Engaged developmental Activities from dad, previous wave					
Engaged meal activities with mom, previous wave					
Engaged developmental activities with dad, previous wave					
Engaged organized activities with mom, previous wave					
Engaged organized activities with dad, previous wave					
Mom smokes	0.0628 (0.112)	0.0608 (0.112)	0.0534 (0.113)	0.0574 (0.111)	0.0474 (0.110)
Dad smokes	0.0197 (0.109)	-0.1136 (0.109)	-0.1216 (0.109)	-0.0900 (0.109)	-0.1173 (0.113)
Constant	-5.9524 (4.446)	-4.7794 (4.474)	-4.7794 (4.474)	-4.4268 (4.450)	-4.9782 (4.491)
Observations	1,378	1,378	1,378	1,378	1,378
R-squared	0.090	0.058	0.068	0.071	0.063
Number of CHILDID68					
Number of MOMID-n					

Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 2: Probability of Regular Alcohol Drinking (without BPI)

Drinking	(1)	(2)	(3)	(4)	(5)
Age	0.0429 (0.029)	0.0371 (0.029)	0.0359 (0.029)	0.0374 (0.029)	0.0376 (0.029)
Age squared	-0.0000 (0.001)	0.0034** (0.002)	0.0035** (0.002)	0.0035** (0.002)	0.0035** (0.002)
Male	0.0173 (0.018)	0.0191 (0.018)	0.0164 (0.019)	0.0149 (0.018)	0.0139 (0.019)
With older sibling	-0.0018 (0.020)	-0.0129 (0.039)	-0.0020 (0.020)	-0.0133 (0.039)	-0.0001 (0.020)
Black	-0.0553** (0.024)	-0.0516** (0.024)	-0.0477** (0.024)	-0.0463** (0.024)	-0.0437** (0.024)
Mom's age, childbirth	0.0046** (0.002)	0.0043** (0.002)	0.0040* (0.002)	0.0040* (0.002)	0.0041* (0.002)
Mom's education	0.0039 (0.006)	0.0041 (0.006)	0.0042 (0.006)	0.0039 (0.006)	0.0045 (0.006)
Dad's education	0.0012 (0.005)	0.0009 (0.005)	0.0002 (0.005)	0.0005 (0.005)	0.0005 (0.005)
Year 2007	-0.2569*** (0.021)	-0.2621*** (0.022)	-0.2540*** (0.021)	-0.2541*** (0.021)	-0.2557*** (0.021)
Family size	0.0035 (0.009)	0.0048 (0.009)	0.0050 (0.009)	0.0055 (0.009)	0.0068 (0.009)
Log of family income#	0.0070 (0.025)	0.0116 (0.025)	0.0130 (0.025)	0.0134 (0.025)	0.0108 (0.025)
Mom worked, previous wave	0.0239 (0.022)	-0.0614 (0.062)	0.0244 (0.022)	0.0258 (0.061)	0.0247 (0.061)
Dad worked, previous wave	-0.0161 (0.058)	0.0005 (0.038)	-0.0083 (0.038)	0.0047 (0.061)	-0.0078 (0.058)
Total supervision from mom, previous wave	-0.0006 (0.001)	0.0006 (0.001)	0.0006 (0.001)	0.0006 (0.001)	0.0006 (0.001)
Total supervision from dad, previous wave	-0.0013* (0.001)	-0.0009 (0.002)	-0.0009 (0.002)	-0.0009 (0.002)	-0.0009 (0.002)
Total quality supervision from mom, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Total quality supervision from dad, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Engaged developmental activities from mom, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Engaged developmental activities from dad, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Engaged meal activities with mom, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Engaged developmental activities with dad, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Engaged developmental activities with mom, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Engaged organized activities with dad, previous wave	0.0001 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)	0.0002 (0.001)
Mom drinks	0.0473 (0.066)	-0.0385 (0.060)	0.0459 (0.066)	0.0492 (0.066)	0.0484 (0.066)
Dad drinks	0.0019 (0.066)	0.0362 (0.081)	0.0058 (0.066)	0.0341 (0.071)	0.0057 (0.066)
Constant	2.4214 (5.311)	2.5758 (5.040)	2.7015 (5.310)	2.3453 (5.076)	2.1668 (5.121)
Observations	1,378	1,378	1,378	1,378	1,378
R-squared	0.170	0.123	0.166	0.165	0.166
Number of CHILDID68	1,062	1,062	1,062	1,062	1,062
Number of MOMID68	1,062	1,062	1,062	1,062	1,062

Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.

Table 3: Probability of Marijuana Smoking over the Past Month (without BPI)

	(1)	(2)	(3)	(4)	(5)
Marijuana	OLS	Child FE	Family FE	Child FE	Family FE
Age	0.0586*** (0.022)	0.1167** (0.054)	-0.0433 (0.053)	0.0573** (0.022)	-0.0402 (0.052)
Age squared	-0.0013* (0.001)	-0.0018* (0.001)	-0.0006 (0.001)	-0.0017 (0.001)	-0.0007 (0.001)
Male	0.0084 (0.015)	-0.0255 (0.028)	-0.0414 (0.029)	-0.0002* (0.014)	-0.0012* (0.001)
With older sibling	-0.0119 (0.017)	0.0301 (0.035)	-0.0414 (0.035)	0.0065 (0.014)	-0.0410 (0.028)
Black	-0.0131 (0.018)	-0.0080 (0.018)	-0.0089 (0.018)	-0.0114 (0.018)	-0.0052 (0.017)
Mom's age, childbirth	0.0020 (0.002)	0.0017 (0.002)	-0.0843*** (0.031)	0.0015 (0.002)	-0.0809*** (0.031)
Mom's education	0.0034 (0.005)	0.0035 (0.005)	0.0029 (0.005)	0.0035 (0.005)	0.0039 (0.005)
Dad's education	-0.0019 (0.004)	-0.0023 (0.004)	-0.0023 (0.004)	-0.0021 (0.004)	-0.0023 (0.004)
Year 2007	-0.0110 (0.015)	-0.0113 (0.016)	-0.0065 (0.015)	-0.0097 (0.015)	-0.0104 (0.015)
Family size	0.0045 (0.008)	0.0067 (0.007)	0.0059 (0.007)	0.0055 (0.007)	0.0062 (0.007)
Log of family income#	0.0207 (0.021)	0.1079 (0.116)	0.5599 (0.363)	0.1201 (0.115)	0.5411 (0.367)
Mom worked, previous wave	0.0299* (0.016)	0.0445 (0.047)	0.0335** (0.016)	0.0260 (0.021)	0.1194 (0.114)
Dad worked, previous wave	-0.1325** (0.064)	0.0022 (0.059)	-0.1281** (0.065)	0.0388 (0.049)	0.0402 (0.048)
Total supervision from mom, previous wave	-0.0004 (0.001)	-0.0000 (0.001)	-0.0033 (0.056)	-0.0335 (0.050)	-0.0064 (0.056)
Total supervision from dad, previous wave	-0.0010* (0.001)	-0.0018* (0.001)	-0.0018* (0.001)	-0.1294** (0.064)	0.0041 (0.053)
Total quality supervision from mom, previous wave					
Total quality supervision from dad, previous wave					
Engaged developmental activities from mom, previous wave					
Engaged developmental activities from dad, previous wave					
Engaged meal activities with mom, previous wave					
Engaged developmental activities with dad, previous wave					
Engaged organizational activities with mom, previous wave					
Engaged organizational activities with dad, previous wave					
Mom smokes	0.1583*** (0.054)	0.0376 (0.036)	0.1504*** (0.054)	0.0000 (0.036)	0.0027 (0.036)
Dad smokes	-0.1051** (0.049)	0.0126 (0.131)	-0.0928* (0.049)	0.1516*** (0.053)	-0.0003 (0.053)
Constant	-0.6711*** (0.252)	-2.3170* (1.375)	-2.7837 (4.059)	-0.0951* (0.134)	-0.0027 (0.049)
Observations	1,378	1,378	1,378	-2.6998 (1.390)	-2.6992 (1.388)
R-squared	0.066	0.069	0.064	-0.7148*** (0.251)	-0.7129*** (0.251)
Number of CHILDID68					
Number of MONTH.d					
	1,062	1,023	1,062	1,378	1,378
				0.063	0.059
				1.023	1.023
					1.062

Robust standard errors in parentheses. Standard errors are corrected for intra-cluster correlations at the household level. *** significant at 1% level, ** significant at 5% level, * significant at 10% level.