ABSTRACT

HENDRIX, JOSHUA ADRIAN. Nonstandard Work, Family Structure, and Negative Child Outcomes during Early and Late Adolescence. (Under the direction of Toby Parcel.)

In this paper, I evaluate the importance of family structure and second-parent availability in the relationship between parental work schedules and negative behavioral outcomes among a national sample of ten- to seventeen-year-old children. Research on the relationship between nonstandard parental work arrangements and socially undesirable behaviors among their children has produced mixed results. I propose that this is because researchers have not accounted adequately for family structure or contexts in which parents deliberately use nonstandard schedules to enhance family life. To assess this possibility, I provide analyses of the effects of nonstandard work by family structure for three groups: two-parent families; dual-earner families; and single-mother families. In doing so, I pay specific attention to household work schedule arrangements, whereas past research investigates the effects of maternal and paternal work schedules independently of one another. Guided by social capital theory, I propose and assess the possibility that nontraditional work schedules negatively influence the development of intergenerational closure in some family types, and in doing so lead youths to unconventional peer relationships, disobedient and delinquent behaviors, and drug and alcohol use. Results demonstrate that the relationship between nonstandard work and child behavioral outcomes is contingent upon family structure and the availability of a second parent as determined by the timing of their work schedules. Children in two-parent and/or dual-earner households engage in less substance-use when parents utilize non-overlapping schedule arrangements in comparison to children from households in which both parents work a standard-daytime shift. Alternatively, when both parents work nonstandard

schedules in two-parent households, children report weaker levels of intergenerational closure with their parents, which provides evidence of an indirect relationship between parental work schedules and negative child behavioral outcomes. Likewise, children from single-mother households whose mothers work evening or night shifts have weaker levels of intergenerational closure, which also suggests that nonstandard work arrangements can influence negative behavioral outcomes indirectly through intergenerational closure.

Nonstandard Work, Family Structure, and Negative Child Outcomes during Early and Late Adolescence

by
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BIOGRAPHY

Josh Hendrix was born in 1981 in Atlanta, Georgia. He graduated from North Carolina State in 2005 with a bachelors degree in Criminology. Josh has a love for teaching sociology and a passion for research. He specializes in the sociology of deviance and social control, work-family conflict, and the integration of family sociology and criminology.

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Introduction

The trend towards a twenty-four/seven American economy has provoked a considerable amount of research investigating the effects of nonstandard work schedules on individuals and families. This area of interest is a part of the larger intellectual conversation concerning the structural mismatch between work and family and its implications for children (Piotrkowski, 1979; Zaslow, Jekeliek, and Gallagher, 2005). Specifically, the work-family balance literature builds from the notion that the wellbeing of families and family members is cultivated by close, positive relationships and that parental work arrangements can have an impact on the cultivation of such relationships (Nock and Kingston, 1988; Presser, 2003). Nonstandard work arrangements, in particular, have been argued to influence family processes in ways that result in negative outcomes for children raised by parents with such schedules (Han and Miller, 2009; Davis et al. 2006). This is because nonstandard work schedules – e.g., evening and night hours, weekend hours, and shift work – pull parents away from the home during times traditionally reserved for "family time." In this respect, nonstandard work schedules may reduce the overall amount of time and energy that parents have to promote positive relationships with children (Presser, 2003).

The volume of the nonstandard work-family literature is likely a function of the fact that occupations requiring nonstandard shifts are becoming increasingly common (Hecker, 2001). According to the Current Population Survey (1997) at least one spouse in 57.3% of dual-earner couples with a child under the age of 18 works a nonstandard schedule. Indeed, approximately one-fifth of employed Americans work the majority of their hours outside the standard eight a.m.-to-four p.m. work-day, and approximately one in three employed Americans work at least one weekend day per week (Presser, 2003).

Research consistently shows that nonstandard work has a negative impact on the individual working this schedule, with those who work nonstandard work hours reporting higher levels of depression, more physical ailments, and more conflicts between spouses and significant others (Bohle and Tilley, 1998; Bourdouxhe et al., 1999; Martens et al., 1999; Jansen et al., 2003; Wight, Raley, and Bianchi, 2008; Joshi and Bogen, 2007; Perry-Jenkins et al., 2007; Fenwick and Tausig, 2001; Grosswald, 2004; White and Keith, 1990). Research on the children of parents who work nonstandard work schedules, however, reports inconsistent findings, with some research reporting that nonstandard work has damaging consequences for the emotional and behavioral health of children (White and Keith, 1990; Joshi and Bogen, 2007; Bogen and Joshi, 2002; Dosa et al., 2002; Han, 2005; Heymann, 2000A; Strazdins et al., 2004; Strazdins et al., 2006), others reporting that they are beneficial to children (Brayfield, 1995; Presser, 1988; Riley and Glass, 2002; Garey, 1999; Hattery, 2001; Presser, 2000), and yet others reporting no significant behavioral and emotional differences between children of parents who work nonstandard schedules and those whose parents work standard schedules (Phillips, 2002; Dunifon, Kalil, and Bajracharya, 2005).

A possible explanation for these discrepant findings is that these studies do not consider whether or not there is at least one parent available to the child during the nonstandard work hours of the parent who may be absent during family time. That is, many studies have not considered the possibility that single parents who work nonstandard work schedules are very different from coupled parents who may have nonstandard schedules that complement one another or from couples where one parents works a nonstandard schedule but the other does not. The present study addresses this issue by paying specific attention to the role of second-parent availability as determined by the timing of both parents' work schedules and the presence of two parents in the home. Specifically, I analyze two-parent and single-parent households separately in an attempt to determine whether there are some contexts in which nonstandard shifts are beneficial–i.e., having a parent present who does not work nonstandard shifts –and others that are potentially hazardous for children– i.e., there is no second parent present when the nonstandard worker is away from home. Additionally, I provide an analysis of dual-earner families, a subsample of all two-parent households that excludes non-earner mothers or fathers, who presumably are available to children during their spouse's working hours. For two-parent/dual-earner families, I investigate household work schedule arrangements, in an attempt to assess whether the household arrangement is such that one of the parents is available to children during the nonstandard worker's absence. By considering family arrangements in this broad manner – consideration of single parent families and of the joint arrangement of parents in coupled families – my research moves beyond the current literature that simply investigates the independent effects of maternal and paternal schedules without consideration of how parental work schedules may operate collaboratively to impact family processes and negative behavioral outcomes among the adolescents of parents' various combinations of nonstandard work schedules.

I assess the impact of parental work schedules on four dimensions of child wellbeing: weak levels of intergenerational closure, associations with unconventional peers, disobedience and delinquency, and alcohol and substance use (i.e. drug and alcohol use).

Specifically, I investigate to what extent parental work schedule arrangements influence each of these outcomes; additionally, I assess whether intergenerational closure is the mechanism through which parental work schedules have an impact on unconventional associations, disobedience and delinquency, and substance use.

To assess this model, I use data from the National Longitudinal Study of Youth 1979 (NLSY79). The NLSY79 is a nationally representative, longitudinal panel design that includes information on parental work schedules, relationships between parents and their children, associations with unconventional peers, disobedient and delinquent behaviors, and substance use during early and late adolescence. I study both early (ten to fourteen years old) and late (fifteen to seventeen years old) adolescents. Researchers have understudied late adolescents in the parental work hours literature. My inclusion of children in this stage in the life-course is particularly warranted because late adolescence is the time period when delinquent behaviors peak (Blumstein and Cohen, 1987; Farrington, 1986). Although they may have unique developmental needs in comparison to younger children, older children too require time and attention in close, stable, and supportive environments (Lerner, 1994; Youniss and Smollar, 1985; Galambos et al., 1995; Crouter and Head, 2002). In the relationship between parental work schedules and adolescent behavioral outcomes, late adolescents may be at an increased danger for negative behaviors specifically because this lifestage is already characterized by greater independence and more opportunity to engage in nonconforming behaviors (Larson and Richards, 1991).

Theoretical Grounding

To understand the mechanisms linking nonstandard work schedules to negative behavioral outcomes in early and late adolescence, I draw from Coleman's (1988) seminal work on social capital, which offers that social relationships are resources that lead to beneficial outcomes for individuals. Social capital has three primary forms: (1) reciprocal obligations, expectations, and trust; (2) information that provides the basis for rational action; and (3) norms and effective sanctions that govern behavior and encourage action that is in the interest of the family (Coleman, 1988; 1990). Parents and children achieve intergenerational closure when they preserve reciprocal relationships based on a foundation of trust and mutual obligation (Coleman, 1988).

A social capital perspective linking nonstandard work schedules to negative outcomes for adolescents suggests that such schedules may undermine parents' abilities to establish intergenerational closure with their children. Theoretical discussions of social capital posit that parents invest time, energy, and material resources into their children to enhance youths' future chances of success (Coleman, 1988). In exchange, children are to abstain from troublesome behavior, succeed in school and other social institutions, gain human capital, achieve good jobs and accumulate material wealth (Becker, 1991).

The intergenerational closure component of social capital, which is measured by close relationships between parents and children – has proven to be a powerful predictor of positive outcomes (for a review on childhood outcomes see Parcel, Dufur, and Zito, 2010), including academic success (Furstenberg and Hughes, 1995), stable economic status in adulthood (Adedokun and Balschweid, 2008), positive self-esteem (Adedokun and

Balschweid, 2008), and avoidance of delinquency (De Coster, Heimer, and Wittrock, 2006; Furstenberg and Hughes, 1995; Wright, Cullen, and Miller, 2001). This theoretical framework is highly relevant for investigations of delinquency and risky behavior among adolescents. Specifically, intergenerational closure is akin to measures of emotional attachment that pervade the delinquency literature (Hirschi, 1969; Rankin and Kern, 1994; Kerns et al., 2001; Schroeder, Giordana, and Cernkovich, 2010). Criminologists have long suggested and found that close relationships between parents and children serve to control delinquent behaviors. Hirschi's (1969) social control theory posits that children who are close to their parents do not want to let them down by engaging in delinquency, which is akin to Coleman's discussion of reciprocal expectations and trust that reside in relationships. Youths who are close to presumably conventional parents learn that delinquency and crime is unacceptable and thereby refrain from such behaviors, which is consistent with Coleman's (1988; 1990) discussion of learning norms and sanctions that govern behaviors. Additionally, children who have familial social capital are less likely to seek out alternative types of relationships and thus are less likely to become embedded in nonconventional peer groups that promote delinquent and drug-using behavior. Alternatively, children who lack familial social capital may seek out other types of relationships and attain social capital in the criminal/delinquent world (McCarthy and Hagan, 2001).

Along with parent-closeness, other research indicates the importance of parental supervision and monitoring (Fischer, 1983; Hirschi, 1969; Jensen, 1972; Patterson and Stouthamer-Loeber, 1984; Steinberg et al., 1994; Mulhall, Stone, and Stone, 1996; Burlew et al., 2009; McCord, 1979; West and Farrington, 1977; Wilson, 1980), and parental involvement (Barnes and Farrell, 1992; Simons, Johnson, and Conger, 1994; Graves et al., 2005) for parental control of socially undesirable behaviors in their adolescents. In my empirical work, I measure intergenerational closure in three forms: parent-child closeness, parental supervision, and parental involvement. Specifically, they are strategies parents use to build trust, to communicate with children, and to establish norms and sanctions in order to guide their behavior. Given that nonstandard work has the potential to deteriorate parents' abilities to be fully involved in the everyday lives of their children (Nock and Kingston, 1988; Mott et al., 1965; and Wight et al., 2008) and thereby establish close and stable relationships (Han and Waldfogel, 2007; Strazdins et al., 2006; Han and Miller, 2009; Strazdins et al., 2006), a perspective that highlights the role of social capital is highly useful for the current investigation.

Review of the Literature

Nonstandard Work and Negative Implications for Parent-Child Interaction

Nonstandard work has the potential to negatively affect the quantity and quality of parent-child interactions. Specifically, nonstandard work may have a direct impact on parent-child interactions in a way reminiscent of what Coleman would refer to as a "deficiency in social capital" (Coleman, 1988:111). In particular, nonstandard shifts pull parents out of the home during times traditionally reserved for "family time," including evenings and weekends when families eat together, spend leisure time together, and when parents help children with homework (Akerstedt et al., 2002; Bildt and Michelsen, 2002; Costa, 1996; Fagan, 2001; Fenwick and Tausig, 2001; Heymann, 2000b; Heymann and Earle, 2001; Kinnunen and Mauno, 1998; Poissonnet and Veron, 2000; Davis et al., 2006; Presser, 1989; 2000; 2003;

Hertz and Charlton, 1989; Carpenter and Cazamian, 1977; U.S. Congress, 1991). Moreover, these individuals may find it difficult to participate fully in their children's lives, because the timing of nonstandard work schedules often conflict with important childhood events (PTA meetings, sporting events, and school ceremonies) (Staines and Pleck, 1984; Presser, 2003). Clearly, if parents are physically absent during times important for establishing and maintaining intergenerational closure with children, they cannot effectively develop the intergenerational closure needed to guide behavior in a socially desirable manner. If parents do not develop social capital – in the form of ties to their children and ties to important community institutions – and parents and children do not share a mutual sense of obligation, trust, and shared norms, children may be at risk for a number of negative outcomes.

Positive Effects of Nonstandard Work on Child Outcomes

Although a social capital perspective suggests that nonstandard work may impact family-level social capital negatively and thereby result in poor outcomes for children, some scholars suggest there may be particular advantages afforded by nonstandard work arrangements (Wight et al., 2008; La Valle et al., 2002; Garey, 1999). These advantages, however, may accrue only in some situations. For instance, some parents prefer to share the care of their children, and working nonstandard shifts may permit them to do so in a way that maximizes their financial and emotional resources (Riley and Glass, 2002; Garey, 1999). About one-third of married mothers working nonstandard hours deliberately choose off-hours working times to facilitate child care (Presser and Cox, 1997). In these scenarios, mothers are able to spend time with their children during early parts of the day (Garey, 1999). Also, when parents utilize non-overlapping arrangements (for example, one parent works the standard dayshift while the other parent works evenings or nights), they may be able to create an "orbit-effect," whereby at least one parent is always physically and emotionally available to their children (Wight et al., 2008; La Valle et al., 2002).

The orbit-effect strategy may be especially helpful when parent work arrangements cover the "high-risk" hours after school (from three to eight p.m.), during which children are at a heightened risk for delinquency and sexual promiscuity (Heymann, 2000a; Fox, 1996; Synder and Sickmund, 1999; Cohen et al., 2002). Parental supervision during these hours decreases the risk of delinquency among youth (Richardson et al., 1993). Presser (1988; 1994) finds that at least 25% of dual-earner couples deliberately synchronize their work arrangements into non-overlapping time slots. But, for some, the orbiting potential will not totally justify nonstandard work, because parents must tradeoff on childcare shifts and engage in more solo parenting, have less time with all family members together, and face more parenting dilemmas as they are forced to make difficult decisions alone (Presser, 1988; Wight et al., 2008; Daly, 2004). Single mothers may use a variation of the dual-earner split-shift strategy by juxtaposing nonstandard shifts with the availability of relatives who care for children while they are at work (Garey, 1999; Hattery, 2001).

There is also evidence that nonstandard work may strengthen parent-child closeness as a function of parents spending more one-one-one time with children during the day (Garey, 1999; Hattery, 2001; Wight et al., 2008). Davis et al. (2006) find that adolescent children report higher levels of intimacy with their mothers when their mothers work nonstandard shifts in comparison to children of mothers working at standard times. They argue that shift-working mothers may work hard to reimburse their children for their absence and find alternative ways to foster positive and supportive relationships with them. La Valle et al. (2002) describe efforts parents make to protect their children from disruptions caused by nonstandard arrangements, including reserving “special” times for children by sacrificing leisure, sleep, and time with their partner. Likewise, there is some evidence that nonstandard work by mothers increases father-involvement and leads to a more equitable division of childcare (Averett, Gennetian, and Peters, 2000; Brayfield, 1995; Glass, 1998; Presser, 1988; 2000; 2003; Riley and Glass, 2002; Casper and O’Connell, 1998). These findings align with the larger literature that indicates that fathers regulate the extent to which they monitor their children in part as a function of the mothers’ availability (Crouter and McHale, 1993). Nonstandard work can also be considered advantageous when considering the relationship between family income and child development (Duncan and Brooks-Gunn, 1997; McCulloch and Joshi, 2001). Namely, if the parent’s employment brings additional income into the house, working a nonstandard schedule could have positive effects on child outcomes.

Nonstandard Work and Negative Child Behaviors

A number of studies link nonstandard work to negative cognitive, emotional, and behavioral outcomes for young children (White and Keith, 1990; Joshi and Bogen, 2007; Bogen and Joshi, 2002; Dosa et al., 2002; Han, 2005; Han, 2006; Heymann and Earle, 2001; Strazdins et al., 2004; 2006). For example, Han (2008) investigates a sample of young children (ages four- to ten) and finds an increased risk for child behavioral problems when mothers work nonstandard shifts, especially for those in single-mother or low-income families whose mothers work in cashier or service occupations fulltime. Similarly, Strazdins et al. (2004; 2006) report a strong positive association between parents working non-day shifts and property offenses for four- to eleven-year-olds and physical and conduct aggression for two- to three-year-olds. Despite this, much remains to be known about how older children are affected by their parents' nonstandard work schedules.

Research on adolescent behavioral responses to parental work schedules is sparse to date. Davis et al. (2006) reports that adolescents perceive greater relationship intimacy when their mothers work nonstandard schedules, although paternal nonstandard schedules decrease the amount of information fathers know about their teenagers' daily activities. Han and Miller (2009) find that both maternal and paternal nonstandard work schedules place thirteen- and fourteen-year olds at risk of depression. The effect of maternal nonstandard shifts operates primarily through a negative impact on the home environment, though the authors also report that maternal irregular shifts increase mothers' knowledge of their children's whereabouts and in this way reduce depression among their adolescents.

In an examination of nonstandard parental work schedules and risky and delinquent outcomes for early adolescents, Han and Waldfogel (2007) report that parental work schedules do not predict children's substance use in two-parent families, although children from two-parent families are more likely to have participated in criminal behaviors if their mothers work evenings. Additionally, the authors report that children of single mothers who work rotating shifts are more likely to have engaged in disobedient behavior, criminal behavior, and to have had school-related trouble. Interestingly, the authors report that nonstandard schedules improve parental monitoring, although they reduce closeness between parents and children. Han, Miller, and Waldfogel (2010) report that the number of years mothers work night shifts increases the chances of delinquency for boys in low-income samples, and this relationship is mediated by less mother-child time together, lower degrees of maternal closeness, and lower quality home environments. Alternatively, the authors also find that parents who work nonstandard schedules other than evenings or nights have greater knowledge of their children's whereabouts, which is attributed to greater control over work schedules.

In the present study, I investigate the relationship between the timing of parental work schedules, intergenerational closure, and child behavioral outcomes. Past research in the sociology of family reports that nonstandard schedules weaken the quality of parent-child relationships (Han and Miller, 2009; Davis et al., 2006). Weak intergenerational closure between parents and children, in turn, increase the chances that youths engage in risky behaviors, often by increasing their contact with peers who engage in risky behaviors (Sutherland and Cressey, 1978; Shaw and McKay, 1931; Erickson, Crosnoe, and Dornbusch, 2000). Also, parental knowledge and involvement are strong negative predictors of child delinquency (de Kemp et al., 2006) and adolescent substance use (Steinburg et al., 1994; Simons-Morton et al., 2001; Tyas and Pederson, 1998; DiClemente et al., 2001; for a review see Hawkins, Catalano, and Miller, 1992). Thus, to the extent that nonstandard work can influence a breakdown in parental controls, children may be at risk for a variety of problematic behaviors that include associations with unconventional peers, disobedience and delinquency, and substance use.

Family Structure and Second-Parent Availability

The mixed findings across studies concerning the effects of nonstandard work on child outcomes may be explained partially by an insufficient consideration of how family context influences the costs and benefits associated with various work arrangements. In two-parent families, parents may intentionally use nonstandard schedules for "tag-team" parenting, leading to stronger levels of supervision and individual attention (Deutsch, 1999; Mills and That, 2010). Single mothers may also choose nonstandard schedules as a way to promote more stable child care arrangements, because informal care may be more readily available at night and in the evenings than during the daytime (Presser and Cox, 1997). However, much of the literature indicates that the advantages of nonstandard work are reserved predominantly for two-parent families. Specifically, single mothers do not necessarily have a second parent available for childcare assistance. In these families, mothers must often orchestrate complicated patchworks of precarious childcare arrangements (Henly and Lambert, 2005), leave their children alone or in sibling-care (Dodson and Dickert, 2004), or bring their children to work (Dodson and Bravo, 2005). Likewise, the advantages of nonstandard work may be most relevant for individuals with higher incomes, because higher paid jobs are likely to allow for greater schedule control and flexibility (Garey, 1999; Presser, 2003). Presser (2003) finds that almost 50% of low educated single mothers say they work nonstandard schedules because they cannot get another job, because employers mandate it, or because it is the nature of the job. Thus, nonstandard work is likely to have differing consequences for children depending on family structure.

Hypotheses

In this paper, I assess child wellbeing in terms of intergenerational closure, attachment to unconventional peers, disobedience and delinquency, and substance use. Overall, theory and empirical research suggest that associations between parental work schedules and child behavioral outcomes can be positive or negative depending on family structure and work arrangements between couples (Barnett and Baruch, 1987; Coverman and Sheley, 1986; Davis and Sanik, 1991; Hertz and Charlton, 1989; Nock and Kinston, 1988; Pleck and Staines, 1985). Based on these observations, I posit three hypotheses:

Hypothesis 1: *Nonstandard work arrangements have positive effects for child wellbeing when parents arrange their work schedules in non-overlapping fashion.*

Hypothesis 2: *Nonstandard work arrangements have negative effects on child wellbeing in single-mother households.*

Hypothesis 3: *Intergenerational closure plays a mediating role in the relationship between nonstandard work schedules and negative child outcomes.*

Data

The data for this research comes from the 2004 panel of the National Longitudinal Study of Youth 1979 (NLSY79), the NLSY Child Self-Administered Supplement (2002 and 2004 panels) and the NLSY Young Adult Self-Report Supplement (2002 and 2004 panels). The NLSY79 is a longitudinal study funded by the Bureau of Labor Statistics that has followed a group of adolescents and young adults since 1979, using a stratified and clustered probability sample and an over-sample of minority youth. The National Opinion Research Center (NORC) created clusters by dividing the entire U.S. into Primary Sampling Units

(PSUs) and then randomly selected PSUs for inclusion in the study. In 1979, the NLSY began tracking a nationally representative sample of approximately 12,000 individuals from ages fourteen to twenty-one, establishing annual interviews concerning occupational, educational, marital and parenting experiences. The NLSY Child and Young Adult supplements provide detailed assessments of the children born to the original NLSY women, including self-administered data collected from children age ten and older since 1986. These supplements are administered to the children biennially and provide important information concerning behavioral outcomes and parent-child relationships (review in Baker and Mott, 1989).

Sample

I include a wide-age range of children spanning from early adolescence (ten to fourteen year-olds) to late adolescence (fifteen to seventeen year-olds). The NLSY collects information from ten to seventeen year olds in two different locations. The first source is the 2004 panel of the Child Self Administered Supplement, a sample of children who were ten to fourteen years old in 2004. The second source is the 2004 panel of the Young Adult Self Report Supplement, which covers children who were ages fifteen to seventeen in 2004. As of 2004, there were a total of 11,495 children born to the mothers of the original NLSY79 sample. Because I was interested in adolescents in 2004, I eliminated 7,711 children not born between the years of 1987 and 1994 (N=3,784). Additionally, I removed 26 children who were born under 3 lbs (48 birth ounces), based on literature demonstrating children with low birth weights to be especially vulnerable to physical, emotional, and intellectual problems, resulting in an N of 3,758 (McGauhey, Starfield, and Ensminger, 1991; Hack et al., 1991).

I include in the sample those respondents who had sufficient data on the dependent variables. One method for handling missing data is to listwise delete on the dependent variable(s). However, this approach can result in losing a large number of cases, even if the respondent answered *most* of the items that make up the index. Thus, I take the mean score for each respondent for the entire set of items in each index. With this method, each respondent receives a score for each dependent variable that is reliant on the total number of items they answered, and thus their score is not affected by individual items that were unanswered. In some cases, respondents had a missing value for the mean score of each dependent variable. To handle this, I performed listwise deletion and removed an additional 1,772 children from the sample. Finally, I matched children to their mothers using the unique identification codes issued by the NLSY. The final sample consists of 1,986 children.

I created three subsamples to separate children based on family structure: all two-parent families (N=1,262); dual-earner families (N=926); and single-mother families (N=724).[1] It is important to note that dual-earner families are a subset of all two-parent families and so some children are represented in both subsamples. I created a dummy variable (0=single-mother family, 1=two-parent family) from the NLSY79 item tapping maternal marital status.[2] Specifically, I considered children to belong to two-parent

[1] I also created a fourth subsample to represent single-mother households in which all mothers were employed in 2004. However, there is not a significant difference in findings for all single-mother families and employed single mother families. Thus, I do not present the results of analysis for the employed single-mother sample in this paper.

[2] It should be noted that in the total sample (N=1986), about .02% of the sample had missing values for the marital status item (i.e. invalid skip, refusal, do not know). These missing values were imputed using the PROC

households if their mothers answered “married” (N=1262), and to single-mother households if they answered “separated,” “divorced,” or “widowed” (N=724). The item is a crude measure of family structure, because it does not distinguish among cohabitation, remarriage, and presence of relatives in the household. Despite this, the NLSY does not directly identify what may be considered “true” single-mother residences, and so variables were constructed according to the marital status item. To create the dual-earner sample, I eliminated any parents who were not employed at the time of the 2004 interview from the two-parent sample (N=926).

Description of Variables

Dependent Variables

Intergenerational Closure

I selected items to represent the quality of intergenerational closure based on two criteria. First, I identified items that represent one of the three aspects of intergenerational closure previously discussed: parent-child closeness, parental involvement, or parental supervision. Second, I confirmed that the items were used in both the Child and the Young Adult supplements in 2004. My investigation of the Child Self-Administered supplement for the 2004 panel produced eighteen potential questions that in some way tap one of the three aspects of intergenerational closure. I identified seven of these questions in the Young Adult supplement. Of the seven questions, two items tap parent-child closeness (how close the child feels to his or her father, how close the child feels to his or her mother), two items tap

MI procedure in SAS. Thus, children were considered to be in two-parent families if the two-parent dummy variable had a value equal to or greater than .5. Alternatively, children were considered to be in single-mother households if the two-parent dummy variable had a value less than .5.

parental involvement (whether the child spends enough time with the child, whether the father spends enough time with the child), and three items tap parental supervision (how often the mother knows who the child is with outside the home, how often the father knows who the child is with outside the home, and how much the child tells his or her parents about who they socialize with). Scores on the items concerned with the amount of time each parent spends with the child were collapsed from three categories into two, so that the recoded variable would represent a dichotomy (either the parent spends sufficient amounts of time with the child or he or she does not). I conducted exploratory factor analysis on all seven items using a maximum-likelihood factoring method in order to check the factor structure of the items and to help construct reliable measures. The procedure produced two factors (Eigen values = 4.08, 3.53), and I rotated these factors using an oblique (promax) rotation method. The three questions concerning paternal supervision, father-child closeness, and paternal involvement loaded high on the first factor (.63, .78, and .58 respectively). The items concerning maternal supervision and parental supervision (level of information child tells parents about who he or she socializes with) loaded low on the first (<.35) factor but high on the second factor (.87 and .41 respectively). I initially constructed three indices for intergenerational closure: an *intergenerational closure index* (includes all seven items), a *paternal intergenerational closure index* (only items concerning paternal supervision, involvement, and closeness), and a *supervision index* (only items concerning maternal supervision and parental supervision). Reliability coefficients for the three indices are .65, .72, and .52, respectively.[3] After preliminary analyses, it was clear that the paternal

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[3] Reliability coefficients (as indicated by Cronbach's Alpha coefficients) presented for all dependent variable

intergenerational closure index and the supervision index were not operating differently enough from the general intergenerational closure index to justify presenting their results in this paper.[4] Because of its all-inconclusiveness, I chose the intergenerational closure index (representing all seven questions, α=.65) to represent intergenerational closure.[5]

The responses for the items concerning maternal and paternal closeness are measured on a four-point scale (0=*not very close,* 1=*fairly close,* 2=*quite close,* 3=*extremely close).* The responses for the items tapping maternal and paternal involvement are measured on a two-point scale (0=*wish they spent more time with me,* 1=*they spend enough time with me*). The responses for the items tapping maternal and paternal supervision are measured on a three-point scale (0=*hardly ever,* 1=*sometimes*, 2=*often*). Finally, the responses for the item concerning parental supervision are measured on a four point scale (0=*nothing,* 1=*a little*, 2=*some,* 3=*a lot).* Mean scores for the intergenerational closure index range from 0—when the child reports that the quality of parent-child closeness, parental involvement, and supervision is low on all seven items, to 3—when the child reports that the quality of intergenerational closure is high on all seven items.

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indices were generated from the total sample, which includes all two-parent and single parent household children (N=1986).

[4] Results including the paternal intergenerational closure index and the supervision index are available upon request

[5] It should be noted that the general intergenerational closure index is used for both two-parent and single-mother households. In the latter category, although children may not have a live-in father, they may still provide information concerning their fathers. Unmarried women who work nonstandard hours rely heavily on informal childcare (i.e. father care, relative care, etc) (Casper and O'Connell, 1998; Han, 2004; Presser, 1986; Presser, 1988; Presser, 2003), which suggests that fathers may be affected by mothers working nonstandard schedules even when they do not share the same household. Additionally, I take the mean score for the set of bonding questions; thus, if no father is in the picture, missing values for the paternal questions will not penalize the child's overall score.

Associations with Unconventional Peers

I selected items to represent associations with unconventional peers if they were used in both the Child and Young adult supplements in 2004. Because I also control for prior unconventional associations in order to disentangle the effects of parental work schedules on unconventional associations in 2004, I retained the items only if they were also used in the 2002 panels. I identified six items that represent associations with unconventional peers. Each item taps into the extent to which a child has friends who are engaged in disobedient or delinquent behaviors and is used in both 2004 supplements. The first five items are dichotomous, and ask children whether or not they perceive pressure from their friends to engage in disobedient or delinquent behaviors: to smoke cigarettes, to use marijuana, to drink alcohol, to skip school, and to commit crime. I coded all items so that a “0” indicates that the child does not have friends that encourage delinquency, and a “1” indicates the presence of peers who do encourage disobedience/delinquency. The sixth item asks children whether their friends pressure them to work hard in school. Those children who answer that their friends do not pressure them to work hard in school are considered to be experiencing an additional form of unconventional peer association, because school performance is an important element of conventional behavior (Lynam, Moffitt, and Stouthamer-Loeber, 1993; Hughes et al 1991). I reverse-coded the item so that a “0” indicates that friends do encourage the child to work hard in school, and a “1” indicates that they do not. I conducted maximum-likelihood factor analysis, and all six items loaded on one factor (Eigen value=3.66) with five out of six items loading high (range from .46 to .77). The item addressing school effort appears unusable, with a loading of .03. Item analysis further confirms this observation. Specifically, the six items have a standardized Cronbach’s coefficient alpha equal to .68, which can be improved to .76 by removing the “work hard” item. A coefficient of .76 indicates a reliable index for associations with unconventional peers; it is composed of the five items that tap the child's pressure for smoking cigarettes, using marijuana, drinking alcohol, skipping school, and committing crime. Mean scores for the resulting index range from 0—when the child reports no association with unconventional peers, to 1—when the child reports pressure from friends on all five items.

Disobedient and Delinquent Behavior

I selected items that tap into some form of behavior that could be construed as problematic, including theft, violence, truancy, dishonesty, school problems, and property damage. I retained each individual item only if the same item was used in both the Child and Young Adult supplements. I also control for prior disobedience and delinquency; therefore, I retained only those items that were also used in the 2002 panels of the Child Self-Administered and Young Adult Self-Report supplements.

I identified eight items in the 2002 and 2004 panels that tap some form of problematic behavior. The items ask children how often in the last twelve months they had engaged in the following types of behaviors: hurt someone badly enough to require medical attention, lied to parents, stole something, vandalized school property, got into trouble at school that required a visit from a parent, skipped school, stayed out later than parents said they could, and stayed out an entire night without parental permission. I eliminated the "school trouble" item, because this could be more of a reflection of the school's discriminatory conduct than the child's behavioral issues (Davis and Jordan 1994). I conducted exploratory factor analysis for the remaining seven items using a maximum-likelihood factoring method. The items loaded on one factor (Eigen value=2.80), with individual loadings ranging from .46 to

.55. The index for disobedient / delinquent behaviors is an additive scale based on the seven items described above, which have an acceptable level of reliability (α=.70). Responses to the items are measured on a four-point scale (0= *never,* 1= *once,* 2= *twice,* 3= *more than twice*). Mean scores for the resulting index ranges from 0—when the child reports no disobedient / delinquent behavior for all eight items, to 3—when the child reports engaging in each form of disobedience / delinquency more than twice.

Substance Use

I selected items tapping child substance use using a similar procedure as in the identification of items representing unconventional peer associations and disobedient/delinquent behaviors. Specifically, I selected items from the 2004 child and young adult supplements that tap some dimension of substance use, either alcohol, drug, or tobacco use. An investigation of the 2004 child supplement identified nine items: the number of times the child has been intoxicated from alcohol; whether the child has ever smoked a cigarette; ever drank alcohol; ever used marijuana; ever huffed any kind of substance; ever used LSD; ever used cocaine; ever used uppers/stimulants; and ever used downers. The 2004 Young Adult supplement duplicates all of these items with the exception of two (ever used uppers, ever drank alcohol). Finally, five items that were used in both the 2004 supplements were also used in both of the 2002 supplements: number of times intoxicated, ever smoked a cigarette, ever used marijuana, ever huffed a substance, and ever used cocaine. My investigation showed that the items concerning whether the child has huffed a substance or used cocaine had insufficient numbers of responses. At the risk of losing a substantial number of cases upon using listwise deletion on the dependent variables, I excluded both items from analysis. This procedure left three items suitable for further analysis: number of times intoxicated, ever smoked a cigarette, and ever used marijuana.

I conducted exploratory factor analysis on alcohol use, cigarette use, and marijuana use using a maximum-likelihood factoring method. The items loaded on a single factor (Eigen value=2.97), with strong single loadings (.60, .66, and .79 respectively). The items were constructed into an index, which has strong internal consistency (α=.72). Responses to the frequency of intoxication item are measured on a four-point scale (0=*never,* 1= *once,* 2=*twice,* 3=more than twice). The items concerning cigarette and marijuana use both asked the child to report whether they had ever used either substance, with the responses to the items measured on a two point scale (0=*no,* 1=*yes).* Mean scores for the resulting index ranges from 0—when the child reports that he or she has not engaged in any of the three behaviors, to 3—when the child reports that he or she has been intoxicated from alcohol more than twice, has smoked a cigarette before, and has used marijuana at some point in his or her life.

Independent Variables

Parent Work Schedules

My central independent variables are parental work schedules, which I measure contemporaneously with child outcomes in 2004. "Nonstandard" work schedules include: *evening,* which begins at two p.m. or later and ends by midnight; *night,* which begins at eight p.m. or later and ends by eight a.m.; *rotating,* the timing of work changes between day to night or evening but is the same every week; *irregular,* where work schedule has no consistent pattern; *split*, where the shift is divided into two shifts that diverge in parts of the day; and *weekend*, Saturdays and Sundays, work arrangements (Presser, 2003).

Only a handful of studies in the nonstandard work arena investigate household work arrangements in two-parent families (Strazdins et al., 2004; Yucel, 2008, Han, 2006); instead, most past research looks at maternal and paternal work schedules separately from one another. I constructed variables that represent household work schedules in a three step process. First, I created eight categories to represent maternal work schedules: 1) *not employed* 2) *standard daytime* 3) *evening* 4) *night* 5) *rotating* 6) *split shifts* 7) *irregular shifts* 8) *all other types* (includes weekends, respondent sets own schedule, on call, specific hours that do not fit into categories, by appointment, etc).[6]

The small cell sizes (<50) of many of the nonstandard forms of work were problematic. To handle this, I considered similarities between categories in order to combine categories in a thoughtful way, because different types of nonstandard work schedules can be challenging for different reasons. Although evening shifts are problematic because parents miss out on times traditionally utilized for family togetherness (Presser, 2003) and the night shift is most commonly associated with individual health-related issues (Bohle and Tilley, 1998; Hsueh, 2006; Costa, 1996), both types are similar in that they both represent non-day, "fixed" schedules. Alternatively, rotating and irregular shifts are similar in their non-fixed nature. Although an individual may switch from evening to night shifts on the same days each and every week (and thus in some sense have regularity), its fluctuation throughout times of the day and night makes rotating and irregular schedules similar to one another.

[6] The NLSY does not have a specific value that represents "not employed." If the respondent or their spouse was issued a "valid skip" for the schedule item, this indicates that the individual had not reported employment since the last interview. Thus, these individuals were coded as 0—not employed.

Finally, because split shifts occur during both parts of the day and shifts falling under the "other" category can conceivably vary throughout times of the day, I combined these categories with rotating and irregular shifts. These decisions produced four maternal work variables: 0=*not employed*, 1=*standard*, 2= *evening or night,* and 3=*other* (rotating, irregular, split, and other types of work). I used these categories to represent work schedules for single-mother households. For two-parent households, respondents provided work schedule information for their spouses. Information for work schedules of fathers faced similar issues concerning cell sizes. Thus, the same four variables were created for fathers: 0= *not employed*, 1=*standard*, 2= *evening or night*, and 3=*other.*

For two-parent and dual-earner subsamples, I considered how the interaction of work schedules between parents can influence child outcomes. For two-parent families, I created nine categories representing schedule arrangements for both mothers and fathers: 0=*Mother Not employed / Father Employed*, 1=*Father Not employed / Mother Employed*, 2=*Both Parents Not employed*, 3=*Dual-Standard*, 4=*Father Standard / Mother Evening or Night*, 5= *Father Standard, Mother Other*, 6=*Mother Standard / Father Evening or Night*, 7=*Mother Standard / Father Other*, and 8=*Both Parents Nonstandard*.[7] For the dual-earner sample, I removed all respondents and spouses who were considered not employed at the time of the interview, and I created six categories: 0=*Dual-Standard*, 1=*Father Standard / Mother Evening or Night*, 2=*Father Standard / Mother Other*, 3=*Mother Standard / Father Evening or Night*, 4=*Mother Standard / Father Other*, 5=*Both Parents Nonstandard.*

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[7] The "both nonstandard" category indicates that both mothers' and fathers' work schedules could be described as either evening/night or "other."

Control Variables

Individuals who are black, less educated, and who are low skilled or in nonprofessional occupations are more likely than others to work nonstandard hours (Presser, 2003). As such, it is possible that links between parental work schedules and risky behaviors are a function of these characteristics rather than the timing of their work schedules. Thus, I control for mother's educational attainment, total household income, maternal work hours, and paternal work hours. I also include controls for age of child, child race, child sex, and child birth weight, which are all associated with delinquent behaviors (Warr, 1993; Matsueda and Heimer, 1987; Tracy, Kempf-Leonard, and Abramoske-James, 2009; Hack et al., 1991).

In consideration of parental work arrangements and their effects on child wellbeing, the age of the child under investigation is a potentially important factor. Specifically, just as a child's needs change with age, so do the effects of parental employment (Waldfogel, 2006). The sample includes children who were representative of two important life-stages: early adolescence (ten to fourteen years old) and late adolescence (fifteen to seventeen years old) in 2004. The NLSY's "date of birth" variable indicates the year the child was born. Children in the sample were born in 1987, 1988, 1989, 1990, 1991, 1992, 1993, or 1994. I created a dummy variable to represent two age groups: 0=*early adolescence (ten to fourteen years old),* and 1= *late adolescence (fifteen to seventeen years old*). I control for age in each of the three subsamples. Race and sex are also likely to be important contextual factors. I dummied the NLSY's race and sex variables, so as to create two variables for sex (male and female), and three variables for race (White, Black, Hispanic). The birth weight variable is a continuous variable derived from the item that asks mothers to input the number of ounces each child weighed at birth.

Children of lower socioeconomic status are at risk for more negative behaviors (Heimer, 1997). The NLSY 1979 (2004 panel) measures maternal educational attainment by the number of years of education completed as of 2004. Household income may also be an important factor for the effects of nonstandard work, because low-income families are in a disadvantaged position when it comes to purchasing services to aid them in child-care. Furthermore, low status jobs often mean that workers are unable to control when they begin and when they end their workday, characteristics that may increase work-to-family-conflict experiences (Fenwick and Tausig, 2001). Accordingly, I control for family income in 2004, which I measured by the annual family income in dollars. For two-parent families and dual-earner families, I created three dummy variables that represent low income ($0-50,000), medium income ($50,000-100,000), and high income ($100,000+) levels based on an assessment of the frequency distribution of the original income variable. Only fifteen percent of single mothers in the sample earn more than $50,000 annually. Thus, I measure income for single mother homes with the following categories: low ($0-25,000), medium ($25,000-50,000), and high ($50,000+) levels.

The number of hours parents work on a weekly basis may also predict negative child outcomes (Brooks-Gunn, Han, and Waldfogel, 2002). The NLSY measures the number of hours worked by asking respondents to submit the total number of hours they work for a consecutive number of weeks. For mothers, I create three dummy variables to represent total number of hours worked: 0=*part-time*, 1=*fulltime*, 2=*overtime*. I generated these categories by taking the mean score for three items asking mothers how many hours they work in a typical week (week 1, week 2, and week 3). I coded mothers as *part-time* if their mean score for weekly work hours was below 35 hours; *fulltime* if their score was between 35 and 40 hours; and *overtime* if their score was above 40 hours. Mothers also provide information on the average number of work hours their spouse works, and I created three categories for fathers to represent *part-time*, *fulltime*, or *overtime*. Identical to mothers, I coded fathers as *part-time* if their spouse reported that they worked less than 35 hours on a weekly basis, *fulltime* for work hours between 35 and 40 weekly hours, and *overtime* for more than 40 hours per week.

Criminological research demonstrates the importance of controlling for prior delinquency in order to control for stable, social-psychological characteristics of individuals (Kessler and Greenberg, 1981) and to address the possibility that delinquency can threaten child intergenerational closure and lead to associations with delinquent peers and delinquent behaviors ("birds of a feather") (Patterson et al., 1991; Hirschi 1969). Thus, I created disobedience/delinquency and substance abuse indices for the year 2002 identical to those for 2004. The index I created for eight items tapping disobedient / delinquent behaviors in 2002 has strong reliability (α=.73); the index created for the three items tapping substance use in 2002 has adequate reliability (α=.58).

NLSY Weight Factors

The NLSY constructs a set of sampling weights for each survey year. These weights allow researchers to estimate how many individuals in the United States each respondent's answers represent. The sampling weights for children adjust the unweighted data for sample attrition of mothers and children (including the loss of the military and white oversamples) since the time of the first survey round, and adjust the sample for the over-representation of black and Hispanic respondents. In the 2002 child survey round, survey designers created an updated automated computation procedure in order to produce more accurate sampling weights for each child. These new custom weights are assigned according to the following criteria: each interviewed child's weight is equal to the mother's weight multiplied by the number of children her interview child represents (each interviewed child represents him/herself plus the number of non-interviewed, known children, plus the estimated number of children born to non-interviewed mothers in a given year). This latter set of information is determined by establishing the number of years since the mother was last interviewed and assigning the same number and ages of children born based on what was reported for interviewed mothers of the same sex and race. I use the NLSY's updated (custom) sampling weights as outlined.

Missing Data and Multiple Imputation

There is missing maternal work data for .02% of the children in two-parent households, and missing paternal work data for .03% of the children in two-parent households. Additionally, there is missing data for annual household income (for 17.1% of the children in the two-parent sample), father's annual number of hours worked (.04%), and mother's annual number of hours worked (.01%). The most common method for handling missing data in software packages is "listwise deletion", which deletes cases that are missing data on any of the variables involved in the analysis (Little and Rubin, 2002) . However, this approach is problematic, because deletion of incomplete cases throws out important observed data and has been shown to produce inferences that are less precise than those produced by methods that use all of the observed data (Little and Rubin, 2002). Imputation is a well-accepted approach to handling nonresponse items in a survey. This procedure replaces each missing value with a range of plausible values and produces a completed data set that data can be analyzed without removing any observed values. I used the multiple imputation procedure with five imputations to handle the problem of missing data (Rubin, 1978; 1987). Specifically, I used theoretically relevant covariates to predict values for variables with missing data. For example, when maternal work information was unavailable, I used household income, maternal educational attainment, maternal work hours, and race to impute the missing values. The following variables had missing values, which were replaced by imputed values: maternal work schedule, paternal work schedule, maternal educational attainment, maternal work hours, paternal work hours, household income, marital status, and child's birth weight.

Analytical Strategy

I address child wellbeing in terms of intergenerational closure, attachment to unconventional peers, disobedience and delinquency, and substance use. Following Han and Waldfogel (2007), I present subgroup analyses separated by family structure type. I chose to present separate regression models as opposed to a single set of regressions where subgroup membership is indicated by a dummy variable for a number of reasons. Specifically, I measure income differently for two-parent and single parent families, based on unlike distributions of household incomes. Additionally, preliminary analysis suggested that the processes under study are likely to be substantially different depending on the type of subgroup membership. For example, the extent to which parents can engage in orbit-styles of parenting is likely to depend on family structure and the availability of a second parent. Because of very different dynamics between two-parent, dual-earner, and single-mother families, it was prudent to separate analyses by these forms of subgroup membership.

First, for each sub-sample I investigate whether nonstandard parental work schedules have an impact on *intergenerational closure*. I add in control variables in model II to assess whether zero-order relationships are explained away by their inclusion into the model (Baron and Kenny, 1986). Second, I assess to what extent parental work schedules predict *associations with unconventional peers*. I then add intergenerational closure into the model in order to assess any changes in the original effect of work schedules on unconventional peers, and then control variables to determine whether any effects of parental work schedules on unconventional peers remain significant in the presence of demographic and family controls. Third, I evaluate whether parental work schedules predict *disobedient and delinquent behaviors* (model I) and whether intergenerational closure mediates this relationship (model II). A causal chain beginning with parental work schedules influencing intergenerational closure, which then influences associations with unconventional peers and then disobedience/delinquency and substance use is theoretically possible (Elliot, Ageton, and Cantor, 1979; Shaw and McKay, 1942). Therefore, I add in unconventional peers in a separate step (model III) before the inclusion of family and demographic controls (model IV). Lastly, I assess to what extent parental work schedules predict substance use, if the relationships are mediated by intergenerational closure, whether unconventional peers mediate the relationship between intergenerational closure and substance use, and whether family and demographic controls explain away any of the effects. I estimate all models using ordinary least squares (OLS) regression, with results clustered by the unique identification code given to mothers. Specifically, in some cases, the sample in the present study includes multiple children born to individual mothers, which violates the OLS regression assumption that the data represent a random sample of the population. Because children in the same family are more similar to one another than the same number of children chosen independently, OLS regression will underestimate the standard errors. Thus, I use the cluster correction procedure to correct for this lack of independence, a procedure which groups "like" observations together in order to provide assurance that this assumption is not violated.

Hypothesis 1 states that nonstandard work arrangements have positive effects for child wellbeing (stronger intergenerational closure and/or lower incidences of unconventional peer associations, disobedience and delinquency, and substance use) when parents arrange their work schedules in non-overlapping fashion (father standard / mother evening or night, father standard / mother other, mother standard / father evening or night, mother standard / father other). An incremental *F*-test is necessary to determine if a set of dummy variables with more than two categories is significant as a whole (Cohen and Cohen 1975). Thus, this hypothesis will be supported if children from two-parent / dual-earner families with parents utilizing a mix of standard and nonstandard schedules are less likely to engage in negative behaviors in comparison to the reference group ("dual standard"), and the work variables are statistically significant as a set as indicated by an incremental-*F* test (at p<.05). For each incremental *F* test, the "new" model includes all work schedule variables and all control variables, and the "old" model includes only the control variables[8]

Hypothesis 2 states that nonstandard work arrangements have negative effects on child wellbeing in single-mother homes (weaker intergenerational closure and/or higher incidences of socially undesirable behaviors). This hypothesis will be supported if children from single-mother families are more likely to have weak intergenerational closure and higher incidences of negative behaviors and the work variables are statistically significant as a set. Finally, hypothesis 3 states that intergenerational closure mediates the relationship between nonstandard work schedules and negative child outcomes. If intergenerational closure does mediate the relationship, the effects of nonstandard work will be weaker than when intergenerational closure is not controlled. Alternatively, if nonstandard arrangements influence weaker intergenerational closure, and if intergenerational closure is significantly related to negative behaviors, such a scenario would represent an indirect relationship between nonstandard schedules and negative child outcomes working through intergenerational closure and likewise would also provide support for hypothesis 3.

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[8] I conduct Incremental *F* tests using the formula:

$$\frac{(R^2_{new} - R^2_{old}) / (k_1 - k_2)}{(1 - R^2_{new})/(N - k_1)}$$

where R^2_{new} = the coefficient of determination for the full model that includes all control variables and work variables, R^2_{old} = the coefficient of determination for the model that includes control variables only, K_1 = total number of predictors in the new model, K_2= total number of predictors in the old model, and N=number of cases in the sample.

Descriptive Statistics

Table 1 shows that a plurality (48%) of the sample is characterized as dual-standard. About 26% of households have at least one parent who is not employed, 4% are in the father standard / mother evening or night category, about 6% are in the father standard / mother other category, about 4% are in the mother standard / father evening or night category, about 9% are in the mother standard / father other category, and about 3% are in the dual-nonstandard category. The dual-nonstandard category is very small (N=38); however, the theoretical importance of both parents working nonstandard hours arguably overrides the concern of a small cell size in this case. The majority of the children are between the ages of fifteen and seventeen (61%). There are slightly more males (about 52%) than females (48%). About 59% of the children in the sample are white, 19% are African American, and about 22% are Hispanic. About 49% of the individuals in the sample fall in the $50,000-100,000 income category. The mean number of years of maternal educational attainment is 13.59, indicating that on average the mothers in the sample have one or two years of college education. Forty-nine percent of mothers work part-time and the other 51% work either fulltime or overtime hours. The majority of fathers work either fulltime (39%) or overtime (42%). Descriptive statistics for the dual-earner sample shows very few differences from two-parent families, with the exception of maternal work hours (the modal category is fulltime) and paternal work hours (the modal category is fulltime). Again, the dual-standard category makes up the majority (62%), with the other arrangements making up the other 38%.

Table 2 shows descriptive statistics for the single parent sub-sample. Most of the children's mothers in this sample work the standard shift (60%), about 20% are not employed, and the remaining 20% work nonstandard shifts. Again, there are more fifteen to seventeen year olds (64%) than ten to fourteen year olds (36%) and more males (53%) than females (47%). Unlike in the two-parent and dual-earner subsamples, there are more black children (45%) than white children (about 38%). The modal income category for single mothers is the lowest of the three income categories, $0-25,000 (54%). Also, about 45% of the single mothers work part-time and have slightly less education than the two-parent samples (=12.70).

Results

Zero-Order and Multivariate Relationships: Parental Work Schedules and Intergenerational Closure

Table 3 shows results for regression models predicting intergenerational closure for two-parent families. In model I, children in households characterized by the father not employed / mother employed, both parents not employed, and dual-nonstandard categories have weaker intergenerational closure in comparison to children from dual-standard households. In Model II, the inclusion of control variables reduces the effects of the father not employed / mother employed and both parents not employed categories to non-significance, although there remains a slight effect of the dual-nonstandard category. As a set, parental work schedules predict parent child intergenerational closure (2.50>1.94, p<.05). Because intergenerational closure is significantly associated with disobedience / delinquency and substance use (discussed in subsequent models), this offers some evidence of an indirect effect of household work arrangements on negative outcomes. Boys have stronger intergenerational closure than girls; children from households of medium and high income levels have stronger levels of intergenerational closure than children from low-income households, and the household income variables are significant as a set (5.21>3.00, p<.05)

Table 4 shows results for regression models predicting intergenerational closure for dual-earner families. Children from dual-nonstandard homes have weaker intergenerational closure with their parents than children from dual-standard homes. The inclusion of controls in model II does not substantially change the effect. The work variables are not significant as a set (2.09 <2.21). Additionally, boys in dual-earner homes have stronger intergenerational closure than girls, and maternal educational attainment has a positive effect on intergenerational closure.

In single-mother families (Table 5), model I shows that children with mothers who work evening or night shifts have weaker intergenerational closure than children from households in which the mother is not employed. The effect is reduced slightly with the inclusion of controls in model II, although it remains significant at p<.10. An incremental *F* test indicates that maternal work schedules as a set predict intergenerational closure (F=3.50>critical value 2.60, p < .05). Because intergenerational closure is significantly associated with disobedience and delinquency and drug and alcohol use in single mother households, this offers some evidence of an indirect effect of maternal work schedules on negative outcomes. Additionally, late adolescents have weaker intergenerational closure than early adolescents, and medium and high income categories predict stronger intergenerational closure in comparison to the low income category. The relationship between maternal work hours and intergenerational closure is curvilinear; specifically, the maternal fulltime category has a positive effect, although the maternal overtime category shows no effect.

Zero-Order and Multivariate Relationships: Parental Work Schedules and Negative Child Outcomes

Associations with Unconventional Peers

Referring to Table 6, in two parent families, children from households with a father who is not employed have more associations with unconventional peers than children from dual-standard homes. Additionally, the father standard / mother other category has a small negative effect. When I add in intergenerational closure, which is significantly associated with associations with unconventional peers, the effect of the father not employed / mother employed category is reduced (although not fully mediated), which offers modest evidence of a meditational effect of intergenerational closure on parental work arrangements and associations with unconventional peers. Also, the father standard / mother other category is reduced to non-significance with the inclusion of intergenerational closure in model II. When I add controls in Model III, the father not employed / mother employed category strengthens and is again statistically significant. The father standard / mother other category is not altered in the presence of family and demographic controls. Parental work schedules are significant as a set (2.06>1.95). Additionally, late adolescents have more associations with unconventional peers than early adolescents. There is a curvilinear relationship between maternal work hours and associations with unconventional peers; specifically, the fulltime category is positively associated with associations with unconventional peers, although there is no effect of the overtime category. Interestingly, the paternal fulltime and overtime categories each have a positive effect on children's associations with unconventional peers.

For dual-earner families (Table 7), the father standard / mother other category has a slight negative effect on children's associations with unconventional peers. The effect is largely unaltered with the inclusion of intergenerational closure in model II, although it disappears completely with controls added in model III. The work schedule variables are not statistically significant as a set. Children with weak intergenerational closure have more associations with unconventional peers. Additionally, children in late adolescence and boys have more associations with unconventional peers in comparison to early adolescents and girls, respectively. The relationship between maternal work hours and children's associations with unconventional peers is curvilinear; again, the maternal fulltime category has a slight positive effect, although the maternal overtime category does not.

Table 8 shows results for single-mother households. The mother evening or night and mother other categories predict fewer associations with unconventional peers in comparison to households in which the mother is not employed. Neither category is affected by the inclusion of intergenerational closure in model II. With controls added, the mother evening or night category remains significant, although the effect of the mother other category is reduced slightly and now significant only at $p<.10$ level. Although it is notable that maternal evening or night shifts can lead to fewer associations with unconventional peers, the categories as a set do not pass an incremental *F* test (F=2.44, critical value=2.60). Fewer years of maternal education and having unconventional peers in the past predict associations with unconventional peers in 2004.

Disobedient and Delinquent Behaviors

Table 9 shows regression results predicting disobedience and delinquency for children in two-parent families. Youths from families where mothers are not employed and fathers are employed and those from families where the father works standard hours and the mother works a shift that falls under the other category are less likely to be disobedient and engage in delinquency than youths whose parents both work standard hours. Alternatively, those from homes where their father is not employed the mother is employed are more likely to engage in these behaviors than those from dual-standard homes. The inclusion of intergenerational closure in model II reduces the strength of these relationships but does not fully mediate them. The effects are not significantly altered when I add in unconventional peers and controls in model III. The effect of the mother not employed / father employed categories disappears when I add in controls in model IV, although the effect of the father not employed / mother employed category strengthens slightly. The effect of the father standard / mother other category is reduced and is now only slightly significant at $p < .10$. The set of parental work schedules does not pass an incremental *F* test (F=1.85, critical value=1.94). Weak intergenerational closure and children's associations with unconventional peers predict more engagement in disobedient and delinquent behaviors. Also, late adolescents engage in more disobedient and delinquent behaviors than early adolescents, and boys engage more than girls. The maternal overtime category has a positive effect on children's engagement in these behaviors, although the fulltime category does not. Finally, past disobedience and delinquency is a strong predictor of disobedience and delinquency in 2004.

For dual-earner families (Table 10), there is an effect of one category: the father standard / mother other category predicts less disobedient and delinquent behavior. When I add in intergenerational closure in model II, the effect is reduced but still statistically significant. Similarly, I add in unconventional peers in model III and the effect is not significantly altered. The effect is partially reduced when I add in controls in model IV. The work variables as a set do not predict disobedient and delinquent behaviors, although weak intergenerational closure and children's associations with unconventional peers do. Also, late adolescents and boys engage in more disobedience and delinquency, and past disobedience and delinquency is a strong predictor of disobedience and delinquency in 2004. Interestingly, black children engage in less disobedience and delinquency than white children and both fulltime and overtime maternal work predict more of these behaviors.

Overall, maternal work schedules are not important for explaining disobedience and delinquency in single-mother families (Table 11). Specifically, there are no zero-order relationships; although it is interesting that the control variables in model IV release a small effect for the maternal evening or night category. Despite this, the work variables are not significant as a set. Weak intergenerational closure, associations with unconventional peers, and past engagement in disobedient and delinquent behavior are strong predictors of disobedience and delinquency in 2004. Additionally, late adolescents and boys engage in more of these behaviors than early adolescents and girls, respectively.

Substance Use

Table 12 presents zero order and multivariate relationships predicting substance use in 2004. The mother not employed / father employed and father standard / mother other categories predict less substance use. These effects remain significant when I include intergenerational closure in model II. The inclusion of intergenerational closure produces new effects: the father not employed / mother employed category now shows a significant positive effect on substance use, and the father standard / mother evening or night category shows a small negative effect. When I add in unconventional peers in Model III, only the mother not employed / father employed and father standard / mother other categories remain statistically significant (and a small effect remains for father not employed / mother employed). The effects of all three categories are largely reduced when I include controls in model IV. Specifically, the effect of the mother not employed / father employed category disappears completely, and the father not employed / mother employed and father standard / mother other categories are significant only at $p<.10$. The parental work schedules remain significant as a set. Weak intergenerational closure, associations with unconventional peers, and past substance use are strong predictors of children's substance use in 2004. Additionally, black children engage in less substance use than white children.

Looking at the zero-order relationships for dual-earner families displayed in Table 13, the father standard / mother other category predicts less substance use, and the effect is largely unaltered by the inclusion of intergenerational closure or associations with unconventional peers. When I add in associations with unconventional peers in Model III, the father standard / mother evening or night category becomes statistically significant, predicting less engagement in substance use. When I add in controls in Model IV, the father standard / mother evening or night category becomes stronger, and the father standard / mother other category is largely reduced. An incremental *F* test indicates that parental work schedules are significant as a set. Weak intergenerational closure, associations with unconventional peers, and past substance use are strong predictors of substance use in 2004. Additionally, black children engage in less substance use than white children.

Maternal work schedules do not predict substance use for children in single-mother families (Table 14). There are no significant zero-order relationships, and the inclusion of controls does not alter the parameter estimates. Weak intergenerational closure, associations with unconventional peers, and past substance use predict more substance use in 2004. Additionally, older children engage in more substance use than younger children, and black children engage in less substance use than white children.[9]

Overall, I find modest support for each of my three hypotheses. Hypothesis 1 posits that two-parent/dual-earner families utilize non-overlapping work arrangements to facilitate positive effects for their children, either through stronger intergenerational closure or lower incidences of negative behaviors. Results from OLS regression analyses reveal that coupled parents can protect children from engagement in substance use when they employ an arrangement in which the father works standard daytime shifts and mothers work one of the schedules that falls under the other category, although this effect was partially explained by sex, race, and past substance use. Additionally, when looking specifically at dual-earner households, two of the four categories representing non-overlapping work arrangements, dad standard / mother evening or night and dad standard / mother other, also predict lower scores

[9] The subsamples were considerably skewed towards strong intergenerational closure, few associations with deviant peers, and few incidences of substance use. For instance, in the two-parent subgroup, only 10.8% of children report very weak intergenerational closure, 21.5% report associations from unconventional peers, and 23.1% report substance use. As such, analyses were also run with these indices transformed by taking the natural logarithm. Results did not produce significantly different findings and so these variables were dropped from presentation.

on the substance use index. These findings indicate that it is the timing of *maternal* work schedules that is important for understanding how non-overlapping arrangements can have protective effects for children, as the timing of paternal work shifts do not explain any significant relationships with the outcome variables.

Hypothesis 2 states that nonstandard arrangements have negative implications for child wellbeing in single-mother families, meaning they are significantly associated with weaker intergenerational closure or higher levels of engagement in socially undesirable behaviors. Although I did not find zero-order relationships between maternal work schedules and negative outcomes, it is notable that evening/night shifts do predict weaker intergenerational closure for single-mother households, although the effect is partially explained away by household income and maternal work hours. Together, the findings indicate that nonstandard arrangements can have positive effects in one family context— two-parent/dual-earner families, and negative effects in another— single-mother families, and provides support for the overarching supposition in the current study, that the effects of nonstandard work are contingent on family context.

Finally, hypothesis 3 states that the relationship between maternal nonstandard work schedules and negative child outcomes is mediated by weak intergenerational closure. Although I find no direct associations between schedules and negative outcomes, there are associations between nonstandard schedules and weak intergenerational closure in single-mother families and between dual-nonstandard arrangements and weak intergenerational closure in two-parent families. Because intergenerational closure is significantly associated with disobedience/delinquency and substance use in single-mother households, these findings indicate some support for the notion that nonstandard work can damage intergenerational closure, which can then lead to more engagement in negative behaviors. Similarly, there is a negative relationship between intergenerational closure and associations with unconventional peers, disobedience and delinquency, and substance use in two-parent households, which suggests that dual-nonstandard arrangements can influence socially undesirable child outcomes through intergenerational closure.

Discussion

Since the 1970s, the shift from a manufacturing based economy to a system that is largely service-based has been accompanied by escalating labor participation by women, delays in marriage and first childbirth, considerable technological innovation, and the general globalization of capital (Kalleberg, 2009). These factors each play an important role in the increased domestic demand for work arrangements that fall outside of the traditional nine-to-five, Monday through Friday work week (Presser, 2003). Over the last few decades, researchers have become increasingly interested in how children are faring in the new “around-the-clock” economy. The results in this paper suggest that the relationship between parental work schedules and child outcomes is largely contingent upon family structure and second-parent availability. In two-parent households, parents use non-overlapping shifts in order to achieve more desirable outcomes for children. Nonstandard schedules had very little impact on negative child behaviors for two-parent / dual-earner households. Of much greater concern appears to be when fathers are not employed, a condition that predicts increased associations with unconventional peers and elevated levels of substance use. In single-mother households, the maternal evening/night category predicts weaker intergenerational closure, which suggests a pathway to negative behaviors working indirectly through intergenerational closure. Likewise, dual-nonstandard households are associated with weaker intergenerational closure and indicate an indirect pathway to negative behaviors. In regard to the latter finding, it is possible that when both parents work a nonstandard schedule, the timing of their shifts overlap, which may cause conflicts for child supervision and family togetherness. However, because I aggregated rotating, irregular, weekend types of work, it is not possible to test these possibilities in the present study.

The overall lack of negative effects of nonstandard work for in this study is noteworthy, given the robustness of negative effects found elsewhere (Han and Waldfogel, 2007; Han et al., 2010; Han and Miller, 2009). Unlike past research, I investigated parental work arrangements by household instead of looking at parental work schedules independently of one another. In doing so, the findings of this study align with other research demonstrating the ways that parents utilize work schedules to create harmony between multiple roles (Voydanoff, 2004). As other researchers have suggested, the protective characteristics of non-overlapping work arrangements between parents and the general lack of evidence of negative effects of nonstandard work indicate that regardless of their particular work arrangements, parents need not forfeit positive relationships with their children (Bianchi, 2000; Bogen and Cherlin, 2004). They may sleep fewer hours or relinquish their own time for leisure (Bianchi, 2000; Kingston and Nock, 1985), but, as qualitative research has demonstrated, if work arrangements have a negative effect on family life, then parents are more likely to modify their work hours than to jeopardize relationships with their children (La Valle et al., 2002). As argued by Barnett (1998), the choices concerning which hours each parent should work are a reflection of financial and emotional goals established by parents in order to achieve a sensible work-family balance.

The finding that maternal nonstandard schedules can be an important buffer to risky outcomes if used in conjunction with a standard paternal schedule is interesting, especially because similar findings were not produced when fathers were the ones working nonstandard schedules in non-overlapping arrangements. Research demonstrates that mothers are more likely to work in a job that can accommodate family needs even if this means making a tradeoff for income, reducing their hours, or working part-time, while fathers are more likely to invest in their careers (Becker and Moen, 1999). The sex differences in the effects of non-overlapping arrangements may point to similar processes; specifically, mothers in two-parent families may explicitly choose nonstandard schedules as a way to invest in their children's wellbeing.

Children from single-mother households are negatively affected by maternal evening and night work hours. This finding is likely a reflection of the ways that disadvantage compounds the influence of nonstandard schedules. Specifically, parents who are more skilled and have higher levels of educational attainment may be in a privileged position when it comes to obtaining quality jobs. With better jobs comes more schedule control and an increased likelihood that work arrangements can be used to the parents' advantage. As research has indicated, low-income and single-parent families are especially vulnerable when it comes to mismatches between work and family routines (Hsueh and Yoshikawa, 2007; Edin and Lein, 1997). Unlike married parents, single-mothers do not necessarily have the ability to negotiate childcare responsibilities with a second parent.

I can only speculate about the overall lack of negative effects for nonstandard work found in this study. First, the majority of the children in the sample were between the ages of fifteen and seventeen in 2004. Because late adolescents are more independent and spend increasing amounts of time outside of the home, it could be that parental work schedules have less of an impact on parent-child interactions than is typically the case with younger children. Shift work may create the most problems for families with young children, due to their heightened dependence and greater need for care and supervision (Craig, 2002; Roxburgh, 2004). Younger children may be more sensitive to disruptions in family routines, and may be more heavily influenced by parental stress and irritability (Lovejoy et al., 2000). The family strengths perspective (Walsh, 2002) informs another possibility; in particular, it may be that parents who stay in nonstandard work arrangements have learned how to manage its challenges. Specifically, these individuals may be especially skilled in preserving relationships with their children despite the timing of their work schedules. Finally, as suggested by Han and Waldfogel (2007), it is also possible that nonstandard work arrangements can have unlike effects on different dimensions of family processes. Specifically, it could be that these arrangements improve parental supervising / monitoring, yet decrease the level of closeness that parents and children feel towards one another. In such a scenario, these unlike effects could offset the negative effects of nonstandard work on children.

Although in the present study I was most interested in how the timing of parental work schedules can have an impact on intergenerational closure and negative behaviors, the finding that black adolescents are less likely than their white counterparts to engage in substance use is substantively interesting. This finding may seem counterintuitive, given the evidence that drug-related mortality and morbidity are higher for black adults in comparison to white adults (Wallace, 1999). But, the finding that black children are less likely to use drugs and alcohol in comparison to their white counterparts is consistent with a number of studies (Blum et al., 2000; Cooper, Peirce, and Huselid, 1994). Specifically, black children may experience greater exposure to substance use and addiction among adults in the community, and in consequence perceive drug and alcohol use as especially high-risk behavior (Bachman et al., 1991). The overrepresentation of black adults in middle-adulthood in morbidity and mortality statistics is likely a function of unequal access to health care and medical policies (Bachman et al., 1991).

It is also interesting that results showed boys to have stronger intergenerational closure than girls, because this is inconsistent with the findings from the delinquency literature (Canter, 1982). This finding could be a function of the way I tap intergenerational closure in the present study. In particular, it is possible that parents monitor the whereabouts of boys more so than girls and establish closer and more involved relationships with them specifically because boys are traditionally more likely to engage in negative behaviors (Heimer and DeCoster, 1999; Mears et al., 1998).

Limitations

A number of important limitations accompany the present study. First, the differences in findings between two-parent/dual-earner and single-mother households are likely a reflection of the extent to which parents *choose* to work nonstandard schedules as a child-care strategy (Barton, 1994; Presser, 2003). However, I did not control for the voluntary nature of maternal or paternal schedule arrangements. Although the NLSY does not employ an explicit item that could tap into this characteristic, occupational scores could provide a useful proxy for the extent to which parents would work a different schedule if they had the choice. Similarly, because schedule control can offset the negative effects of nonstandard work (Staines and Pleck, 1986), future research should investigate the extent to which the positive effects of non-overlapping shifts are a function of schedule control and thus the ability to manage potentially conflicting time demands.

Second, sample size limitations prohibited an analysis of the unique effects of specific types of nonstandard schedules. Insufficient cell sizes meant that I had to aggregate nonstandard shifts, which may have interfered with a complete comprehension of the way that the specific timing of work can influence child outcomes. Finally, I did not control for the number of years the parent had worked a nonstandard shift, which past research shows to be significant for understanding negative child effects (Han et al., 2010).

Conclusion

At least part of the concern for how the timing of work schedules has an impact on child wellbeing is a reflection of public anxiety concerning women's participation in the paid labor-force. However, research in recent years indicates that the children of working mothers are not insufficiently attached in comparison to children with non-working mothers (Chira, 1998) and they do not have shortages in social, emotional, or behavioral functioning (Hoffmann, 1989; Parcel and Menaghan, 1994). In fact, in many cases, maternal employment can insulate children from negative behaviors (Farnworth, 1984; West, 1982; Zhao, Cao , and Cao, 1997), particularly because it raises family income (Baca-Zinn, 1989) and because employment constitutes a framework for everyday living and structures patterns of interactions between family members in ways that can be positive (Wilson, 1996). Thus, concerns about working mothers being less equipped to supervise and nurture their children as a function of employment are simply not warranted (Parcel and Menaghan, 1994). As explained by Wight et al. (2008), to some extent, the notion that nonstandard work is problematic for child outcomes is socially constructed. Although it is true that employers typically determine work arrangements for their workers, mothers and fathers have agency and are likely to choose employment prospects that make the most sense for their family. Future research must be cognizant of the ways nonstandard work can assuage issues related to childcare and be careful to not overemphasize its potentially negative implications.

The finding that nonstandard work has a negative impact on intergenerational closure in single-mother households has important implications. Specifically, since welfare reform in 1996 (the Personal Responsibility Act), individuals are required to look for work as soon as their benefits begin. Moreover, there is a new five-year limit for all welfare benefits and a substantial amount of pressure placed on welfare recipients to become “self-sufficient.” The implications of these new restrictions on welfare receipt are that recipients (primarily low-skilled and single mothers) are forced to take any employment they can get; if they do not, they face the risk of sanctions and are eventually banned from benefits all together. As a consequence, single mothers are pushed into “bad” jobs, many of which are low-paying, inflexible, and incompatible with childcare needs as they often require nonstandard hours (Hays, 2003). Indeed, Presser (1995; 2000; and 2003) shows that low-skilled workers and racial minorities disproportionately occupy nonstandard shifts in the United States. In the present study, the majority of the children in the single-mother subsample are racial minorities (67%) and from low-income households (the annual household income is under $50,000 a year for 85% of the families). Although I did not control for welfare receipt in the present study, the substantial representation of low-income families in single-mother households suggests that the implications of the welfare-to-work plan are likely to be very relevant for understanding the relationship between nonstandard work arrangements and weaker intergenerational closure. Specifically, parent-child relationships are likely to suffer when mothers must take jobs where they have limited schedule control and little access to family-friendly work policies. Likewise, the interaction of stressful job conditions and financial instability may explain the finding that children from single-mother households are at risk for negative outcomes as a function of nonstandard parental work.

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APPENDICES

Table 1: Descriptive Statistics for All Two-Parent Families (n=1262) and Dual-Earner Families (n=926)

		Two-Parent		*Dual-Earner*	
Variable	*Definition*	*M*	*SD*	*M*	*SD*
Dependent Variables					
Intergenerational Closure 2004	Mean score for index tapping supervision, involvement, and parent-child closeness	1.64	.41	1.65	.40
Unconventional Peers 2004	Mean score for index tapping associations with unconventional peers	.09	.20	.08	.21
Disobedience and Delinquency 2004	Mean score for index tapping disobedience and delinquency	.53	.50	.51	.48
Substance Use 2004	Mean score for index tapping alcohol, cigarette, and drug use	.19	.44	.18	.43
Household Work Schedules					
Both Standard (*reference category)*		.48	.50	.62	.87
Mother not employed/ father employed		.15	.36	—	—
Father not employed / mother employed		.08	.28	—	—
Both parents not employed		.03	.17	—	—
Father standard / mother evening or night		.04	.20	.06	.27
Father standard / mother other		.06	.23	.09	.33
Mother standard / father evening or night		.04	.20	.06	.25
Mother standard / father other		.09	.28	.13	.43
Both nonstandard		.03	.17	.04	.26
Controls					
Birth Weight	Child's birth weight in ounces	120.70	19.70	120.10	19.69
Child's Life Stage					
Early Adolescence (10-14) (*reference category)*		.39	.49	.40	.49
Late Adolescence (15-17)		.61	.49	.60	.49
Child's Sex					
Male		.52	.50	.51	.50
Female		.48	.50	.49	.50
Child's Race					
White (*reference category*)		.59	.49	.61	.49

Table 1 Continued

Black		.19	.39	.19	.39
Hispanic		.22	.41	.21	.40
Annual Household Income					
Under $50,000 (*reference category)*		.26	.44	.20	.65
$50,000-100,000		.49	.50	.50	.68
Greater than $100,000		.26	.45	.30	.46
Maternal Education	Number of years of education	13.59	2.55	13.80	3.43
Maternal Work Hours					
Mother part-time (*reference category*)		.49	.50	.36	.48
Mother full-time		.33	.47	.40	.49
Mother overtime		.18	.39	.24	.43
Father Work Hours					
Father part-time (*reference category*)		.19	.40	.10	.38
Father full-time		.39	.49	.45	.65
Father overtime		.42	.50	.45	.53
Unconventional Peers 2002	Mean score for index tapping past unconventional peers	.08	.21	.07	.20
Disobedience and Delinquency 2002	Mean score for index tapping past disobedience/delinquency	.41	.45	.39	.43
Substance Use 2002	Mean score for index tapping past substance use	.09	.29	.09	.29

Table 2: Descriptive Statistics for Single-Mother Families (n=724)

Variable	*Definition*	*M*	*SD*
Dependent Variables			
Intergenerational Closure 2004	Mean score for index tapping supervision, involvement, closeness	1.43	.45
Unconventional Peers 2004	Mean score for index tapping associations with unconventional peers	.11	.23
Disobedience and Delinquency 2004	Mean score for index tapping disobedience and delinquency	.64	.55
Substance Use 2004	Mean score for index tapping alcohol, cigarette, and drug use	.28	.55
Household Work Schedules			
Mother Not employed (*reference category)*		.20	.40
Mother standard		.60	.49
Mother evening or night		.08	.27
Mother other		.11	.31
Controls			
Birth Weight	Child's birth weight in ounces	115.90	22.08
Child's Life Stage			
Early Adolescence (10-14) (*reference category)*		.36	.48
Late Adolescence (15-17)		.64	.48
Child's Sex			
Female (*reference category)*		.47	.50
Male		.53	.50
Child's Race			
White (*reference category*)		.33	.47
Black		.45	.50
Hispanic		.22	.41
Annual Household Income			
$0-25,000 (*reference category)*		.54	.51
$25,000-50,000		.31	.47
Greater than $50,000		.15	.36
Maternal Education	Number of years of education	12.70	2.19
Maternal Work Hours			
Mother part-time (*reference category*)		.45	.50
Mother full-time		.38	.49
Mother overtime		.17	.38
Unconventional Peers 2002	Mean score for index tapping past unconventional peers	.09	.22

Table 2 ***(continued)***

Disobedience and Delinquency 2002	Mean score for index tapping past disobedience/delinquency	.51	.51
Prior Substance Use 2002	Mean score for index tapping past substance use	.13	.32

Table 3: OLS Regression Predicting Intergenerational Closure for Two-Parent Families (n=1262)

VARIABLE	Model I (Parental work schedules)	Model II (Add Controls)
R^2	.0251	.0574
Model *F*	3.24**	3.03**
Constant	1.66***	1.35***
Household Work Schedules*		
Dual-Standard 2004	—	—
Mother Not employed / Father Employed 2004	.041 (.040)	.039 (.045)
Father Not employed / Mother Employed 2004	-.160* (.066)	-.108 (.089)
Both Parents Not employed 2004	-.184** (.064)	-.081 (.088)
Father Standard / Mother Evening or Night 2004	-.081 (.071)	-.077 (.072)
Father Standard / Mother Other 2004	.058 (.055)	.073 (.055)
Mother Standard / Father Evening or Night 2004	.014 (.076)	.010 (.071)
Mother Standard / Father Other 2004	-.060 (.057)	-.064 (.058)
Dual- Nonstandard 2004	-.201† (.106)	-.188† (.107)
Age of Child 2004		
10-14 Age Group		—
15-17 Age Group		-.025 (.025)
Sex of Child		
Female		—
Male		.084** (.027)
Race of Child		
White		—
Black		-.017 (.044)
Hispanic		.002 (.040)
Household Income 2004 **		
Low: $0-50,000		—
Medium: $50,000-100,000		.120** (.045)
High: $100,000+		.095† (.050)
Birth Weight		.000 (.001)
Maternal Education 2004		.010 (.006)
Maternal Work Hours		
Mother Part-time 2004		—
Mother Fulltime 2004		.003 (.036)

Table 3 (*continued)*

Mother Overtime 2004	-.036 (.042)
Paternal Work Hours	
Father Part-time 2004	—
Father Fulltime 2004	-.009 (.062)
Father Overtime 2004	.028 (.061)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 4: OLS Regression Predicting Intergenerational Closure for Dual-Earner Families (n=926)

VARIABLE	Model I (Parental work schedules)	Model II (Add Controls)
R^2	.0129	.0480
Model *F*	1.60	1.82
Constant	1.65***	1.21***
Household Work Schedules		
Dual-Standard 2004	—	—
Father Standard / Mother Evening or Night 2004	-.055	-.065
	(.065)	(.066)
Father Standard / Mother Other	.079	.075
	(.050)	(.053)
Mother Standard / Father Evening or Night	.042	.035
	(.065)	(.065)
Mother Standard / Father Other	-.014	.013
	(.045)	(.053)
Dual-Nonstandard	-.174†	-.176†
	(.097)	(.104)
Age of Child 2004		
10-14 Age Group		—
15-17 Age Group		-.012
		(.028)
Sex of Child		
Female		—
Male		.091**
		(.030)
Race of Child		
White		—
Black		-.015
		(.044)
Hispanic		.011
		(.045)
Household Income 2004		
Low: $0-50,000		—
Medium: $50,000-100,000		.057
		(.053)
High: $100,000+		.073
		(.057)
Birth Weight		.001
		(.001)
Maternal Education 2004		.016*
		(.007)
Maternal Work Hours 2004		
Mother Part-time		—
Mother Fulltime		-.016
		(.037)
Mother Overtime		-.053
		(.043)
Paternal Work Hours 2004		
Father Part-time		—
Father Fulltime		.010
		(.068)

Table 4 ***(continued)***

Father Overtime	.032 (.068)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 5: OLS Regression Predicting Intergenerational Closure for Single-Mother Families (n=724)

VARIABLE	Model I (Parental work schedules)	Model II (Add Controls)
R^2	.0118	.1246
Model *F*	3.29*	6.76***
Constant	1.45***	1.75***
Maternal Work Schedules 2004 *		
Mother Not Employed	—	—
Mother Standard 2004	.023 (.062)	.034 (.065)
Mother Evening or Night 2004	-.166* (.083)	-.141† (.086)
Mother Other 2004	-.029 (.085)	-.071 (.094)
Age of Child 2004		
10-14 Age Group 2004		—
15-17 Age Group 2004		-.268*** (.043)
Sex of Child		
Female		—
Male		.031 (.040)
Race of Child		
White		—
Black		-.035 (.041)
Hispanic		.040 (.051)
Household Income 2004 *		
Low: $0-25,000		—
Medium: $25.000-50,000		.127* (.057)
High: $50,000+		.151* (.074)
Birth Weight		.000 (.001)
Maternal Education 2004		-.012 (.012)
Maternal Work Hours 2004 *		
Mother Part-time		—
Mother Fulltime		.130* (.054)
Mother Overtime		-.059 (.059)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 6: OLS Regression Predicting Unconventional Peers for Two-Parent Families (n=1262)

VARIABLE	Model I (Parental work schedules)	Model II (Add Intergenerational Closure)	Model III (Add Controls)
R^2	.0188	.0618	.1273
Model *F*	1.99*	4.30***	5.26***
Constant	.080***	.251***	.183**
Household Work Schedules 2004 *			
Dual-Standard	—	—	—
Mother Not employed / Father Employed	-.024 (.015)	.-020 (.014)	-.006 (.016)
Father Not employed / Mother Employed	.061* (.030)	.045† (.026)	.067* (.033)
Both Parents Not employed	.099 (.076)	.083 (.076)	.118 (.080)
Father Standard / Mother Evening or Night	.031 (.041)	.023 (.039)	-.0003 (.037)
Father Standard / Mother Other	-.037† (.022)	-.030 (.022)	-.018 (.022)
Mother Standard / Father Evening or Night	-.016 (.024)	-.014 (.024)	-.012 (.027)
Mother Standard / Father Other	.013 (.030)	.007 (.029)	.013 (.028)
Both Parents Nonstandard	.052 (.055)	.030 (.051)	.052 (.049)
Intergenerational Closure 2004		-.103*** (.019)	-.101*** (.020)
Age of Child 2004			
10-14 Age Group			—
15-17 Age Group			.036** (.012)
Sex of Child			
Female			—
Male			.031* (.013)
Race of Child			
White			—
Black			-.024 (.020)
Hispanic			.006 (.018)
Household Income 2004			
Low: $0-25,000			—
Medium: $50,000-100,000			-.011 (.034)
High: $100,000+			-.019 (.034)
Child's Birth Weight			-.0001 (.0002)
Maternal Education 2004			-.001 (.003)
Maternal Work Hours 2004			

Table 6 ***(continued)***

Mother Part-time	—
Mother Fulltime	.032† (.017)
Mother Overtime	-.001 (.018)
Paternal Work Hours 2004	
Father Part-time	—
Father Fulltime 2004	.043† (.026)
Father Overtime 2004	.053† (.027)
Delinquent Peers 2002	.176 (.115)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 7: OLS Regression Predicting Unconventional Peers for Dual-Earner Families (n=926)

VARIABLE	**Model I (Parental work schedules)**	**Model II (Add Intergenerational Closure)**	**Model III (Add Controls)**
R^2	.0083	.0358	.1262
Model *F*	1.18	2.77***	4.11***
Constant	.081***	.221***	.154*
Household Work Schedules 2004			
Dual-Standard	—	—	—
Father Standard / Mother Evening or Night	.026 (.039)	.022 (.040)	-.010 (.036)
Father Standard / Mother Other	-.042† (.022)	-.037† (.021)	- .024 (.020)
Mother Standard / Father Evening or Night	-.007 (.024)	-.001 (.024)	- .013 (.080)
Mother Standard / Father Other	.003 (.024)	.002 (.022)	.007 (.024)
Both Parents Nonstandard	.045 (.047)	.035 (.044)	.043 (.050)
Intergenerational closure 2004		-.085*** (.023)	-.080*** (.022)
Age of Child 2004			
10-14 Age Group			—
15-17 Age Group			.033* (.014)
Sex of Child 2004			
Female			—
Male			.029* (.014)
Race of Child 2004			
White			—
Black			-.023 (.021)
Hispanic			.005 (.020)
Household Income 2004			
Low: $0-50,000			—
Medium: $50,000-100,000			-.001 (.022)
High: $100,000			-.017 (.021)
Child's Birth Weight			-.0001 (.0003)
Maternal Education 2004			-.001 (.003)
Maternal Work Hours 2004 *			
Mother Part-time			—
Mother Fulltime			.034† (.018)
Mother Overtime 2004			.0004 (.018)
Paternal Work Hours 2004			
Father Part-time			—

Table 7 ***(continued)***

Father Fulltime	.039 (.028)
Father Overtime 2004	.040 (.027)
Unconventional Peers 2002	.256*** (.058)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 8: OLS Regression Predicting Unconventional Peers for Single-Mother Families (n=724)

VARIABLE	**Model I (Parental work schedules)**	**Model II (Add Intergenerational Closure)**	**Model III (Add Controls)**
R^2	.0127	.0143	.0536
Model *F*	2.31†	1.96	2.50**
Constant	.146***	.174***	.195*
Maternal Work Schedules 2004			
Mother Not Employed 2004	—	—	—
Mother Standard 2004	-.044 (.032)	-.043 (.032)	-.030 (.036)
Mother Evening or Night 2004	-.086* (.030)	-.089* (.039)	-.083* (.041)
Mother Other 2004	-.082* (.040)	-.083* (.040)	-.067† (.041)
Intergenerational Closure 2004		-.020 (.022)	-.015 (.023)
Age of Child 2004			
10-14 Age Group			—
15-17 Age Group			.010 (.022)
Sex of Child			
Female			—
Male			-.002 (.019)
Race of Child			
White			—
Black			.011 (.021)
Hispanic			-.002 (.027)
Household Income 2004			
Low: $0-25,000			—
Medium: $25,000-50,000			-.029 (.024)
High: $50,000+			.008 (.036)
Child's Birth Weight			.001 (.0004)
Maternal Education 2004			-.010* (.005)
Maternal Work Hours 2004			
Mother Part-time			—
Mother Fulltime			.028 (.025)
Mother Overtime			.006 (.027)
Unconventional Peers 2002			.142** (.053)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 9: OLS Regression Predicting Disobedience and Delinquency for Two-Parent Families (n=1262)

VARIABLE	**Model I (Parental work schedules)**	**Model II (Add Intergenerational Closure)**	**Model III (Add Peers)**	**Model IV (Add controls)**
R^2	.0338	.1430	.2564	.3743
Model F	4.15***	14.65***	23.20***	20.39***
Constant	.524***	1.20***	.984***	.731***
Household Work Schedules 2004				
Dual-Standard	—	—	—	—
Mother Not employed / Father Employed	-.119**	-.105**	-.088*	-.039
Father Not employed / Mother Employed 2004	.249** (.072)	.183** (.063)	.144* (.061)	.161* (.070)
Both Parents Not employed 2004	.125 (.167)	.060 (.159)	-.011 (.114)	.012 (.101)
Father Standard / Mother Evening or Night 2004	-.021 (.090)	-.053 (.087)	-.073 (.075)	-.076 (.071)
Father Standard / Mother Other 2004	-.143** (.053)	-.117* (.047)	-.091* (.040)	-.083† (.043)
Mother Standard / Father Evening or Night 2004	-.046 (.091)	-.037 (.078)	-.025 (.077)	-.042 (.074)
Mother Standard / Father Other 2004	.022 (.072)	-.0003 (.065)	-.006 (.058)	.003 (.051)
Both Parents Nonstandard 2004	-.069 (.118)	-.155 (.115)	-.181* (.088)	-.128 (.077)
Intergenerational Closure 2004		-.407*** (.044)	-.318*** (.042)	-.275*** (.039)
Unconventional Peers 2004			.867*** (.091)	.649*** (.095)
Age of Child 2004				
10-14 Age Group				—
15-17 Age Group				.092*** (.028)
Sex of Child				
Female				—
Male				.086** (.027)
Race of Child				
White				—
Black				-.053 (.035)
Hispanic				.040 (.038)
Household Income 2004				
Low: $0-50,000				—
Medium: $50,000-100,000				.036 (.052)
High: $100,000+				.029 (.050)

Table 9 ***(continued)***

Birth Weight	-.001 (.001)
Maternal Education 2004	-.002 (.006)
Maternal Work Hours 2004 *	
Mother Part-time	—
Mother Fulltime	.049 (.036)
Mother Overtime	.096** (.037)
Paternal Work Hours 2004	
Father Part-time	—
Father Fulltime	.031 (.051)
Father Overtime	.017 (.055)
Disobedience and Delinquency 2002	.320*** (.064)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 10: OLS Regression Predicting Disobedience and Delinquency for Dual-Earner Families (n=926)

VARIABLE	Model I (Parental work schedules)	Model II (Add Intergenerational Closure)	Model III (Add Peers)	Model IV (Add controls)
R^2	.009	.1012	.2203	.3412
Model F	2.12*	10.71***	20.87***	15.05***
Constant	.518***	1.13***	.946***	.802***
Household Work Schedules				
Dual-Standard	—	—	—	—
Father Standard / Mother Evening or Night	-.007 (.081)	-.025 (.078)	-.043 (.067)	-.048 (.069)
Father Standard / Mother Other	-.141** (.050)	-.116* (.046)	-.085* (.041)	-.075† (.045)
Mother Standard / Father Evening or Night	-.026 (.069)	-.0003 (.065)	.0007 (.062)	-.023 (.057)
Mother Standard / Father Other	.003 (.046)	-.005 (.042)	-.006 (.037)	-.009 (.041)
Both Parents Nonstandard	-.042 (.093)	-.086 (.095)	-.116* (.078)	-.075 (.067)
Intergenerational Closure 2004		-.373*** (.052)	-.301*** (.049)	-.266*** (.047)
Unconventional Peers 2004			.848*** (.105)	.600*** (.107)
Age of Child 2004				
10-14 Age Group				—
15-17 Age Group				.075* (.032)
Sex of Child				
Female				—
Male				.110*** (.032)
Race of Child				
White				—
Black				-.086* (.039)
Hispanic				.047 (.044)
Household Income 2004				
Low: $0-50,000				—
Medium: $50,000-100,000				.032 (.050)
High: $100,000+				.015 (.039)
Child's Birth Weight				-.001 (.001)
Maternal Education 2004				-.003 (.007)
Maternal Work Hours 2004 **				
Mother Part-time				—
Mother Fulltime				.079* (.039)

Table 10 ***(continued)***

Mother Overtime 2004	.098** (.037)
Paternal Work Hours 2004	
Father Part-time	—
Father Fulltime 2004	.008 (.053)
Father Overtime 2004	.006 (.050)
Disobedience and Delinquency 2002	.327*** (.054)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 11: OLS Regression Predicting Disobedience and Delinquency for Single-Mother Families (n=724)

VARIABLE	**Model I (Parental work schedules)**	**Model II (Add Intergenerational Closure)**	**Model III (Add Peers)**	**Model IV (Add controls)**
R^2	.0185	.0941	.1403	.2501
Model *F*	1.92	8.19***	9.79***	7.78***
Constant	.638***	1.13***	1.03***	.557*
Maternal Work Schedules				
Mother Not Employed	—	—	—	—
Mother Standard	-.072 (.074)	-.065 (.067)	-.041 (.060)	.037 (.068)
Mother Evening or Night 2004	.214 (.145)	.160 (.142)	.208 (.136)	.197† (.111)
Mother Other 2004	-.067 (.104)	-.073 (.094)	-.028 (.092)	.056 (.093)
Intergenerational Closure 2004		-.337*** (.068)	-.327*** (.068)	-.251*** (.069)
Unconventional Peers 2004			.542*** (.131)	.402*** (.122)
Age of Child 2004				
10-14 Age Group				—
15-17 Age Group				.105* (.049)
Sex of Child				
Female				—
Male				.107* (.044)
Race of Child				
White				—
Black				.045 (.049)
Hispanic				.062 (.055)
Household Income 2004				
Low: $0-25,000				—
Medium: $25,000-50,000				-.028 (.073)
High: $50,000+				-.026 (.070)
Child's Birth Weight				.001 (.001)
Maternal Education 2004				-.007 (.012)
Maternal Work Hours 2004				
Mother Part-time				—
Mother Fulltime 2004				.00001 (.061)
Mother Overtime 2004				-.072 (.069)
Disobedience and Delinquency 2002				.285*** (.073)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 12: OLS Regression Predicting Substance Use for Two-Parent Families (n=1262)

VARIABLE	Model I (Parental work schedules)	Model II (Add Intergenerational Closure)	Model III (Add Peers)	Model IV (Add controls)
R^2	.0387	.1273	.2607	.3710
Model *F*	4.59***	9.51***	15.87***	12.51***
Constant	.213***	.793***	.568***	.464**
Household Work Schedules 2004 **				
Dual-Standard	—	—	—	—
Mother Not employed / Father Employed	-.120*** (.035)	-.108*** (.032)	-.090** (.032)	-.043 (.035)
Father Not employed / Mother Employed 2004	.241 (.087)	.185* (.083)	.145† (.081)	.170† (.088)
Both Parents Not employed 2004	.152 (.140)	.097 (.133)	.023 (.091)	-.004 (.087)
Father Standard / Mother Evening or Night 2004	-.088 (.069)	-.116† (.067)	-.136 (.058)	-.164 (.060)
Father Standard / Mother Other 2004	-.122** (.042)	.100** (.037)	-.073* (.033)	-.065† (.036)
Mother Standard / Father Evening or Night 2004	-.054 (.063)	-.047 (.061)	-.035 (.060)	-.012 (.059)
Mother Standard / Father Other 2004	.030 (.074)	.010 (.069)	.004 (.056)	.026 (.051)
Both Parents Nonstandard 2004	.141 (.145)	.068 (.148)	.041 (.122)	.081 (.116)
Intergenerational Closure 2004		-.349*** (.047)	-.257*** (.045)	-.242*** (.043)
Unconventional Peers 2004			.894*** (.117)	.724*** (.111)
Age of Child 2004				
10-14 Age Group				—
15-17 Age Group				.137*** (.025)
Sex of Child				
Female				—
Male				.017 (.026)
Race of Child ***				
White				—
Black				-.168*** (.032)
Hispanic				-.012 (.040)
Household Income 2004				
Low: $0-50,000				—
Medium: $50,000-100,000				.083 (.050)
High: $100,000+				.078 (.059)
Child's Birth Weight				-.0003 (.001)

Table 12 ***(continued)***

Maternal Education 2004	-.004 (.006)
Maternal Work Hours 2004	
Mother Part-time	—
Mother Fulltime	.005 (.035)
Mother Overtime	.044 (.042)
Paternal Work Hours 2004	
Father Part-time	—
Father Fulltime	-.006 (.062)
Father Overtime	-.029 (.058)
Substance Use 2002	.406* (.145)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 13: OLS Regression Predicting Substance Use for Dual-Earner Families (n=926)

VARIABLE	Model I (Parental work schedules)	Model II (Add Intergenerational Closure)	Model III (Add Peers)	Model IV (Add controls)
R^2	.0115	.0950	.2521	.3463
Model F	3.02*	7.22***	13.88***	8.06***
Constant	.213***	.767***	.562***	.529**
Household Work Schedules 2004 *				
Dual-Standard	—	—	—	—
Father Standard / Mother Evening or Night	-.080 (.069)	-.096 (.065)	-.116* (.055)	-.138* (.057)
Father Standard / Mother Other	-.138** (.043)	-.116** (.037)	-.082* (.032)	-.083† (.043)
Mother Standard / Father Evening or Night	-.040 (.066)	-.017 (.051)	-.016 (.057)	.003 (.061)
Mother Standard / Father Other	-.009 (.057)	.010 (.069)	-.018 (.038)	-.024 (.046)
Both Parents Nonstandard	.108 (.122)	.069 (.119)	.036 (.094)	.063 (.104)
Intergenerational Closure 2004		-.335*** (.056)	-.257*** (.053)	-.239*** (.051)
Unconventional Peers 2004			.928*** (.136)	.767*** (.126)
Age of Child 2004				
10-14 Age Group				—
15-17 Age Group				.122*** (.028)
Sex of Child				
Female				—
Male				.016 (.031)
Race of Child **				
White				—
Black				-.151*** (.037)
Hispanic				.011 (.049)
Household Income 2004				
Low: $0-50,000				—
Medium: $50,000-100,000				.052 (.054)
High: $100,000+				.039 (.050)
Birth Weight				-.001 (.001)
Maternal Education 2004				-.003 (.006)
Maternal Work Hours 2004				
Mother Part-time				—
Mother Fulltime				.014 (.035)
Mother Overtime				.047

Table 13 ***(continued)***

	(.042)
Paternal Work Hours 2004	
Father Part-time	—
Father Fulltime	-.015 (.067)
Father Overtime 2004	-.011 (.061)
Substance Use 2002	.395*** (.118)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)

Table 14: OLS Regression Predicting Substance Use for Single-Mother Families (n=724)

VARIABLE	**Model I (Parental work schedules)**	**Model II (Add Intergenerational Closure)**	**Model III (Add Peers)**	**Model IV (Add controls)**
R^2	.003	.066	.1115	.3260
Model *F*	.47	4.49**	8.19***	9.44***
Constant	.333***	.783***	.688***	.257
Maternal Work Schedules 2004				
Mother Not Employed	—	—	—	—
Mother Standard	-.038 (.084)	-.031 (.075)	-.007 (.074)	.040 (.071)
Mother Evening or Night	-.077 (.121)	-.127 (.119)	-.079 (.032)	-.012 (.105)
Mother Other	-.104 (.101)	-.110 (.095)	-.065 (.096)	-.004 (.093)
Intergenerational Closure 2004		-.311*** (.079)	-.300*** (.079)	-.183* (.072)
Unconventional Peers 2004			.540*** (.129)	.456*** (.106)
Age of Child 2004				
10-14 Age Group				—
15-17 Age Group				.085* (.041)
Sex of Child				
Female				—
Male				.085† (.045)
Race of Child *				
White				—
Black				-.121** (.046)
Hispanic				-.006 (.058)
Household Income 2004				
Low: $0-25,000				—
Medium: $25,000-50,000				-.027 (.069)
High: $50,000+				-.036 (.080)
Child's Birth Weight				.0004 (.001)
Maternal Education 2004				.003 (.011)
Maternal Work Hours 2004				
Mother Part-time				—
Mother Fulltime				.030 (.066)
Mother Overtime				-.083 (.072)
Substance Use 2002				.753*** (.123)

Note: †p<.10, * p<.05, **p<.01, ***p<.001, Two-Tailed Tests. Table entries are unstandardized (metric) regression coefficients (standard errors of estimates in parentheses). Dummy variables are significant as a set as specified by an incremental-*F* test if one or more stars is listed next to variable groupings (* p<.05, **p<.01, ***p<.001)