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TESTING MOFFITT'S ACCOUNT OF DELINQUENCY ABSTENTION

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An established finding in criminology is that most adolescents engage in delinquency. Still, studies continue to identify a small group of individuals who refrain from delinquency even when it is normative for their same-age peers. Moffitt's developmental taxonomy provides some reasons for delinquency abstention, but research has been slow to assess these hypotheses. Herein, the authors use data from the National Longitudinal Survey of Youth 1997 to examine one of Moffitt's unexplored abstention hypotheses: that some individuals abstain because individual characteristics block their access to delinquent peer networks and, hence, opportunities to mimic antisocial behavior. In addition, the authors also present the first empirical examination of gender differences in abstention. The results support some aspects of Moffitt's hypotheses concerning the importance of peer networks, but provide mixed evidence regarding the personal characteristics associated with delinquency abstention and involvement in deviant peer networks. Directions for future research and theorizing are discussed.

Keywords: abstainers; delinquency; taxonomy; peers

Adolescence is a time of transition (Steinberg and Morris 2001), a period when youngsters face the developmental task of differentiating themselves from parents and family and forging independent identities (Shedler and Block 1990:625). During adolescence, individuals experiment with values and beliefs, explore new roles and identities, and test limits and personal boundaries (Erikson 1968). In a colorful description of this time period, Newcomb and Bentler (1988:214) note that:

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one defining feature of adolescence is a quest for or establishment of independence and autonomous identity and functioning. This may involve experimentation with a wide range of behaviors, attitudes, and activities before choosing a direction and way of life to call one's own. This process of testing attitudes and behavior may include drug use. In fact, experimental use of various drugs, both licit and illicit, may be considered a normative behavior among United States teenagers in terms of prevalence, and from a developmental task perspective.

It should come as no surprise, then, that during adolescence, several studies indicate that delinquency and drug use is widespread (see Thornberry and Krohn 2000). In the National Youth Survey (NYS), Elliott, Huizinga, and Menard (1989) report that more than 90 percent of sample males and females admit to involvement in at least one delinquent act over the course of their lives. In the Dunedin Study, Moffitt et al. (2001) report that 91 percent of males and 86 percent of females committed at least one delinquent act by age 18. Similar estimates are found in the Rochester Youth Development Study (Thornberry and Krohn 2001).

It is also not surprising that during adolescence, varied types of associations with peers is both common and widespread (Warr 2002). For example, using data from the National Youth Survey, Warr (1993) found that peer relations (i.e., exposure to delinquent peers, time spent with peers, loyalty to peers) changed dramatically throughout adolescence, following much the same pattern as crime itself. In addition, the need for autonomy becomes important for many (if not most) adolescents, and among many adolescents, delinquency symbolizes independence and autonomy (Goldstein 1990).

But what about the 6 to 12 percent of adolescents who refrain from delinquency? What accounts for their noninvolvement during a time period when "everyone else is doing it"? Unfortunately, "almost no [theoretical or empirical] research sheds light on the characteristics of teens who abstain from antisocial behavior altogether" (Leifman et al. 1995; Moffitt 1993:689; Moffitt et al. 2001; Shedler and Block 1990).

To be sure, traditional crime theories provide an implicit explanation of delinquency abstention. Such theories imply that individuals will abstain when the causal factors associated with crime are absent, or are somehow "turned off." For example, in Thornberry and Krohn's (2001) interactional theory, conformity is simply a function of the standard causal variables specified by the theory (i.e., early life predispositions to antisocial behavior such as temperamental difficulties, weak social bonds, and difficult social, familial, and economic circumstances). If these causal factors are not present, then children will tend toward conformity.

There is, however, at least one criminological theory that provides an explicit and relatively unique explanation of abstention. Moffitt's (1993)

developmental, taxonomic theory of delinquency—although focused primarily on offenders—identifies several possible reasons for the strict conformity of a small group of adolescents. According to Moffitt, most adolescents in modern society engage in delinquency because it is an adaptive response to the frustrating experience of the “maturity gap.” Although teens are biologically capable of and interested in adult behaviors (e.g., independence, autonomous decision making, and other “freedoms”), adult society denies them such privileges until later in life. For most teens, a potential solution is found by imitating the behavior of their antisocial peers—peers who appear to have surmounted the maturity gap with behavior that symbolizes independence and autonomy, such as smoking, drinking, and sexual activity. According to Moffitt (1993:689), delinquency abstention must be due to the fact that (1) some young people fail to experience the maturity gap and therefore lack the hypothesized motivation for experimenting with crime (Felson and Haynie 2002; Piquero and Brezina 2001), or (2) some individuals suffer from characteristics that “make them unattractive to other teens” or that otherwise exclude them from entry into “newly popular delinquent groups.”

The fact that some adolescents completely refrain from delinquency—despite normative pressure—poses a fascinating analytical problem in its own right. But Moffitt’s (1993) account of delinquency abstention is especially interesting because, unlike most traditional crime theories, it traces the causes of conformity, at least in part, to the possession of unique individual traits or characteristics by abstainers—not simply the absence of risk factors. This account is worthy of examination because, contrary to conventional wisdom, it suggests that abstainers may not be paragons of psychological health or positive social adjustment (Shedler and Block 1990). Moffitt et al. (1996) conclude, “abstainers warrant scrutiny by researchers and clinicians because they may suffer from personal characteristics that bar them from [deviant] peer networks” (p. 419).

Despite Moffitt’s call for additional research, few studies have focused sustained attention on delinquency abstention *per se* or on abstainers in particular (Thornberry and Krohn 2001), even though self-report studies consistently document that abstainers comprise a stable group whose size closely resembles the size of chronic offenders (6 to 10 percent). We believe it is important to advance such research not only to assess the validity of Moffitt’s account, but because this line of research may shed additional light on the nature of adolescent conformity and offending more generally and, quite possibly, have implications for delinquency prevention and control. For example, by studying the characteristics of those who abstain, criminologists may come to understand some of the reasons why individuals refrain from crime that may help in the development of prevention programs (Thornberry and Krohn 2001:290).

Here, we test some of Moffitt's (1997) hypotheses regarding delinquency abstention. First, we investigate the "explanation most central to [Moffitt's] theory" that some individuals lack opportunities to model delinquent peers due to *personal* characteristics (Moffitt 1997:33). Some individuals may be unattractive to other teens, uninterested in the teenaged social scene, or otherwise excluded from delinquent peer groups, which ascend to importance during adolescence (Moffitt 1997:33). In the words of Moffitt and Harrington (1996:182), these "youths may be shut out of delinquent peer groups." Second, in the course of testing this claim, we also explore gender differences in the correlates and prevalence of abstention. Although the relevance of Moffitt's account is not limited to males, previous studies have focused almost exclusively on males. To our knowledge, researchers have yet to conduct a direct test of the personal characteristic hypothesis—much less investigated it across gender; however, the results of certain previous studies appear to lend it plausibility. These results, described below, indicate that abstainers may indeed suffer from personal characteristics that lead to their exclusion from peer networks, especially delinquent peer groups.

PRIOR EMPIRICAL RESEARCH

In the course of studying offenders, several early studies noted the existence of abstainers and described them as withdrawn youth who appeared to be relatively neurotic, nervous, shy, unresponsive, and generally (socially) maladjusted (Garmezy 1971; Wickman 1928). This characterization of abstainers is echoed in more recent studies (Hogan et al. 1970; Kivivuori 2000; Krueger et al. 1994; Leifman et al. 1995; Vaillant 1993; West 1982; though see Neighbors, Forehand, and McVicar 1993). In a recent report from the New Zealand study, Moffitt et al. (1996) compared personal characteristics across distinct groups of male offenders, including abstainers, and found that abstainers were more likely to be over-controlled and did not "fit into" the peer social context (and less likely to associate with deviant peers). In particular, abstainers were more likely to score higher than offenders on (1) traditionalism, where individuals described themselves as needing a conservative, predictable social environment and endorsing high moral standards; and (2) control, where individuals described themselves as reflective, cautious, careful, rational, and planful. Abstainers were also observed to be calmer and more impassive than offenders, more diffident and inept, and were unusually good students, thus fitting the profile of the compliant, good student who, during adolescence, becomes unpopular with peers (Bukowski et al. 2000).¹

Studies also indicate that abstainers tend to be relatively isolated from their peers, perhaps due to undesirable personality characteristics. Based on

data from the National Youth Survey, Dunford and Elliott (1984) observed that compared to other offender types, nonoffenders were less likely to be involved with friends but more likely to be involved with both school and family (also see Arnett 2001; Cairns and Cairns 1994). Nonoffenders also reported less exposure and commitment to delinquent peers than the other offender groups. Using nine waves of the Monitoring the Future Study, Tolone and Tieman (1990) studied the drug use, delinquency, and lifestyle correlates of "loners" and "socials," and found that the lack of peer influence on the loners seemed to contribute to relatively low levels of delinquency and drug use and to more conventional lifestyle activities. Unlike the socials, the loners were not part of the peer social context that creates opportunities for delinquency and drug use.

To our knowledge, only two studies have directly and simultaneously examined the personality characteristics and social involvement of abstainers. First, Farrington and West (1993) studied males in the Cambridge Study in Delinquent Development and found that factors common to individuals who were never convicted included a tendency to have few friends, to be shy, and withdrawn. Social isolation seemed to be a factor that protected vulnerable boys against developing into offenders.

Second, Shedler and Block (1990) investigated the personal and social characteristics of adolescent drug users through age 18. The authors sorted their subjects into three groups; abstainers (those subjects who had never tried marijuana or any other drug), experimenters (those subjects who had used marijuana a few times but had not tried more than one other drug), and frequenters (those subjects who reported frequent marijuana use and had tried at least one other drug). They found that the abstainers were more likely to be overcontrolled, somewhat socially isolated, and lacking in interpersonal social skills, whereas the experimenters were the best adjusted teens and, not surprisingly, the frequenters were the most troubled and antisocial of the three groups. When these authors studied the childhood personality predictors of abstainers, they found very similar results; that is, abstainers were relatively overcontrolled and, even in childhood, timid, fearful, and morose. More important, abstainers were also observed to be "not curious and open to new experiences, not active, not vital, and not cheerful" (Shedler and Block 1990:619-620).²

To support her major hypothesis regarding delinquency abstention, Moffitt (1993:689) highlights the latter findings of Shedler and Block (1990), with the implication that timid, morose, and inactive adolescents may be unattractive to other teens and to "newly popular delinquent groups." Consequently, such individuals may experience few opportunities to mimic antisocial peers and, hence, refrain from delinquency altogether. It is to this hypothesis that we turn our attention to in the current study.

CURRENT FOCUS

The picture emerging from prior research suggests that abstainers may not necessarily be the most well-adjusted of adolescents (Jones 1968, 1971). Instead, abstainers appear to exhibit a host of undesirable personality characteristics and to be relatively alienated from peers. Although these findings are important, the hypothesis that abstainers are “troubled introverts as teens” remains, according to Moffitt (2003:8), “to be confirmed.” Also remaining to be confirmed is the specific hypothesis that some individuals abstain because—as a result of undesirable personality characteristics—they are excluded from (deviant) peer networks.

The current study builds on prior research in two ways. First, we test the above hypotheses using data from a national survey of adolescents. Second, we also examine the extent to which abstention (and the correlates of abstention) is (are) invariant across sex. This is important because prior research on abstainers has tended to concentrate on males, and when females have been included, they have been integrated with males because there have been too few of them to isolate and study separately (Shedler and Block 1990).

We believe that studying female abstention is important for several reasons. First, research shows that there are gender differences in rates of abstention as well as the factors implicated in the abstention process (Moffitt 2003). Regarding delinquency participation, research indicates rate differences across gender. For example, in the Dunedin Study, Moffitt et al. (2001) found that although 9 percent of males were classified as abstainers by age 18, the rate was higher among females (i.e., 14 percent). In the Rochester Youth Development Study, Thornberry and Krohn (2001) report the exact same figures: by the end of high school, 12 percent of respondents (9 percent of males and 14 percent of females) did not self-report involvement in delinquency or substance use. Based on data from the NYS, Dunford and Elliott (1984) also report that females were more likely than males to refrain from delinquency. Second, females are more likely than males to experience feelings of unhappiness, sadness, and depression—especially during the adolescent years (Arnett 2001; Moffitt et al. 2001). As described above, such characteristics may exclude adolescents from (deviant) peer networks. If these characteristics are more common among females than males, then it can be expected that abstention will be more common among females as well. Third, extant literature suggests that peers play a different role for females when compared to males, especially with regard to peer contexts (Cairns and Cairns 1994) and peer delinquency (Mears, Ploeger, and Warr 1998; Warr 1996). For example, research indicates that females are much more likely to become involved in delinquency if they interact with male deviant peers

(Caspi et al. 1993). Thus, a key difference in exposure to peers across gender may, in part, account for the abstention differences observed across gender.

In sum, we would expect abstention from delinquency to be relatively rare for males and somewhat more common among females (Moffitt et al. 1996:419, 2001:234). We would also expect to find important gender differences in the characteristics that are implicated in the abstention process (i.e., individual characteristics and involvement with [delinquent] peers). Whether abstention and the correlates of abstention are invariant across sex, however, remains an open empirical question.

DATA

The data we employ meet these requirements and are drawn from the National Longitudinal Survey of Youth 1997 (NLSY97). The NLSY97 data are based on a nationally representative sample of 8,984 youths between the ages of 12 and 16 as of December 31, 1996. The sampling design of the NLSY97 is structured so as to be representative of U.S. residents in 1997 who were born during the years 1980 through 1984. Specifically, the NLSY97 is derived from a two-stage sampling design with housing units being the primary unit and eligible individuals being the secondary unit. The sample is composed of two independently selected, stratified multistage area probability samples: a cross-sectional sample and an oversample of African American and Hispanic individuals. Because many of the measures described below are age-specific and therefore the inclusion of the entire NLSY97 sample would have yielded a high percentage of missing cases, we restricted our sample to only those individuals who were age 17 in the final wave of data collection, the peak age of self-reported delinquent offending.

Delinquency Abstention

Because most offenders evade detection, lack of an official record cannot be used to designate abstainers for research; self-report data are required (Moffitt 1997:32). Abstention is measured via respondents' reports to 13 questionnaire items that ask if they had *ever* participated in a variety of delinquent behaviors by the age of 17: (1) run away from home; (2) smoked a cigarette; (3) drank an alcoholic beverage; (4) carried a hand gun; (5) belonged to a gang; (6) purposely damaged or destroyed property that did not belong to you; (7) stolen something worth less than 50 dollars from a store; (8) stolen something worth more than 50 dollars from a store; (9) committed other property crimes such as fencing, receiving, possessing, or selling stolen

property, or cheated someone by selling them something that was worthless or worth much less than what you said it was; (10) attacked someone with the idea of seriously hurting them or have a situation end up in a serious fight or assault of some kind; (11) sold or helped sell marijuana, hashish, or other hard drugs such as heroin, cocaine, or LSD; (12) been arrested by the police or taken into custody for an illegal or delinquent offense; and (13) ever used marijuana. The items in this self-report delinquency scale resemble closely those used by other researchers in national (NYS, Rochester Youth Delinquency Study [RYDS]) and international (Dunedin) delinquency studies. Respondents who reported they had *never* engaged in any of these delinquent offenses were classified as abstainers (= 1) whereas those involved in one or more of the delinquent behaviors were classified as offenders (= 0).

Peer Associations and Peer Involvement

We employ several different measures indexing the nature and extent of the respondent's involvement with peers. Our first measure assesses the extent to which the respondent associates with delinquent peers. For Moffitt, association with delinquent peers is critical to the development of adolescence-limited delinquency because it provides opportunities for individuals to model delinquent behavior and co-offend (e.g., Warr 2002). Abstainers do not have this type of association. Respondents scoring high on a five-item measure of "delinquent peers" said that almost all of their peers drink, smoke cigarettes, do drugs, cut class, and belong to a gang. Factor analysis indicated the presence of a single underlying factor with the first factor accounting for 54 percent of the variance, a large drop between the first and second eigenvalues with the second eigenvalue falling below 1.0, and all factor loadings greater than .50. In addition, Cronbach's alpha also indicated good scale internal consistency ($\alpha = .81$), and all inter-item correlations were positive and significant.

The second measure assesses the respondent's extent of association with prosocial peers. Although Moffitt (1993:689-90) highlights the inclusion or exclusion of adolescents from delinquent peer networks in order to explain abstention, such networks are not the only type available to adolescents. Despite the prevalence of delinquency during adolescence, there are "many [different] peer cultures" (Steinberg and Morris 2001:92) some of which may discourage delinquency. We also include a measure of "prosocial peers," which was formed by taking the affirmative responses to questions that ask whether the majority of the respondent's friends go to church regularly, are involved in sports, planned to go to college, and participated in volunteer work. Factor analysis indicated the presence of a single underlying factor, with the first factor accounting for 44 percent of the variance, a large drop

between the first and second eigenvalues with the second eigenvalue falling below 1.0, and all factor loadings greater than .50. Although Cronbach's alpha was not large ($\alpha = .57$), all inter-item correlations were positive and significant.³

Our third measure of peer involvement assesses the respondent's dating activities, which may also be related to delinquency abstention. For Moffitt, adolescence is a period whereby increasing importance is attributed to peer relationships, including "dating" (Moffitt and Harrington, 1996:178). Research indicates that by their senior year in high school, the majority of adolescents date (but almost 20 percent never date) (Arnett 2001; Warr 2002). Also, Padgham and Blyth (1991) found that much of adolescents' dating took place in mixed-gender groups and with other adolescent couples. Dating, then, is a normative group activity in adolescence that also aids in the development of social skills and interactions (Paul and White 1990). Often-times individuals alienated from this scene tend to find it difficult to navigate adolescence (Giordano 1995). There is reason to believe that abstainers may fall into this category of individuals, possibly as a result of personal, emotional, and/or behavioral deficiencies that hinder their ability to relate to others socially (Arnett 2001:246; Cairns and Cairns 1994:132). Noninvolvement in dating may, in turn, signal more general exclusion from the "teen-aged social scene," limit exposure to delinquent models, and thereby inhibit delinquent involvement (Moffitt 1993:689). Here, we rely on a single-item measure in which respondents were asked to report the frequency of their dating during the previous year. Response options included "never this year," "few times (1-3 times)," "less than once a month (4-11 times)," "once or twice a month (12-25 times)," and "once a week or more (more than 50 times)." Tolone and Tieman (1990) also used dating as one component of social involvement with peers.⁴

Individual Personal Characteristics

According to Moffitt (1993:689), some individuals abstain from delinquency "because of some personal characteristics that make them unattractive to other teens or that leave them reluctant to seek entry to newly popular delinquent groups" (see also Moffitt et al. 2002:182). The personal characteristics highlighted in Moffitt's (1993, 2003:8) work include (but are not limited to) such characteristics as "tense," "overcontrolled or overly compliant," "timid," "morose or not cheerful," "withdrawn," and "socially inept." To examine these sorts of characteristics, we employ several measures.

Our first measure is a single item that is consistent with Moffitt's view of abstainers as relatively shy, withdrawn, depressed, and uncheerful. Respondents were asked to report whether they feel "unhappy, sad, or depressed."

The response categories for this item ranged from *not true* (0) to *often true* (2). This measure is similar to the sorts of personality/emotional characteristics used in prior research on abstention (Leifman et al. 1995).

Our second measure assesses the respondent's level of attachment to his or her teachers. Moffitt (2003:8) argues that abstainers tend not only to be good students but also "fit the profile of the compliant good student who during adolescence becomes unpopular with peers" (see also Bukowski et al. 2000). These unpopular adolescents, oftentimes referred to as "brains, dweebs, nerds, and geeks" (Arnett 2001:238), are academically oriented individuals known for good grades, their attachment to teachers and the school system, and for being socially inept (Stone and Brown 1998). This is not to say that intelligence, in itself, is devalued. Although intelligence is related to popularity, especially in the high school social scene, what stigmatizes these academically oriented individuals is not high intelligence but the perception that they focus on academics to the exclusion of a social life (Kinney 1993). This argument is consistent with research indicating that adolescents tend to conceal a high-achievement orientation from their peers. Juvonen and Murdock (1995) found that eighth-grade students indicated that they wanted their teachers to know that they worked hard in school but not their peers because they feared that their peers would disapprove. Adolescents high in academic orientation are more likely to be shut out of (delinquent) peer groups and, as a result, are more likely to abstain.

Teacher attachment is measured with the NLSY97's Attachment to Teacher Scale. Respondents scoring high on a two-item Teacher Attachment Scale strongly agree that teachers in their school "are good" and that they are "interested in students." Factor analysis indicated the presence of a single underlying factor with the first factor accounting for 72 percent of the variance, a large drop between the first and second eigenvalues with the second eigenvalue falling below 1.0, and all factor loadings greater than .50. In addition, Cronbach's alpha also indicated decent scale internal consistency ($\alpha = .61$), with positive and significant inter-item correlations.

Our third individual characteristic is a measure of autonomy. Autonomy refers to the independence and self-sufficiency that is characteristic of individuals who think for themselves and are responsible for their own behavior and has been linked to being socially skilled such that autonomous adolescents get along well with both their peers and adults (Arnett 2001; Steinberg 1996). To facilitate positive social adjustment and movement into productive adult roles, adolescents need to be given a greater amount of autonomy as they age (Steinberg and Levine, 1997). Because adolescents do not have the same level of experience with the world and with their own impulses and abilities as adults (Arnett 2001), an excess of autonomy may leave them aimless or even lead to harm (Dornbusch et al. 1990). There is some suggestion in

the literature that the conformity of abstainers may be explained, in part, by their *lack* of autonomy (i.e., being “overly compliant”) and/or their lack of interest in activities that require a measure of autonomy from adults (Moffitt 1993:689). Such characteristics may also lead to their exclusion from the teenaged social scene and delinquent peer networks.

Here, we use an autonomy measure that is similar to the one used in prior research testing Moffitt’s theory (Piquero and Brezina 2001). Respondents scoring high on a three-item index of autonomy possess the ability to exert independence and decision-making control over leisure activities that involve friends, curfews, and television watching. Response options for each of the three items ranged from 0 (“parent or parents set limits”), to 1 (“my parents and I decide jointly”) to 2 (“my parents let me decide”). Scores on the autonomy index range from 0 to 6 where higher scores indicate higher autonomy. Factor analysis indicated the presence of a single underlying factor with the first factor accounting for 46.87 percent of the variance, a large drop between the first and second eigenvalues with the second eigenvalue falling below 1.0, and all factor loadings greater than .50. Cronbach’s alpha was somewhat low ($\alpha = .43$), largely due to the fact that the index is composed of three items with limited response options.

Our final measure indicates the respondent’s physical maturity. Physical maturity is important to consider not only because it is related to adolescence-limited delinquency but also because among adolescent females, physical maturity tends to open particular sets of doors (i.e., associating with older peers, associating with males) (Cairns and Cairns 1994; Caspi et al. 1993; Moffitt 1993). Moffitt (1993) argues that physical maturity suggests to adolescents that because they “look like adults,” they should be treated like adults and be allowed to partake in adult-like behaviors. Because the onset of puberty occurs differently for males and females, the physical maturity measure was different for each sex. Male respondents were asked to indicate the extent to which physical changes such as developing pubic or facial hair or their voice cracking or lowering had occurred. Response options for the males included *have not yet begun* (1), *have barely started* (2), *are definitely underway* (3), and *seem completed* (4). Females responded to a dichotomous variable indicating whether they had *ever had a menstrual period* (1). To make the male item similar to that of females, we dichotomized the male item so that the *have not yet begun* and *have barely started* categories were equal to zero whereas the *are definitely underway* and *seem completed* categories were equal to one. This allowed for a direct comparisons of coefficient estimates across sex. We also examined the two sex-specific physical maturity items separately for each sex group and arrived at substantively similar conclusions.

Control Variables

We also control for a number of other variables because of their relation to offending. The first is the level of maternal supervision. During adolescence, teenagers typically begin to move away from their parents emotionally, spend more time with their peers, and try very hard to keep their peer-oriented life independent from their family-oriented life (Arnett 2001). Here, we use the four-item Mother Supervision Scale from the NLSY97, which is based on youths' responses to how well their mother "knows their close friends," "knows the parents of your close friends," "knows who you are with when not at home," and "knows who your teachers are at school." Response options ranged from *knows nothing* (0) to *knows everything* (4). Higher scores are indicative of a greater degree of monitoring. Factor analysis indicated the presence of a single underlying factor with the first factor accounting for 51.91 percent of the variance, a large drop between the first and second eigenvalues with the second eigenvalue falling below 1.0, and all factor loadings greater than .50. Cronbach's alpha also indicated good scale internal consistency ($\alpha = .68$). Two dichotomous variables were included where males (= 1) and females (= 0) and non-Whites (= 1) and Whites (= 0).

RESULTS

Table 1 presents descriptive statistics across different groups based on their (non-) offending activities as well as gender. The first group, abstainers, is quite small (~13 percent). It is interesting to note that the percentage of individuals identified as abstainers in the NLSY approximates the expectations derived by Moffitt, and is similar to those found in prior delinquency research using the NYS, RYDS, and Dunedin data. The second group includes all offenders; that is, individuals who engaged in some type of delinquency.

As can be seen from the descriptive statistics presented in the first two columns of Table 1, abstainers differ in a number of important ways from offenders. Abstainers are more likely to be female, have a lower proportion of delinquent peers, have a higher proportion of peers who engage in prosocial activities, date less, have a greater attachment to their teachers, have a higher degree of parental monitoring, are less physically mature, have relatively low levels of "sadness/depression," and are less autonomous. Three important findings emerge here. First, although abstainers do not report a high proportion of delinquent peer associations, they appear, at first glance, to not necessarily resemble the portrait of "troubled, teenaged introverts" that past theoretical and empirical research has painted. Second, abstainers do associate

TABLE 1: Descriptive Statistics of the National Longitudinal Survey of Youth 1997

Variable	Abstainer				Offender				Abstainer				Offender				Abstainer				Offender			
	Abstainer		Offender		Abstainer		Offender		Abstainer		Offender		Abstainer		Offender		Abstainer		Offender		Abstainer		Offender	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Sex (1 = Male)	0.46	0.50**	0.53	.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Race (1 = non-White)	0.46	0.50	0.47	0.50	0.51	0.50	0.51	0.50	0.42	0.50	0.45	0.50*	0.45	0.50*	0.45	0.50*	0.45	0.50*	0.45	0.50*	0.45	0.50*	0.45	0.50
Delinquent peers (proportion)	7.49	3.38**	8.97	3.97	7.13	3.38	7.13	3.38	7.81	3.35	8.60	3.80**	8.60	3.80**	8.60	3.80**	8.60	3.80**	8.60	3.80**	8.60	3.80**	8.60	3.80**
Prosocial peers (proportion)	13.25	3.02**	12.48	2.90	13.25	3.09	13.25	3.09	13.25	2.97	12.36	2.86	12.36	2.86	12.36	2.86	12.36	2.86	12.36	2.86	12.36	2.86	12.36	2.86
Dating behavior	2.10	1.49**	3.23	1.60	2.14	1.46	2.14	1.46	2.06	1.52	3.19	1.56	3.19	1.56	3.19	1.56	3.19	1.56	3.19	1.56	3.19	1.56	3.19	1.64
Teacher attachment	6.56	0.95**	6.20	1.07	6.61	0.93	6.61	0.93	6.51	0.96	6.19	1.08	6.19	1.08	6.19	1.08	6.19	1.08	6.19	1.08	6.19	1.08	6.19	1.06
Parental monitoring	11.30	3.22**	10.31	3.14	11.12	3.50	11.12	3.50	11.45	2.97	10.09	3.12**	10.09	3.12**	10.09	3.12**	10.09	3.12**	10.09	3.12**	10.09	3.12**	10.09	3.14
Physical maturity	0.65	0.48**	0.73	0.45	0.56	0.50**	0.56	0.50**	0.72	0.45	0.70	0.46**	0.70	0.46**	0.70	0.46**	0.70	0.46**	0.70	0.46**	0.70	0.46**	0.70	0.43
Sadness/depression	0.34	0.54**	0.54	0.64	0.32	0.54	0.32	0.54	0.36	0.53	0.51	0.63**	0.51	0.63**	0.51	0.63**	0.51	0.63**	0.51	0.63**	0.51	0.63**	0.51	0.66
Autonomy	2.27	1.54**	2.79	1.48	2.30	1.53	2.30	1.53	2.24	1.55	2.66	1.52**	2.66	1.52**	2.66	1.52**	2.66	1.52**	2.66	1.52**	2.66	1.52**	2.66	1.43

NOTE: Significant differences are examined in three ways: (1) between columns one and two (abstainers and offenders), (2) between columns three and four (male and female abstainers), and (3) between columns five and six (male and female offenders). $n = 1,685$; abstainers ($n = 231$); offenders ($n = 1,454$).

* $p < .10$. ** $p < .05$.

with peers, it is just that the peers they associate with are more likely to be involved in prosocial as opposed to delinquent activities. Third, although the differences between abstainers and offenders are statistically significant, they may not appear to be substantively impressive.

In the third and fourth columns, we compare means for the abstainer group across gender. As can be seen, only one variable, physical maturity, is significantly different across gender. Females reported higher physical maturity compared to males. In the final two columns, we compare means for the offender group across gender. Six variables exhibited significant gender differences. Among offenders, females are more likely to report higher autonomy, physical maturity, "sadness/depression," parental monitoring, and associations with delinquent peers. There are more non-Whites among offending females than offending males.

Three important findings emerged from the bivariate analyses. First, involvement with certain types of peers is associated with nonabstention. Individuals who spend time with peers in the context of dating and who associate with delinquent peers are less likely to abstain. This finding is supportive of the view that a key feature of adolescent delinquency is the influence of the "teenaged social scene" (Moffitt 1993:689; Moffitt and Harrington 1996). Second, and seemingly inconsistent with Moffitt's (1993) image of the socially alienated abstainer, is the observation that abstainers do report friendships with their peers, and that these associations involve a higher proportion of peers who are engaged in prosocial activities. Third, among abstainers, females are more likely to report higher physical maturity than male abstainers.

Next, we investigate the claim that some adolescents are excluded from the teenaged social scene or other types of involvement with peers as a result of various personal characteristics (Moffitt 1993; Moffitt et al. 1996:419). We examine this with three different outcome variables: delinquent peer associations, prosocial peer associations, and dating behavior.

The results predicting delinquent peers may be found in Table 2. For the full sample, the results indicate that males, those reporting high teacher attachment, and those reporting high parental monitoring are less likely to associate with delinquent peers, whereas non-Whites, those reporting more physical maturity, and those scoring high on "sadness/depression" are more likely to associate with delinquent peers. Table 2 also presents gender-specific models predicting association with delinquent peers. The results across gender are substantively the same as those observed among the full sample. Of interest is the finding that both males and females with high levels of "sadness/depression" associate with delinquent peers, which is important insofar as it corroborates Moffitt's (1993) suggestion that personal characteristics affect access to peer networks; however, the sign of this effect is *opposite*

TABLE 2: Ordinary Least Squares Regression Predicting Delinquent Peer Associations: Full Model and Gender-Specific Models

Variable	Full Model			Gender-Specific Model					
				Male			Female		
	B	Beta	SE	B	Beta	SE	B	Beta	SE
Sex (1 = Male)	—	—	—	—	—	—	—	—	—
Non-White (1 = non-White)	0.68	-.09	.19**	1.03	.14	.26**	0.55	.07	.28*
Teacher attachment	0.82	.11	.19**	-0.79	-.22	.12**	-0.72	-.19	.14**
Parental monitoring	-0.75	-.20	.09**	-0.11	-.10	.04**	-0.21	-.16	.05**
Sadness/depression	-0.16	-.13	.03**	0.47	.08	.22**	0.51	.08	.22**
Autonomy	0.51	.08	.15**	-0.01	-.00	.09	0.06	.02	.10
Physical maturity	0.03	.01	.06	0.53	.07	.28*	0.88	.09	.32**
Constant	0.67	.08	.21**	13.40		.95**	14.46		1.08**
R-square	14.22		.72**	.10			.13		

* $p < .10$. ** $p < .05$.

site to what Moffitt predicted. Thus, “morose” or “uncheerful” adolescents appear to be *more* rather than less likely to be part of delinquent peer groups. Coefficient comparison tests failed to indicate any significant gender differences.

Next we turn to an examination of the predictors of dating (see Table 3). The results suggest that non-Whites are less likely to date whereas those individuals scoring high on autonomy and physical maturity tend to date more. Split-gender analyses shown in the latter two columns indicate some similarities and some differences. Both non-White males and females were less likely to date often, whereas both males and females reporting higher autonomy were more likely to date often. Whereas physical maturity leads to more dating among males, females with high levels of “sadness/depression” were more likely to date. Coefficient comparison tests indicated that the effects of race, autonomy, “sadness/depression,” and physical maturity were significantly different across gender. Because race and autonomy were significant for both males and females, it is only the significant differences in physical maturity and “sadness/depression” that are of most interest because the former was significant only for males, and the latter only for females.

Next, we predict prosocial peer involvement (see Table 4) and, as will be seen, this analysis produces results that are different from the predictors of the other types of peer involvement. In the full sample, two effects are significant. Individuals reporting high levels of teacher attachment and parental monitoring are more likely to associate with prosocial peers. Split-gender analyses identify a similar set of significant coefficient effects. Across the full and split-gender analyses, “sadness/depression” did not predict prosocial peer association.

An important observation to make regarding the null effects for prosocial peer associations relates to the coefficient estimate for physical maturity. Unlike the prediction of delinquent peer associations, where the effect of physical maturity was positive and significant, the effect of physical maturity on prosocial peer associations was insignificant. This suggests that physical maturity opens doors for some types of associations (delinquent) but not other types of associations (prosocial) (Cairns and Cairns 1994; Caspi et al. 1993).

Thus far, we have been concerned with understanding how personal and social characteristics relate to different types of peer involvement. Our results suggest that different measurement strategies of peer involvement leads to the identification of some important differences. Had we only been concerned with understanding entrance to and involvement in delinquent peer groups, we would have been led to only one set of conclusions. Our results suggest that different factors operate in different ways across different

TABLE 3: Ordinary Least Squares Regression Predicting Frequency of Dating Behavior: Full Model and Gender-Specific Models

Variable	Full Model			Gender-Specific Model					
				Male			Female		
	B	Beta	SE	B	Beta	SE	B	Beta	SE
Sex (1 = Male)	0.04	.01	.08	—	—	—	—	—	—
Non-White (1 = non-White)	−0.47	−.14	.08**	−0.25	−.08	.11**	−0.63	−.18	.13**
Teacher attachment	−0.02	−.01	.04	0.01	.01	.05	−0.06	−.04	.06
Parental monitoring	0.01	.01	.01	0.01	.01	.02	0.01	.01	.02
Sadness/depression	0.07	.03	.07	−0.08	−.03	.09	0.18	.07	.10*
Autonomy	0.15	.14	.03**	0.08	.08	.04**	0.21	.18	.04**
Physical maturity	0.45	.12	.09**	0.78	.23	.12**	0.09	.02	.14
Constant	2.58		.32**	2.36		.40**	3.00		.47**
R-square	.06			.08			.11		

* $p < .10$. ** $p < .05$.

TABLE 4: Ordinary Least Squares Regression Predicting Prosocial Peer Associations: Full Model and Gender-Specific Models

Variable	Full Model			Gender-Specific Model					
				Male			Female		
	B	Beta	SE	B	Beta	SE	B	Beta	SE
Sex (1 = Male)	—	—	—	—	—	—	—	—	—
Non-White (1 = non-White)	—0.14	-.02	.14	—	—	—	—	—	—
Teacher attachment	-.08	-.03	.14	-.017	-.03	.19	-.17	-.03	.21
Parental monitoring	0.49	.18	.07**	0.61	.23	.09**	0.35	.13	.10**
Sadness/depression	0.21	.23	.02**	0.20	.22	.03**	0.23	.24	.04**
Autonomy	0.01	.01	.12	-.01	-.00	.16	0.01	.00	.16
Physical maturity	0.06	.03	.05	0.03	.02	.06	0.08	.04	.07
Constant	-.08	-.01	.16	0.12	.02	.21	-.032	-.05	.24
R-square	7.41		.54**	6.62		.71**	8.17		.80**
	.11			.12			.10		

* $p < .10$. ** $p < .05$.

types of peer involvement and provide evidence of a potential need to modify Moffitt's (1993) account of delinquency abstention.

Next, we turn to the prediction of delinquency abstention. In Table 5, we examine how various personal characteristics, as well as different types of peer involvement, predict abstention. Moffitt would expect that, once controls for the different types of peer involvement are introduced, the effects of personal characteristics on delinquency abstention should be inconsequential. As can be seen, seven variables are significantly related to abstention. For example, individuals with high levels of attachment to their teachers, parental monitoring, and involvement with prosocial peers are more likely to abstain. On the other hand, those with high levels of "sadness/depression," greater autonomy, who dated frequently, and who associated with a greater percentage of delinquent peers are less likely to abstain. In fact, the effect of dating was among the strongest predictors of abstention. This result replicates the finding obtained by Hirschi (1969:164-65, 168) in the RYS. It may be, then, that dating, as Hirschi suggested, is an expression of claims to "adult status."

We also explored the correlates of abstention across gender, and these results may be found in the latter two columns of Table 5. There are some similarities and some differences in the predictors of abstention across gender. First, for both males and females, dating was negatively and significantly related to abstention, indicating that respondents who dated more were less likely to abstain. Second, males and females exhibiting "sadness/depression" were less likely to abstain, a finding that runs counter to Moffitt's (1993) expectation that individuals with such characteristics are more likely to abstain. Differences emerged in the predictors of abstention on a few fronts. For males, being non-White, reporting high levels of parental monitoring, and reporting high teacher attachment corresponded with a higher likelihood of abstaining, whereas associating with delinquent peers resulted in a lower likelihood of abstaining. Among females, non-Whites, as well as those individuals reporting a greater degree of autonomy reported a lower likelihood of abstaining.⁵ Physical maturity failed to exert a direct effect on abstaining for both males and females.

DISCUSSION

Criminologists have long recognized the existence of a small group of adolescents who manage to avoid delinquent involvement even when such behavior is normative for their same-age peers (Thornberry and Krohn 2001:301). Unfortunately, little theoretical or empirical attention has been paid to the causal processes associated with abstention (Reckless, Dinitiz,

TABLE 5: Logistic Regression Predicting Abstinence from Delinquency: Full Model and Gender-Specific Models

Variable	Full Model					Gender-Specific Model							
						Male				Female			
	B	SE	Wald	Exp (B)		B	SE	Wald	Exp (B)	B	SE	Wald	Exp (B)
Sex (1 = Male)	-0.22	.17	1.74	0.80	—	—	—	—	—	—	—	—	—
Race (1 = non-White)	0.00	.17	0.00	1.00	0.47	.25	3.61*	1.60	-0.47	0.25	3.50*	0.63	
Delinquent peers (proportion)	-0.06	.03	5.86**	0.94	-0.11	.04	6.12**	0.90	-0.04	0.03	1.55	0.96	
Prosocial peers (proportion)	0.05	.03	3.07*	1.05	0.05	.04	1.14	1.05	0.05	0.04	1.30	1.05	
Dating behavior	-0.42	.06	58.44**	0.66	-0.45	.08	29.36**	0.64	-0.42	0.08	30.53**	0.66	
Teacher attachment	0.20	.09	5.58**	1.22	0.29	.13	5.51**	1.34	0.10	0.12	0.71	1.10	
Parental monitoring	0.06	.03	3.78*	1.06	0.08	.04	3.42*	1.08	0.04	0.04	0.80	1.04	
Sadness/depression	-0.42	.15	7.79**	0.66	-0.56	.23	5.90**	0.57	-0.39	0.21	3.59*	0.68	
Autonomy	-0.20	.06	11.94**	0.82	-0.12	.08	2.23	0.89	-0.27	0.08	11.55**	0.76	
Physical maturity	-0.22	.18	1.57	0.80	-0.26	.25	1.08	0.77	-0.12	0.26	0.21	0.89	
Constant	-1.81	.78	5.34**	0.16	-2.74	1.10	6.19**	0.07	-0.69	1.12	0.39	0.50	
Chi-square/df			155.18/10					84.01/9				81.46/9	

* $p < .10$. ** $p < .05$.

and Kay 1957; Thornberry and Krohn 2001:290). Recognizing that abstainers have not been subject to much empirical scrutiny, we sought to build on the existing body of research by testing some of the central claims found in Moffitt's (1993) theoretical account of delinquency abstention.

The results of our test lead us to five major observations. First, we observe that adolescent abstainers are composed of a small group of individuals, with females being slightly overrepresented among abstainers. Second, although some coefficients operated differently across gender, for the most part there are more similarities than differences in the correlates of peer involvement and abstention across gender.

Third, consistent with expectations, we find that certain personal characteristics contribute to the exclusion of adolescents from delinquent peer groups, which ascend to importance during adolescence (Moffitt et al. 1996:419). In particular, the effect of teacher attachment in this regard is robust and fairly consistent across gender. In general, high levels of teacher attachment are related to lower levels of association with delinquent peers (teacher attachment is, however, unrelated to dating). Among males, those reporting few delinquent peers are more likely to abstain. Thus, abstainers (especially the males) appear to fit the profile of the compliant, good student who, during adolescence, becomes unpopular with "newly popular delinquent groups" (Moffitt 1993:689; see also Bukowski et al. 2000).

Our results regarding personal characteristics, however, are not entirely consistent with expectations. Our fourth major observation is that, contrary to expectations, abstainers as a whole do not appear to be relatively sad and depressed. They are not, in the words echoed by Moffitt (1993:689) unusually "morose" or "uncheerful." Moreover, instead of being excluded from delinquent peer networks and the teenaged social scene, individuals who report high levels of sadness and depression are more likely than their cheerful counterparts to associate with delinquent peers and, among females, engage in more frequent dating. For males, association with delinquent peers is, in turn, associated with delinquent offending, as is dating behavior among females. In short, "sadness/depression" exhibits unexpected effects and appears to reduce rather than increase the odds of abstention (Beyers and Loeber 2003; Neighbors et al. 1993).

Fifth, and perhaps most important, our findings appear to challenge Moffitt's (1993:689-90) image of the abstainer as a loner who is not only shut out of delinquent groups, but who is unattractive to other teens in general and therefore alienated from the "teenaged social scene." Although abstainers dated less frequently than offenders, they were not removed from the dating scene entirely. On average, abstainers reported dating at least "a few times" during the previous year. Although it appears that abstainers are more likely than offenders to be excluded from delinquent peer groups, they are not

necessarily excluded from peer groups altogether or otherwise socially inactive. Rather, abstainers tend to be more involved with "prosocial" friends.

Taken together, our results provide mixed support for the central arguments contained in Moffitt's (1993) account of delinquency abstention. Although it appears that some of the characteristics mentioned by Moffitt, such as a strong academic orientation (in our case, teacher attachment), are associated with exclusion from (or limited contact with) delinquent groups, other personal characteristics, such as sadness and depression, do not appear to affect abstention in the expected manner. Perhaps the most important message from our analyses is that contrary to the image presented by Moffitt, abstainers as a whole do not seem to resemble the portrait of depressed and rejected loners. In fact, abstainers seem to be doing fine in a number of domains, both social and interpersonal. More important, abstainers also appear to have access to friendship groups; it is just that their peers tend to be prosocial. It would appear, then, that Moffitt's account of abstention is in need of two modifications. First, although delinquency is prevalent during adolescence, the "teenaged social scene" is not limited to delinquent peer groups. Rather, adolescent peer groups are organized around different types of activities, including prosocial activities or pursuits (Steinberg and Morris 2001). Thus, exclusion from "newly popular delinquent groups" (Moffitt 1983:689) does not necessarily imply exclusion from peer groups altogether. Second, abstention from delinquency may have more to do with positive (but perhaps unpopular) personal characteristics, such as a strong commitment to school, than with the pathological characteristics that have been emphasized in prior research, such as depression, inactivity, and social incompetence (see also Neighbors et al. 1993).

To be sure, our data are limited in several ways. First, although our data contain several of the abstention correlates proposed by Moffitt (1993), the exploration of other abstention factors may be relevant. The examination of a more complete range of possible relevant characteristics (such as shyness, introversion, lack of curiosity, and lack of social skills) may add greater explanatory power to models predicting abstention. Second, although we explored abstention throughout the peak age of delinquency, it is possible that some of the abstainers went on to engage in delinquency in their later teens and early 20s (i.e., they may be registering falsely as abstainers). Although adult-onset offending is a relatively rare phenomenon, it is important to follow abstainers (and their correlates) as they enter adulthood. Third, given that some research points to differences in the development of delinquency across cultures (Junger-Tas, Terlouw, and Klein 1994), it would be interesting to examine the extent to which abstention varies across cultures and/or different countries. Fourth, because we did not explore abstention rates and processes across race, future efforts in this regard are likely to be

promising. This is important given the prevalence differences observed in offending across race (Piquero, Farrington, and Blumstein 2003). Fifth, the measures of peer involvement in the NLSY are not ideal. For example, we lacked information on the total number of friends possessed by the respondents as well as the details of the respondents' involvement in a range of peer activities, such as peer associations during school, after school, on weekends, and so forth. Also, according to Giordano (1995:694), peer networks can be distinguished not only by the special mix of norms, worries, or preferences but also by the strength of the social controls that are in place and relate to them (Dentler and Erikson 1959). Thus, future research should move beyond our limited and indirect measures of peer interaction and involvement to more direct measures that assess whether and how often respondents actually interact with friends, as well as the nature of those interactions (including same-sex and mixed-sex interactions). It may also be important to develop measures of peer involvement and peer interaction that tap into the nature and quality of transactions within close friendships generally, and within the wider circle of friends in particular, because including both sets of friendships and acquaintances are likely to provide a more "comprehensive picture of social context as it is developed through the process of peer communication" (Giordano 1995:663; see also Warr 1996). In addition, some of the *r*-square estimates uncovered in the peer involvement models were modest, suggesting that omitted variables may provide better explanatory power (e.g., popularity and attractiveness in the dating model).

Finally, we did not study the early life portraits of abstainers. Although Moffitt is silent on what abstainers should look like early in life, we would suggest that abstainers should resemble the majority of adolescence-limited offenders with one important exception: personal, psycho-social characteristics may evidence themselves early in life. It would be of interest to examine what abstainers looked like 10 years earlier (around ages 5-7), and whether they can be distinguished on psychological and social factors when compared to offenders.

In modern societies, experimentation with delinquency and substance use seems to be a natural part of the transition from adolescence to adulthood (Jessor 1986:241; Moffitt 1993; Shedler and Block 1990). Understanding why some individuals do not partake in such normative behavior is important and, although our results offer mixed support for Moffitt's (1993) hypotheses in understanding abstention, continued research on this front will further illuminate our understanding of this relatively rare phenomenon and may help us to design more effective prevention/intervention programs for other teens (see also Moffitt and Harrington 1996:183).

For instance, although some practitioners highlight the need to improve social skills and the ability to interact with peers (Adams et al. 1988; Murphy

and Schneider 1994), our results suggest that success in the peer arena may not necessarily reduce delinquency. Although success in the peer arena has been linked with prosocial outcomes, including positive psychological functioning, marital relationships, and lower antisocial behavior (Giordano 1995:689), association with certain types of peers (i.e., delinquent peers) has been met with several negative outcomes throughout life. Thus, beyond efforts designed to foster social skills, the identification of positive peer arenas and of ways to promote involvement in these arenas as opposed to delinquent peer networks seems like another appropriate direction for research.

NOTES

1. In an age 26 follow-up, Moffitt and colleagues (2002) found that the abstaining males did not become "late-onset" offenders. For example, abstainers were typically problem free or had only one problem and were generally successful adults (i.e., reported a happy relationship, held the highest status jobs in the cohort, were college educated, etc.).

2. Shedler and Block (1990) also found quality of parenting to be related to membership in the abstainer group. Mothers of abstainers were found to be cold and unresponsive, gave their children little encouragement while being overly interested in their child's performance, whereas fathers were described as not responsive or sensitive to their child's needs, not allowing of open disagreement between parent and child, maintaining tight control, critical of their children and rejecting of their ideas and suggestions, using physical means to communicate with their children, and impatient with their children.

3. Low alphas are somewhat common in some of the measures in the NLSY97. Thus, the observed alphas should be viewed as conservative, lower-bound estimates. At the same time, the notion of construct validity may provide some assistance. Carmines and Zeller (1979:23) note that "construct validity is concerned with the extent to which a particular measure relates to other measures consistent with theoretically derived hypotheses concerning the concepts (or constructs) that are being measured." Thus, if two measures are correlated and in the expected theoretical direction, then this is one piece of evidence that supports the construct validity of the particular measure(s). As will be seen, the prosocial peer context (and some of the other measures exhibiting somewhat low alphas) operate as theoretically expected in the analyses.

4. The correlations between the peer variables were as expected. For example, the correlation between delinquent and prosocial peers was $r = -.20$, whereas the correlations between delinquent peers and dating was $r = .06$, and between prosocial peers and dating it was $r = .03$. These correlations suggest that our peer variables are not organized around similar types of peer social interaction. Thus, there appear to be different types of peer involvement, some of which may be related to delinquency, others of which are not. The measurement of these different types of peer involvement seems especially important because research on this issue, based on Moffitt's expectations, has tended to emphasize involvement with delinquent peers. At the same time, these measures do not directly assess the number of peers to which a respondent has access to. It may be that abstainers have no friends whatsoever. Although the data do not allow us to assess this point directly, we undertook a supplemental analysis in which we examined the range of peers available to respondents. We created a dummy variable that places into one category those individuals in the bottom quartile of each of the: prosocial peers, deviant peers, and dating

measures. Those not meeting these criteria were placed in a second group. The distribution of this new measure was such that only 1.7 percent of the respondents were socially isolated (in the bottom quartile of all three measures). When we examined the proportion of abstainers in each group, we found that although abstainers did not fall exclusively into the socially isolated group, they were somewhat more likely than offenders to fall into this group ($p < .05$). However, when we selected only abstainers, we found that only 4.4 percent of them were in the socially isolated group.

5. When we removed dating from the female model, the effect of deviant peers became negative and significant: females who reported more deviant peer associations were less likely to abstain. Among females, the correlation between deviant peers and dating is .13.

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