HOW NORMS SHAPE TEENAGERS' HEALTH BEHAVIORS

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This paper uses new data from the Los Angeles Family and Neighborhood Survey (L.A. FANS) to examine how norms shape teenagers' health-related behaviors. Specifically, it uses multilevel models to describe the effects of adult neighbors' beliefs about smoking, drinking, and marijuana use, which we treat as norms, on these behaviors among teens, taking account of neighbors' behavior, parents' attitudes and behavior, and other family-level characteristics. We investigate how the association between neighborhood attitudes and teen behavior depends on three factors that are likely to condition the association between adult neighbors' attitudes and teenagers' behavior: (1) consistency in the signal neighbors provide about appropriate behavior (consensus or variability in neighbors' attitudes and the extent to which neighbors act in accordance with their attitudes); (2) the ability of neighbors to enforce norms, for instance, by monitoring teens' activities; and (3) the degree to which teens are exposed to their neighbors. Finally, we examine the sensitivity of our results to how neighborhoods are defined, and we consider alternate reference groups who may affect teenagers' behavior, for example, by comparing the relative magnitude of the association between teenagers' well-being and neighborhood norms to associations between teen outcomes and attitudes of others of the same race-ethnic group and/or socioeconomic status.

Background

Demographers have long been interested in the influence of norms and belief systems on individual behavior. These macro-level influences are intuitively appealing explanations of social change, in part because individual-based explanations fail to account for group differences across a range of socioeconomic phenomena. The European Fertility Project linked the diffusion of new ideas to massive declines in fertility (Coale and Watkins 1986). Shifts in value systems also have been tied to more recent changes in the family (Lesthaeghe 1983). Since Wilson's *The Truly Disadvantaged* (1987), researchers have increased their attention to neighborhood effects on individual outcomes related to family, socioeconomic status, and crime (e.g., Brewster 1994a, 1994b; Crane 1991; Mayer and Jencks 1989; Sampson and Raudenbush 1999; South and Crowder 1999). Explanations for neighborhood effects refer to neighborhood differences in residents' attitudes and beliefs and the availability of infrastructure, resources, and employment opportunities.

Norms about what behaviors are acceptable are a primary mechanism through which neighborhoods and other reference groups are expected to affect individuals' behavior. A key

piece of Wilson's (1987) argument about how neighborhoods affect young people's work and family patterns is that the example of neighbors who are unemployed, engage in criminal activity, or are long-term welfare users shows young people that these behaviors may be acceptable and challenges their ability to envision success in conventional patterns of employment and family formation. Additional evidence links group differences in attitudes and health behavior. For instance, white adolescent girls are more likely to smoke than black girls because of race differences in attitudes about body image, and degree of acculturation affects the likelihood of smoking among some Hispanic groups (Pérez-Stable et al. 2001).

The influence of norms on behavior depends on such factors as the degree of consensus about attitudes within a person's reference group, the extent to which group members' behavior conforms to prevailing attitudes, how effective the group is at enforcing norms, and individuals' exposure to alternate beliefs about appropriate behavior. Previous research on norms and neighborhoods has produced inconsistent findings concerning their effects on individual behavior (Furstenberg & Hughes 1997; Mason 1983). Ambiguity about specific applications of general rules makes norms difficult for researchers to conceptualize and operationalize (Rossi and Rossi 1990). Moreover, understanding the role of norms requires measuring variation in individual perceptions of norms, when they apply, and the consequences of not conforming to them (Mason 1991). Studies of norms and neighborhoods are constrained by data limitations even when investigators use creative strategies to combine information from multiple sources. Additionally, the joint determination of residential choice and individual outcomes threatens causal interpretations of neighborhood effects, and the ambiguity of neighborhood boundaries complicates the measurement of relevant group-level characteristics. These conceptual and methodological problems have posed serious challenges to research in this area.

Research Questions

This paper investigates the association between adult neighbors' beliefs about smoking, drinking, and marijuana use and these aspects of teenagers' behavior. We use new data from the L.A. FANS to address two main questions: First, do neighbors' attitudes affect teens' substance use, net of the attitudes and behavior of teenagers' parents? Second, do the effects of norms depend on neighborhood contexts and individual perceptions of the normative environment? As the average disapproval of substance use in the neighborhood declines, we expect teen substance use to increase. We expect conformity to norms to depend on several factors: (1) the degree of adult consensus about substance use; (2) the extent to which adults act in accordance to norms about substance use; (3) the extent to which they are able to enforce these norms; (4) and the extent to which individual youths come in contact with members of their community. Specifically, we expect that teens will be more likely to conform to norms if the norms are widely shared, if they see adult role models acting in accordance to the norms, if they will be sanctioned for not conforming, and if they have close enough ties to the community to correctly perceive the norms and sanctions.

Of the many community-level studies that have stemmed from Wilson's (1987) work on the spatial concentration of poverty, most have focused primarily on socioeconomic characteristics of neighborhoods (e.g., Brooks-Gunn et al. 1993; Jencks and Mayer 1990) and have not explicitly examined the role of community-level attitudes on youth behavior. We focus

on a conceptually tighter link – the relationship between aggregate adult attitudes about a set of behaviors and the probability that an individual youth performs these behaviors. We study smoking, drinking, and drug use because these behaviors are important for teenagers' health and their association with other risky behaviors. Our study contributes to two related fields of research – studies of the effects of peers and other reference groups on smoking, drinking, and drug use (Bachman et al. 2002) and research on neighborhood effects on sexual behavior (Brewster 1994a, 1994b; Crane 1991; Hogan and Kitagawa 1985; Upchurch 2001). Brewster (1994a, 1994b), for example, posits that normative environments in racially-differentiated neighborhoods bring about race differences in adolescent sexual behavior, but these studies do not have direct measures of neighborhood attitudes. Sexual activity is just one of several risk-taking behaviors with potential implications for current and later-life health and wellbeing.

Data and Methods

The L.A. FANS was designed explicitly to study the communities in which individuals are embedded (Sastry, Ghosh-Dastidar, Adams, and Pebley 2000). It is a probability sample of about 3250 households from sixty-five neighborhoods in Los Angeles County. It includes interview data from a randomly selected adult and child, and that child's primary caregiver. Adults provided detailed socio-demographic data on their education, income, family life, and residential moves, as well as information about their health behaviors, perspectives on the neighborhood, and attitudes about smoking, drinking, and drugs. Children ages 9 to 17 (N=1650) were asked about their neighborhoods, schools, friends, family, and smoking. Those 12 to 17 (N=1100) also were asked about drinking and drugs. Preliminary estimates show that about 30 percent of the teen sample report ever smoking, 40 percent ever drinking, and 15 percent ever using marijuana. Our paper uses data from the recently completed first wave of the survey.

These data are well-suited to our project for several reasons. First, the survey asks adults specifically about their approval of smoking, drinking, and drug use, which allows us to examine how these attitudes relate to the very same teen behaviors. Second, it asks adults about their own substance use, so that we can compare the relative effects of adults' attitudes and behaviors on teen substance use. Third, questions about what people in the neighborhood would do if they saw children misbehaving provide information about the extent to which norms are enforced. Indicators of the density of neighborhood networks also provide information about collective efficacy and the likelihood that neighbors would enforce shared beliefs. For example, adults are asked how many people they know in the neighborhood, how involved they are in the neighborhood, whether the neighborhood is close-knit and safe, and whether neighbors are helpful and trustworthy. Fourth, data on how many people teens know in the neighborhood, where they attend school and religious services, and where they spend time with their friends allow us to assess the degree to which teens are exposed to neighbors' attitudes, behaviors, and sanctioning mechanisms.

In addition to being conceptually well-suited to our project, the richness of the L.A. FANS data helps us to minimize some of the most difficult methodological problems of past work on group effects. Three main problems in identifying the effects of neighborhoods or peer groups on individual behavior are: (1) the problem of simultaneity, i.e., that youth at least

partially choose their social environments, which in turn influences how they are affected by their context; (2) the problem of unobserved heterogeneity, i.e., that there are characteristics of parents that affect both neighborhood choice and youth outcomes; and (3) the ambiguity of neighborhood boundaries (Duncan and Raudenbush 1998). Our study design minimizes the problem of simultaneity by focusing on teenagers: While teens may choose their peer groups, their parents generally choose the neighborhoods in which they live. (See Brewster 1994b for a similar strategy.) Our design addresses the problem of unobserved heterogeneity by controlling for parents' attitudes and behaviors, as well as other characteristics of the family environment. Finally, we address the problem of group boundaries by examining the sensitivity of our results to alternative neighborhood definitions. In the L.A.FANS, residents are asked to define their own neighborhoods. Other analyses of these data suggest that there is considerable variation in respondents' perceptions of neighborhood boundaries (Sastry, Pebley and Zonta 2002). Our analysis focuses on neighborhoods delineated by census tracts, but we examine how these neighborhood effects vary based on individuals' own definitions of their neighborhoods. We also assess the magnitude of neighborhood-level effects by comparing neighborhood effects to effects at the level of race/ethnicity and socioeconomic status.

We conduct descriptive analyses that build to more complex hierarchical linear models (e.g., Kreft and de Leeuw 1998) to examine the influence of group attitudes on teen behavior. We start by defining the relevant group as adults living in the same census tract as teenage respondents, and we examine how these neighborhood-level attitudes affect teen behavior. We control for the attitudes and behaviors of teenagers' parents, as well as other socioeconomic characteristics of the family that might account for both the neighborhoods in which children live and their use of tobacco, alcohol, and drugs. We model the effects of variation in norms, neighbors' adherence to norms, neighbors' enforcement of norms, and teens' exposure to norms as interactions. We interact these factors with the mean level of disapproval to estimate how norms depend on specific contexts and individual perceptions.

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