

Youth & Society

<http://yas.sagepub.com>

Factors Contributing to Differences in Substance Use Among Black and White Adolescents

Toni Terling Watt and Jesse McCoy Rogers

Youth Society 2007; 39; 54 originally published online Jul 19, 2007;

DOI: 10.1177/0044118X06296701

The online version of this article can be found at:
<http://yas.sagepub.com/cgi/content/abstract/39/1/54>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Youth & Society* can be found at:

Email Alerts: <http://yas.sagepub.com/cgi/alerts>

Subscriptions: <http://yas.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations <http://yas.sagepub.com/cgi/content/refs/39/1/54>

Factors Contributing to Differences in Substance Use Among Black and White Adolescents

Toni Terling Watt
Jesse McCoy Rogers
Texas State University, San Marcos

Research reveals that Black youth are less likely to use alcohol than White youth. It has been argued that Blacks are more likely to abstain because they have less disposable income, are more religious, and have more family support and/or control than White youth. It has also been suggested that not only are these compositional characteristics different and likely to suppress use rates but also that the effects of these factors vary as well. However, there are no comprehensive empirical investigations of these explanations. This study uses the Add Health Survey to examine alcohol and drug use by race and/or ethnicity and to explore how differences in composition and process might produce differences in use. Results suggest that the socioeconomic contexts of Black and White youth differ considerably. However, differences in alcohol use are almost entirely explained by differences in process, in particular, the influence of peers and the family.

Keywords: *adolescence; race; substance use*

Current research reveals that the relationship between race and/or ethnicity and substance use is complex. One of the most perplexing issues to emerge is the age crossover effect (French, Finkbiner, & Duhamel, 2002). This crossover effect is most notable for African Americans and refers to the surprising interaction between race and/or ethnicity and age in patterns of substance use. African Americans are less likely than Whites to exhibit heavy drinking patterns and drug use during adolescence (Barnes, Farrell, & Banerjee, 1994; French et al., 2002; Johnson, 2004; Johnson, O'Malley, & Bachman, 2001; Wallace & Bachman, 1991; Wallace, Bachman, O'Malley, & Johnston, 1995). However, by age 35 African Americans have higher rates of substance use and drug and/or alcohol-related problems than

Whites (French et al., 2002; Herd, 1990; Kandel, 1995; Wallace, 1999b). It is widely accepted that the socioeconomic and cultural barriers faced by Blacks contribute to higher levels of substance abuse in adulthood (Wallace, 1999a, 1999b). However, it is unclear why Black youth (who suffer the same disadvantages as adults) appear to be protected. Are existing disadvantages less salient in adolescence than in adulthood, or are there offsetting protective factors in adolescence that do not exist in adulthood? Empirical studies have, thus far, not been able to offer an explanation for the race and/or ethnic differences in adolescent alcohol and drug use. The current study used the Adolescent Health Survey (Add Health) to examine how substance use among adolescents varies for Whites and African Americans, and in cases of difference, to identify the specific compositional characteristics and process differences that account for variations in use rates.

Literature Review

Few empirical studies offer a theoretical framework for studying race and/or ethnic differences in substance abuse (Cheung, 1990-1991). However, Wallace (1999a) offered a strong conceptual framework to guide research on this issue. Wallace outlined an ecological framework (referred to as the racialized social system) to understand the heavier use patterns in adulthood and, particularly relevant here, the unexpected advantages in adolescence. He argued that American society is a racialized social system, which places the White majority in a position of dominance and minority groups (particularly African Americans) in a subordinate role. These unequal positions are supported and sustained structurally and culturally. This system "categorizes, stereotypes, prejudices, and differentially treats people based upon their race" (Wallace, 1999a, p. 25). These racialized ideologies and practices have led to large disparities in the well-being of

Authors' Note: This research uses data from Add Health, a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris, and funded by Grant P01-HD31921 from the National Institute of Child Health and Human Development, with cooperative funding from 17 other agencies. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Persons interested in obtaining data files from Add Health should contact Add Health, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524 (addhealth@unc.edu). Communication concerning this article should be directed to Toni Terling Watt, 601 University Drive, ELA 237, Sociology Department, Texas State University, San Marcos, TX 78666; e-mail: tw15@txstate.edu.

Whites and minority populations. These disparities occur in all relevant categories of life: income, education, wealth, and health (Oliver & Shapiro, 1995; Wallace, 1999a; Williams & Collins, 1995).

Wallace's model (1999a) suggests that racialized social systems contribute to race differences in drug and/or alcohol use through community characteristics, interpersonal relationships, and individual-level psychology and behavior (Wallace, 1999a). Consistent with Wallace's conceptual model, many scholars have theorized that deficiencies disproportionately present for minority populations such as poverty, unemployment, and increased availability of licit and illicit drugs contribute to the racial and/or ethnic differences in drug and/or alcohol use rates for adults. In addition, a few empirical studies have found that these factors fully account for the differences in alcohol and/or drug use observed between Black and White adults (Dawson, 1998; Lillie-Blanton, Anthony, & Schuster, 1993).

Economic and social disadvantages also characterize the conditions in which minority youth live. Thus it is not immediately apparent why their use rates are equal to or lower than Whites. However, Wallace (1999a) detailed why the racialized social system framework can also be used to explain the unexpected use rates observed for minority youth. He suggested that this system creates social and economic disadvantages that could suppress use rates for youth. One reason is that minority youth are brought into direct contact with the negative consequences of substance abuse. For example, Black youth are more likely than White youth to report seeing people who are drunk or high in their community (National Institute on Drug Abuse, 1995). Consequently, minority youth likely have few glamorous images of substance abuse (Boyle & Brunswick, 1980). In addition, reporting and arrest rates for substance use have been shown to be higher for African American relative to White populations (Chasnoff, Landress, & Barrett, 1990; Neuspiel, 1996). Thus, Black youth likely have few delusions about their ability to escape detection should they experiment with drugs and/or alcohol illegally. In addition, the reality of excessive environmental and societal risks leads many African American parents to be exceptionally vigilant and strict regarding this issue. This argument was also made by Sampson and Laub (1994) who stated that "strong family social controls may serve as an important buffer against structural disadvantage in the larger community" (p. 538). In support of this assertion research reveals that Black parents, when compared to White parents, drink less, are more opposed to alcohol use, perceive alcohol as more harmful, and are less likely to involve their children in family alcohol use (Peterson, Hawkins, Abbot, & Catalano, 1994). Black parents also more closely supervise their children than White parents (Giordano, Cernkovich, &

Demaris, 1993; Peterson et al., 1994). There is also reportedly more closeness between Black youth and their parents than for Whites (Giordano et al., 1993). In addition, from the youth's perspective, Black youth more often cite their parent's disapproval and fear of punishment as reasons that they do not use drugs and/or alcohol. This greater support and control offered by Black parents could clearly contribute to the differences in use rates found in adolescence.

Black parents may also aid their children by working harder to instill self-esteem in their children (to counteract a racialized social system that tells them they are inferior) and in the process help them avoid peer pressure to use drugs and alcohol. Research has not necessarily linked parents to these phenomena but has found that Black youth have comparable or even higher self-esteem than Whites and indicate a lower need for peer approval than Whites (Cernkovich & Giordano, 1992; Hughes & Demo, 1989). Low self-esteem and peer pressure have been repeatedly linked to substance use (Rodney, Mupier, & Crafter, 1996). Furthermore, researchers have found that the effect of friend's drug use is a stronger influence for Whites than for Blacks (Barnes, Farrell, & Banerjee, 1994).

In addition, as parents' physical and emotional influence over children wanes (or is even removed because of death or distance), their ability to protect their children from available temptations dissipates. Thus, family support may be key to understanding not only the advantages seen in adolescence (when family support is strong) but also why these advantages are fleeting. Perhaps the greater incidence of drug and/or alcohol use in adulthood occurs when the physical and emotional intensity of family support wanes (or is lost; Lillie-Blanton et al., 1993).

It has also been suggested that the lower use rates for minority youth could be due to lower disposable income for drugs and/or alcohol (Barnes et al., 1994; Kandel, 1995). In addition, populations with fewer financial resources and more hardship often are more likely to develop alternative sources of instrumental and emotional support (e.g., greater religiosity and extended kin networks), which could serve to reduce substance abuse (Herd, 1994; Kandel, 1995).

It is plausible that a racialized social system could suppress drug and/or alcohol use among Black youth. Some empirical evidence supports this assertion. However, these studies are sparse and offer an incomplete picture regarding the issue. Biafora and Zimmerman (1998) offer empirical support for compositional differences between African American and White youth; however, they do not empirically link these compositional differences to observed differences in substance use. Studies of adolescent boys have controlled for

socioeconomic status (SES) but have found that the racial differences in use are not fully accounted for by compositional differences in SES (Gil, Vega, & Biafora, 1998).

Some studies have examined process differences by race and/or ethnicity in the correlates of substance use. The assertion of process differences suggests not only that African Americans and Whites have different characteristics (compositional differences) but also that the effects of these characteristics vary across racial and/or ethnic groups. For example, the effects of poverty, family support, and/or peers on alcohol use may differ for African Americans and Whites. There is some evidence that there are process differences, particularly regarding the effects of income, on substance abuse among adults (Herd, 1990). However, given the dramatic difference between adolescent and adult drug use by race and/or ethnicity, these studies are not necessarily applicable to youth. There are a few studies of process differences among adolescents; however, they have produced mixed results. Barnes et al. (1994) found evidence of a stronger effect of religion (Protestantism specifically) and a lower sensitivity to friend's drinking for Blacks relative to Whites in the effect on heavy drinking. Johnson (2004) found that employment affects substance use for White but not for Black adolescents. Vega, Zimmerman, Warheit, Apospori, and Gil (1993) examined process differences and found that Black youth were more likely to use alcohol in response to high levels of psychosocial risk (depression, suicidal behavior, low self-esteem) than were White youth. Although these three studies suggest process differences, Goodman and Huang (2002) found that race and/or ethnicity does not moderate the effects of income and education on alcohol use, and Flannery, Vazsonyi, and Rowe (1996) and Barnes et al. (1994) found that race and/or ethnicity does not moderate the effects of parenting and peer influence on substance use.

In sum, there is some empirical support for Wallace's (1999a) theory that a racialized social system accounts for observed differences in drug and/or alcohol use for adolescents. Some studies find that there are compositional differences that explain some of the discrepancy (but not all of it). There are other studies that have suggested that there are process differences that could account for different use rates (although other studies refute this). It is difficult to integrate these diverse findings because several studies did not use nationally representative samples. In addition, most studies have not offered a comprehensive examination of the multitude of factors that could contribute to differences in use (SES, family support, religiosity, etc.) thus it has been difficult to compare risk and/or protective factors for their contribution to racial and/or ethnic disparities in use. Finally, most studies do

not offer separate analyses by gender. Given that research reveals differences between Blacks and Whites (French et al., 2002) and gender-race interactions in substance use (Wallace, 1999b), analyses that consider these subgroups separately, are needed. More specifically, available empirical studies do not address two important questions. First, do the factors delineated by Wallace and other scholars (those connected to a racialized social system) completely account for the race and/or ethnic differences in alcohol use observed for adolescents? Second, if they do, which factors are most relevant for understanding these differences (e.g., is it greater religiosity, greater family support, or a stronger influence of the family support that is available)? The current study addresses these two questions.

The current study uses the Add Health Survey, a nationally representative data set of adolescents ages 12 to 17 years. A subsample of Black and White youth is used. In the current study, alcohol use, heavy drinking, and drug use are compared for Black and White adolescents (by gender). These populations are also compared in terms of compositional differences on an extensive number of risk and/or protective factors (SES, family structure, family support, religiosity, peer support, etc.) If differences in use are confirmed, analyses are conducted in two stages, the first stage will determine whether controlling for compositional differences in risk and/or protective factors fully account for the observed differences in use (compositional explanations). If not, process differences are considered by examining interactions between race and/or ethnicity and risk-protective factors. If compositional and process differences emerge and account for or reduce racial and/or ethnic disparities in use, those most relevant correlates and interactions are identified.

Method

Data

The Add Health Survey is a large school-based study of the health-related behaviors of adolescents in grades 7 to 12. It contains measures of a wide variety of health behaviors such as substance use, diet, physical disability, and suicidality. It also seeks to identify correlates of such behaviors and thus examines individual, family, peer, school, and community characteristics as well. This study was funded by the National Institute of Child Health and Human Development and 17 other federal agencies. It was conducted by the Carolina Population Center, University of North Carolina

Chapel Hill, between September 1994 and August 1996. This study is a nationally representative probability-based survey that collected information from adolescents, their parents, and school administrators. The data were collected using paper-and pencil self-administered questionnaires and computer-assisted interviewing to increase the respondents' comfort level in providing sensitive information such as substance use. The Add Health Study provides information for approximately 19,000 adolescents. The Add Health data collection was designed as a cluster sample in which clusters were sampled with unequal probability. Because of this complicated sampling design, the data were analyzed using STATA, a special survey software package designed to handle observations that are not independent and identically distributed. Using more common software packages such as SAS and SPSS would have produced biased estimates and standard errors (see Chantala & Tabor, 1999, for discussion).

Measures

There are three dependent variables in the current study; alcohol use, heavy drinking, and drug use. Alcohol use is obtained from a question that asks respondents, "In the last 12 months on how many days did you drink alcohol?" This measure is dichotomized into those adolescents who have not used alcohol in the last 12 months (coded 1) and those who have (coded 0). Heavy drinking is also a dichotomous variable that captures whether the respondent drank five or more alcoholic beverages on a single occasion in the past 12 months. This is a commonly used measure of heavy drinking, or binge drinking. Drug use is a dichotomous variable that measures whether the respondent has used any illegal drug in the past 30 days (e.g., marijuana, cocaine, pills without a doctor's prescription).

To capture the key independent variable of race and/or ethnicity, several questions were used. Respondents were asked to identify their racial and/or ethnic category. If they chose more than one category they were asked to choose the one that they most identify with. Respondents were classified as either Black or White and all other racial and/or ethnic groups were excluded.

A number of other independent variables are used to explore how compositional and/or process differences in risk and protective factors might serve to produce racial and/or ethnic differences in alcohol use. The selection of key independent variables of this portion of the analysis stems from an extensive body of research, which has identified important correlates of drug and/or alcohol use among adolescents (Jaffe, 1998). These measures capture known risk and protective factors at the community, familial, and

individual level. The respondent's grade in school, measured as a continuous variable, is included as a control. SES is also an important control because it could contribute to substance use through strain or hinder it due to a lack of disposable income. Measures of family SES are parent's education (an ordinal 5-point scale measuring the highest level of education attained for the resident parent or parents) and household income (in thousands of dollars). Household income was recoded into a dummy variable that identifies adolescents from households that have household incomes of \$30,000 and below (the lowest 30% coded as 1), compared to those with household incomes above \$30,000 (coded 0). This dichotomy was created to simplify the analysis of income and interactions with income. More descriptive analyses of income were conducted (with five income categories). However these results were consistent with those of the simpler dichotomy.

A number of variables are included to capture family structure and various aspects of family relationships. Whether the respondents come from intact families with both biological parents or alternative family forms (e.g., divorced, never married, remarried) is measured. The quality of their relationships with their families is measured by a scale created from three items. Adolescents were asked their level of agreement (on a scale of 1-5) with the following statements: "My parents care about me," "My parents understand me," and "My family pays attention to me" ($\alpha = .68$). An additional measure captures the time spent together, rather than the quality of family relationships. It asked the respondents how often during the week their mothers or fathers were at home with them at dinnertime (0-7 nights a week). Finally, a measure of parental independence giving is included. On a scale of 1 to 7, respondents were asked a series of questions about whether their parents let them make their own decisions on a variety of issues ranging from curfew to clothing; higher scores indicate greater independence giving ($\alpha = .65$). Thus, these measures allow us to dissect and examine the parent(s)' role in the adolescent's life in terms of presence, emotional support, and control. In addition, to capture parents as examples to their children, a dichotomous measure of whether the parents abstain from alcohol use (1 = yes, 0 = no) was also included.

Lower rates of drinking among African American adolescents have often been attributed to their religious beliefs, although this has not been empirically demonstrated. Thus, the respondent's religiosity is included as a control. This measure was derived from a question that asked the adolescents how important (on a scale of 1-4) religion was to them (higher scores denote greater religiosity).

Community–neighborhood influences are also examined. Three dummy variables are used to identify whether the respondents reside in urban and/or central city, rural, or suburban areas (suburban is the reference category). Another dummy variable is included which measures the parent’s perception of whether drugs or drug dealers are a problem in their neighborhood (1 = not a problem, 0 = a problem to some or a large extent).

With regard to peer relations, the respondents were asked, on a 5-point scale, how socially accepted they felt and how much their friends care about them. As mentioned, associations with peers who drink alcohol is an important risk factor and is measured as those who have a close friend(s) who use alcohol at least once a month (coded as 1) relative to those who do not (coded 0).

Sample description. The subsample of Black and White youth provides 11,413 cases for analysis (81% White and 19% Black). Among this sample of youth age 12 to 17 years, 48% have had alcohol in the past 12 months, 11% have had five or more drinks in a row in the past 12 months, and 15% have used an illegal drug in the past 30 days.

Results

Bivariate Analyses

Table 1 presents the bivariate analysis of race differences in the dependent and independent variables. Results reveal that Blacks are significantly less likely to use alcohol than Whites, and this is the case for males and females. However, there are no differences in Blacks and Whites in heavy drinking and drug use.

The bivariate analysis also reveals numerous differences in the sociodemographic profile of Black and White youth. Consistent with existing literature, Black youth are more likely to experience socioeconomic disadvantage than White youth (Giordano et al., 1993; Sampson & Laub, 1994). They are more likely to come from a low-income family, live in the central city, live in a neighborhood where drugs and/or drug dealers are a problem, and so on. Conversely they are more likely to be religious. In the area of family and peer relations, where the literature is more limited, the results provide interesting new insights. Although some have argued that Black youth have more supportive and controlling families than White youth (Sampson & Laub, 1994), the results do not support this claim. There were no differences in familial support and parental independence giving by race

Table 1
Comparison of Blacks and Whites on Study
Variables (Mean Scores)

	Males			Females		
	Blacks	Whites	Significance	Blacks	Whites	Significance
Dependent variables						
Alcohol use	.37	.50	***	.37	.49	***
Heavy drinking	.11	.10	.13	.12		
Drug use	.15	.15	.14	.16		
Independent variables and/or controls						
Low income	.42	.23	***	.45	.23	***
Parents education	3.28	3.39	*	3.22	3.37	***
Intact family	.26	.59	***	.30	.57	***
Family support	12.53	12.40		12.13	12.23	
Parents home	3.69	5.02	***	3.88	4.87	***
Parental independence	5.07	5.02		5.06	5.13	
Parent abstains	.34	.24	***	.35	.24	***
Religious importance	3.09	2.84	***	3.37	2.97	***
Drug-free neighborhood	.35	.58	***	.41	.54	***
Urban	.50	.25	***	.52	.26	***
Rural	.22	.32	*	.22	.31	
Friend's alcohol use	.57	.54		.47	.53	*
Social acceptance	4.23	4.13	***	4.06	4.01	
Friends care	3.98	4.17	***	4.13	4.46	***
School year	9.35	9.43		9.43	9.47	
<i>N</i>	1473	4036		1660	4244	

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

and/or ethnicity. This was also found by Barnes et al. (1994). In addition, the parents of Black youth are less likely to be at home at night than are parents of White youth. This may be because Blacks are more likely to hold jobs that involve shift and/or night work than are Whites. Consistent with the literature Black parents are more likely to abstain from alcohol use than are White parents (Peterson et al., 1994). As expected Black females are less likely to have close friends who use alcohol than White females. Black males feel more socially accepted than White males. However, Black males and females are less likely to have supportive friendships than Whites. In

sum the experiences of Black and White youth are quite different. The analyses that follow examine how these factors might contribute to the differences in alcohol use observed.

Multivariate Analyses

Logistic regression models are run that predict whether youth will abstain from alcohol use. Multivariate analyses were not conducted for heavy drinking and drug use because no differences in these variables emerged for Blacks and Whites in the previous analysis. Table 2 presents the logistic regression models for alcohol use. A sequential modeling procedure was conducted where these variables were first regressed on the race and/or ethnicity dummy variables, then with socioeconomic controls included, and finally with interactions for race and/or ethnicity and socioeconomic factors. The first models confirm established patterns of use by race and/or ethnicity (Wallace, 1999a). Blacks, male and female, are more likely to abstain from alcohol use than Whites, with the differences most notable for Black females. The differences are significant and substantive with Black males being 68% more likely to abstain and Black females 76% more likely to abstain than Whites.

The second models in Table 2 reveal the effect of socioeconomic controls on the racial and/or ethnic differences in alcohol use. The inclusion of these controls does not eliminate or even reduce the differences between Black and White youth in alcohol use. In fact, Blacks are even slightly more likely to abstain from alcohol use when sociodemographic controls are included. Previous analyses reveal a sizable number of differences in the sociodemographic profiles of Black and White youth (e.g., Blacks are more religious, Blacks have parents who are more likely to abstain from alcohol use). However, these results suggest that compositional differences in risk-protective factors do not account for the differences in alcohol use for Blacks and Whites.

The second models also provide information on socioeconomic correlates of alcohol use. Low levels of income increase the odds that adolescents will abstain from alcohol use, but for males only. This supports previous assertions that a lack of disposable income may play a role in substance use (Kandel, 1995). Other socioeconomic factors were not significant, however, such as parent's education, rural and/or urban residence, and neighborhood quality. However, this may be due to the inclusion of measures of social support, social control, and friend(s)' alcohol use, which may mediate the effects of SES.

Table 2
Odds Ratios and Standard Errors (in parentheses) for Logistic Regression Models
Predicting the Likelihood of Abstaining From Alcohol Use by Sex

	Females			Males		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Race and/or ethnicity						
White (reference)	1.76*** (.206)	1.88*** (.254)	.50 (.602)	1.68*** (.176)	1.83*** (.219)	4.71 (4.98)
Black		.89*** (.025)	.86*** (.027)		.95 (.029)	.96 (.032)
School year		.88 (.081)	.85 (.094)		1.27* (.124)	1.40** (.157)
Low income		1.09 (.086)	1.05 (.090)		.97 (.097)	.99 (.111)
Drug-free neighborhood		.95 (1.05)	.92 (1.09)		1.08 (.119)	1.08 (.143)
Urban		1.11 (1.15)	1.09 (1.19)		1.08 (.123)	1.07 (.134)
Rural		1.14 (.084)	1.15 (1.06)		1.10 (.102)	1.14 (.121)
Intact family		1.08*** (.020)	1.10*** (.026)		1.11*** (.020)	1.13*** (.026)
Parents at home		1.02 (.049)	1.06 (.057)		1.01 (.045)	1.03 (.049)
Parental education		1.70*** (.183)	1.79*** (.239)		1.71*** (.180)	2.03*** (.220)
Parent abstains		1.26*** (.033)	1.25*** (.038)		1.26*** (.032)	1.23*** (.037)
Family support		.82*** (.026)	.83*** (.030)		.85*** (.027)	.87*** (.031)
Parental independence		.82*** (.044)	.85*** (.046)		.96 (.062)	.94 (.069)
Social acceptance		1.12*** (.049)	1.13** (.052)		1.07 (.050)	1.09 (.056)
Religious importance		.80*** (.056)	.76** (.066)		.84** (.046)	.86* (.054)
Friends care		.38*** (.033)	.36*** (.036)		.41*** (.032)	.40*** (.038)
Friend's alcohol use						

(continued)

Table 2 (continued)

	Females			Males		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Interaction terms						
Black × Family Support						1.11* (.058)
Black × Parent Abstains						.47** (.115)
Black × Parents Home			.92** (.031)			
Black × Friend's Alcohol Use			1.38* (.209)			
Black × School Year			1.15* (.064)			
Black × Parent's Education			.82* (.078)			
<i>N</i>	5899	5263	5263	5495	4877	4877

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Consistent with previous literature (Sampson & Laub, 1994) the family is a critical factor accounting for variation in alcohol use. Parents who do not drink are much more likely to have children who do not drink. In addition, the nature of the parent-child relationship is an important influence. For males and females, family support, parent(s) at home during dinnertime, and parental control increase the odds that an adolescent will abstain from alcohol use. In addition, females from intact families are more likely to abstain.

Peer relationships are also found to be an important influence on alcohol use. Females who feel socially accepted are less likely to abstain from alcohol use. The same is not found for males. Having supportive friendships is associated with greater odds of alcohol use for males and females. Perhaps youth who engage in forms of deviance feel (or need to feel) more cohesion in their social networks. In addition, as expected, association with friends who drink is a particularly strong predictor of alcohol use. Adolescents who have a close friend(s) who uses alcohol regularly are 62% less likely to abstain if they are female and 59% less likely to abstain if they are male. Finally, religiosity is associated with greater odds of abstaining from alcohol use, but only for females

Model three (Table 2) reveals that process contributes to race and/or ethnic differences in alcohol use among youth and may be the most compelling explanation. Interaction terms were created and included in the third set of models to determine whether the independent variables operated differently for African Americans relative to Whites in their effect on alcohol use (only significant interactions are included in Table 2). In addition to identifying significant process differences, these models reveal that inclusion of interaction effects reduces the race and/or ethnic differences in alcohol use to nonsignificance. The addition of compositional controls did not have this effect.

Although the inclusion of interaction effects in the existing models provides much useful information, interaction terms are often cumbersome to interpret and do not reveal which correlates are significant predictors for the two subgroups. Thus, separate models were run for Blacks and Whites and are displayed in Table 3. These models reveal the same differences as in the models with interaction terms but simply allow for an easier interpretation and comparison of the effects of each correlate for Blacks relative to Whites.

First, the results provide useful information on factors that are not moderated by race and/or ethnicity. For example, income, family structure, urban residence, religion, and neighborhood are all factors that, according to these analyses, do not operate differently for Black and White youth in their effects on alcohol use. The results reveal other factors to be more salient to analyses of process differences. For females, having parents at home has less of an

Table 3
Odds Ratios and Standard Errors (in parentheses) For
Logistic Regression Models Predicting Alcohol
Use by Race and/or Ethnicity and Sex

	Females		Males	
	Blacks	Whites	Blacks	Whites
School year	.99 (.049)	.86*** (.027)	.95 (.047)	.96 (.032)
Low income	1.03 (.143)	.85 (.094)	1.03 (.213)	1.40** (.157)
Drug-free neighborhood	.95 (.15)	1.05 (.091)	.93 (.151)	.99 (.111)
Urban	1.02 (.211)	.92 (.109)	.94 (.199)	1.08 (.143)
Rural	1.13 (.290)	1.09 (.120)	1.00 (.236)	1.07 (.135)
Intact family	.99 (.170)	1.15 (.106)	.93 (.196)	1.14 (.122)
Parents at home	1.01 (.027)	1.10*** (.026)	1.06 (.047)	1.13*** (.026)
Parent's education	.86 (.071)	1.06 (.058)	.98 (.119)	1.03 (.049)
Parent abstains	1.49** (.218)	1.79*** (.239)	.94 (.214)	2.03*** (.220)
Family support	1.27*** (.061)	1.25*** (.038)	1.37*** (.060)	1.23*** (.037)
Parental independence	.82** (.051)	.83*** (.030)	.80*** (.050)	.87*** (.031)
Social acceptance (1-5)	.74** (.082)	.85** (.046)	.99 (.118)	.94 (.069)
Religious importance	1.07 (.123)	1.13** (.052)	.99 (.098)	1.09 (.057)
Friends care	.91 (.088)	.76** (.066)	.78* (.095)	.86* (.055)
Friend's alcohol use	.50*** (.063)	.36*** (.036)	.40*** (.078)	.40*** (.038)
<i>N</i>	1464	3799	1274	3603

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

influence on Black females than for White females. Table 3 reveals that parents at home significantly reduces alcohol use for White females but is not a significant predictor of alcohol use for Black females. As mentioned, perhaps African American parents are home less at night because of work schedules. Black females may not perceive their parents' absence as a choice but a necessity and thus may be less resentful of it. In addition, parents' education also has less of an effect on Black females than for White females, although separate models reveal that parents' education is not a significant predictor for either Black or White females. Results reveal that Black females are less likely to use alcohol as they age than are White females, although this does not offer much insight into why. Perhaps the most interesting process difference for females is that they are less likely to be influenced by friends' drinking than are White females. Friends' drinking reduces the likelihood that Black and White females will abstain but the effect for Whites is significantly larger than for Blacks. This supports previous research by Barnes et al. (1994).

Scholars have argued that parents have more of an influence on African American youth than White youth (Sampson & Laub, 1994). Until now, no empirical research has supported this claim (Barnes et al., 1994). The current study suggests that for males, the family does operate differently for Black and White adolescents, although the relationships are complex. White males who have parents who abstain from alcohol use are more than twice as likely to abstain than White males whose parents' do not abstain from alcohol use. However, for Black males, having parents who abstain is not a significant predictor of their own alcohol use. This may be a function of the fact that Black youth are much more likely to come from single-parent families. For these families this measure may capture whether the mother abstains from alcohol use but may not capture whether there is a boyfriend or father figure in their lives that does drink. Perhaps the clearest finding is that family emotional support is an important deterrent for alcohol use for Blacks and Whites; however, it is a significantly more important predictor for Black males than for White males. This contradicts Barnes et al.'s (1994) finding that race and/or ethnicity does not moderate the effect of family on alcohol use. This may be because Barnes et al. did not analyze males and females separately. The current analysis suggests that family support is more salient but only for Black males, not for Black females.

Discussion

The current study confirms existing research finding that alcohol use is lower for Black relative to White adolescents and for males and females (Bachman et al., 1991; Herd, 1989; Johnson et al., 2001; Wallace, 1999a, 1999b). However, it does not find differences for Blacks and Whites on the incidence of heavy drinking and drug use.

Although the lower use rates for Black youth are well documented (Wallace, 1999b), it has been unclear why this difference in alcohol use exists. It has been argued that there are compositional and/or process differences in the correlates of alcohol use (Wallace, 1999a, 1999b). For example, it has been suggested that Black youth have less money to purchase alcohol, are more religious, have more parental support and/or control, and/or are less responsive to peer influences. There have been no comprehensive empirical studies of these explanations. The current study tested many of these hypotheses by including a large number of compositional characteristics as controls (income, family support, family control, peer drinking, religion, friendship support, etc.). It also examined each of these factors for whether

the effect it has on alcohol use might differ for Blacks and Whites and account for different alcohol use rates. The results very generally reveal that although compositional differences are common, differences in process offer the most useful way of understanding Black–White differences in alcohol use. More specifically, although Black and White youth are quite different in their sociodemographic profiles, inclusion of these factors as controls does not alter the differences in Blacks and Whites in alcohol use. However, inclusion of interaction terms, which capture process differences, eliminated the race and/or ethnic differences in alcohol use present in previous analyses. These interaction terms also identified important differences in the correlates of alcohol use for Blacks and Whites. The findings, at the least, support scholars such as Wallace (1999a, 1999b) and Bronfenbrenner (as cited in Steinberg, Darling, & Fletcher, 1995) who have argued for the importance of context in empirical research and for caution to be taken with research that uses predominately White middle-class samples to speak for all subgroups. These results reveal that we cannot simply “control” for race and/or ethnicity or even include socioeconomic controls and then consider the results applicable to all racial and/or ethnic subgroups.

More specifically, results reveal that the effects of family and peers on alcohol use are different for Black and White youth. Black females are less influenced than White females by friends who drink. These results support assertions that Blacks are not as easily influenced by peers as are Whites (Barnes et al., 1994; Wallace, 1999b). In the area of family, parents at home at night is less important to alcohol use for Black females, and parents who abstain is less important for Black males. However, for Black males, supportive families are a more significant determinate of alcohol use than for White males. This is the first empirical support for the argument that the family is a uniquely salient influence on alcohol use for Black youth.

In sum, Black females are less influenced by peers, and Black males are more influenced by supportive families than are Whites. Perhaps these differences in the influence of family and friends reflect the different meanings Blacks and Whites attribute to alcohol use. Previous research suggests that Blacks have less positive attitudes toward alcohol use in general relative to Whites. Cruz's (1988) content analysis of alcohol images in popular music in the 1920s and 1930s offers insight into the distinct meaning of alcohol in White relative to African American culture. He concluded that White youth view alcohol use as a normative way to reject their parents' values and strive for independence. As an expected rite of passage for adolescents, it may be an activity that peers and friends encourage and reward. However, Cruz found that Blacks associated alcohol use with pain, loss, and failure. Black youth

see alcohol use as a significant threat to survival and progress whereas Whites see it as posing no risk to their futures. Thus Black youth who care about one another may be less inclined than Whites to encourage each other to use alcohol. In addition, African American youth and their parents may see alcohol use as a significant threat to survival and progress. Black youth who perceive that the odds are against them may not be quick to dismiss the support and advice of the few allies they have (their parents). Studies have shown that White youth find more pleasure than Black youth in taking risks (Watt, 2004). This may be because they believe the probability of success is high, and they expect a wide network of support (beyond their parents) to help them overcome any obstacles. White youth may believe a violation of their parents' wishes regarding alcohol use is a small normative indiscretion, which poses minimal risk. Thus, White youth may not feel a strong compulsion to avoid alcohol use to honor their parents and secure their future. African American youth, as compared to White youth, may perceive alcohol use as a more serious and foolish betrayal of the few individuals who are in their corner. In sum, if alcohol is viewed as a threat to progress in African American communities, social support networks of friends and parents may not only be more inclined to discourage its use but also more effective in doing so.

Clearly it is beyond the scope of this article to explain the reasons for the process differences found. Future research is needed to retest and explore process differences, particularly the effect of family and friends on alcohol use. In addition, research should also explore whether the "crossover effect," the fact that African American alcohol use comes to exceed that of Whites in adulthood, might be related to diminishing familial and friendship supports over time. It has been suggested that important family and adult supports have been eroding in the Black community (Pinderhughes, 1982), diminishing the emotional and physical health of Black Americans. Research is needed to understand the mechanisms by which support is offered, how youth perceive it, and the ebb and flow of that support over time.

References

- Bachman, J. G., Wallace, J. M., Jr., O'Malley, P. M., Johnston, L. D., Kurth, C. L., & Neighbors, H. W. (1991). Racial/ethnic differences in smoking, drinking, and illicit drug use among America's high-school seniors, 1976-1989. *American Journal of Public Health, 81*(3), 372-377.
- Barnes, G., Farrell, M., & Banerjee, S. (1994). Family influences on alcohol abuse and other problem behaviors among Black and White adolescents in a general population sample. *Journal of Research on Adolescence, 4*(2), 183-201.

- Biafora, F., & Zimmerman, R. (1998). Developmental patterns of African-American adolescent drug use. In W. A. Vega & A. G. Gil (Eds.), *Drug use and ethnicity in early adolescence* (pp. 1-3). New York: Plenum.
- Boyle, J. M., & Brunswick, A. F. (1980). What happened in Harlem? Analysis of a decline in heroin use among a generation unit of urban Black youth. *Journal of Drug Issues, 10*, 109-130.
- Caetano, R. (1997). Prevalence, incidence and stability of drinking problems among Whites, Blacks, and Hispanics; 1984-1992. *Journal on Studies on Alcohol, 58*, 565-572.
- Cernkovich, S., & Giordano, P. (1992). School bonding, race, and delinquency. *Criminology, 30*, 261-291.
- Chantala, K., & Tabor, J. (1999). *Strategies to perform a design-based analysis using the Add Health data*. Unpublished manuscript, Carolina Population Center, University of North Carolina, at Chapel Hill.
- Chasnoff, I. J., Landress, J. J., & Barrett, M. E. (1990). The prevalence of illicit-drug or alcohol use during pregnancy and discrepancies in mandatory reporting in Pinellas County, Florida. *New England Journal of Medicine, 322*, 1202-1206.
- Cheung, Y. W. (1990-1991). Ethnicity and alcohol/drug use revisited: A framework for future research. *International Journal of the Addictions, 25*, 581-605.
- Cruz, J. D. (1988). Booze and blues: Alcohol and Black popular music, 1920-1930. *Contemporary Drug Problems, 15*(2), 149-186.
- Dawson, D. A. (1998). Beyond Black, White and Hispanic: Race, ethnic origin and drinking patterns in the United States. *Journal of Substance Abuse, 10*(4), 321-339.
- Flannery, D. J., Vazsonyi, A. T., & Rowe, D. C. (1996). Caucasian and Hispanic early adolescent substance use: Parenting, personality, and school adjustment. *Journal of Early Adolescence, 16*(1), 71-89.
- French, K., Finkbiner, R., & Duhamel, L. (2002). *Patterns of substance use among minority youth and adults in the United States: An overview and synthesis of national survey findings*. Fairfax VA: Caliber Associates.
- Gil, A. G., Vega, W. A., & Biafora, F. (1998). Temporal influences of family structure and family risk factors on drug use initiation in a multiethnic sample of adolescent boys. *Journal of Youth and Adolescence, 27*(3), 373-393.
- Giordano, P., Cernkovich, S., & Demaris, A. (1993). The family and peer relations of Black adolescents. *Journal of Marriage and the Family, 55*, 277-287.
- Goodman, E., & Huang, B. (2002). Socioeconomic status, depressive symptoms, and adolescent substance use. *Archives of Pediatrics and Adolescent Medicine, 156*(5), 448-453.
- Herd, D. (1989). The epidemiology of drinking patterns and alcohol-related problems among U.S. Blacks. In National Institute on Alcohol Abuse and Alcoholism, *Alcohol use among U.S. ethnic minorities* (DHHS Publ. No. ADM 89-1435, pp. 51-61). Washington, DC: U.S. Government Printing Office.
- Herd, D. (1990). Subgroup differences in drinking patterns among Black and White men: Results from a national survey. *Journal of Studies on Alcohol, 51*, 221-232.
- Herd, D. (1994). Predicting drinking problems among Black and White men: Results from a national survey. *Journal of Studies on Alcohol, 55*, 61-71.
- Hughes, M., & Demo, D. H. (1989). Self-perceptions of black Americans: Self-esteem and personal efficacy. *American Journal of Sociology, 95*(1), 132-159.
- Jaffe, M. L. (1998). *Adolescence*. New York: John Wiley.
- Johnson, M. K. (2004, June). Further evidence on adolescent employment and substance use: Differences by race and ethnicity. *Journal of Health and Social Behavior, 45*, 187-197.

- Johnson, M. K., O'Malley, P., & Bachman, J. G. (2001). *Monitoring the future national survey results on drug use, 1975-2000, vol 1 secondary school students* (NIH Pub. No. 01-4924). Bethesda, MD: National Institute on Drug Abuse.
- Kandel, D. (1995). Ethnic differences in drug use. In G. J. Botvin, S. Schinke, & M. A. Orlandi (Eds.), *Drug abuse prevention with multiethnic youth* (pp. 81-105). Thousand Oaks, CA: Sage.
- Lillie-Blanton, M., Anthony, J. C., & Schuster, C. R. (1993). Probing the meaning of racial/ethnic group comparisons in crack cocaine smoking. *Journal of the American Medical Association, 269*, 993-997.
- Oliver, M. L., & Shapiro, T. M. (1995). *Black wealth/White wealth: A new perspective on racial inequality*. New York: Routledge.
- National Institute on Drug Abuse. (1995). *Drug use among racial/ethnic minorities* (NIH Publ. No. 95-3888). Rockville, MD: Author.
- Neuspiel, D. R. (1996). Racism and perinatal addiction. *Ethnicity and Disease, 6*, 47-55.
- Peterson, P., Hawkins, J., Abbot, R., & Catalano, R. (1994). Disentangling the effects of parental drinking, family management, and parental alcohol norms on current drinking by African-American and European American adolescents. *Journal of Research on Adolescents, 4*, 203-227.
- Pinderhughes, E. (1982). Afro-American families and the victim system. In M. McGoldrick, J. K. Pierce, & J. Geordano (Eds.), *Ethnicity and family therapy* (pp. 108-121). New York: Guilford.
- Rodney, H. E., Mupier, R., & Crafter, B. (1996). Predictors of alcohol drinking among African-American adolescents: Implications for violence prevention. *Journal of Negro Education, 65*(4), 434-444.
- Sampson, R., & Laub, J. (1994). Urban poverty and the family context of delinquency: A new look at structure and process in a classic study. *Child Development, 65*, 523-540.
- Steinberg, L., Darling, N., & Fletcher, A. (1995). Authoritative parenting and adolescent adjustment: An ecological journey. In P. Moen, G. Elder Jr., & C. Luscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 423-466). Washington, DC: American Psychological Association.
- Vega, W. A., Zimmerman, R. S., Warheit, G. J., Apospori, E., & Gil, A. G. (1993). Risk factors for early adolescent drug use in four ethnic and racial groups. *American Journal of Public Health, 83*(2), 185-189.
- Wallace, J. M., Jr. (1999a). Explaining race differences in adolescent and young adult drug use: The role of racialized social systems. *Drugs and Society, 14*(1/2), 21-36.
- Wallace, J. M., Jr. (1999b). The social ecology of addiction: Race, risk and resilience. *Pediatrics, 103*(5 Suppl), S1122-S1127.
- Wallace, J. M., & Bachman, J. G. (1991). Explaining racial/ethnic differences in drug use: The impact of background and lifestyle. *Social Problems, 38*, 333-357.
- Wallace, J. M., Bachman, J. G., O'Malley, P., & Johnston, L. (1995). Racial/ethnic differences in adolescent drug use. In G. Botvin, S. Schinke, & M. Orlandi (Eds.), *Drug abuse prevention with multiethnic youth* (pp. 3-4). Thousand Oaks, CA: Sage.
- Watt, T. T. (2004). Race/ethnic differences in alcohol abuse among youth: An examination of risk-taking attitudes as a mediating factor. *Journal of Ethnicity in Substance Abuse, 3*(3), 33-47.
- Williams, D. R., & Collins, C. (1995). U.S. socioeconomic and racial differences in health: Patterns and explanations. *Annual Review of Sociology, 21*, 349-386.

Toni Terling Watt is an associate professor of sociology at Texas State University in San Marcos. Her research focuses on child and adolescent health, with an emphasis on evaluation of policies and programs for children and youth. She has examined issues such as race and gender differences in adolescent suicide, long-term effects of parental substance abuse on children, and emotional adjustment of adolescents in small schools and private schools. Her work on adolescent health has recently appeared in *Sociology of Education* and *The Milbank Quarterly*.

Jesse McCoy Rogers is a graduate student and graduate assistant at Texas State University in San Marcos. Her areas of interest include substance use and abuse, particularly as it relates to differences across race and/or ethnicity. In addition, she is interested in deviance and conformity as it relates to social class.