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paper 66

**EDUCATION–DRUG USE RELATIONSHIPS:
AN EXAMINATION OF RACIAL/ETHNIC SUBGROUPS**

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Monitoring the Future: A Continuing Study of the Lifestyle and Values of Youth

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INTRODUCTION

The Monitoring the Future project has for many years reported racial/ethnic differences in substance use among White, African-American, and Hispanic secondary school students (see Johnston, O'Malley, Bachman, & Schulenberg, 2007b, and earlier volumes). Trends over time for Whites, African Americans, and Hispanics are also presented graphically in an online occasional paper (Johnston, O'Malley, Bachman, & Schulenberg, 2007a). We have published several journal articles examining different racial/ethnic subgroups based on data combined for a number of contiguous years in order to attain adequate sample sizes. The first such article was Bachman et al. (1991). More recent articles include Wallace et al. (2002, 2003). The most recent article reported on substance use among Hispanic subgroups (Delva et al., 2005). Readers searching for the most accurate estimates of substance use prevalence in subgroups in the Monitoring the Future data should refer to those sources.

Our purpose here is to consider to what extent our broad findings linking adolescent educational successes and failures with drug use, recently reported in *The Education–Drug Use Connection* (Bachman et al., 2008), remain applicable to White, African-American, and Hispanic adolescents when analyzed as separate groups. The present paper is not intended to focus on descriptive accuracy; indeed, due to the size and characteristics of the initial sample in *The Education–Drug Use Connection*, the minority subgroups analyzed here are too small to permit such estimates.

The Education–Drug Use Connection focused primarily on a nationwide sample of adolescents, first surveyed when they were nearing the end of 8th grade in the years 1991, 1992, and 1993, and followed biennially for eight years thereafter. (Full details on samples and methods are provided in Bachman et al., 2008, and are not repeated here.) The analyses in that book were based on the total samples of males and females, analyzed separately because of important gender differences in educational experiences, delinquency, and substance use. Most of the analyses included a race/ethnicity dimension (distinguishing between Whites, African Americans, Hispanics, and a remaining category that combined all others); it was a background dimension and statistically controlled any *additive* effects of race/ethnicity on the relationships between educational factors and various dimensions of substance use. Important subgroup differences were evident in the analyses, and were often noted—albeit briefly. Statistically controlling additive effects does not, however, fully guard against spuriously attributing racial/ethnic differences to other effects. As a further check against that risk, we repeated key analyses with only the White respondents included, and satisfied ourselves that racial/ethnic differences did not produce erroneous results in our findings for the total samples of males and females. We did not, however, attempt to explore *interactions* involving race/ethnicity. That remaining task, examining whether the same patterns of relationships found for the total samples are evident in each of the subgroups, is the main focus of the present paper.

The Education–Drug Use Connection provides a wealth of detail, both in analyses and reporting. We do not repeat all of that here. Instead, we describe key regression

findings briefly in the text, along with a good deal of further detail in the tables. We then present our conclusions.

SAMPLES AND METHODS

As noted earlier, full detail on the sample and methods is provided in Bachman et al. (2008); here we note only a few highlights. The data reported here cover modal ages 14, 16, 18, 20, and 22. A combination of poststratification and imputation was used to deal with missing data due to panel attrition. Further adjustments in sample weights were made to account for differential attrition and sample design effects, such that the actual numbers of observations are generally somewhat larger than the sample sizes shown in tables. That said, it must be added that sample attrition was greater among the African-American and Hispanic subgroups than among Whites, as shown in Table 1. The table also indicates that response rates were consistently higher among females compared to males.

Given the small numbers and higher attrition rates for the subgroups, we are cautious about drawing conclusions—particularly conclusions about prevalence rates for substance use. On the other hand, we believe that these subgroup samples can provide useful evidence about *relationships* among variables, even though the small sample sizes limit the stability of estimates. This is because, although differential attrition may contribute to some bias in point estimates and other univariate statistics, such attrition tends to have less influence on bivariate and multivariate statistics (Goudy, 1976). This was found to be true in a secondary analysis of data from seven panel studies that followed adolescents over time (Cordray & Polk, 1983); and we have found this to be true in our MTF panel analyses (e.g., Bryant, Schulenberg, Bachman, O'Malley, & Johnston, 2000; Pilgrim, Schulenberg, O'Malley, Bachman, & Johnston, 2006; Safron, Schulenberg, & Bachman, 2001; Schulenberg, Bachman, O'Malley, & Johnston, 1994; Schulenberg, Merline, Johnston, O'Malley, Bachman, & Laetz, 2005), and in analyses with other panel data sets (e.g., Bachman, O'Malley, & Johnston, 1978; Schulenberg et al.,1999).

Our analysis approach in this paper is to revisit some of the major findings reported in *The Education–Drug Use Connection* based on the total samples, considering to what extent those findings are applicable to males and females in each of the three racial/ethnic subgroups. We employ some of the same analysis techniques, and refer readers to the book for a more complete discussion of those techniques and underlying rationales.

RESULTS

Group Differences on Key Measures

We begin by presenting means and standard deviations, showing how the groups differ on the key measures used in the analyses. These are of interest in their own right, as well as helpful in the interpretation of the analyses to follow. However, we must

caution again that there are important limitations to the samples (as noted above), and these descriptive statistics should not be used as population estimates.

Academic attainment. A central dimension in *The Education–Drug Use Connection* is academic attainment at modal age 22 (eight years beyond 8th grade). Figure 1[1] compares levels of academic attainment by African-American, White, and Hispanic respondents for males (Figure 1a) and females (Figure 1b). Completion of three or more years of college is roughly twice as likely among Whites as among the two minority groups, and the same can be said for completion of four years or a bachelor degree. Dropping out of high school, on the other hand, is roughly double the White rate among Hispanics, and in between among African Americans. Thus, mean levels of academic attainment (on an eight-category scale, as shown in Table 2) are highest for Whites, much lower for Hispanics, and nearly as low for African Americans. (The differences between African Americans and Hispanics are not statistically significant.) Given the higher panel attrition rates among the minority groups, and the fact that panel attrition is greater among those with lower academic attainment, it may be that these subgroup differences understate those in the total population—although the poststratification mentioned above was designed to counter such effects of panel attrition.

Whites show the widest variance in academic attainment, as illustrated in Figure 1 and also reflected in the standard deviations shown in Table 3. Although these differences are not as large as the differences in means, they do indicate that the range of academic attainment was somewhat more limited for the minority subgroups—and that has implications for the comparisons that follow.

Delinquency. Self-reports of delinquency are consistently higher for Hispanic males, compared with other males (see Table 2). African-American males are slightly higher than White males initially, but do not differ by ages 16 and 18. Minority females report more delinquency at age 14 than White females, but at ages 16 and 18 there are no meaningful differences.

Substance use. Tables 4 and 5 show means and standard deviations (respectively) for the substances examined here. Consistent with our reports based on the larger Monitoring the Future samples of adolescents and young adults (Johnston et al., 2007b), prevalence rates tend to be lowest among African Americans. Comparisons between Hispanics and Whites are more complicated; at age 14 Hispanics are more likely than Whites to report alcohol use and illicit drug use, but by age 18 (second follow-up) that is no longer the case (except for cocaine use among Hispanic males). Similar findings are reported in Johnston et al. (2007b). A discussion of possible explanations for racial/ethnic differences in reported substance use can be found in Wallace et al. (1995).

Overview of Education–Drug Use Relationships (Ages 14–22)

The first chapter of *The Education–Drug Use Connection* includes figures showing prevalence rates of cigarette use, marijuana use, and instances of heavy drinking

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[1]Figure 1 can be compared with findings for the total sample in Bachman et al. (2008), Figure 4.1.

for four levels of age-22 academic attainment. Figures 2–4 in this report present similar data, now showing the three subgroups separately. Figure 2 shows, for White males and females, strong links between academic attainment and daily smoking—effects which remain through age 22. (Indeed, findings reported in the book show such differences remain strong through age 40.) Similar, but weaker, negative relationships between educational success and smoking emerge for African-American males and females, but are less clear for Hispanics.

Figure 3 shows negative relationships between educational success and monthly marijuana use; however, the links are weaker than those for daily smoking. Again, the correlations for the minority groups tend to be weaker than those for Whites.

The findings for instances of heavy drinking are more complicated. As reported and discussed in Bachman et al. (2008), the complications seem attributable to the college environment as it relates to heavy drinking. Figure 4 shows that among White males and females, age-14 instances of heavy drinking are clearly negatively linked with later educational attainment, but the relationship is no longer negative by ages 20 and 22. The pattern for African-American males is somewhat similar, as is true for Hispanic males, although it is weaker. The pattern is not evident, however, among females in the two minority groups.

This initial overview, provided in Figures 2–4, shows findings for Whites that are fairly clear and fully in accord with the total sample findings reported in *The Education–Drug Use Connection.* In that book we reported that substance use is negatively linked with educational success, although that pattern applies clearly and consistently only up to about age 16. By age 20 the pattern remains strong for cigarette use, but for instances of heavy drinking the story is quite different. Our present findings for African-American and Hispanic adolescents and young adults are less clear and generally weaker; however, they do not show any distinctive patterns that stand in sharp contrast to the findings for Whites. This overview, however, does not take into account the many other factors related both to academic attainment and substance use. We turn next to analyses that do take account of these factors.

Regression Analyses Predicting Academic Attainment, Delinquency, and Substance Use

Tables 6–10 present ordinary least squares regression analyses (plus bivariate correlations) using background factors and educational experiences to predict academic attainment at age 22 (Table 6), delinquency during the past year reported at age 14 (end of 8th grade, Table 7), cigarette use during the last 30 days reported at age 18 (Table 8), marijuana use during the last 30 days reported at age 18 (Table 9), and instances of heavy drinking during the past two weeks reported at age 18 (Table 10).

Predicting academic attainment at age 22. Table 6 shows a variety of factors (urban density, parental characteristics, and educational experiences) as predictors of academic attainment at modal age 22 (eight years after the initial 8th-grade survey). This

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table includes bivariate correlations, standardized regression coefficients, and unstandardized regression coefficients. (Tables 7–10 follow the same format.)

Characteristics of parents can make important differences in their children's academic attainment. Parental education levels relate strongly and positively to academic attainment for White males, and even more for White females; this is far less true for the minority groups (although their modest positive regression coefficients do reach statistical significance). Living with both parents also has strong positive effects for Whites and Hispanics, whereas among African-American males it shows no impact and among African-American females it is significant but relatively weak. Parental involvement is positively *correlated* with academic attainment; however, when other predictors are included in the regression coefficients, parental involvement makes no *additional* positive contribution.

Educational setbacks (having been held back, suspended, or expelled) are all negatively correlated with academic attainment, with bivariate correlations that are fairly similar across subgroups. Regression coefficients are all negative, and nearly all significant (Hispanic females are the exception). Having dropped out by age 18 is, of course, strongly negatively linked with age-22 academic attainment, although the link appears weaker among Hispanic males.

GPA at age 14 shows strong positive links with academic attainment, fairly consistent across all groups (except for a weaker link among Hispanic females). College plans also show strong correlations with academic attainment; however, these links overlap closely with the stronger relationships involving GPA, so the contribution of college plans in the regression analyses is generally weaker (and reduced to nonsignificance for Hispanic males and African-American males and females).

In sum, although there are differences among the groups, the patterns of prediction to academic attainment appear to be very similar. That said, it should be added that the adjusted R-squared values in Table 6 show that such attainment is somewhat more predictable among White females (R-squared = .43) and males (R-squared = .39) than among the other groups (R-squared values range from .30 to .33).

"Predicting" past-year delinquency, reported at age 14. For consistency with other tables, we include the same predictors in Table 7, even though some of these "predictors" were measured later in time than delinquency at age 14. Table 7 shows that the set of predictors accounts for much less of the variance in age-14 delinquency, as compared with academic attainment. R-squared values are highest for Hispanics (who also have the highest rates of delinquency reported at age 14—see Table 2), and lowest for African Americans (whose delinquency rates are nevertheless higher than those for Whites). Not surprisingly, suspension and expulsion and being held back are among the strongest positive correlates of delinquency, whereas GPA and college plans show weaker negative correlations. Parental involvement is also negatively linked with delinquency among Whites and Hispanics, but less so among African Americans (small bivariate correlations, essentially zero regression coefficients).

Overall, we find some differences between groups, but the patterns of relationship involving delinquency seem fairly similar. Here again we find no important instances where the relationships found for African Americans or Hispanics are clearly opposite those for Whites (or the total sample). What differences are evident tend to be ones of degree rather than direction.

Predicting cigarette use during the last 30 days, reported at age 18. Table 8 presents findings for cigarette use. It is similar to the previous two tables, except that additional sections have been added to include a dichotomous version of smoking—specifically, a measure of the prevalence of daily smoking. A comparison of the bivariate correlations indicates that almost no information is lost by this dichotomization of the smoking dimension—i.e., the prevalence of daily smoking is just about as predictable as the fuller (seven-category) measure of the amount of smoking during the past month.

The *R*-squared values in Table 8 indicate that smoking is a bit less predictable with the variables included here than is delinquency, on average. The bivariate correlates indicate that among Whites and African Americans, smoking is less likely among non-dropouts with good grades and plans to complete college. Among Hispanics, however, those bivariate relationships are weaker, with some close to zero. The regression analyses show fairly consistently that smoking is higher among dropouts, with other factors controlled; the sole exception is Hispanic females. (The regression findings for African-American males show a significant *positive* contribution of college plans—a relationship which we find implausible and attribute to instability due to the small sample size for this group and to high collinearity between college plans, GPA, and dropping out.) Generally modest negative regression coefficients suggest that age-14 parental involvement has some protective effects against smoking by age 18, significantly so except among African-American males and Hispanic females.

Predicting marijuana use during the last 30 days, reported at age 18. Table 9 presents findings for marijuana use, including a dichotomous measure of prevalence of any use during the past 30 days. The *R*-squared values in Table 9 are, without exception, lower than the corresponding ones in Table 8, indicating that at age 18 marijuana use is less predictable than cigarette use, given the set of predictors employed here. The same was true in the much more extensive analyses reported in Bachman et al. (2008), although *R*-squared values there were higher because those analyses included delinquency as a predictor of substance use. The present findings are fairly similar for marijuana and cigarette use, hardly surprising given that the two behaviors are highly correlated. The bivariate correlations indicate that marijuana use is less likely among non-dropouts with good grades and plans to complete college. Hispanic females are the exception; their marijuana use is more strongly correlated with scholastic setbacks. Parental involvement again shows some protective effects, except for African-American males and Hispanic females.

Predicting instances of heavy drinking in the past two weeks, reported at age 18. Table 10 presents findings for occasions of heavy drinking during the past two weeks, including a dichotomous measure of prevalence. The *R*-squared values in Table 9 are

very low for White males and females, and relatively low for African Americans and Hispanics, indicating that heavy drinking at age 18 is the least predictable of the three substance-using behaviors treated here. As illustrated earlier in Figure 4, the links between educational success measures and heavy drinking become weaker among Whites as they approach and then reach the college years. Although the links among African-American males show a similar shrinkage (illustrated by the correlations included in Figure 4a), Hispanic males show it to a lesser degree, and minority females show it not at all. Bivariate and multivariate coefficients indicate that heavy drinking is more likely among males who have experienced scholastic setbacks, but that is less true for females. The coefficients also show very small, but statistically significant protective effects of parental involvement for Whites and Hispanics, but not for African Americans (among whom such heavy drinking episodes are relatively infrequent).

     Adding substance use as predictors of academic attainment. In Bachman et al. (2008), we addressed the following issue: "[Do] substance-using behaviors themselves cause further decrements in academic attainment?" We reached this conclusion:

> Smoking may make matters a little bit worse, but there is little evidence of negative impacts of marijuana use or cocaine use on the academic attainment of the great majority of young people in the United States these days. The story for alcohol use is more complicated . . . but it seems clear that it does not contribute much in the way of negative long-term effects overall.

Table 11 addresses the same issue, this time for White and minority subgroups examined separately; specifically, the table presents regression analyses that use all the predictors of academic attainment as were used in the model presented in Bachman et al. (2008, chapter 4). Then, age-18 measures of cigarette use, marijuana use, and instances of heavy drinking are included as additional predictors, along with delinquency measured at age 18. The question addressed in Table 11 is whether the delinquency and substance use measures add anything to the prediction of academic attainment, above and beyond the prediction from background and educational experiences up to age 18.

     The answer to the question can be seen in the bottom rows of the tables, which show net additions to R-squared values as each of the measures of delinquency and substance use are added to the equation. For the total samples, delinquency and substance use add to the explained variance only .0025 for males and .0018 for females. In other words, the unique contribution of these behaviors to age-22 academic attainment may be as little as about two tenths of a percent of explained variance. For White males and females alone, the value is slightly higher—an addition of .0029 for males, and .0026 for females. For African-American males and females, the values are .0023 and .0025, respectively. For Hispanic females, the addition to explained variance is slightly higher, at .0037. For Hispanic males, however, it appears that heavy drinking and marijuana use both have negative effects on academic attainment, above and beyond the other predictors; the addition to explained variance is .0292—an appreciable increment for measures added at the end of a long list. We are cautious about taking this literally, not

only because of the concerns noted at various points earlier in this paper, but also because this finding for Hispanic males is not matched in the findings for Hispanic females. It may well be that the males and females are quite distinct from each other in these matters, but it would be prudent to hold off judgment on this finding.

Overall, the present findings are consistent with those reported in Bachman et al. (2008), indicating that substance use, at least across the wide majority of adolescents, has relatively little impact on academic attainment. The findings for Hispanic males may be an exception, albeit a relatively modest one.

DISCUSSION AND CONCLUSIONS

This occasional paper is intended primarily as a supplement to *The Education–Drug Use Connection* (Bachman et al., 2008), and it is better understood in the context of that much larger work. The question we sought to answer here is: To what extent do the findings for the total samples in *The Education–Drug Use Connection* also apply to White, African-American, and Hispanic subgroups when considered separately? The paper is *not* intended to provide the most accurate descriptions of subgroup substance use; such data are available elsewhere (see citations in the introduction).

Our findings lead us to the broad conclusion that the processes underlying the connections between education and drug use are not markedly different among the several subgroups. Although there certainly are subgroup differences, we do not see patterns that suggest effects operating one way for one subgroup and an opposite way for another. Rather, the differences are largely ones of degree.

For example, we see that in all groups, cigarette use by age 16 is negatively correlated with academic attainment; however, the correlations are strongest among White males and females (Figure 2). Much the same can be said for marijuana use (Figure 3).

Because *The Education–Drug Use Connection* focused considerable attention on the prediction of academic attainment, our present analyses considered whether these patterns differed importantly among subgroups. Here again, the differences we find are more a matter of degree than direction. Academic attainment is higher, and somewhat more predictable among White young adults, compared with African Americans and Hispanics. However, in all subgroups, attainment at age 22 is positively predicted from age-14 GPA and college plans, and negatively predicted from various scholastic setbacks. Among the more interesting differences between subgroups is the finding that parental education, and the presence of two parents in the home, seems to matter much less than average for the academic attainment of African Americans.

In sum, it appears that the extensive findings for the total samples reported in *The Education–Drug Use Connection* apply especially well to White adolescents and young adults, but to a large extent they are also applicable to African Americans and Hispanics.

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Table 1
Response Rates by Gender and Race/Ethnicity

		Target			Obtained in Wave 4 or 5 (Modal Ages 20–22)		Response Rates
Males		Weighted *N**	% of Target Sample		Weighted *N**	% of Obtained Sample	Obtained/Target
	African-American	367.3	12.7%		164.6	9.1%	44.8%
	White	1746.9	60.5%		1235.4	67.9%	70.7%
	Hispanic	272.9	9.5%		116.0	6.4%	42.5%
	Other	498.3	17.3%		302.6	16.6%	60.7%
	Total Males	2885.4			1818.6		63.0%
Females							
	African-American	403.8	13.2%		256.6	11.1%	63.5%
	White	1853.5	60.8%		1520.5	65.5%	82.0%
	Hispanic	320.8	10.5%		189.2	8.2%	59.0%
	Other	472.3	15.5%		355.8	15.3%	75.3%
	Total Females	3050.4			2322.0		76.1%
Total Sample		5935.8			4140.6		69.8%

**N*s are weighted to adjust for initial probability of selection by risk of dropping out of high school.
See Bachman et al. (2008) for details of sample design and case weighting.

Table 2
Means of Variables by Gender and Race*

	Males				Females			
Weighted *N*	1361	842	175	124	1738	1065	237	173
	All Males	White	African-American	Hispanic	All Females	White	African-American	Hispanic
Academic attainment at age 22	4.33	4.58	3.95	3.69	4.66	4.94	4.04	3.93
LMSA	0.27	0.23	0.30	0.42	0.27	0.25	0.33	0.33
Other MSA	0.45	0.47	0.47	0.37	0.48	0.50	0.41	0.49
Non-MSA	0.27	0.30	0.23	0.20	0.25	0.25	0.26	0.18
Parents' education level	6.82	7.22	6.45	5.19	6.53	6.94	6.05	4.97
Number of parents W1	1.75	1.83	1.43	1.65	1.74	1.80	1.43	1.78
Number of parents W2	1.74	1.79	1.45	1.73	1.68	1.75	1.37	1.67
Number of parents W3	1.63	1.68	1.37	1.60	1.52	1.60	1.21	1.50
2 parents all 3 waves (yes/no)	0.65	0.71	0.42	0.60	0.59	0.65	0.32	0.57
Parent involvement W1 (index)	11.52	11.65	11.50	10.79	11.41	11.51	11.44	11.10
Parent involvement W2 (index)	10.54	10.62	11.05	9.45	10.17	10.18	10.33	9.97
Parent involvement W3 (index)	8.96	8.97	9.53	8.23	8.94	8.94	9.01	8.99
Held back W1	1.28	1.21	1.44	1.43	1.18	1.13	1.33	1.28
Change in held back W1 to W2	0.08	0.07	0.08	0.11	0.05	0.04	0.07	0.09
Change in held back W2 to W3	0.10	0.08	0.13	0.16	0.07	0.05	0.12	0.11
Suspended/expelled W1	1.45	1.35	1.73	1.59	1.22	1.12	1.54	1.28
Change in suspended/expelled W1 to W2	0.15	0.14	0.19	0.19	0.11	0.09	0.17	0.15
Change in suspended/expelled W2 to W3	0.16	0.15	0.16	0.16	0.10	0.08	0.16	0.13
New significant scholastic setback W1 to W2	0.23	0.20	0.27	0.30	0.17	0.13	0.24	0.24
New significant scholastic setback W2 to W3	0.26	0.23	0.28	0.32	0.17	0.14	0.28	0.24
Dropout by W3	0.16	0.12	0.23	0.23	0.14	0.13	0.17	0.19
GPA 8th grade	3.59	3.78	3.23	3.34	3.84	4.02	3.52	3.59
GPA 10th grade	3.44	3.61	3.11	3.24	3.69	3.85	3.39	3.42
GPA 12th grade	3.61	3.76	3.27	3.43	3.94	4.09	3.61	3.68
Mean secondary school GPA	3.55	3.72	3.20	3.34	3.83	3.99	3.51	3.57
College plans W1	3.25	3.32	3.25	3.04	3.45	3.51	3.41	3.26
College plans W2	3.18	3.21	3.29	3.04	3.34	3.38	3.30	3.22
College plans W3	3.05	3.11	3.07	2.92	3.28	3.34	3.20	3.18
Mean secondary school college plans	3.16	3.22	3.21	3.00	3.36	3.41	3.30	3.22
Sent to the office W1	2.02	1.98	2.12	2.17	1.53	1.43	1.79	1.76
Sent to the office W2	1.79	1.77	1.81	1.93	1.46	1.42	1.58	1.48
Sent to the office W3	1.76	1.74	1.83	1.73	1.34	1.31	1.41	1.40
Days cut school W1	0.38	0.31	0.41	0.57	0.33	0.27	0.41	0.46
Days cut school W2	0.60	0.50	0.65	0.91	0.61	0.51	0.79	0.90
Days cut school W3	1.39	1.29	1.51	1.55	1.11	1.04	1.26	1.31
Skipped classes W1	0.29	0.23	0.41	0.46	0.26	0.18	0.40	0.45
Skipped classes W2	0.51	0.44	0.57	0.74	0.49	0.42	0.62	0.70
Skipped classes W3	1.00	0.94	1.09	1.22	0.62	0.58	0.67	0.77
Delinquency W1[1] (index)	1.84	1.75	1.90	2.32	1.20	1.08	1.31	1.45
Delinquency W2 (index)	1.62	1.61	1.54	1.79	1.01	0.96	1.05	1.01
Delinquency W3 (index)	1.47	1.41	1.38	1.62	0.75	0.73	0.83	0.76
Evenings out W1	3.31	3.28	3.31	3.36	3.00	3.00	3.04	3.04
Evenings out W2	3.53	3.56	3.51	3.33	3.19	3.37	2.65	3.06
Evenings out W3	3.73	3.82	3.52	3.47	3.31	3.52	2.70	3.12
Hours worked W1	0.91	0.87	0.89	0.98	0.65	0.75	0.29	0.56
Hours worked W2	1.96	2.04	1.51	2.00	1.39	1.47	1.21	1.31
Hours worked W3	3.75	3.81	3.45	3.69	3.15	3.35	2.73	2.65
Preferred hours of work W1[2]	3.21	3.21	3.06	3.30	3.02	2.97	3.13	3.07
Preferred hours of work W2	5.26	5.18	5.21	5.55	4.60	4.31	5.27	5.28
Preferred hours of work W3	6.18	5.98	6.42	6.81	5.41	5.13	6.07	6.00
Religious attendance W1	2.90	2.95	3.01	2.71	2.99	3.03	2.98	2.99
Religious attendance W2	2.73	2.76	2.84	2.59	2.83	2.83	2.96	2.89
Religious attendance W3	2.51	2.52	2.72	2.36	2.60	2.55	2.82	2.70
Religious importance W1	2.72	2.64	3.08	2.78	2.85	2.78	3.17	3.02
Religious importance W2	2.71	2.65	3.18	2.76	2.81	2.73	3.15	3.04
Religious importance W3	2.66	2.60	3.13	2.65	2.83	2.71	3.25	3.08
Self-esteem W1[1] (index)	5.89	6.01	5.74	5.68	5.55	5.62	5.69	5.41
Self-esteem W2 (index)	6.40	6.41	6.78	6.32	5.94	5.84	6.49	6.06
Self-esteem W3 (index)	6.45	6.53	6.66	6.17	6.27	6.27	6.51	6.26

*W1 = Wave 1 data collection (grade 8, modal age 14), W2 = Wave 2 data collection (modal age 16),
W3 = Wave 3 data collection (modal age 18)

[1]The items in this index appeared in only one of two forms randomly distributed to respondents in their schools.
[2]This item appeared in only one of two forms randomly distributed to respondents in their schools. Its first appearance was in 1992.

Table 3
Standard Deviations of Variables by Gender and Race*

	Males				Females			
Weighted *N*	1361	842	175	124	1738	1065	237	173
	All Males	White	African-American	Hispanic	All Females	White	African-American	Hispanic
Academic attainment at age 22	1.88	1.91	1.74	1.65	1.96	1.98	1.72	1.69
LMSA	0.45	0.42	0.46	0.49	0.44	0.43	0.47	0.47
Other MSA	0.50	0.50	0.50	0.48	0.50	0.50	0.49	0.50
Non-MSA	0.45	0.46	0.42	0.40	0.43	0.43	0.44	0.38
Parents' education level	2.40	2.25	2.12	2.79	2.44	2.32	2.29	2.64
Number of parents W1	0.52	0.44	0.66	0.62	0.50	0.44	0.64	0.49
Number of parents W2	0.52	0.47	0.65	0.51	0.56	0.51	0.65	0.60
Number of parents W3	0.67	0.63	0.74	0.71	0.73	0.70	0.77	0.75
2 parents all 3 waves (yes/no)	0.48	0.46	0.49	0.49	0.49	0.48	0.47	0.50
Parent involvement W1 (index)	2.87	2.74	3.02	3.11	2.66	2.59	2.64	2.76
Parent involvement W2 (index)	2.71	2.65	2.81	2.77	2.66	2.65	2.79	2.58
Parent involvement W3 (index)	2.88	2.85	2.98	2.81	2.69	2.66	2.66	2.79
Held back W1	0.53	0.47	0.62	0.60	0.42	0.35	0.57	0.47
Change in held back W1 to W2	0.27	0.25	0.26	0.31	0.23	0.20	0.26	0.28
Change in held back W2 to W3	0.30	0.27	0.33	0.36	0.25	0.22	0.32	0.31
Suspended/expelled W1	0.75	0.68	0.87	0.82	0.55	0.41	0.79	0.60
Change in suspended/expelled W1 to W2	0.36	0.34	0.40	0.39	0.32	0.29	0.38	0.36
Change in suspended/expelled W2 to W3	0.37	0.36	0.36	0.37	0.30	0.28	0.37	0.34
New significant scholastic setback W1 to W2	0.46	0.44	0.46	0.52	0.41	0.37	0.46	0.48
New significant scholastic setback W2 to W3	0.50	0.47	0.51	0.55	0.41	0.38	0.51	0.47
Dropout by W3	0.36	0.33	0.42	0.42	0.35	0.33	0.38	0.39
GPA 8th grade	1.33	1.31	1.19	1.33	1.30	1.31	1.17	1.22
GPA 10th grade	1.22	1.25	1.03	1.11	1.26	1.30	1.17	1.08
GPA 12th grade	1.21	1.23	1.02	1.19	1.18	1.20	1.12	1.12
Mean secondary school GPA	1.05	1.08	0.84	0.99	1.07	1.10	0.93	0.94
College plans W1	0.92	0.87	0.91	0.95	0.78	0.76	0.81	0.81
College plans W2	0.90	0.92	0.82	0.81	0.86	0.85	0.89	0.83
College plans W3	1.03	1.01	0.99	1.02	0.95	0.92	0.98	0.98
Mean secondary school college plans	0.76	0.76	0.70	0.71	0.68	0.67	0.67	0.69
Sent to the office W1	1.16	1.11	1.25	1.23	0.92	0.82	1.02	1.13
Sent to the office W2	1.01	1.00	0.99	1.05	0.87	0.83	0.94	0.95
Sent to the office W3	1.06	1.04	1.10	0.96	0.77	0.75	0.80	0.83
Days cut school W1	1.08	0.94	1.18	1.30	0.97	0.86	1.13	1.14
Days cut school W2	1.44	1.30	1.50	1.75	1.36	1.23	1.58	1.61
Days cut school W3	2.01	1.93	2.13	2.04	1.82	1.76	1.96	2.01
Skipped classes W1	0.83	0.72	0.99	1.05	0.75	0.59	0.93	1.02
Skipped classes W2	0.96	0.89	0.99	1.11	0.96	0.88	1.04	1.18
Skipped classes W3	1.38	1.34	1.47	1.42	1.02	1.00	1.00	1.16
Delinquency W1[1] (index)	1.86	1.82	1.83	2.03	1.47	1.38	1.46	1.64
Delinquency W2 (index)	1.79	1.80	1.68	1.78	1.38	1.32	1.30	1.50
Delinquency W3 (index)	1.65	1.62	1.52	1.69	1.14	1.10	1.21	1.12
Evenings out W1	1.69	1.67	1.71	1.72	1.49	1.43	1.66	1.55
Evenings out W2	1.49	1.43	1.68	1.52	1.40	1.34	1.43	1.38
Evenings out W3	1.37	1.34	1.43	1.37	1.41	1.34	1.44	1.42
Hours worked W1	1.52	1.38	1.73	1.87	1.13	1.11	0.81	1.33
Hours worked W2	2.72	2.72	2.50	2.91	2.24	2.23	2.19	2.38
Hours worked W3	3.23	3.17	3.29	3.40	2.88	2.81	2.99	2.84
Preferred hours of work W1[2]	1.95	1.91	2.00	2.03	1.70	1.63	1.82	1.84
Preferred hours of work W2	2.66	2.55	2.88	2.78	2.52	2.33	2.85	2.79
Preferred hours of work W3	2.76	2.74	2.81	2.65	2.48	2.42	2.56	2.40
Religious attendance W1	1.11	1.11	1.04	1.09	1.06	1.06	1.06	1.03
Religious attendance W2	1.09	1.10	1.00	1.03	1.07	1.08	1.01	0.97
Religious attendance W3	1.08	1.09	0.99	1.08	1.04	1.05	0.98	1.00
Religious importance W1	1.02	1.02	0.92	1.02	0.98	1.00	0.91	0.86
Religious importance W2	1.03	1.05	0.87	0.95	0.99	1.01	0.94	0.85
Religious importance W3	1.06	1.05	0.96	1.04	1.00	1.02	0.88	0.83
Self-esteem W1[1] (index)	2.10	2.06	2.14	2.20	2.27	2.29	2.16	2.25
Self-esteem W2 (index)	2.04	2.10	1.64	1.87	2.38	2.47	1.89	2.24
Self-esteem W3 (index)	2.12	2.11	1.89	2.11	2.21	2.24	1.85	2.16

*W1 = Wave 1 data collection (grade 8, modal age 14), W2 = Wave 2 data collection (modal age 16),
W3 = Wave 3 data collection (modal age 18)

[1]The items in this index appeared in only one of two forms randomly distributed to respondents in their schools.
[2]This item appeared in only one of two forms randomly distributed to respondents in their schools. Its first appearance was in 1992.

Table 4
Means of Substance Use Variables by Gender and Race/Ethnicity

	Males				Females			
Weighted *N*	1361	842	175	124	1738	1065	237	173
	All Males	White	African-American	Hispanic	All Females	White	African-American	Hispanic
30-day cigarette use Wave 1	0.316	0.332	0.153	0.285	0.292	0.317	0.107	0.278
30-day cigarette use Wave 2	0.563	0.613	0.251	0.501	0.613	0.739	0.226	0.412
30-day cigarette use Wave 3	0.976	1.076	0.543	0.675	0.861	1.021	0.421	0.491
30-day cigarette use Wave 4	1.141	1.244	0.814	0.701	0.996	1.183	0.419	0.583
30-day cigarette use Wave 5	1.221	1.327	0.934	0.738	1.051	1.217	0.551	0.681
30-day marijuana use Wave 1	0.109	0.089	0.120	0.167	0.092	0.074	0.076	0.165
30-day marijuana use Wave 2	0.335	0.330	0.245	0.380	0.284	0.327	0.105	0.287
30-day marijuana use Wave 3	0.753	0.749	0.613	0.796	0.446	0.489	0.256	0.369
30-day marijuana use Wave 4	0.874	0.874	0.912	0.637	0.539	0.606	0.317	0.369
30-day marijuana use Wave 5	0.824	0.813	0.809	0.673	0.480	0.566	0.260	0.328
Heavy drinking in the last 2 weeks Wave 1	0.327	0.299	0.322	0.444	0.293	0.228	0.325	0.482
Heavy drinking in the last 2 weeks Wave 2	0.520	0.536	0.392	0.724	0.359	0.380	0.222	0.471
Heavy drinking in the last 2 weeks Wave 3	0.824	0.853	0.603	0.927	0.547	0.590	0.369	0.576
Heavy drinking in the last 2 weeks Wave 4	1.180	1.250	0.740	1.351	0.642	0.738	0.299	0.521
Heavy drinking in the last 2 weeks Wave 5	1.274	1.353	0.927	1.312	0.775	0.864	0.391	0.750
Annual marijuana use Wave 1	0.199	0.176	0.158	0.346	0.185	0.163	0.134	0.309
Annual marijuana use Wave 2	0.689	0.709	0.441	0.778	0.612	0.710	0.234	0.570
Annual marijuana use Wave 3	1.376	1.405	1.082	1.344	0.925	1.036	0.431	0.818
Annual marijuana use Wave 4	1.654	1.653	1.642	1.419	1.070	1.205	0.713	0.825
Annual marijuana use Wave 5	1.539	1.561	1.487	1.331	0.936	1.080	0.509	0.726
30-day alcohol use Wave 1	0.549	0.523	0.528	0.706	0.468	0.428	0.401	0.665
30-day alcohol use Wave 2	0.725	0.754	0.617	0.866	0.655	0.681	0.488	0.765
30-day alcohol use Wave 3	1.097	1.168	0.777	1.105	0.789	0.889	0.458	0.778
30-day alcohol use Wave 4	1.604	1.723	1.192	1.496	1.072	1.220	0.615	0.846
30-day alcohol use Wave 5	1.963	2.060	1.600	1.847	1.375	1.573	0.747	1.098
Annual cocaine use Wave 1	0.039	0.030	0.065	0.067	0.032	0.022	0.002	0.090
Annual cocaine use Wave 2	0.033	0.028	0.018	0.067	0.039	0.039	0.004	0.100
Annual cocaine use Wave 3	0.162	0.156	0.097	0.246	0.089	0.106	0.012	0.105
Annual cocaine use Wave 4	0.257	0.256	0.098	0.319	0.154	0.181	0.026	0.110
Annual cocaine use Wave 5	0.249	0.249	0.067	0.433	0.146	0.182	0.032	0.082

Table 5
Standard Deviations of Substance Use Variables by Gender and Race/Ethnicity

	Males				Females			
Weighted *N*	1361	842	175	124	1738	1065	237	173
	All Males	White	African-American	Hispanic	All Females	White	African-American	Hispanic
30-day cigarette use Wave 1	0.882	0.898	0.763	0.662	0.781	0.803	0.499	0.811
30-day cigarette use Wave 2	1.242	1.261	0.956	1.217	1.264	1.366	0.834	0.967
30-day cigarette use Wave 3	1.562	1.608	1.262	1.255	1.417	1.510	1.075	1.060
30-day cigarette use Wave 4	1.580	1.623	1.322	1.230	1.527	1.636	1.021	1.105
30-day cigarette use Wave 5	1.679	1.715	1.492	1.319	1.663	1.741	1.339	1.399
30-day marijuana use Wave 1	0.594	0.529	0.645	0.695	0.513	0.434	0.550	0.647
30-day marijuana use Wave 2	1.063	1.045	0.902	1.134	0.924	0.992	0.566	0.939
30-day marijuana use Wave 3	1.618	1.619	1.443	1.627	1.221	1.274	0.988	1.037
30-day marijuana use Wave 4	1.718	1.700	1.770	1.471	1.349	1.425	0.959	1.105
30-day marijuana use Wave 5	1.696	1.663	1.710	1.566	1.299	1.417	0.976	1.072
Heavy drinking in the last 2 weeks Wave 1	0.931	0.862	0.973	1.124	0.853	0.728	0.894	1.135
Heavy drinking in the last 2 weeks Wave 2	1.124	1.122	1.051	1.356	0.916	0.934	0.778	1.044
Heavy drinking in the last 2 weeks Wave 3	1.312	1.316	1.159	1.434	1.125	1.145	0.967	1.185
Heavy drinking in the last 2 weeks Wave 4	1.480	1.482	1.316	1.554	1.128	1.188	0.812	0.995
Heavy drinking in the last 2 weeks Wave 5	1.461	1.479	1.391	1.386	1.292	1.308	1.090	1.287
Annual marijuana use Wave 1	0.798	0.742	0.710	0.974	0.763	0.700	0.653	0.986
Annual marijuana use Wave 2	1.549	1.579	1.203	1.557	1.400	1.530	0.784	1.255
Annual marijuana use Wave 3	2.120	2.144	1.891	2.024	1.665	1.752	1.159	1.521
Annual marijuana use Wave 4	2.315	2.306	2.336	2.120	1.862	1.963	1.431	1.628
Annual marijuana use Wave 5	2.302	2.302	2.297	2.182	1.755	1.890	1.268	1.480
30-day alcohol use Wave 1	1.164	1.070	1.319	1.317	0.974	0.876	1.014	1.204
30-day alcohol use Wave 2	1.255	1.250	1.273	1.366	1.268	1.230	1.262	1.483
30-day alcohol use Wave 3	1.406	1.423	1.263	1.415	1.135	1.182	0.903	1.186
30-day alcohol use Wave 4	1.606	1.628	1.514	1.452	1.261	1.301	0.948	1.057
30-day alcohol use Wave 5	1.646	1.629	1.640	1.624	1.357	1.389	1.038	1.214
Annual cocaine use Wave 1	0.362	0.314	0.488	0.428	0.335	0.278	0.056	0.469
Annual cocaine use Wave 2	0.322	0.296	0.250	0.443	0.337	0.324	0.104	0.575
Annual cocaine use Wave 3	0.774	0.773	0.608	0.936	0.528	0.585	0.202	0.572
Annual cocaine use Wave 4	0.941	0.925	0.672	1.008	0.716	0.787	0.266	0.484
Annual cocaine use Wave 5	0.939	0.950	0.475	1.184	0.692	0.776	0.325	0.482

Table 6
OLS Regressions Predicting Academic Attainment at Age 22,
By Gender and Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

Males

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.082	.136	.093	-.045	**.034**	**.080**	.011	.016	**.143**	**.301**	.051	.054
Other MSA	.032	-.026	.049	.001								
Non-MSA	-.118	-.119	-.140	.053	**-.049**	**-.046**	**-.080**	.013	**-.207**	**-.189**	**-.336**	.055
Parents' education level	.335	.084	.368	.197	**.156**	**.031**	**.176**	**.085**	**.122**	**.025**	**.150**	**.051**
Lived with 2 parents Waves 1–3	.237	.070	.252	.282	**.060**	-.023	**.086**	**.098**	**.234**	-.080	**.359**	**.329**
Parent involvement index Wave 1	.152	.098	.178	.066	-.002	**-.053**	.008	-.021	-.002	**-.030**	.005	-.011
Held back grade 8 or earlier	-.287	-.299	-.273	-.252	**-.043**	**-.114**	-.021	**-.097**	**-.150**	**-.318**	-.087	**-.267**
Suspended/expelled grade 8 or earlier	-.291	-.205	-.300	-.190	**-.078**	**-.121**	**-.069**	-.051	**-.197**	**-.242**	**-.194**	-.103
Serious scholastic setback W1 to W2	-.212	-.119	-.224	-.250	**-.102**	**-.105**	**-.098**	**-.164**	**-.414**	**-.398**	**-.423**	**-.519**
Serious scholastic setback W2 to W3	-.208	-.207	-.191	-.165	**-.110**	**-.151**	**-.072**	**-.110**	**-.416**	**-.515**	**-.293**	**-.329**
HS dropout by Wave 3	-.454	-.447	-.468	-.364	**-.256**	**-.274**	**-.269**	**-.145**	**-1.318**	**-1.133**	**-1.570**	**-.569**
GPA Wave 1	.438	.350	.437	.442	**.194**	**.185**	**.194**	**.243**	**.274**	**.271**	**.281**	**.302**
College plans Wave 1	.321	.194	.335	.267	**.062**	.013	**.059**	.036	**.127**	.025	**.128**	.063
Adjusted *R*-square									.375	.392	.300	.301
Mean Academic Attainment									4.332	3.955	4.583	3.690

Females

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.100	.179	.122	-.107	**.062**	**.145**	**.054**	**-.058**	**.272**	**.533**	**.249**	**-.209**
Other MSA	-.026	-.085	-.052	.158								
Non-MSA	-.072	-.096	-.062	-.075	**-.012**	**-.073**	.018	**-.129**	**-.052**	**-.284**	.081	**-.570**
Parents' education level	.411	.228	.445	.175	**.222**	**.081**	**.261**	**.081**	**.178**	**.061**	**.223**	**.052**
Lived with 2 parents Waves 1–3	.302	.166	.307	.200	**.103**	**.045**	**.103**	**.094**	**.411**	**.165**	**.430**	**.323**
Parent involvement index Wave 1	.141	.120	.133	.132	-.007	.009	**-.018**	-.002	-.005	.006	**-.014**	-.001
Held back grade 8 or earlier	-.269	-.203	-.261	-.236	**-.063**	**-.080**	**-.046**	**-.082**	**-.293**	**-.242**	**-.259**	**-.296**
Suspended/expelled grade 8 or earlier	-.259	-.237	-.242	-.187	**-.039**	**-.138**	-.008	-.015	**-.142**	**-.301**	-.041	-.042
Serious scholastic setback W1 to W2	-.235	-.184	-.242	-.155	**-.042**	**-.072**	**-.045**	-.020	**-.203**	**-.266**	**-.240**	-.071
Serious scholastic setback W2 to W3	-.212	-.121	-.229	-.092	**-.074**	**-.047**	**-.078**	-.022	**-.348**	**-.159**	**-.412**	-.081
HS dropout by Wave 3	-.473	-.429	-.474	-.500	**-.252**	**-.316**	**-.242**	**-.335**	**-1.406**	**-1.435**	**-1.442**	**-1.444**
GPA Wave 1	.454	.303	.464	.362	**.216**	**.172**	**.210**	**.135**	**.325**	**.252**	**.317**	**.187**
College plans Wave 1	.336	.243	.345	.332	**.059**	-.019	**.074**	**.129**	**.149**	-.041	**.193**	**.271**
Adjusted *R*-square									.418	.431	.308	.331
Mean Academic Attainment									4.661	4.042	4.936	3.934

*Coefficients that are *p* <.05 (two-tailed) are shown in **bold**.

Table 7
OLS Regressions Predicting Delinquency (Index) at Age 14,
By Gender and Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

Males

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.063	.116	.037	.086	**.045**	**.115**	**.031**	.039	**.189**	**.458**	**.134**	.161
Other MSA	-.020	-.146	.015	.012								
Non-MSA	-.040	.047	-.051	-.120	**-.032**	**.067**	**-.046**	-.042	**-.133**	**.293**	**-.182**	-.212
Parents' education level	-.112	-.078	-.071	-.135	.015	-.011	**.053**	-.032	.012	-.009	**.043**	-.023
Lived with 2 parents Waves 1–3	-.112	-.081	-.091	-.166	.012	-.017	**.023**	-.034	.047	-.061	**.093**	-.140
Parent involvement index Wave 1	-.199	-.085	-.214	-.198	**-.114**	-.005	**-.134**	**-.121**	**-.074**	-.003	**-.089**	**-.079**
Held back grade 8 or earlier	.190	.186	.179	.124	**.032**	**.098**	**.031**	-.048	**.111**	**.289**	**.120**	**-.164**
Suspended/expelled grade 8 or earlier	.373	.314	.375	.341	**.291**	**.292**	**.291**	**.276**	**.721**	**.615**	**.781**	**.682**
Serious scholastic setback W1 to W2	.079	.079	.078	.133	**.060**	**.146**	**.044**	**.126**	**.242**	**.583**	**.180**	**.490**
Serious scholastic setback W2 to W3	.118	.082	.140	.139	**.061**	**.079**	**.069**	**.086**	**.229**	**.283**	**.266**	**.315**
HS dropout by Wave 3	.218	.172	.214	.232	**.048**	**.060**	**.038**	.039	**.244**	**.261**	**.213**	**.187**
GPA Wave 1	-.249	-.106	-.251	-.327	**-.085**	.012	**-.097**	**-.130**	**-.119**	.018	**-.134**	**-.199**
College plans Wave 1	-.187	-.069	-.177	-.249	**-.042**	.018	**-.039**	**-.102**	**-.085**	.036	**-.082**	**-.217**
Adjusted *R*-square									.189	.193	.150	.230
Mean No. Types of Deliquency at Age 14									1.844	1.896	1.752	2.323

Females

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.031	.018	.029	.042	.008	-.017	**.031**	**-.045**	.026	-.054	**.100**	**-.156**
Other MSA	.039	.057	.041	.070								
Non-MSA	-.077	-.083	-.076	-.143	**-.064**	**-.054**	**-.066**	**-.118**	**-.217**	**-.180**	**-.211**	**-.503**
Parents' education level	-.124	-.048	-.123	-.075	-.004	-.009	.002	.016	-.002	-.006	.001	.010
Lived with 2 parents Waves 1–3	-.144	.001	-.179	-.071	**-.016**	**.079**	**-.058**	-.019	**-.049**	**.250**	**-.169**	-.064
Parent involvement index Wave 1	-.174	-.102	-.174	-.196	**-.098**	**-.052**	**-.082**	**-.083**	**-.054**	**-.029**	**-.044**	**-.049**
Held back grade 8 or earlier	.096	.064	.082	.016	**-.032**	-.017	**-.038**	**-.085**	**-.114**	-.044	**-.150**	**-.298**
Suspended/expelled grade 8 or earlier	.305	.299	.292	.362	**.222**	**.273**	**.204**	**.307**	**.598**	**.505**	**.686**	**.845**
Serious scholastic setback W1 to W2	.149	.009	.196	.134	**.066**	.013	**.108**	**.079**	**.237**	.041	**.404**	**.268**
Serious scholastic setback W2 to W3	.099	-.010	.121	.065	**.026**	**-.050**	**.050**	.018	**.091**	**-.143**	**.186**	.061
HS dropout by Wave 3	.225	.104	.225	.226	**.085**	.025	**.062**	**.065**	**.354**	.095	**.257**	**.274**
GPA Wave 1	-.234	-.137	-.232	-.205	**-.088**	-.034	**-.079**	**-.054**	**-.100**	-.042	**-.084**	**-.073**
College plans Wave 1	-.196	-.168	-.197	-.190	**-.073**	**-.101**	**-.076**	**-.100**	**-.138**	**-.182**	**-.138**	**-.204**
Adjusted *R*-square									.155	.161	.111	.193
Mean No. Types of Deliquency at Age 14									1.198	1.314	1.076	1.447

*Coefficients that are *p* <.05 (two-tailed) are shown in **bold**.

Table 8
OLS Regressions Predicting Smoking in the Last 30 Days at Age 22,
By Gender and Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

Males

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates				**Any** Daily Smoking Unstandardized Regression Estimates				**Any** Daily Smoking Bivariate Correlations			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	-.047	-.071	-.023	.075	-.045	.006	-.021	.050	-.159	.015	-.078	.126	-.050	.053	-.050	.052	-.052	-.010	-.045	.080
Other MSA	.024	-.032	.039	-.021									-.006	.061	-.048	.028	.027	-.055	.054	-.045
Non-MSA	.020	.115	-.022	-.067	-.007	.096	-.045	-.011	-.026	.287	-.159	-.033	.009	.016	-.003	.011	.022	.076	-.018	-.044
Parents' education level	-.060	.029	-.132	.054	.047	.077	-.022	.108	.031	.046	-.016	.049	.009	.016	-.003	.011	-.053	.056	-.123	.037
Lived with 2 parents Waves 1–3	-.057	-.125	-.092	.055	.046	-.060	.020	.129	.150	-.153	.072	.331	.043	-.046	.027	.108	-.049	-.127	-.077	.085
Parent involvement index Wave 1	-.122	-.092	-.143	-.159	-.065	-.003	-.055	-.185	-.035	-.001	-.032	-.075	-.008	.002	-.008	-.024	-.111	-.066	-.132	-.163
Held back grade 8 or earlier	.116	.184	.143	.020	-.003	.060	.005	.009	-.010	.122	.017	.018	-.010	.041	.001	-.010	.101	.170	.133	-.013
Suspended/expelled grade 8 or earlier	.182	.117	.244	.126	.101	.048	.134	.142	.211	.069	.317	.218	.064	.002	.098	.109	.178	.082	.242	.181
Serious scholastic setback W1 to W2	.150	.063	.172	.184	.112	.055	.114	.220	.379	.151	.413	.529	.113	.032	.118	.192	.152	.060	.165	.196
Serious scholastic setback W2 to W3	.139	.133	.152	.024	.094	.076	.087	-.003	.296	.188	.296	-.006	.083	.067	.081	-.002	.137	.151	.148	.025
HS dropout by Wave 3	.251	.340	.273	.184	.156	.272	.144	.158	.671	.819	.709	.470	.144	.219	.150	.089	.220	.316	.242	.143
GPA Wave 1	-.207	-.175	-.243	-.061	-.081	-.063	-.099	.056	-.095	-.067	-.121	.052	-.027	-.014	-.032	.010	-.203	-.156	-.236	-.064
College plans Wave 1	-.156	-.084	-.165	-.040	-.046	.058	-.019	.012	-.078	.080	-.034	.016	-.028	.015	-.021	.034	-.157	-.079	-.171	.019
Adjusted *R*-square									.115	.144	.142	.124	.106	.132	.131	.152				
Mean smoking									.976	.543	1.076	.675	.252	.135	.278	.174				

Females

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates				**Any** Daily Smoking Unstandardized Regression Estimates				**Any** Daily Smoking Bivariate Correlations			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	-.010	.060	-.001	.066	-.005	.091	.025	.080	-.015	.208	.089	.179	-.003	.076	.015	.062	-.004	.073	-.002	.064
Other MSA	.003	-.051	.018	-.150													.006	-.087	.031	-.173
Non-MSA	.006	-.007	-.019	.114	.007	.037	-.028	.167	.022	.090	-.097	.463	-.001	.053	-.046	.170	-.003	.020	-.034	.146
Parents' education level	-.092	-.089	-.186	.116	.011	-.025	-.065	.073	.006	-.012	-.042	.029	.002	-.004	-.010	.008	-.076	-.095	-.158	.096
Lived with 2 parents Waves 1–3	-.145	-.068	-.215	-.101	-.036	.004	-.075	-.081	-.104	.009	-.237	-.174	-.034	.007	-.076	-.056	-.135	-.065	-.201	-.101
Parent involvement index Wave 1	-.112	-.100	-.128	.008	-.063	-.064	-.037	-.036	-.034	-.026	-.022	-.014	-.010	-.009	-.008	.001	-.107	-.097	-.126	.037
Held back grade 8 or earlier	.056	.033	.137	-.090	-.045	-.033	.006	-.120	-.152	-.063	.025	-.273	-.043	-.039	.036	-.090	.047	-.013	.139	-.082
Suspended/expelled grade 8 or earlier	.131	.078	.228	.082	.034	-.006	.101	.087	.087	-.008	.369	.155	.036	.012	.097	.085	.128	.088	.203	.142
Serious scholastic setback W1 to W2	.134	.077	.188	-.014	.040	.002	.074	-.028	.139	.005	.299	-.061	.051	.039	.105	-.031	.128	.118	.183	-.027
Serious scholastic setback W2 to W3	.148	.025	.200	.191	.086	-.011	.108	.181	.295	-.024	.433	.407	.072	-.003	.098	.108	.125	.023	.163	.167
HS dropout by Wave 3	.277	.223	.321	.031	.204	.171	.168	.024	.821	.486	.765	.065	.197	.111	.178	.016	.235	.194	.274	.047
GPA Wave 1	-.185	-.168	-.249	-.035	-.080	-.114	-.079	-.037	-.087	-.105	-.091	-.032	-.021	-.025	-.018	-.015	-.159	-.143	-.212	-.059
College plans Wave 1	-.125	-.176	-.174	.075	-.014	-.079	-.021	.098	-.025	-.105	-.042	.129	-.007	-.026	-.012	.024	-.110	-.160	-.154	.028
Adjusted *R*-square									.104	.079	.169	.098	.080	.076	.132	.106				
Mean smoking									.861	.421	1.021	.491	.234	.109	.280	.133				

*Coefficients that are *p* <.05 (two-tailed) are shown in **bold**.

Table 9
OLS Regressions Predicting Marijuana Use in the Last 30 Days at Age 22,
By Gender and Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

Males

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates				**Any** 30-Day Marijuana Use Unstandardized Regression Estimates				**Any** 30-Day Marijuana Use Bivariate Correlations			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.024	-.011	.049	.013	.005	-.046	**.028**	.028	.019	-.143	**.108**	.091	.019	-.039	.037	**.068**	.042	.036	.060	.039
Other MSA	.019	.025	.029	-.057													.015	.029	.033	-.107
Non-MSA	-.046	-.017	-.077	.053	**-.041**	**-.054**	**-.063**	**.112**	**-.150**	**-.186**	**-.225**	**.451**	**-.047**	**-.106**	**-.071**	**.163**	-.058	-.074	-.092	.080
Parents' education level	-.016	-.004	-.028	.064	**.058**	.021	**.047**	**.145**	**.039**	.014	**.034**	**.084**	**.006**	.001	**.007**	**.011**	-.032	-.011	-.027	-.016
Lived with 2 parents Waves 1–3	-.097	-.074	-.119	-.104	**-.032**	**-.048**	**-.050**	-.054	**-.109**	**-.142**	**-.177**	-.180	**-.026**	**-.051**	**-.048**	-.027	-.094	-.075	-.116	-.113
Parent involvement index Wave 1	-.115	-.038	-.138	-.067	**-.079**	.008	**-.085**	**-.088**	**-.045**	.004	**-.050**	**-.046**	**-.011**	-.001	**-.012**	**-.022**	-.112	-.036	-.128	-.143
Held back grade 8 or earlier	.031	.052	.022	.064	**-.052**	-.034	**-.065**	.035	**-.157**	-.078	**-.225**	.094	**-.034**	**-.041**	**-.036**	.038	.039	.020	.038	.095
Suspended/expelled grade 8 or earlier	.134	.160	.141	.062	**.092**	**.186**	**.073**	.052	**.198**	**.308**	**.175**	.103	**.057**	**.139**	**.045**	**.041**	.144	.245	.142	.090
Serious scholastic setback W1 to W2	.157	.148	.171	.180	**.134**	**.173**	**.126**	**.185**	**.471**	**.545**	**.458**	**.576**	**.104**	**.155**	**.083**	**.183**	.136	.119	.130	.212
Serious scholastic setback W2 to W3	.121	.063	.141	.012	**.088**	.058	**.095**	-.016	**.287**	.164	**.326**	-.048	**.064**	.046	**.077**	.006	.106	.044	.128	.040
HS dropout by Wave 3	.150	.173	.180	.149	**.068**	**.097**	**.101**	.046	**.305**	**.334**	**.498**	.177	**.094**	.062	**.115**	**.188**	.155	.129	.164	.260
GPA Wave 1	-.142	-.106	-.147	-.173	**-.063**	.002	**-.068**	**-.126**	**-.076**	.003	**-.084**	**-.155**	-.013	.022	**-.021**	-.001	-.126	-.050	-.137	-.136
College plans Wave 1	-.085	-.090	-.085	-.044	-.016	**-.057**	-.006	.055	-.028	**-.090**	-.010	.095	-.001	-.019	.001	**.029**	-.074	-.044	-.075	-.060
Adjusted *R*-square									.076	.078	.094	.084	.067	.107	.078	.134				
Mean 30-day marijuana use									.753	.613	.749	.796	.236	.215	.231	.260				

Females

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates				**Any** 30-Day Marijuana Use Unstandardized Regression Estimates				**Any** 30-Day Marijuana Use Bivariate Correlations			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.025	.018	.065	-.044	.006	-.010	**.058**	**-.076**	.016	-.020	**.171**	**-.166**	**.019**	.003	**.079**	**-.036**	.043	.029	.100	-.050
Other MSA	.024	.054	.003	.006													.013	.045	-.008	-.025
Non-MSA	-.053	-.079	-.069	.046	**-.039**	**-.064**	**-.045**	**.055**	**-.110**	**-.143**	**-.133**	**.150**	**-.030**	**-.044**	**-.044**	**.118**	-.060	-.081	-.091	.095
Parents' education level	-.009	-.053	-.042	.071	**.047**	-.030	.016	**.060**	**.024**	-.013	.009	**.024**	**.013**	.000	**.010**	**.010**	.038	-.028	.018	.074
Lived with 2 parents Waves 1–3	-.085	-.056	-.098	-.086	**-.028**	-.009	**-.033**	**-.089**	**-.070**	-.020	**-.088**	**-.186**	**-.031**	**-.027**	**-.035**	**-.052**	-.079	-.075	-.086	-.079
Parent involvement index Wave 1	-.113	-.110	-.115	-.033	**-.092**	**-.069**	**-.078**	-.038	**-.042**	**-.026**	**-.039**	-.014	**-.009**	**-.006**	**-.005**	**-.017**	-.076	-.095	-.064	-.109
Held back grade 8 or earlier	-.006	.032	.030	-.095	**-.066**	-.043	-.028	**-.114**	**-.193**	-.075	-.103	**-.252**	**-.062**	-.039	-.043	-.059	-.022	.002	.005	-.055
Suspended/expelled grade 8 or earlier	.102	.178	.114	.117	**.058**	**.121**	**.060**	**.136**	**.129**	**.152**	**.187**	**.237**	**.035**	.023	**.072**	**.093**	.083	.136	.105	.139
Serious scholastic setback W1 to W2	.063	-.016	.090	.130	**.018**	-.039	**.040**	**.141**	**.053**	-.083	**.137**	**.302**	.001	-.048	.014	**.087**	.037	-.036	.051	.100
Serious scholastic setback W2 to W3	.088	.035	.109	.162	**.059**	.006	**.074**	**.167**	**.174**	.012	**.252**	**.368**	**.053**	-.021	**.083**	**.111**	.081	-.008	.108	.128
HS dropout by Wave 3	.121	.043	.127	.009	**.075**	-.039	**.055**	-.048	**.259**	-.101	**.210**	-.127	**.062**	**-.064**	**.044**	**-.087**	.089	.009	.093	-.004
GPA Wave 1	-.098	-.151	-.114	-.051	**-.049**	**-.089**	**-.045**	-.008	**-.046**	**-.075**	**-.044**	-.007	**-.015**	**-.036**	**-.017**	-.005	-.079	-.179	-.094	-.070
College plans Wave 1	-.066	-.158	-.083	.026	**-.018**	**-.113**	**-.023**	.032	**-.029**	**-.138**	**-.038**	.041	**-.009**	**-.071**	-.006	.002	-.043	-.204	-.046	-.011
Adjusted *R*-square									.042	.061	.049	.087	.035	.084	.046	.090				
Mean 30-day marijuana use									.446	.256	.489	.369	.171	.100	.183	.160				

*Coefficients that are *p* <.05 (two-tailed) are shown in **bold**.

Table 10
OLS Regressions Predicting Heavy Drinking in the Last Two Weeks at Age 22,
By Gender and Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

Males

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates				**Any** Heavy Drinking in the Last Two Weeks — Unstandardized Regression Estimates				**Any** Heavy Drinking in Last Two Weeks — Bivariate Correlations			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	-.061	-.126	-.043	-.021	**-.062**	**-.120**	**-.043**	-.020	**-.182**	**-.302**	**-.134**	-.058	**-.049**	**-.105**	**-.025**	.052	-.055	-.155	-.030	.024
Other MSA	.033	.040	.033	.003									**.028**	**.151**	.006	**.099**	.011	.005	.012	-.065
Non-MSA	.024	.090	.004	.023	-.007	.019	-.017	.027	-.021	.052	-.048	.096					.043	.164	.015	.049
Parents' education level	-.040	-.059	-.038	-.051	**.018**	-.031	.015	.003	**.010**	-.017	.009	.002	**.005**	.007	.001	-.004	-.016	.007	-.030	-.062
Lived with 2 parents Waves 1–3	-.069	-.077	-.073	-.063	**-.024**	**-.054**	**-.036**	.023	**-.067**	**-.127**	**-.103**	.067	-.012	.011	**-.032**	.009	-.047	-.019	-.064	-.048
Parent involvement index Wave 1	-.068	-.023	-.063	-.116	**-.035**	.044	**-.027**	**-.090**	**-.016**	.017	**-.013**	**-.041**	**-.006**	**.008**	**-.006**	**-.012**	-.054	.019	-.057	-.096
Held back grade 8 or earlier	.084	.110	.071	.129	**.038**	.046	.024	**.075**	**.093**	.086	**.068**	**.180**	**.026**	-.003	**.032**	.051	.061	.046	.067	.109
Suspended/expelled grade 8 or earlier	.073	.039	.093	.125	**.031**	**.050**	**.049**	**.085**	**.055**	**.067**	**.094**	**.148**	**.019**	.036	**.025**	**.063**	.056	.031	.079	.128
Serious scholastic setback W1 to W2	.081	.170	.057	.053	**.067**	**.169**	**.040**	**.060**	**.191**	**.426**	**.120**	**.164**	**.053**	**.142**	.015	.035	.059	.125	.031	.020
Serious scholastic setback W2 to W3	.071	.007	.076	.049	**.051**	-.022	**.051**	.036	**.135**	-.050	**.143**	.094	**.055**	.023	**.048**	.014	.070	.048	.066	.028
HS dropout by Wave 3	.101	.165	.084	.191	**.037**	**.068**	.017	**.154**	**.132**	**.187**	.070	**.522**	**.059**	.053	**.070**	**.108**	.086	.114	.089	.133
GPA Wave 1	-.091	-.124	-.099	-.058	**-.017**	-.033	**-.040**	.087	**-.017**	-.033	**-.040**	**.094**	-.003	-.015	**-.010**	.022	-.059	-.073	-.071	-.046
College plans Wave 1	-.081	-.142	-.064	-.128	**-.027**	**-.086**	-.010	**-.066**	**-.038**	**-.110**	-.015	**-.100**	.006	-.001	.022	-.007	-.037	-.067	-.019	-.075
Adjusted *R*-square									.028	.079	.023	.060	.019	.065	.017	.038				
Mean 2-week heavy drinking									.824	.603	.853	.927	.360	.274	.377	.382				

Females

	Bivariate Correlations				Standardized Regression Estimates				Unstandardized Regression Estimates				**Any** Heavy Drinking in the Last Two Weeks — Unstandardized Regression Estimates				**Any** Heavy Drinking in Last Two Weeks — Bivariate Correlations			
	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic	Total	African-American	White	Hispanic
Large MSA	.000	.019	.023	-.040	-.002	.031	.018	-.029	-.005	.064	.049	-.072	-.008	.029	.017	-.018	-.004	.029	.024	-.027
Other MSA	.002	-.025	.004	-.076													.011	-.012	.011	-.083
Non-MSA	-.002	.008	-.027	.147	.007	**.043**	-.018	**.166**	.019	**.095**	-.047	**.513**	-.003	.017	**-.028**	**.185**	-.009	-.018	-.037	.141
Parents' education level	.005	-.074	-.012	.126	**.047**	**-.043**	**.028**	**.125**	**.022**	-.018	**.014**	**.056**	**.008**	-.009	**.006**	**.018**	.003	-.088	-.004	.099
Lived with 2 parents Waves 1–3	-.057	-.089	-.071	-.109	**-.024**	**-.062**	**-.040**	**-.085**	**-.055**	**-.129**	**-.097**	**-.204**	**-.037**	**-.042**	**-.069**	-.035	-.071	-.093	-.094	-.074
Parent involvement index Wave 1	-.066	-.022	-.082	-.074	**-.056**	.020	**-.064**	**-.092**	**-.024**	.007	**-.028**	**-.040**	**-.010**	.000	**-.010**	**-.008**	-.074	-.049	-.077	-.050
Held back grade 8 or earlier	.015	.084	.036	-.032	**-.018**	.031	.009	**-.070**	**-.048**	.052	.028	**-.177**	**-.019**	**.063**	-.015	-.036	.017	.147	.018	.006
Suspended/expelled grade 8 or earlier	.052	.131	.047	.096	**.023**	**.075**	.013	**.086**	**.047**	**.091**	.035	**.171**	**.017**	**.044**	.000	**.116**	.054	.159	.035	.172
Serious scholastic setback W1 to W2	.032	.010	.032	.042	.007	-.016	.006	.032	.018	-.034	.018	.078	-.010	.011	-.003	.008	.018	.028	.026	.022
Serious scholastic setback W2 to W3	.075	.122	.068	.093	**.061**	**.095**	**.052**	**.095**	**.166**	**.180**	**.159**	**.238**	**.050**	**.102**	**.027**	**.111**	.063	.169	.041	.125
HS dropout by Wave 3	.061	.022	.060	.086	**.026**	**-.067**	.018	**.066**	**.082**	**-.170**	.061	**.199**	**.022**	**-.066**	.014	**.075**	.055	.040	.050	.109
GPA Wave 1	-.063	-.166	-.047	-.068	**-.036**	**-.125**	.000	-.006	**-.031**	**-.103**	.000	-.006	**-.015**	**-.027**	**-.011**	-.004	-.069	-.163	-.061	-.092
College plans Wave 1	-.042	-.118	-.060	.002	**-.016**	**-.058**	**-.040**	.028	**-.023**	**-.070**	**-.060**	.041	-.006	**-.026**	**-.012**	.003	-.040	-.127	-.045	-.029
Adjusted *R*-square									.015	.055	.016	.079	.016	.077	.016	.085				
Mean 2-week heavy drinking									.547	.369	.590	.576	.253	.170	.276	.255				

*Coefficients that are *p*<.05 (two-tailed) are shown in **bold**.

Table 11a
OLS Regressions Predicting Academic Attainment at Age 22, Males
By Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

African-American Males

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	0.136	0.048	0.048	0.048	0.053	0.052
2 Non-MSA	-0.119	-0.036	-0.036	-0.033	-0.035	-0.037
3 Parents' education level	0.084	0.029	0.029	0.031	0.034	0.033
4 2 parents all 3 waves (yes/no)	0.070	-0.021	-0.021	-0.023	-0.021	-0.022
5 Parent involvement W1 (index)	0.098	-0.035	-0.035	-0.035	-0.036	-0.036
6 Held back W1	-0.299	-0.105	-0.105	-0.103	-0.105	-0.106
7 Suspended/expelled W1	-0.205	-0.110	-0.109	-0.108	-0.108	-0.104
8 New significant scholastic setback W1 to W2	-0.119	-0.084	-0.083	-0.082	-0.088	-0.084
9 New significant scholastic setback W2 to W3	-0.207	-0.135	-0.135	-0.133	-0.130	-0.129
10 Dropout by W3	-0.447	-0.255	-0.254	-0.246	-0.246	-0.246
11 GPA 10th grade	0.258	0.064	0.064	0.062	0.065	0.065
12 GPA 12th grade	0.162	0.035	0.035	0.036	0.038	0.039
13 College plans W3	0.417	0.202	0.202	0.204	0.206	0.202
14 Delinquency index W3	-0.068		-0.005	-0.002	-0.009	0.000
15 Smoking in the last 30 days W3	-0.201			-0.031	-0.037	-0.035
16 Heavy drinking in last 2 weeks W3	-0.088				0.045	0.050
17 Marijuana use in last 30 days W3	-0.151					-0.037
R-squared		0.3204	0.3204	0.3212	0.3230	0.3242
Adjusted *R*-squared		0.3158	0.3154	0.3159	0.3173	0.3181
Change in adjusted *R*-squared			-0.0004	0.0001	0.0015	0.0023

Hispanic Males

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	-0.045	-0.009	-0.011	-0.013	-0.020	-0.016
2 Non-MSA	0.053	0.014	0.008	0.007	0.009	0.021
3 Parents' education level	0.197	0.073	0.072	0.069	0.066	0.079
4 2 parents all 3 waves (yes/no)	0.282	0.097	0.096	0.092	0.092	0.084
5 Parent involvement W1 (index)	0.066	-0.021	-0.023	-0.017	-0.027	-0.032
6 Held back W1	-0.252	-0.102	-0.097	-0.096	-0.082	-0.081
7 Suspended/expelled W1	-0.190	-0.081	-0.089	-0.094	-0.087	-0.086
8 New significant scholastic setback W1 to W2	-0.250	-0.136	-0.148	-0.156	-0.153	-0.142
9 New significant scholastic setback W2 to W3	-0.165	-0.077	-0.080	-0.079	-0.074	-0.075
10 Dropout by W3	-0.364	-0.130	-0.130	-0.135	-0.117	-0.117
11 GPA 10th grade	0.343	0.102	0.105	0.104	0.105	0.089
12 GPA 12th grade	0.311	0.053	0.052	0.057	0.067	0.063
13 College plans W3	0.407	0.215	0.215	0.210	0.212	0.217
14 Delinquency index W3	-0.064		0.037	0.039	0.047	0.048
15 Smoking in the last 30 days W3	-0.039			0.034	0.062	0.084
16 Heavy drinking in last 2 weeks W3	-0.212				-0.146	-0.125
17 Marijuana use in last 30 days W3	-0.201					-0.108
R-squared		0.3156	0.3168	0.3178	0.3369	0.3463
Adjusted *R*-squared		0.3093	0.3100	0.3105	0.3294	0.3385
Change in adjusted *R*-squared			0.0007	0.0012	0.0201	0.0292

White Males

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	0.093	0.018	0.018	0.017	0.019	0.020
2 Non-MSA	-0.140	-0.058	-0.059	-0.061	-0.061	-0.062
3 Parents' education level	0.368	0.124	0.125	0.125	0.124	0.125
4 2 parents all 3 waves (yes/no)	0.252	0.073	0.072	0.073	0.075	0.074
5 Parent involvement W1 (index)	0.178	-0.007	-0.008	-0.009	-0.009	-0.010
6 Held back W1	-0.273	-0.008	-0.008	-0.008	-0.010	-0.011
7 Suspended/expelled W1	-0.300	-0.050	-0.048	-0.045	-0.044	-0.044
8 New significant scholastic setback W1 to W2	-0.224	-0.049	-0.048	-0.045	-0.044	-0.043
9 New significant scholastic setback W2 to W3	-0.191	-0.046	-0.045	-0.043	-0.043	-0.042
10 Dropout by W3	-0.468	-0.211	-0.211	-0.207	-0.206	-0.205
11 GPA 10th grade	0.482	0.165	0.165	0.162	0.163	0.163
12 GPA 12th grade	0.467	0.110	0.108	0.106	0.108	0.107
13 College plans W3	0.553	0.264	0.263	0.260	0.259	0.259
14 Delinquency index W3	-0.130		-0.017	-0.011	-0.021	-0.018
15 Smoking in the last 30 days W3	-0.285			-0.033	-0.044	-0.040
16 Heavy drinking in last 2 weeks W3	-0.077				0.045	0.047
17 Marijuana use in last 30 days W3	-0.178					-0.017
R-squared		0.4848	0.4851	0.4860	0.4877	0.4879
Adjusted *R*-squared		0.4842	0.4844	0.4853	0.4869	0.4871
Change in adjusted *R*-squared			0.0002	0.0011	0.0027	0.0029

Total Sample Males

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	0.082	0.026	0.027	0.025	0.027	0.027
2 Non-MSA	-0.118	-0.039	-0.039	-0.039	-0.039	-0.040
3 Parents' education level	0.335	0.113	0.114	0.116	0.116	0.117
4 2 parents all 3 waves (yes/no)	0.237	0.059	0.059	0.061	0.062	0.061
5 Parent involvement W1 (index)	0.152	-0.010	-0.010	-0.012	-0.012	-0.014
6 Held back W1	-0.287	-0.036	-0.037	-0.037	-0.038	-0.040
7 Suspended/expelled W1	-0.291	-0.063	-0.060	-0.058	-0.057	-0.056
8 New significant scholastic setback W1 to W2	-0.212	-0.061	-0.059	-0.056	-0.057	-0.054
9 New significant scholastic setback W2 to W3	-0.208	-0.078	-0.076	-0.074	-0.074	-0.073
10 Dropout by W3	-0.454	-0.208	-0.208	-0.203	-0.203	-0.202
11 GPA 10th grade	0.465	0.174	0.173	0.171	0.171	0.171
12 GPA 12th grade	0.421	0.083	0.082	0.079	0.080	0.078
13 College plans W3	0.515	0.251	0.251	0.248	0.249	0.248
14 Delinquency index W3	-0.123		-0.019	-0.013	-0.018	-0.013
15 Smoking in the last 30 days W3	-0.245			-0.034	-0.040	-0.034
16 Heavy drinking in last 2 weeks W3	-0.097				0.026	0.030
17 Marijuana use in last 30 days W3	-0.175					-0.031
R-squared		0.4547	0.4550	0.4560	0.4566	0.4573
Adjusted *R*-squared		0.4543	0.4546	0.4555	0.4561	0.4568
Change in adjusted *R*-squared			0.0003	0.0012	0.0018	0.0025

*Predictors 1–13 match the predictors with direct effects on academic attainment from the Bachman et al. (2008) chapter 4 structural equation model.

Table 11b
OLS Regressions Predicting Academic Attainment at Age 22, Females
By Race/Ethnicity, Eighth-Grade Class Years 1991–1993*

African-American Females

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	0.179	0.149	0.149	0.154	0.154	0.155
2 Non-MSA	-0.096	-0.077	-0.077	-0.075	-0.074	-0.073
3 Parents' education level	0.228	0.029	0.029	0.027	0.027	0.027
4 2 parents all 3 waves (yes/no)	0.166	0.029	0.029	0.029	0.029	0.029
5 Parent involvement W1 (index)	0.120	0.020	0.020	0.015	0.016	0.017
6 Held back W1	-0.203	-0.083	-0.083	-0.084	-0.084	-0.083
7 Suspended/expelled W1	-0.237	-0.141	-0.140	-0.140	-0.140	-0.142
8 New significant scholastic setback W1 to W2	-0.184	-0.070	-0.070	-0.069	-0.069	-0.068
9 New significant scholastic setback W2 to W3	-0.121	-0.020	-0.020	-0.021	-0.021	-0.021
10 Dropout by W3	-0.429	-0.247	-0.248	-0.236	-0.236	-0.235
11 GPA 10th grade	0.287	0.144	0.144	0.143	0.143	0.144
12 GPA 12th grade	0.200	0.079	0.079	0.075	0.075	0.076
13 College plans W3	0.444	0.273	0.273	0.271	0.272	0.272
14 Delinquency index W3	-0.022		-0.006	0.002	0.002	0.002
15 Smoking in the last 30 days W3	-0.178			-0.057	-0.057	-0.064
16 Heavy drinking in last 2 weeks W3	-0.079				-0.003	-0.006
17 Marijuana use in last 30 days W3	-0.073					0.022
R-squared		0.3979	0.3980	0.4010	0.4010	0.4014
Adjusted *R*-squared		0.3951	0.3949	0.3977	0.3975	0.3976
Change in adjusted *R*-squared			-0.0002	0.0026	0.0024	0.0025

Hispanic Females

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	-0.107	-0.092	-0.099	-0.097	-0.100	-0.102
2 Non-MSA	-0.075	-0.125	-0.127	-0.122	-0.118	-0.118
3 Parents' education level	0.175	0.083	0.082	0.084	0.088	0.088
4 2 parents all 3 waves (yes/no)	0.200	0.075	0.076	0.074	0.072	0.071
5 Parent involvement W1 (index)	0.132	-0.006	-0.005	-0.006	-0.009	-0.009
6 Held back W1	-0.236	-0.045	-0.041	-0.043	-0.044	-0.046
7 Suspended/expelled W1	-0.187	-0.025	-0.033	-0.032	-0.030	-0.029
8 New significant scholastic setback W1 to W2	-0.155	-0.040	-0.046	-0.047	-0.046	-0.043
9 New significant scholastic setback W2 to W3	-0.092	-0.019	-0.025	-0.021	-0.020	-0.018
10 Dropout by W3	-0.500	-0.266	-0.268	-0.267	-0.264	-0.267
11 GPA 10th grade	0.321	0.154	0.155	0.156	0.157	0.154
12 GPA 12th grade	0.234	0.018	0.022	0.020	0.019	0.019
13 College plans W3	0.464	0.244	0.242	0.243	0.244	0.242
14 Delinquency index W3	-0.029		0.052	0.057	0.061	0.064
15 Smoking in the last 30 days W3	-0.039			-0.027	-0.013	-0.009
16 Heavy drinking in last 2 weeks W3	-0.087				-0.042	-0.034
17 Marijuana use in last 30 days W3	-0.063					-0.026
R-squared		0.3711	0.3735	0.3742	0.3756	0.3760
Adjusted *R*-squared		0.3673	0.3694	0.3697	0.3708	0.3710
Change in adjusted *R*-squared			0.0021	0.0024	0.0035	0.0037

White Females

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	0.122	0.046	0.045	0.046	0.046	0.047
2 Non-MSA	-0.062	0.014	0.014	0.014	0.014	0.013
3 Parents' education level	0.445	0.214	0.214	0.213	0.211	0.211
4 2 parents all 3 waves (yes/no)	0.307	0.097	0.097	0.094	0.095	0.095
5 Parent involvement W1 (index)	0.133	-0.012	-0.012	-0.013	-0.011	-0.012
6 Held back W1	-0.261	-0.024	-0.024	-0.024	-0.024	-0.025
7 Suspended/expelled W1	-0.242	-0.018	-0.018	-0.016	-0.014	-0.014
8 New significant scholastic setback W1 to W2	-0.242	-0.025	-0.025	-0.024	-0.023	-0.022
9 New significant scholastic setback W2 to W3	-0.229	-0.053	-0.053	-0.051	-0.051	-0.050
10 Dropout by W3	-0.474	-0.157	-0.157	-0.152	-0.151	-0.151
11 GPA 10th grade	0.495	0.160	0.161	0.158	0.158	0.157
12 GPA 12th grade	0.467	0.102	0.102	0.098	0.101	0.101
13 College plans W3	0.555	0.287	0.287	0.286	0.285	0.285
14 Delinquency index W3	-0.130		0.003	0.008	0.002	0.004
15 Smoking in the last 30 days W3	-0.312			-0.034	-0.045	-0.040
16 Heavy drinking in last 2 weeks W3	-0.035				0.042	0.046
17 Marijuana use in last 30 days W3	-0.125					-0.020
R-squared		0.5177	0.5177	0.5186	0.5202	0.5205
Adjusted *R*-squared		0.5172	0.5171	0.5180	0.5196	0.5198
Change in adjusted *R*-squared			-0.0001	0.0008	0.0024	0.0026

Total Sample Females

	Bivariate Correlation	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates	Standardized Estimates
1 LMSA	0.100	0.054	0.053	0.052	0.052	0.052
2 Non-MSA	-0.072	-0.008	-0.008	-0.007	-0.008	-0.008
3 Parents' education level	0.411	0.182	0.182	0.182	0.181	0.182
4 2 parents all 3 waves (yes/no)	0.302	0.089	0.089	0.088	0.089	0.089
5 Parent involvement W1 (index)	0.141	-0.006	-0.005	-0.007	-0.006	-0.007
6 Held back W1	-0.269	-0.049	-0.048	-0.049	-0.049	-0.050
7 Suspended/expelled W1	-0.259	-0.049	-0.051	-0.051	-0.051	-0.050
8 New significant scholastic setback W1 to W2	-0.235	-0.033	-0.034	-0.033	-0.033	-0.033
9 New significant scholastic setback W2 to W3	-0.212	-0.051	-0.053	-0.051	-0.051	-0.051
10 Dropout by W3	-0.473	-0.178	-0.178	-0.172	-0.171	-0.171
11 GPA 10th grade	0.459	0.145	0.147	0.145	0.145	0.145
12 GPA 12th grade	0.420	0.102	0.103	0.100	0.101	0.100
13 College plans W3	0.534	0.283	0.284	0.283	0.282	0.282
14 Delinquency index W3	-0.087		0.019	0.024	0.021	0.022
15 Smoking in the last 30 days W3	-0.234			-0.033	-0.039	-0.035
16 Heavy drinking in last 2 weeks W3	-0.042				0.023	0.026
17 Marijuana use in last 30 days W3	-0.104					-0.013
R-squared		0.4961	0.4964	0.4973	0.4978	0.4979
Adjusted *R*-squared		0.4957	0.4960	0.4969	0.4974	0.4975
Change in adjusted *R*-squared			0.0003	0.0012	0.0017	0.0018

*Predictors 1–13 match the predictors with direct effects on academic attainment from the Bachman et al. (2008) chapter 4 structural equation model.
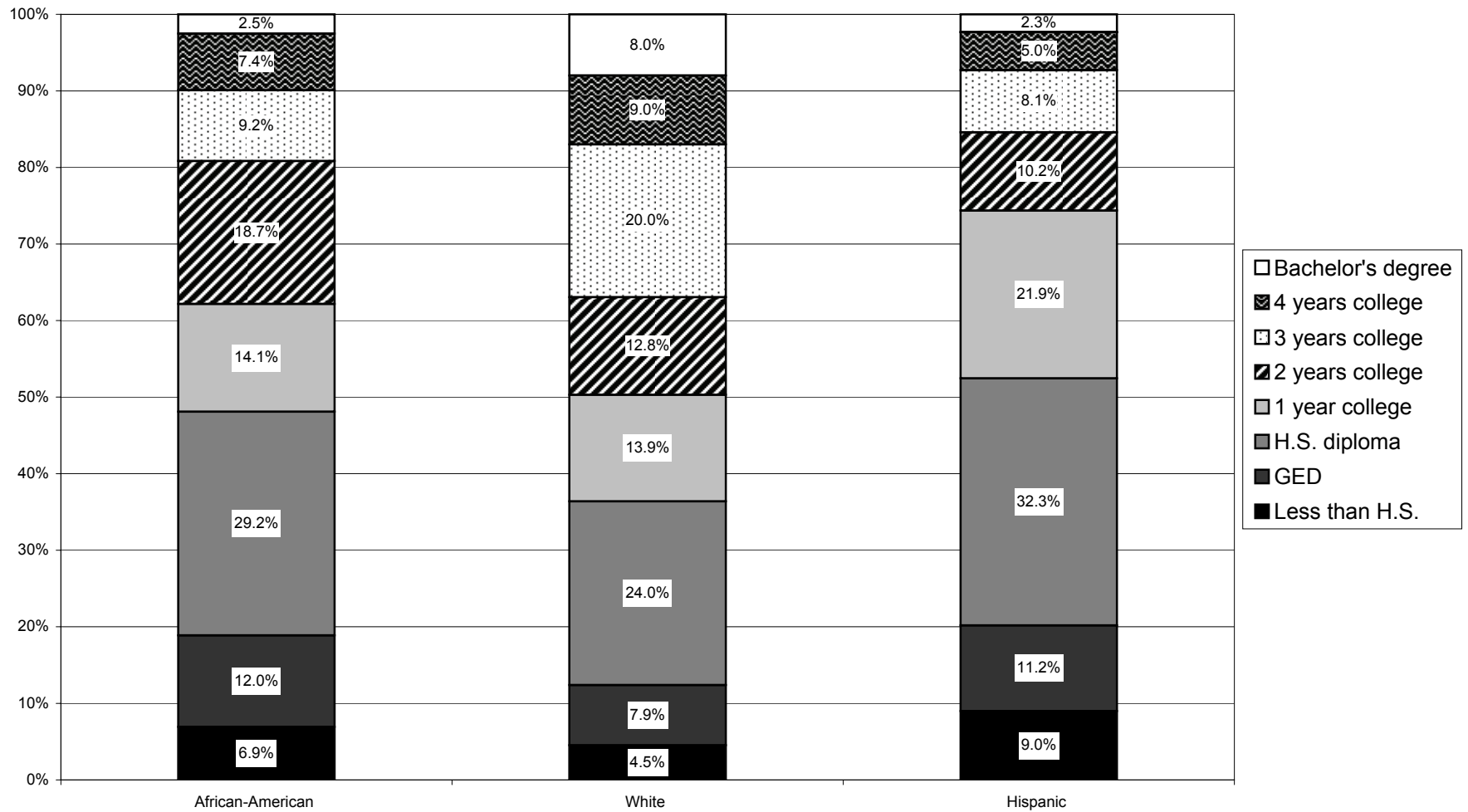
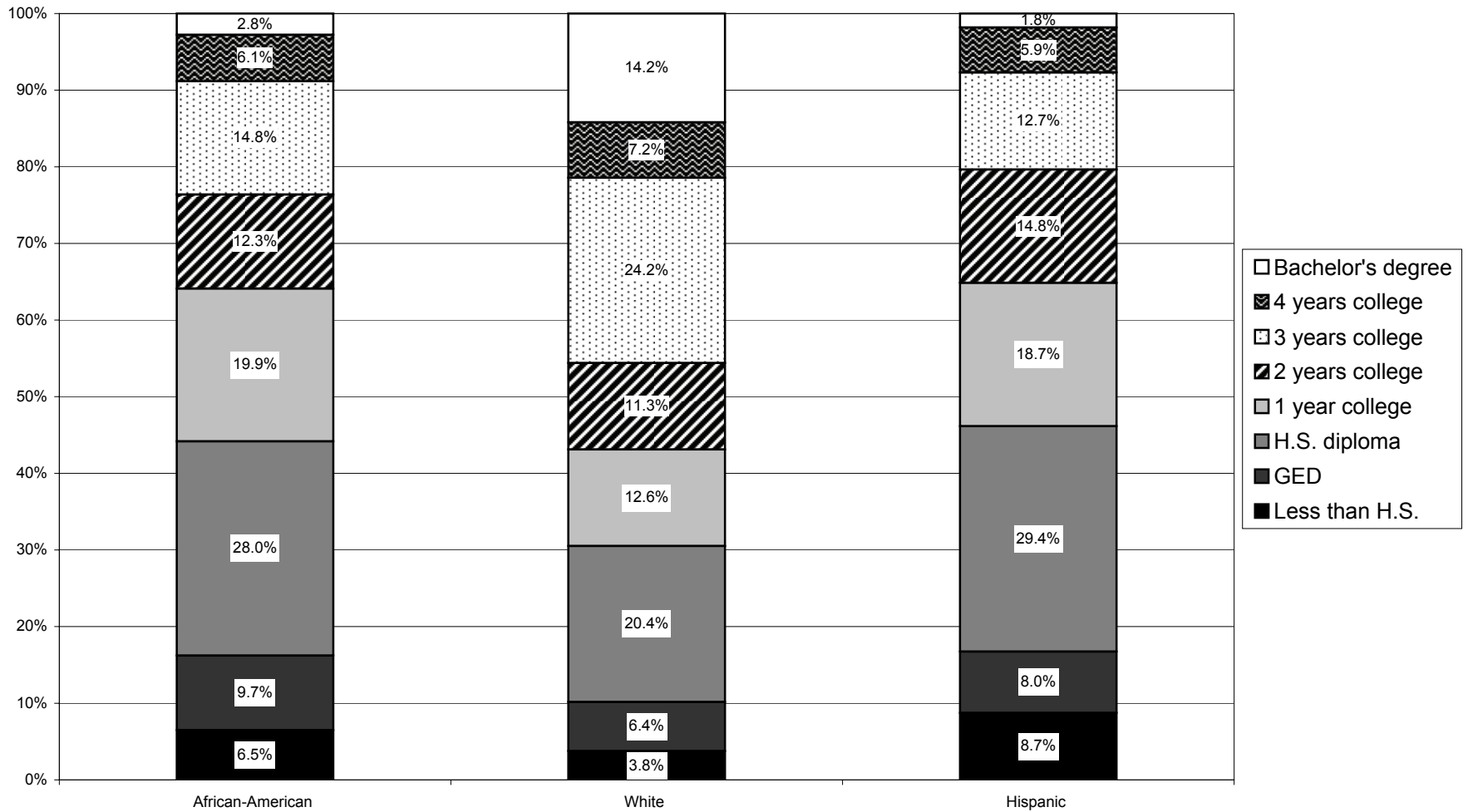**Figure 1a. Academic attainment at age 22: Males by race/ethnicity, 1999–2001.**

Figure 1b. Academic attainment at age 22: Females by race/ethnicity, 1999–2001.
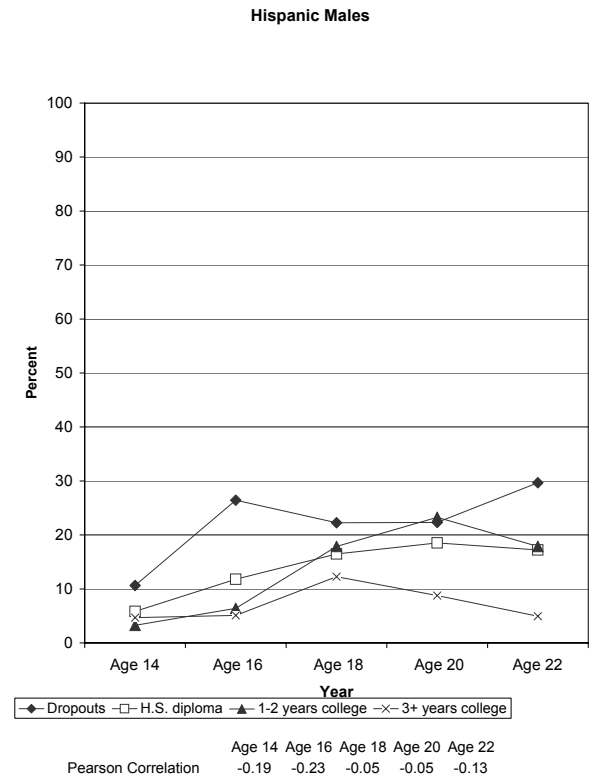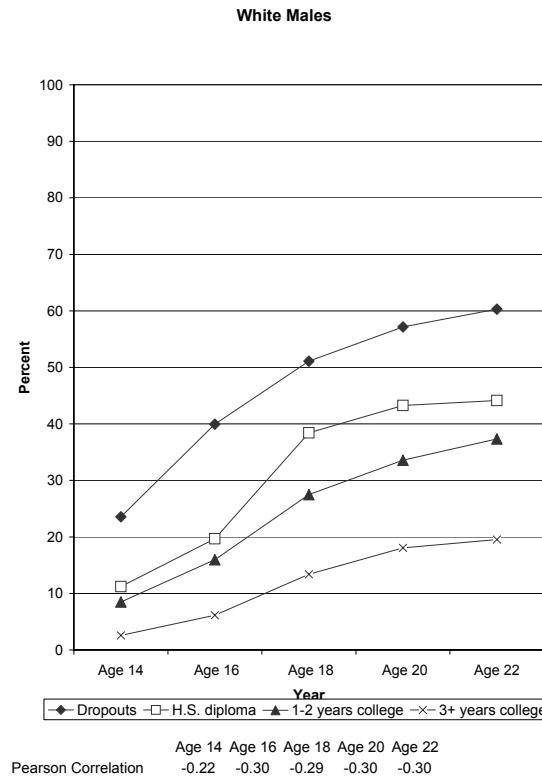
African-American Males

White Males

Hispanic Males

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.14	-0.17	-0.21	-0.19	-0.16

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.22	-0.30	-0.29	-0.30	-0.30

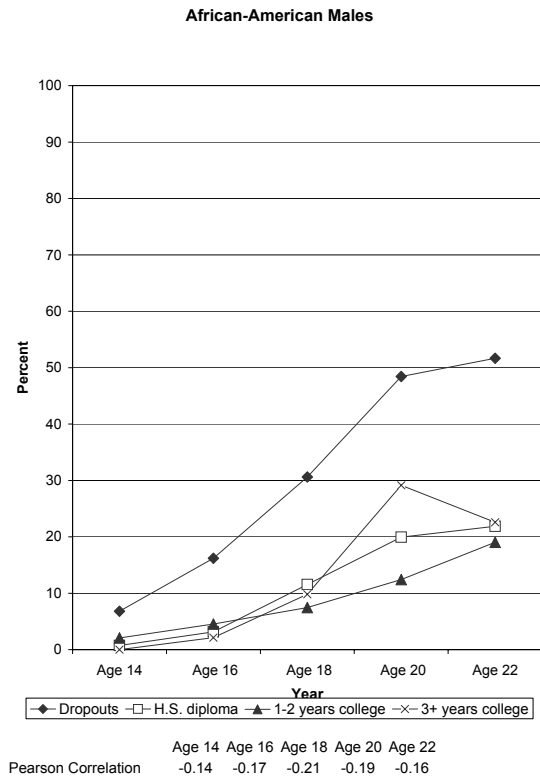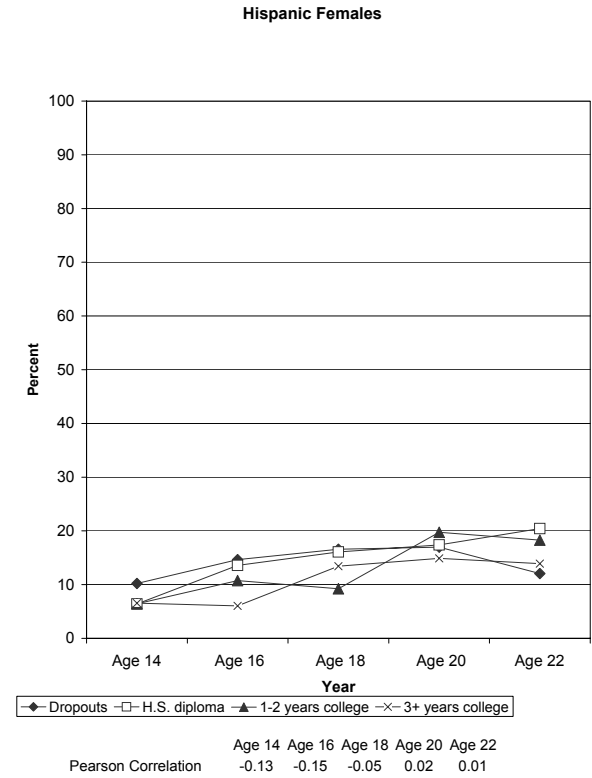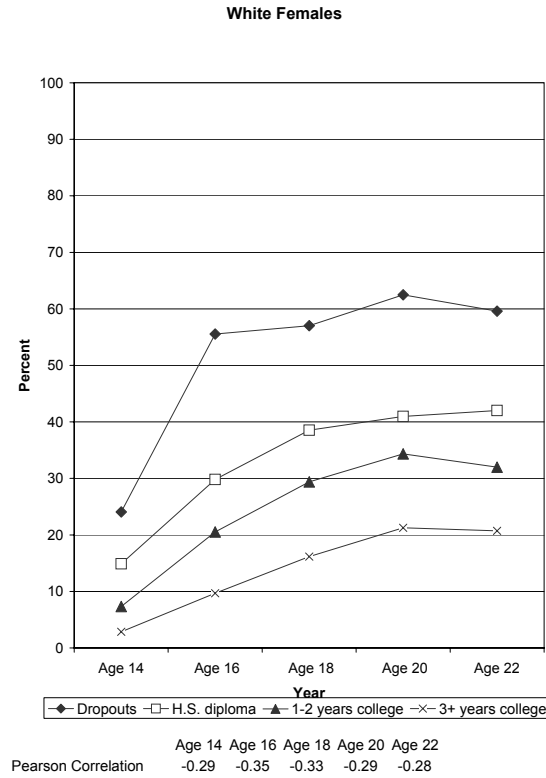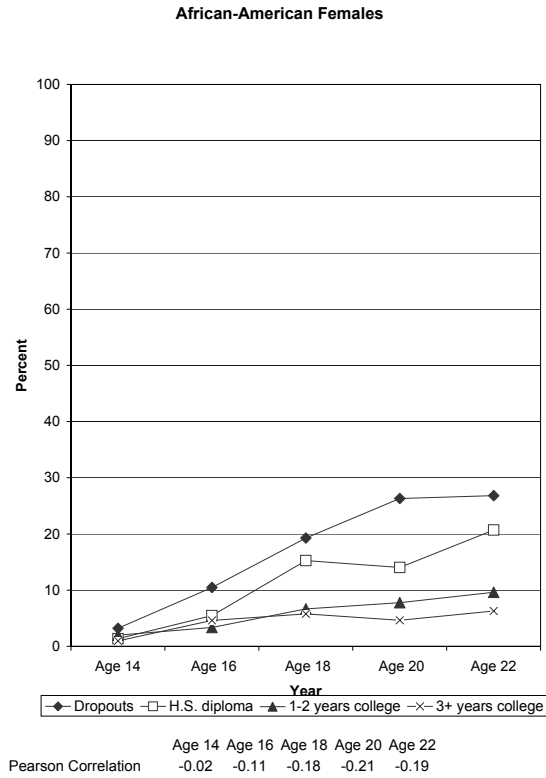|	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.19	-0.23	-0.05	-0.05	-0.13

Figure 2a. Percentage reporting any daily smoking in the last 30 days by academic attainment at modal ages 21-22: Males by Race/Ethnicity

African-American Females

White Females

Hispanic Females

African-American Males

White Males

Hispanic Males

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.08	-0.09	-0.16	-0.06	0.05

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.12	-0.17	-0.19	-0.15	-0.11

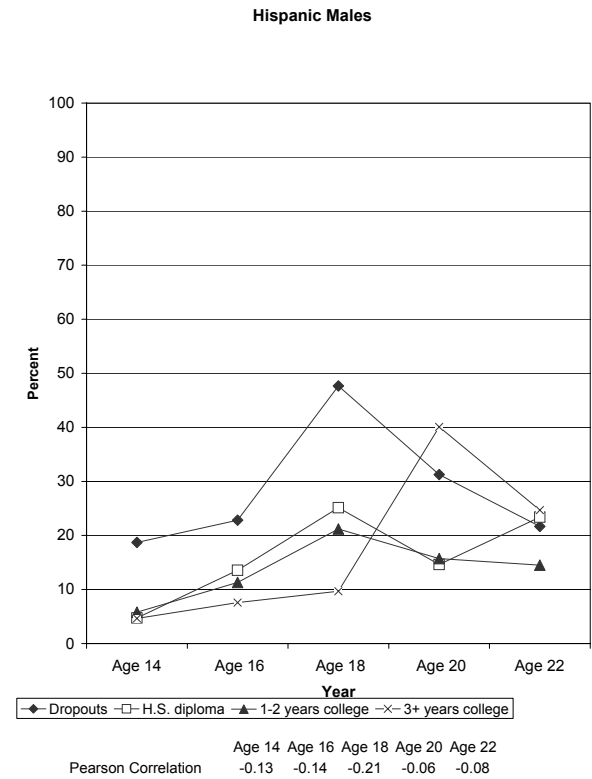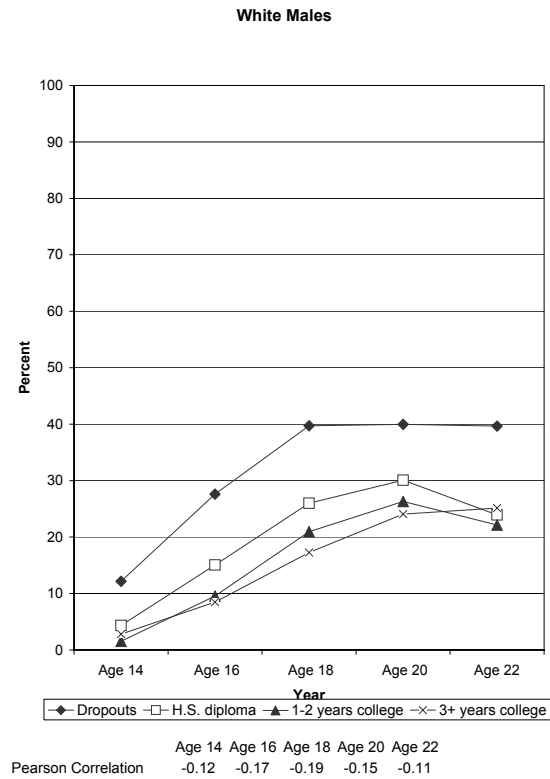|	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.13	-0.14	-0.21	-0.06	-0.08

Figure 3a. Percentage reporting any marijuana use in the last 30 days by academic attainment at modal ages 21-22: Males by Race/Ethnicity

African-American Females

White Females

Hispanic Females

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.03	-0.11	-0.07	-0.05	-0.09

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.12	-0.17	-0.12	-0.10	-0.09

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	0.02	-0.04	-0.06	0.06	-0.03

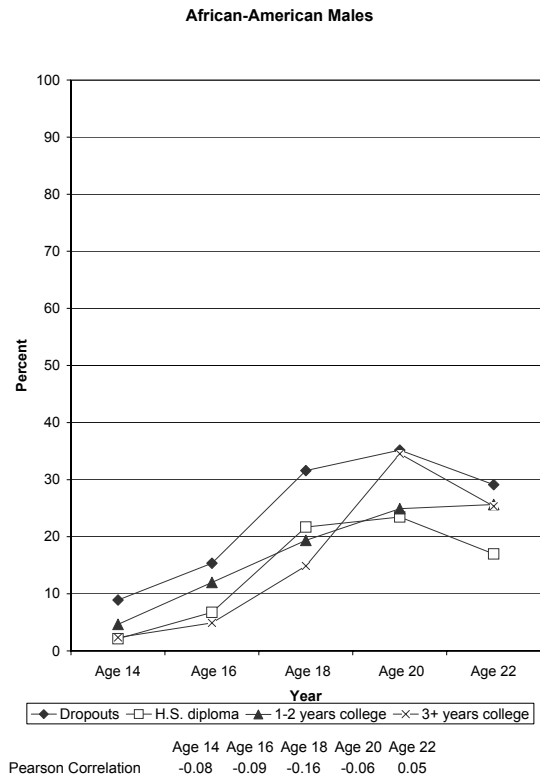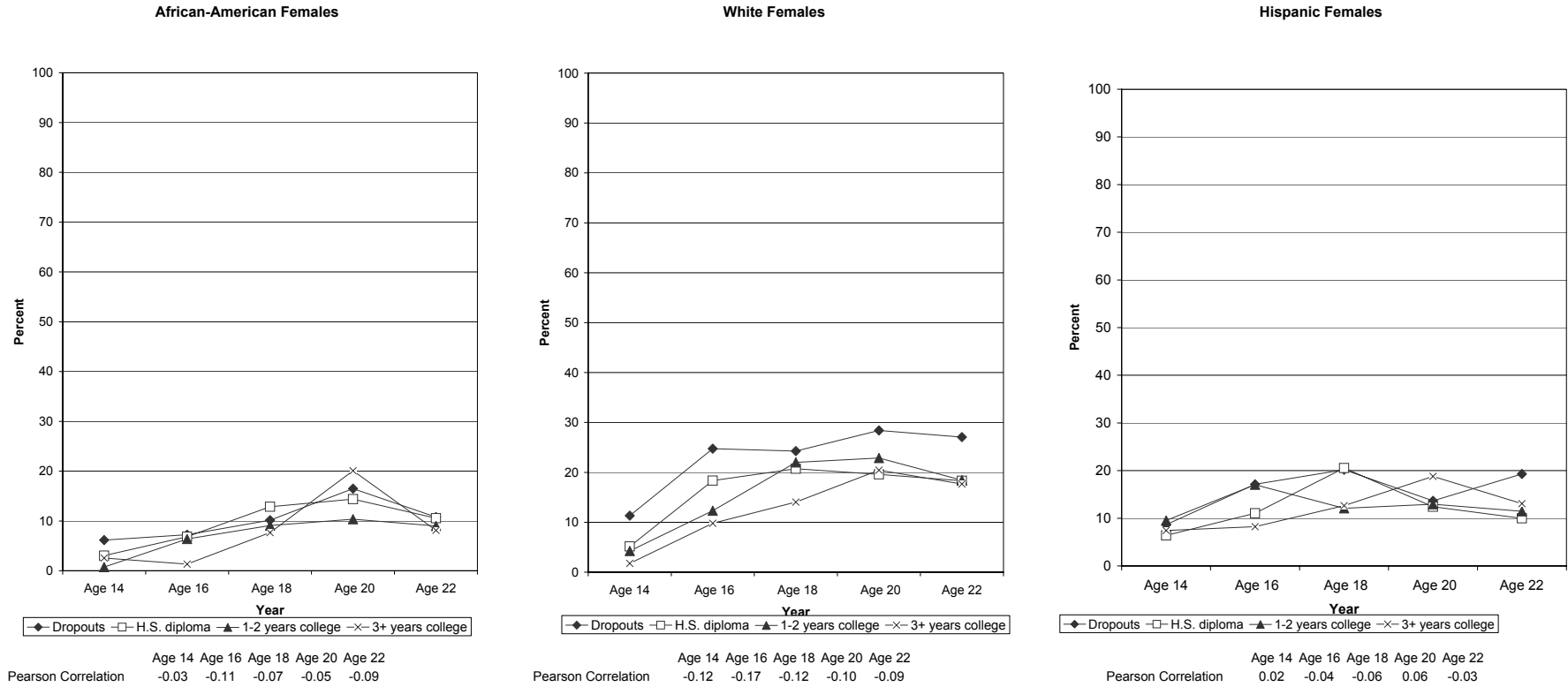**Figure 3b. Percentage reporting any marijuana use in the last 30 days by academic attainment at modal ages 21-22:Females by Race/Ethnicity**

African-American Males

White Males

Hispanic Males

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.24	-0.12	-0.09	0.01	-0.04

	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.18	-0.19	-0.07	0.05	0.06

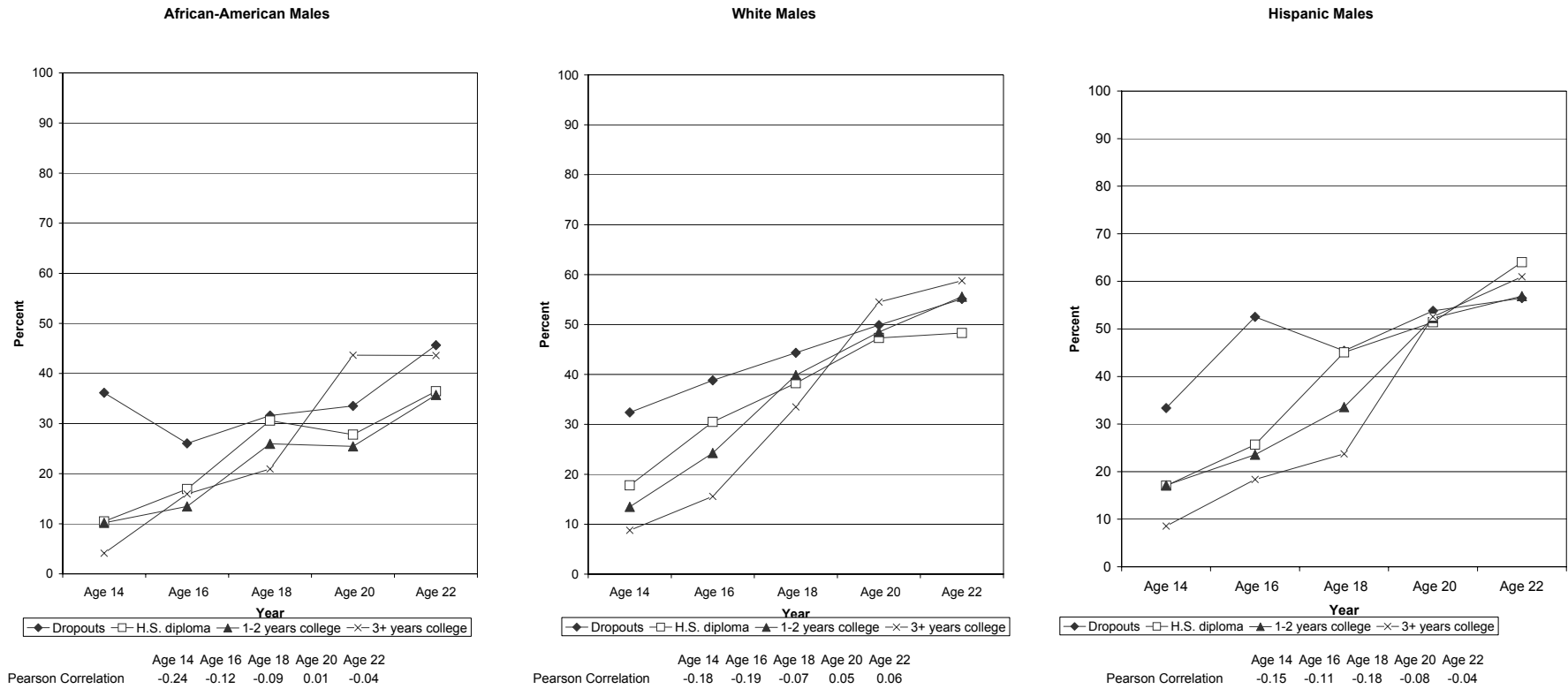|	Age 14	Age 16	Age 18	Age 20	Age 22
Pearson Correlation	-0.15	-0.11	-0.18	-0.08	-0.04

Figure 4a. Percentage reporting any heavy drinking in the last 2 weeks by academic attainment at modal ages 21-22: Males by Race/Ethnicity

African-American Females

White Females

Hispanic Females

Age 14 Age 16 Age 18 Age 20 Age 22
Pearson Correlation   -0.10   -0.10   -0.07   -0.09   -0.11

Age 14 Age 16 Age 18 Age 20 Age 22
Pearson Correlation   -0.20   -0.16   -0.04   0.07   0.07

Age 14 Age 16 Age 18 Age 20 Age 22
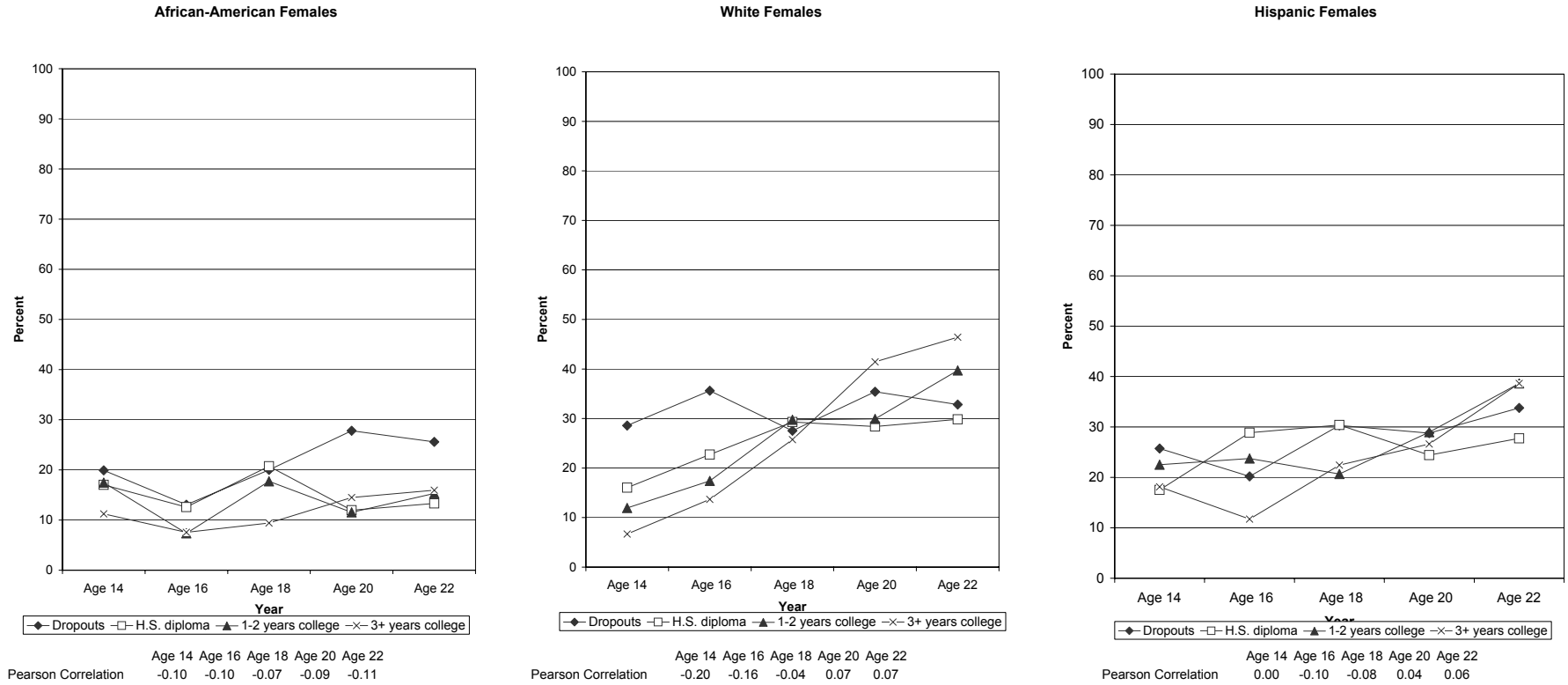Pearson Correlation   0.00   -0.10   -0.08   0.04   0.06

Figure 4b. Percentage reporting any heavy drinking in the last 2 weeks by academic attainment at modal ages 21-22: Females by Race/Ethnicity

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