



RESEARCH BRIEF: September 3, 2024

Sex, Alcohol, Drug Abuse Among Youth, and Marriage in Maryland - What the Research Says

David J. Ayers, Ph.D.

KEY TAKEAWAYS
While statewide things are looking pretty good, some counties have alarmingly high levels of problematic sexual activity among youth.
The data suggests that marriage rates by county correlate with lower levels of sexual activity among youth
While the percentage of children living in married couple families does not correlate to most of the studied categories of substance abuse, there is a correlation when it comes to hard drugs and drug trading in schools

In this research brief, we look at sexual behavior among youth that most folk would regard as problematic. We also examine youthful abuse of alcohol and their use of illicit drugs. Throughout, data from the Youth Risk Behavior Survey (YRBS) is presented—national versus state trends, then county breakdowns. The latter are used, once again, to look at whether and to what degree these behaviors are associated with the percentage of children under 18 who are living in married couple families.

Sexual Behaviors

The following sexual behaviors were examined: percentages who had sexual intercourse prior to age 13, and then 10th and 12th graders who had done so. Also, among 12th graders, we looked at the percentages who had sexual intercourse with four or more partners in their lifetime.

First, we start with national versus Maryland trends, shown in Figures 1a-1d. Maryland data only goes back to the 2012-13 school year, so the trends start there.

Figure 1a: Percentages Who Had Sexual Intercourse Prior to Age 13, 2013-21, Among All High School Students, United States versus Maryland, YRBS

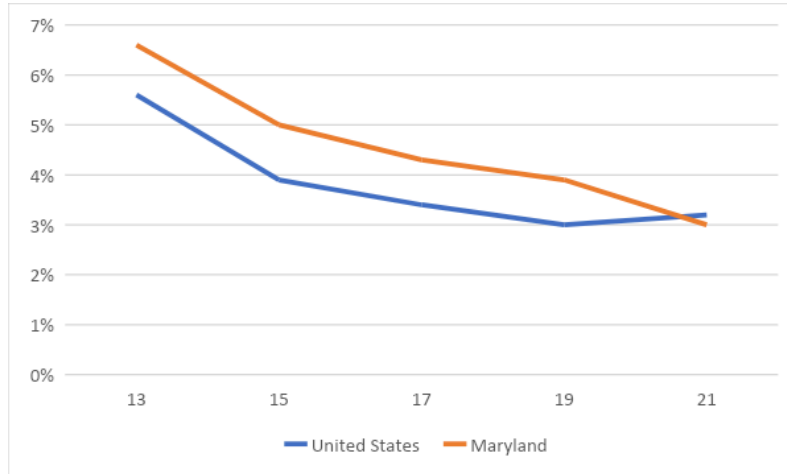


Figure 1b: Percentages of 10th Graders Who Had Ever Engaged in Sexual Intercourse, 2013-21, United States versus Maryland, YRBS

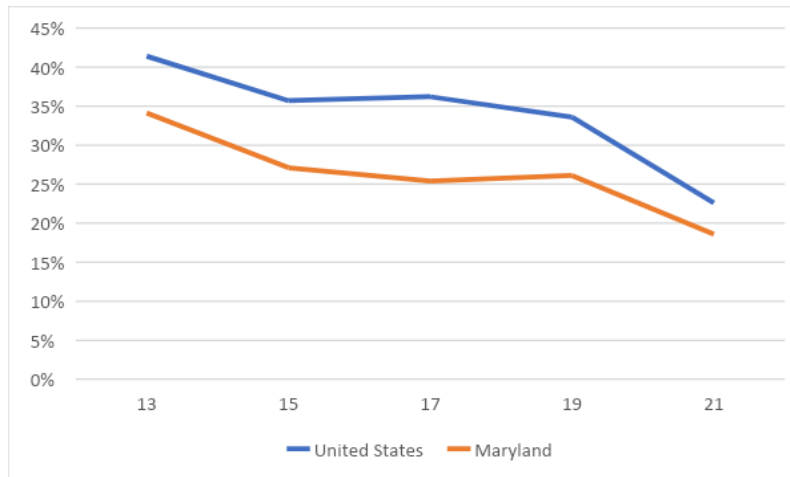


Figure 1c: Percentages of 12th Graders Who Had Ever Engaged in Sexual Intercourse, 2013-21, United States versus Maryland, YRBS

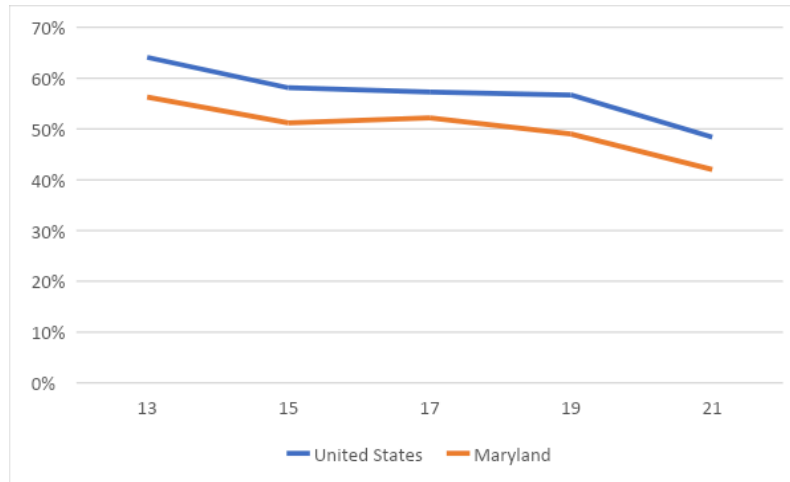
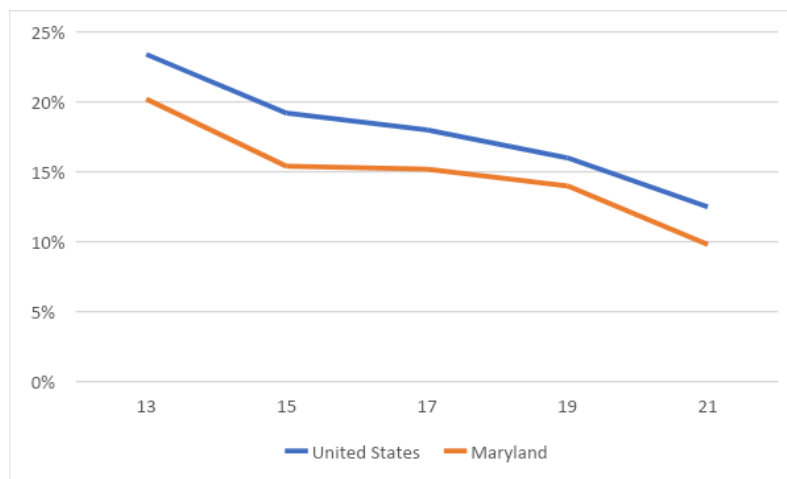


Figure 1d: Percentages of 12th Graders Who Had Engaged in Sexual Intercourse with 4 or More Partners in Their Lifetimes, 2013-21, United States versus Maryland, YRBS



Overall, it is heartening to see all these figures in steady decline nationally and in Maryland. Furthermore, Maryland's figures are consistently lower than for the U.S. as a whole. The only exception to the latter is the percentage who had sex by age 13 in 2021-22.

However, as Table 1 shows on the following page, percentages vary enormously by county. Some Maryland county percentages are much higher than the state or national averages. For example, in Garrett, one-quarter of 12th graders claimed to have had sexual intercourse with 4 or more partners, as did over one-fifth in Allegany. Close to one in ten in Baltimore City said they had intercourse prior to age 13. So while statewide things are looking pretty good, some counties have alarmingly high levels of problematic sexual activity among youth.

Table 1: Percentages at Different Timing and Levels of Sexual Intercourse, YRBS, 2018-19

COUNTIES	<u>Sexual Intercourse by Age 13</u>	<u>Ever Had Sexual Intercourse: 10th Grade</u>	<u>Every Had Sexual Intercourse: 12th Grade</u>	<u>Have Had Sexual Intercourse with 4 or + Partners: 12 Graders</u>
Allegany	5.2%	31.3%	62.2%	21.4%
Anne Arundel	4.1%	31.1%	51.4%	14.2%
Baltimore (Co.)	4.0%	29.6%	46.1%	15.2%
Baltimore (City)	9.7%	40.4%	59.7%	16.2%
Calvert	3.4%	27.7%	55.4%	16.3%
Caroline	4.0%	39.9%	64.3%	23.4%
Carroll	2.6%	18.9%	53.3%	14.0%
Cecil	3.6%	29.6%	56.2%	13.8%
Charles	4.5%	29.0%	54.3%	14.4%
Dorchester	4.7%	26.1%	58.8%	16.1%
Frederick	2.8%	20.6%	48.6%	12.2%
Garrett	5.5%	39.5%	69.9%	25.1%
Harford	3.2%	29.0%	53.2%	14.4%
Howard	2.1%	16.8%	35.7%	7.9%
Kent	4.3%	32.6%	62.8%	19.7%
Montgomery	1.7%	14.3%	40.7%	11.6%
Prince George's	5.9%	33.6%	52.9%	16.1%
Queen Anne's	2.7%	28.6%	50.7%	13.7%
St. Mary's	3.3%	30.0%	51.7%	13.4%
Somerset	9.5%	42.0%	64.3%	23.9%
Talbot	3.7%	29.4%	53.4%	11.8%
Washington	3.5%	26.1%	54.1%	14.7%
Wicomico	6.1%	30.6%	58.5%	22.2%
Worcester	4.4%	32.0%	61.0%	18.1%

Table 2 shows the correlations between these four YRBS measures of sexual activity, and the percentage of children in families living with married couples, among counties. These correlations suggest that in counties where more children in families live with married parents, lower percentages commence sexual intercourse, especially at early ages, and fewer have sex with large numbers of partners (1). These are suggestive, not conclusive. But certainly—given their magnitude—these associations deserve serious attention.

Table 2: Correlations Between the Four YRBS County Measures in Table 11, and County Percentages for Children in Families Headed by Married Couples, from 2021 ACS 5 Year Estimates.

<u>Sexual Intercourse by Age</u> <u>13</u>	<u>Ever Had Sexual Intercourse: 10th Grade</u>	<u>Every Had Sexual Intercourse: 12th Grade</u>	<u>Have Had Sexual Intercourse with 4 or More Partners in Lifetime: 12 Graders</u>
-.709; Sig. <.001	-.526; Sig. .008	-.539; Sig. .007	-.491, Sig. .015

Drugs and Alcohol

The YRBS surveys provide a clear picture of alcohol and drug abuse among high school students. Several items were examined here. First, we looked at whether the student had binge drank (four or more drinks in a row for females, five or more in a row for males, within a couple of hours) in the 30 days prior to completing the survey. This was only available from 2016-17 through 2021-22. Then, we looked at whether the student had *ever* used marijuana (2010-11 through 2021-22) or illegally used prescription pain medication (such as OxyContin, Percocet, etc.) (2016-17 through 2021-22).

Next, the percentages who had ever used cocaine, heroin, methamphetamines, or ecstasy were averaged to create one “hard drug” measure. This restricted the latter measure to 2014-15, then 2018-19 and 2020-21. Next was the item asking if students had been “offered, sold, or given an illegal drug on school property” in the last 12 months. Finally, we examined the percentages who said they had ever injected illegal drugs into their bodies using a needle. U. S. versus Maryland trends for these are presented in Figures 19a-19f.

Sometimes Maryland percentages were better than the national average (for example, binge drinking and marijuana). Sometimes they were worse (for example, getting drugs on school property, the averages of the percentages who had ever used cocaine, heroin, meth, or ecstasy, or the percentages who injected illegal drugs). What is heartening is that, but for illegally using pain medications, the trends of drug use for Maryland high school students in these figures have generally been downward.

Figure 2a: Percentages of High School Students Who Had Binge Drank Within the Past 30 Days, 2016-17 to 2021-22, United States versus Maryland, YRBS

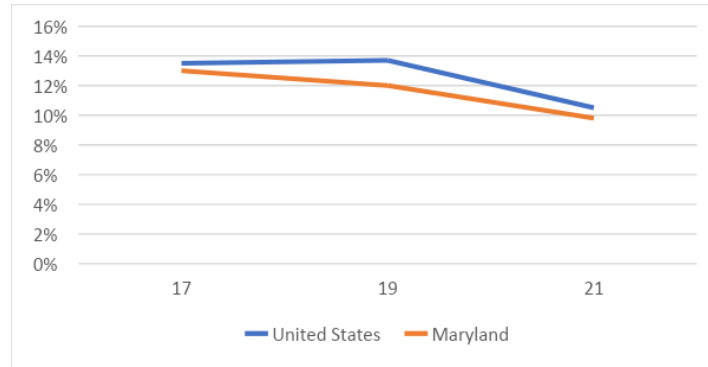


Figure 2b: Percentages of High School Students Who Had Ever Smoked Marijuana, 2010-11 to 2021-22, United States versus Maryland, YRBS

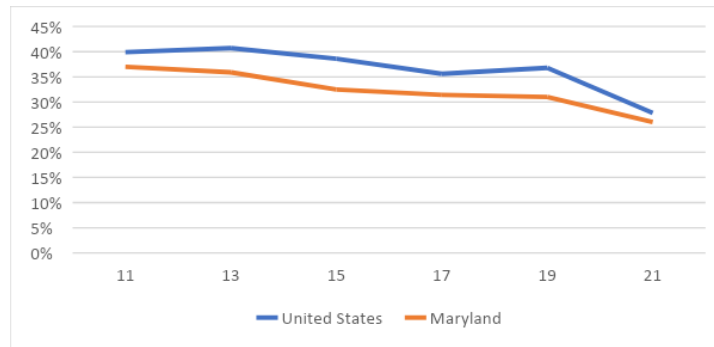


Figure 2c: Percentages of High School Students Who Had Ever Illegally Used Prescription Pain Medications, 2016-17 to 2021-22, United States versus Maryland, YRBS

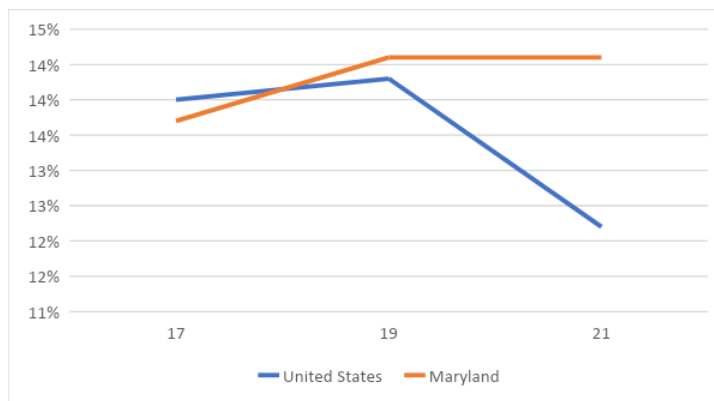


Figure 2d: Average of the Percentages of High School Students Using 4 Hard Drugs (Cocaine, Heroin, Methamphetamines, and Ecstasy), 2014-15, then 2018-19 to 2021-22, United States versus Maryland, YRBS

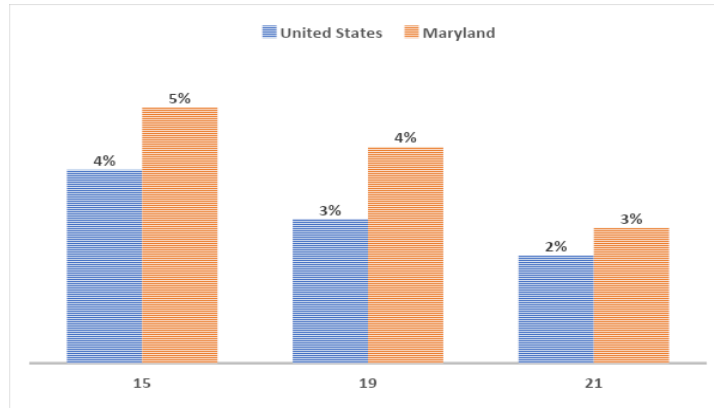


Figure 2e: Percentages of High School Students Who Had Been Offered, Given, or Sold Illegal Drugs on School Property in the Past 12 Months, 2010-11 to 2021-22, United States versus Maryland, YRBS

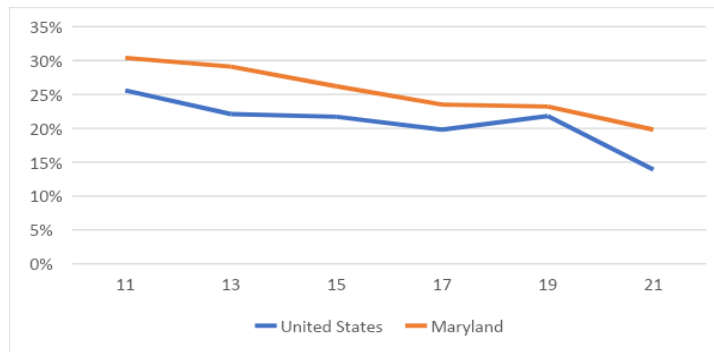
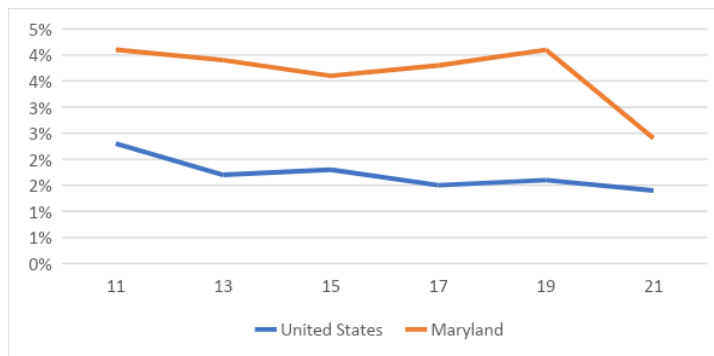


Figure 2f: Percentages of High School Students Who Had Ever Injected Illegal Drugs into Their Bodies Using a Needle, 2010-11 to 2021-22, United States versus Maryland, YRBS



Tables 3a and 3b show these outcomes by county for 2018-19. Once again, the level of variation means that the alcohol and drug abuse situation among high school students in different counties is dramatically different. For example, binge drinking in the last 30 days is highest by far in Queen Anne's. It is Worcester where the greatest percentage of high schoolers have tried pot. Kent wins "first prize" in the percentages acquiring illegal drugs on school property. And the highly dangerous practice of injecting illegal drugs is highest, by a long shot, in Baltimore City and Dorchester.

Table 3a: Percentages of Alcohol and Drug Abuse, Maryland Counties, High School Students, YRBS, 2018-19, Part 1

COUNTIES	<u>Binge Drank in Last 30 Days</u>	<u>Ever Used Marijuana</u>	<u>Ever Used Pain Medications Illegally</u>
Allegany	18.6%	22.7%	13.4%
Anne Arundel	14.6%	17.5%	14.2%
Baltimore (Co.)	11.0%	16.9%	15.1%
Baltimore (City)	9.3%	20.9%	21.0%
Calvert	15.8%	19.1%	13.5%
Caroline	18.7%	20.0%	12.8%
Carroll	17.3%	17.3%	11.3%
Cecil	19.1%	23.3%	13.4%
Charles	9.8%	18.0%	16.5%
Dorchester	12.8%	15.0%	14.7%
Frederick	17.6%	19.6%	13.1%
Garrett	20.2%	17.3%	16.5%
Harford	16.7%	18.3%	12.4%
Howard	11.3%	13.3%	12.0%
Kent	18.7%	23.7%	14.4%
Montgomery	9.3%	15.9%	11.4%
Prince George's	6.1%	16.9%	19.0%
Queen Anne's	27.8%	21.7%	15.2%
St. Mary's	17.2%	17.3%	14.8%
Somerset	16.5%	26.2%	12.6%
Talbot	18.3%	29.7%	8.9%
Washington	13.2%	32.9%	12.6%
Wicomico	12.2%	33.5%	16.0%
Worcester	19.2%	39.4%	14.6%

Table 3b: Percentages of Alcohol and Drug Abuse, Maryland Counties, High School Students, YRBS, 2018-19, Part 2

COUNTIES	<u>Average of Percentages Using 4 Hard Drugs</u>	<u>Offered, Sold, or Given Illegal Drugs on School Property</u>	<u>Ever Used Needle to Inject Illegal Drugs</u>
Allegany	4.8%	16.3%	3.7%
Anne Arundel	5.1%	23.1%	5.1%
Baltimore (Co.)	3.8%	26.3%	4.0%
Baltimore (City)	9.0%	23.5%	9.2%
Calvert	3.5%	21.0%	2.8%
Caroline	4.1%	21.3%	4.5%
Carroll	3.1%	19.5%	2.9%
Cecil	3.5%	19.5%	2.8%
Charles	6.5%	22.2%	5.2%
Dorchester	11.9%	26.4%	9.0%
Frederick	3.2%	21.8%	2.8%
Garrett	6.2%	17.7%	4.3%
Harford	3.2%	18.0%	2.5%
Howard	2.5%	22.4%	2.1%
Kent	5.8%	29.9%	5.4%
Montgomery	2.6%	24.2%	2.8%
Prince George's	5.2%	25.3%	4.9%
Queen Anne's	4.9%	22.9%	3.7%
St. Mary's	3.7%	21.8%	3.0%
Somerset	6.1%	26.1%	3.5%
Talbot	4.6%	21.2%	4.4%
Washington	3.8%	19.6%	3.4%
Wicomico	5.8%	20.6%	5.1%
Worcester	4.8%	24.8%	3.6%

Correlations between these six YRBS measures and the percentage of children in families that are living with married couples, for Maryland counties, are shown in Table 4. Only three were significantly and negatively correlated: ever used pain medications illegally, obtained illegal drugs on school property, and had used needles to inject illegal drugs. Moreover, when controlling for percent African American using linear regression, as indicated, (2) only two of these correlations ended up still being significantly and negatively correlated with the percentage of children in families living with married parents—the hard drug average, and the percentages who had obtained illegal drugs on school property.

Table 4: Correlations Between the Six YRBS County Measures in Tables 15a and 15b, and County Percentages for Children in Families Headed by Married Couples, from 2021 ACS 5 Year Estimates.

<u>Binge Drank in Last 30 Days</u>	<u>Ever Used Marijuana</u>	<u>Ever Used Pain Meds Illegally</u>	<u>Average of Percentages Using 4 Hard Drugs</u>	<u>Offered, Sold, or Given Illegal Drugs on School Property Past 12 Months</u>	<u>Ever Used Needle to Inject Illegal Drugs</u>
.118, not significant	-.210, not significant	-.572; Sig. .003. <i>Not significant after controlling for percent Black.</i>	-.821; Sig. <.001	-.847; Sig. <.001	-.332, not significant

We can certainly say that families are impacted by this drug usage, and far more so in counties where it is highest. However, here, the percentage of children living in married couple families is not correlated with most of these measures of drug and alcohol abuse. That correlation is extremely strong, however, in the important areas of using the hardest drugs, and trading drugs at school. As always, this is worthy of further investigation.

Conclusion

The degree to which youth are commencing sexual relationships especially very early, using hard drugs, and obtaining drugs on school property are all significantly and negatively associated with the percentages of children in families living with married couples, among counties. This is consistent with what we would expect given abundant rigorous and controlled social science research studies of these inter-relationships over many years. Those who care about the welfare of Maryland youth cannot blithely ignore the critical role that being in married couple families play in their lives. Obviously, there are troubled children in married couple families, and many

healthy ones being raised by single parents. But these types of findings, so common in the social science literature, should not be ignored.

David J. Ayers, Ph.D (NYU) is Professor of Sociology (Retired) at Grove City College, and Adjunct Professor of Sociology at Franciscan University. He was born and raised in Montgomery County and serves on the Academic Advisory Council of the Maryland Family Institute.

Endnotes

(1) As we have already seen, the percentage African American was significantly negatively correlated with the percentages of children in families living with married couple (see footnote #43 from full *The State of The Maryland Family Report*). It was significantly positively correlated with the percentages having sex by age 13 (but none of these other sexual activity measures). Using linear regression on this latter correlation to control for the percentage African Americans, the association between the percentages of children in families living with married couples and having sex by age 13 was still significantly negative (Beta = $-.521$; Sig. $.005$).

(2) As we have seen, the percentage African American is significantly and negatively associated with the percentage of children in families who are living with a married couple (see footnote #43 from full *The State of The Maryland Family Report*). All three of these YRBS drug measures that are significantly negatively correlated with the percentages of children in families living with married parents were also significantly and positively related to the percentage African American (illegal use of pain medication $.646$; Sig. $<.001$; hard drugs $.473$; Sig. $.02$; obtained drugs on school property $.554$; Sig. $.005$). So these three associations were re-analyzed, using regression to control for the percent African American. For illegally using pain medications, this correlation was then no longer significant (Beta = $-.320$, Sig. $.098$). For the average of the 4 percentages using hard drugs (cocaine, heroin, meth, and ecstasy), the correlation was still powerful and significant (Beta = $-.796$; Sig. $<.001$). The same was true for obtaining illegal drugs on school property (Beta = $-.773$; Sig. $<.001$).