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**Sex and Substance Use within a  
Prohibitionist University Setting**

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## An Introduction to ATINER's Conference Paper Series

ATINER started to publish this conference papers series in 2012. It includes only the papers submitted for publication after they were presented at one of the conferences organized by our Institute every year. The papers published in the series have not been refereed and are published as they were submitted by the author. The series serves two purposes. First, we want to disseminate the information as fast as possible. Second, by doing so, the authors can receive comments useful to revise their papers before they are considered for publication in one of ATINER's books, following our standard procedures of a blind review.

Dr. Gregory T. Papanikos  
President  
Athens Institute for Education and Research

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## **Sex and Substance Use within a Prohibitionist University Setting**

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### **Abstract**

While risk factors such as alcohol, tobacco, drugs, and sexual behaviors are often studied among college students, rarely are students at prohibitionist universities studied. The purpose of this paper was to compare the prevalence and trends of substance use of a prohibitionist university to a number of national samples, as well as look at various sexual behaviors of the unmarried participants in the prohibitionist university. For trends in annual alcohol use, our sample had a total average of 42.1% to the comparison samples. For alcohol binge drinking, in the two weeks prior to the survey, our sample had a total average of 21.2%, for annual tobacco use our sample had a total average of 34.3%, and for annual marijuana our sample had a total average of 31.4% to the comparison samples. The data suggests that either cultural leveling is not occurring, or occurring at a very small rate. Analysis of sexual behaviors of the unmarried participants suggests a 'lifetime' engagement in various sexual behaviors at a significantly higher level than they report being comfortable with prior to marriage. When looking at engaging in the sexual behaviors of oral, anal, or vaginal sex within the last year, more than twice as many of our subjects reported not engaging, as a comparison group. The top reported answer for not engaging in sexual intercourse was that it was against their personal or religious beliefs. The implications of risk behaviors at a prohibitionist university are discussed.

**Keywords:**

**Corresponding Author:**

## **Introduction**

Numerous studies (e.g. Johnston, O'Malley, Bachman, & Schulenberg, 2012; Schulenberg & Patrick, 2012; and others cited below) have looked at various risk factors such as drugs, alcohol, and sexual behavior and the levels at which college students engage in them. Rarely studied are conservative religious institutions which have prohibitionist policies toward drugs, alcohol, and premarital sex. Just because an institution has a prohibitionist policy does not mean that individuals within that institution do not engage in those behaviors (Helm, Lien, McBride, & Bell, 2009). One study of this prohibitionist university found that religiosity, by itself accounted for 17% of the variance with drug use (Helm, Boward, McBride, & Del Rio, 2002).

There are two purposes for this paper. First, we will compare the prevalence and trends of substance use of a prohibitionist university to that of a number of national samples, and secondly, to look at various sexual behaviors of the unmarried participants in the prohibitionist university. Within the issue of substance abuse we were also interested in the issue of perceived versus actual use, as perception can affect use. Studies such as Perkins, et al. (1999), and Martens et al. (2006) discuss this issue among college students. Perkins, et al. (1999) found that the use of alcohol was grossly misperceived, regardless of the level of drinking on that campus. Marijuana, tobacco, and a wide variety of other drugs, also had overestimations of use and rarely were there underestimations. They also felt that the possibility of underreporting of use could not account for the large discrepancy noted. Martens, et al. (2006) went further and found out that not only did their participants overestimate alcohol and drug use, but sexual behavior as well. While we did look at the difference in perception versus use for substance use, we did not for sexual behavior. For sexual behavior we looked at the difference between comfort level and having ever engaged in that behavior.

Furthermore, we were interested in evaluating whether or not cultural leveling of substance use is occurring for the time period studied. Cultural diffusion occurs as groups interact and they learn from one another. Cultural leveling is the process by which one cultural group becomes more like the other (Henslin, 2010). In this case, whether a subcultural group (the prohibitionist university) becomes more like the larger cultural group within which it interacts.

## **Methodology**

For use of drugs and alcohol we will look at data collected from our university in four different time periods, 1995, 2000, 2005, and 2012. For sexual behavior we will look at single or engaged subjects who took the survey in 2005 and 2012.

*Subjects*

In 1995 there were 450 participants, 49.4% males and 50.6% females, in 2000 there were 800 subjects, 49.6% males and 50.4% females, in 2005 there were 751 subjects, 45% males and 55% females, and in 2012 there were 760 participants, 40.9% males and 59.1% females. Religious affiliation is not available for the 1995 data. In 2000 about 90% of the participants reported being of the same religious affiliation as the denomination that runs the prohibitionist university, in 2005 it was 93.5% and in 2012 it was 90.2%. See Table 1 for the percent of ethnic diversity. Valid percent is being used throughout the paper, and the numbers (where possible) for previous studies from our institution are being taken from Helm, Lein, McBride, and Bell (2009). This will also be true for the demographics.

**Table 1. Ethnicity of Participants (Percent)**

Ethnicity	1995	2000	2005	2012	Average
American Indian	0.2	0.7	0.3	0.3	0.4
Hispanic (Latino 2012)	10.2	8.2	9.7	15.3	10.9
Asian/Pacific Islander	21.2	14.5	12.1	13.2	15.3
Caucasian	42.3	50.3	49.0	39.5	45.3
African American	19.4	26.3	21.4	18.3	21.4
West Indian				5.8	
Other	6.7		7.6	7.6	7.3

*Instrument*

Over the survey time period questionnaires have been developed that largely evaluate a number of risk factors (e.g. drugs, alcohol, sex) and protective factors (e.g. relationships, religion). Though the survey varies some each time it is given, the section dealing with substance use has stayed quite similar and is largely taken from CORE. Questions regarding sexual behavior in the literature do not appear to have a systematic format, or standard way, in which they are asked. This makes comparisons to other data a little more difficult. Questions regarding sexual behavior were only asked in the 2005 and 2012 surveys and were created from a combination of theory, former research, and the interest of the researchers.

### *Procedure*

On a specified school day various class periods were chosen to take the survey. These class periods were largely chosen based on the large size of classes which occurred at those times. Professors were contacted, and if they agreed, a trained proctor was sent to their classroom to administer the survey. The IRB had granted permission of the study and informed consent was given by the student in order to participate in the survey.

### *Comparison Groups*

Where possible our trends for alcohol use, binge drinking, tobacco use, and marijuana use were compared with that of Monitoring the Future (MTF) (Johnston, O'Malley, Backman, & Schulenberg, 2011), National Household Survey on Drug Abuse (NHSDA) (U.S. Department of Health, 2009; this survey is now named the National Survey on Drug Use & Health), NCHA (National College Health Assessment, 2012), and CORE (Core Institute, 2010). It should be noted that in some case the 2010 and 2011 data sets were used as they were the most recently published data sets for these groups. So there will be a year, or two, difference in the data sets we are comparing our 2012 data to. It should be noted that in some cases there were slight deviations between current websites and the article. In these cases the numbers from the current websites were taken. Because of the small amount of use in the year prior to the survey, figures were not created for the following drugs: cocaine (.4%), amphetamines (2.1%), sedatives (.6%), and non-prescribed prescription drugs (2.7%).

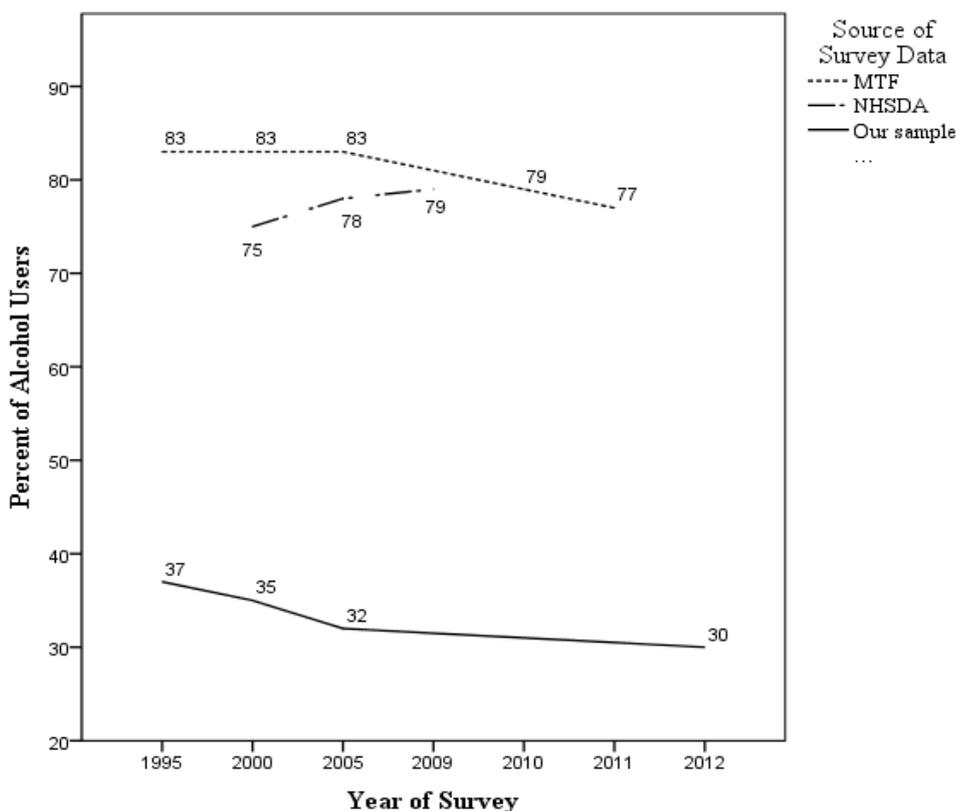
## **Results**

As noted above, the two areas that we will be assessing are substance use within the total sample and sexual behavior among unmarried (single or engaged) college students. The first section will deal with alcohol use, binge drinking, tobacco use, marijuana use, and perceptions verses reported use. The second section will deal with levels of sexual engagement, as well as reported reasoning behind some of their choices regarding sexual behavior.

### *Trends in Alcohol Use*

See Figure 1 for trends in annual alcohol use (within the last year of the survey). Based on this figure the highest reported alcohol use for other samples was MTF in 1995, 2000, and 2005 with 83% and lowest in 2000 with 75% for NHSDA.

FIGURE 1 Trends in Alcohol Use



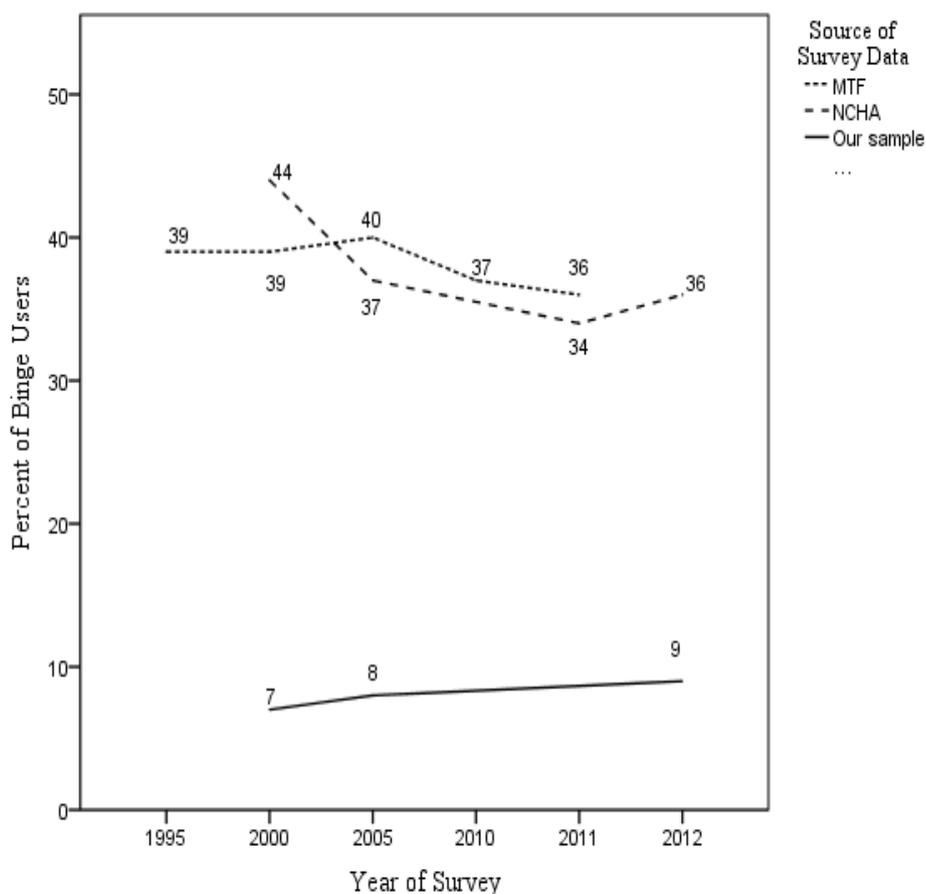
Note: MTF, Monitoring the Future; NHSDA, National Household Survey on Drug Abuse. Data is rounded to the nearest whole number.

MTF and NHSDA combined suggest an average use of alcohol over this time period to be 79.6%. The reported average use for our data was 33.5%. This would indicate that our sample's total average in alcohol use is 42.1% of the other samples. For the 2012 sample, for those who indicated that they had used alcohol in the last year (from 'tried it once' to 'daily'), the majority, 58.7%, indicated 'none', 21.6% reported one or two drinks, 18.2% reported three to nine drinks, and 1.4% reported 10 or more drinks.

*Trends in Alcohol Binge Use*

The definition of binge drinking used by our data set, MTF, and NCHA was five or more drinks at a setting. Each had participants report for the last two weeks before the survey. Because NHSDA uses 30 days before their survey, we did not use their data for comparison.

**FIGURE 2 Trends in Alcohol Binge Use**



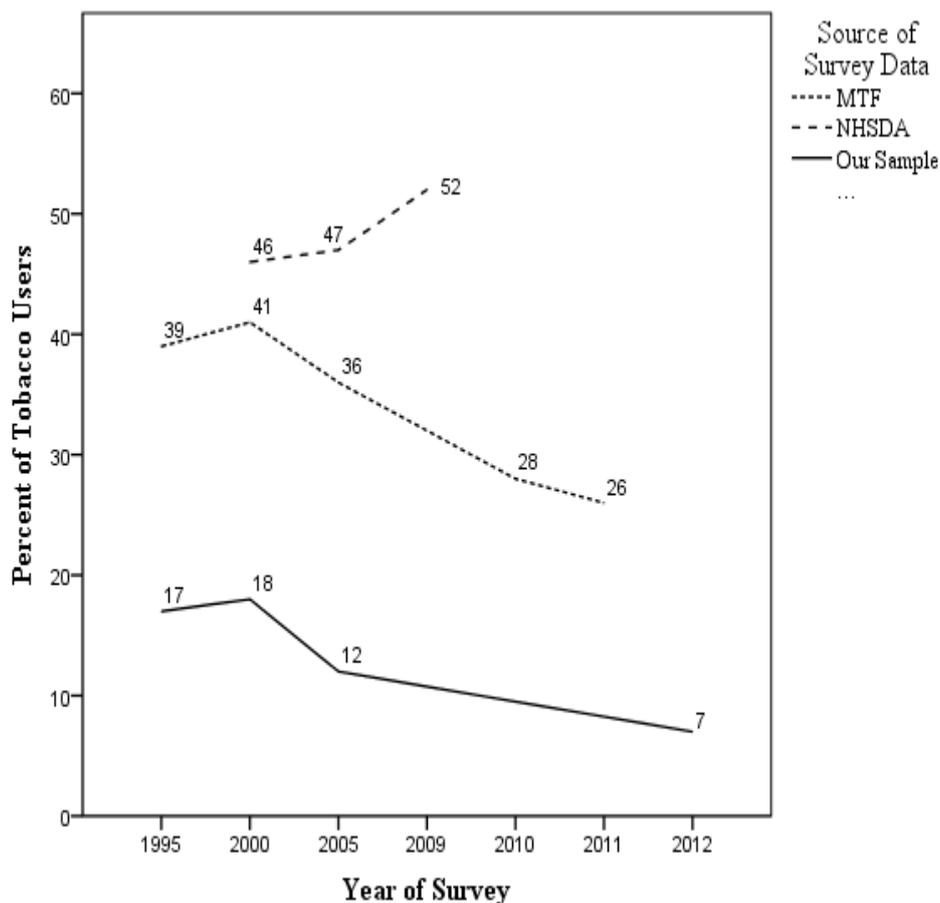
Data is rounded to nearest whole number. Note: MTF, Monitoring the Future; NCHA, National College Health Assessment.

Based on Figure 2 the highest reported binge drinking for the other samples was in 2000 with NCHA showing 44% and lowest was in 2011 with NCHA showing 34%. The two sources combined suggest an average of 38% for binge drinking over this time period. Our data reported an average binge drinking of 8%, and would indicate that our sample’s total average is 21.1% of the other samples. It should be noted that we do not have data for 1995 for our sample. For our 2012 sample, of those who indicated that they had engaged in binge drinking in the past two weeks, the majority, 58.2% indicated that they had engaged once.

*Trends in Tobacco Use*

See Figure 3 for trends in annual tobacco use (within the last year of the survey). NCHA data was not used for tobacco use as they reported a 30 day time length, instead of use for the last year.

**FIGURE 3 Trends in Tobacco Use**



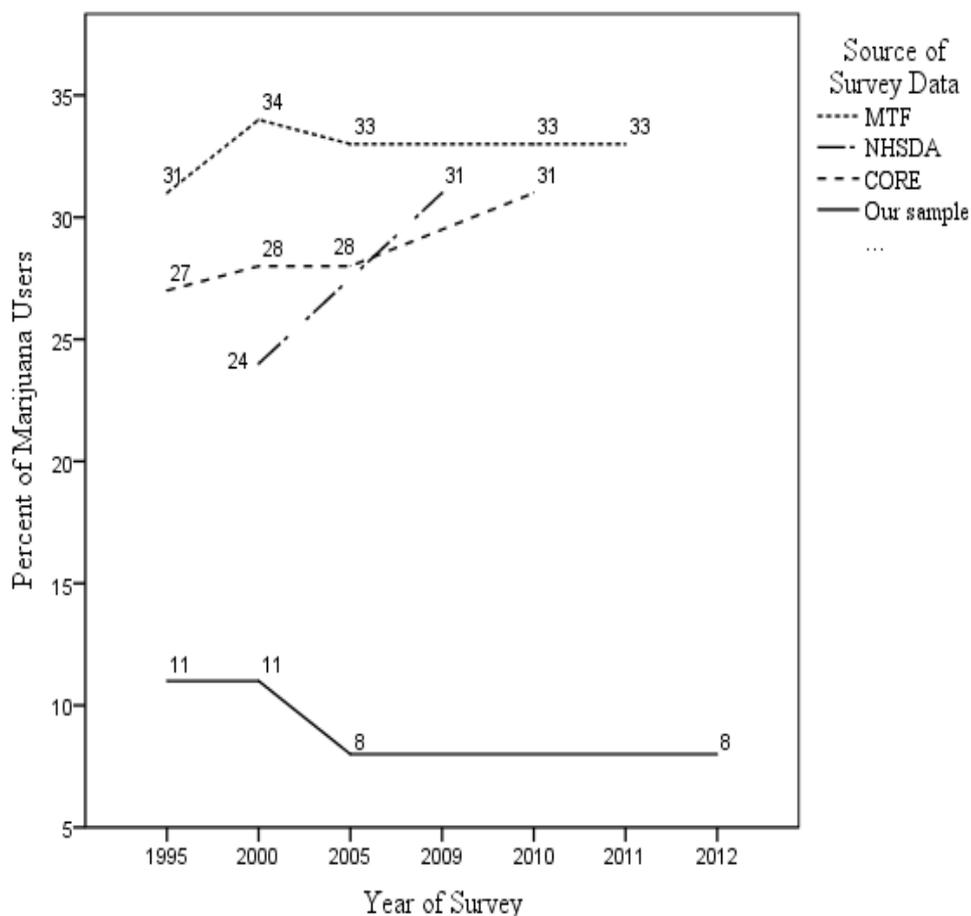
Note: MTF, Monitoring the Future; NHSDA, National Household Survey of Drug Abuse. Data is rounded to the nearest whole number.

Based on Figure 3 the highest reported tobacco use for the other samples was in 2009 with NHSDA showing 52% and lowest was in 2011 with MTF showing 26%. The two sources combined suggest an average of 39.4% for tobacco use over this time period. Our data reported an average tobacco use of 13.5%, indicating that our sample’s total average is 34.3% of the other samples. Both MTF and our sample indicate that tobacco use is declining.

*Trends in Marijuana Use*

See Figure 4 for trends in annual marijuana use (within the last year of the survey).

**FIGURE 4 Trends in Marijuana Use**



Note: MTF, Monitoring the Future; NHSDA, National Household Survey on Drug Abuse; CORE, Core Institute. Data is rounded to the nearest whole number.

An increase in marijuana use for both CORE and NHSDA are shown for the time periods noted. It should be noted that NHSDA reports both hashish and marijuana simultaneously in their data. MTFs data differed from those above in that their reported marijuana use stayed fairly consistent. In contrast, our data has gone slightly down in the last two reporting periods (approximately 3%). The three sources combined suggest an average of 30.3% for marijuana use over this time period. Our data reported an average marijuana use of 9.5%, and would indicate that our sample's total average is 31.4% of the other samples.

*Comparison between Perception of Use and Reported Use*

In line with other research, it was found that students at the prohibitionist university believe that other students use more than what is being reported. See Table 2 for comparison between the 2011 MTF data and the 2012 data for our sample. In this case for MTF we are using the 19-22 age group for perception of friend's use (any) and full time college students for reported

annual use (this appeared to be the closest categories we could find for comparison).

**Table 2. Difference Between Perception of Use and Reported Use (Percent)**

	MTF Perception	MTF Reported	MTF Difference	Our Sample Perception	Our Sample Reported	Our Sample Difference
Alcohol	88.9	77.4	11.5	68.3	29.7	38.6
Tobacco	79.4	25.8	53.6	32.4	7.3	25.1
Marijuana	74.7	33.2	41.5	40.6	7.6	33.0

Note: For MTF cigarettes were used for tobacco.

For our sample the reported use was 43.5% of the perceived use for alcohol, 22.5% for tobacco, and 18.7% for marijuana. For MTF the reported use was 87.1% of the perceived use for alcohol, 32.5% for tobacco, and 44.4% for marijuana.

*Differences Between Comfort Level and Lifetime Engagement in Sexual Behavior*

For this sexual behavior section, only those who marked single (81.7% of our sample) or engaged (4.1% of our sample) were used. This results in 632 surveys for this section, of which 95.3% were single and 4.7% were engaged.

One area we were interested in was the difference between a student's reported engagements in a given sexual behavior and their comfort levels in doing that sexual behavior prior to marriage. Table 3 looks at the differences, and includes data from our 2005 survey (the numbers in parentheses). The 2005 data is given in the amount of change verses the 2012 data. For example, the total comfort level for kissing is a -1.9, meaning that the 2012 data is 1.9 percent lower than the 2005 data. Using McNemar, chi-square comparisons were done between males and females for the various sexual behaviors. For the 2005 data, 'All chi-square comparisons were significant at  $p \leq .001$ , with the exception of breast stimulation/fondling and sexually arousing touch (not including breast or genitals) for the male category which was significant at  $p \leq .05$ .' (p. 235). For the 2012 data set, most behaviors were significant at the  $p \leq .001$ . Exceptions were oral and vaginal sex for males and sexual arousing touching for both males and females, each significant at  $p \leq .05$ . Breast stimulation was not significant for males. The 2005 data numbers, in parentheses, are being taken from Helm, McBride, Knox, and Zusman (2009).

As can be seen from the table below, subjects reported that 'lifetime' they had engaged in various sexual behaviors at a significantly higher level than which they reported being comfortable with prior to marriage. The one real

difference was a change between the 2005 data and the 2012 data for males and breast stimulation, where males went from a significant difference in comfort level and behavior, to a non-significant difference.

**Table 3. Difference Between Comfort Level and Lifetime Engagement in Sexual Behavior**

	Total		Males			Females		
	C	E	C	E	$\chi^2$	C	E	$\chi^2$
Kissing	94.2	<b>82.8</b>	96.9	<b>84.6</b>	<i>18.58</i>	92.5	<b>81.5</b>	<i>22.68</i>
	(-1.9)	<b>(-2.1)</b>	(2.9)	<b>(-1.6)</b>	<i>(7.30)</i>	(-5.0)	<b>(-2.5)</b>	<i>(-23.33)</i>
Breast Stim.	56.1	<b>62.2</b>	62.6	<b>63.4</b>	<i>0.02</i>	52.2	<b>61.2</b>	<i>14.13</i>
	(-1.4)	<b>(-6.2)</b>	(-2.0)	<b>(-9.4)</b>	<i>(-5.89)</i>	(-0.7)	<b>(-4.2)</b>	<i>(-12.13)</i>
Sexual Touching	59.8	<b>64.1</b>	67.5	<b>70.0</b>	<i>0.50</i>	54.9	<b>60.3</b>	<i>6.15</i>
	(-0.5)	<b>(-5.2)</b>	(0.6)	<b>(-5.0)</b>	<i>(-4.32)</i>	(-0.8)	<b>(-5.1)</b>	<i>(-7.69)</i>
Masturbation	36.7	<b>56.3</b>	51.0	<b>75.0</b>	<i>40.01</i>	28.0	<b>44.0</b>	<i>33.34</i>
	(3.9)	<b>(-2.7)</b>	(6.3)	<b>(-3.7)</b>	<i>(-30.56)</i>	(3.30)	<b>(-1.0)</b>	<i>(-20.75)</i>
Genital Stim.	39.4	<b>51.5</b>	43.6	<b>54.2</b>	<i>10.17</i>	36.8	<b>49.6</b>	<i>26.41</i>
	(-0.7)	<b>(-5.1)</b>	(-3.0)	<b>(-8.5)</b>	<i>(-13.38)</i>	(1.1)	<b>(-2.7)</b>	<i>(22.98)</i>
Oral Sex	32.6	<b>42.2</b>	38.3	<b>45.6</b>	<i>4.17</i>	29.0	<b>39.7</b>	<i>21.87</i>
	(2.3)	<b>(-4.1)</b>	(0.7)	<b>(-3.8)</b>	<i>(-7.12)</i>	(3.6)	<b>(-4.5)</b>	<i>(-36.3)</i>
Anal Sex	5.9	<b>9.3</b>	9.9	<b>10.0</b>		3.5	<b>8.8</b>	<i>12.03</i>
	(-1.0)	<b>(-0.6)</b>	(-2.1)	<b>(-1.5)</b>		(0.0)	<b>(-0.1)</b>	
Vaginal Sex	21.9	<b>32.0</b>	25.4	<b>31.2</b>	<i>4.78</i>	19.8	<b>32.6</b>	<i>32.32</i>
	(-4.0)	<b>(-9.0)</b>	(-6.1)	<b>(-12.7)</b>	<i>(-10.59)</i>	(-2.2)	<b>(-6.3)</b>	<i>(-16.46)</i>

Note: All values represent percentages of responses. C = comfort level, shown in regular print; E = have engaged in that behavior in their lifetime, shown in bold print;  $\chi^2$  = chi-square, shown in italics. \*Sexual Touching is defined in the study as ‘Other sexually arousing touching (not including breast or genitals)’; Genital Stimulation is defined in the study as ‘Stimulating partner’s genitals with your fingers.’

*Sexual Behavior Within the Previous Year*

One of the problems with comparing data in the field of sexual behavior is that often different surveys have both different ways of asking data as well as different time periods. The American College Health Association - National College Health Assessment II (ACHA-NCHA II, 2012) is the largest

comprehensive data set on college students and health constructs, the results from their Spring 2012 data are used for comparison (N=90,666). Unfortunately, the way that they reported their question was the number of sexual partners for combined oral sex, vaginal or anal intercourse within the last twelve months. Table 4, does a comparison between our data and theirs. As can be seen from Table 4, more than twice as many of our subjects reported not engaging in the combined sexual behaviors (oral, anal, or vaginal sex) within the previous twelve months.

**Table 4. Percent NOT Engaging in the Previous 12 Months**

	Oral Sex	Anal Sex	Vaginal Sex	Combined
Males (Our Data)	66.3	94.6	76.1	65.7
Male (ACHC)				29.5
Female (Our Data)	69.4	95.1	74.8	67.9
Female (ACHA)				29.2
Total (Our Data)	68.0	94.9	75.4	66.9
Total (ACHA)				29.2

*Reasons for Engaging/Not Engaging in Sexual Intercourse*

One of the questions we considered was the reason one might report for engaging in vaginal intercourse for the first time. A list of possible reasons was given to them, and they were asked to choose their main reason. Table 5, gives us a ranking of those reasons (using total percent), with the changes from the 2005 data in parentheses.

**Table 5. Main Reason for Engaging in Vaginal Intercourse the First Time**

	Total	Males	Females
Affection for partner	41.0 (0.8)	32.4 (4.0)	46.4 (-3.2)
Curious/ready for sex	23.0 (-4.5)	29.6 (3.0)	18.8 (-9.3)
Physical pleasure	11.5 (-3.3)	18.3 (-7.4)	7.1 (1.2)
Other	10.9 (4.3)	9.9 (3.5)	11.6 (4.9)

Peer pressure	7.7 (2.8)	1.4 (-1.4)	11.6 (8.8)
Don't know/don't remember	6.1 (1.5)	8.5 (6.7)	4.5 (3.0)

Note: All values represent percentages of responses.

While both sexes marked ‘affection for partner’ as the main reason for first time vaginal sex, there is a difference of 14% between the sexes, with females more likely to endorse it. Other interesting differences include that between ‘curious/ready for sex’ and ‘physical pleasure’, both of which are more endorsed by males, and ‘peer pressure’ which is more endorsed by females. The largest percent changes between the 2012 data and the 2005 data were for ‘curious/ready for sex’ for females, with the 2012 data being 9.3% lower and ‘peer pressure’ for females, with the 2012 data being 8.8% higher.

Another component of risk behavior is how quickly one engages in sexual intercourse (defined as vaginal, oral, or anal). Table 6, looked at various time periods. The most endorsed answer was ‘more than a month but less than a year’, followed by ‘more than one year’. There were still just over 11% percent which engaged in less than a day.

**Table 6. Shortest Length of Time Partner was Known Prior to Intercourse**

	Total	Males	Females
Less than one day	11.2	14.1	9.5
One or two days	2.4	4.0	1.4
More than two days but less than a month	9.6	9.1	9.5
More than a month but less than a year	43.8	42.4	44.6
More than one year	32.9	30.3	35.1

Note: All values represent percentage of responses.

Of equal importance may be the question as to why one would have chosen not to have had sexual intercourse. A list of possible reasons was given to them, and they were asked to choose their top three answers. Table 7 gives the percent that chose a given category. For example, the top chosen answer, both in terms of the first rank and overall, was ‘it is against my personal or religious beliefs to have sexual intercourse outside of marriage’. That answer was chosen first by 72.9% and was a top three choice by 93.6% (72.9 + 7.6 + 13.1). Other top ranking answers (defined as over 40% of the top three choices) were: ‘I have not met the right person yet’ (52.2%), ‘I am worried about an

unplanned pregnancy' (49.6%), and 'I am worried about getting a sexually transmitted disease' (41.4%). Again, changes from the 2005 data are in parentheses.

**Table 7. Reasons for Choosing to Not Have Sexual Intercourse**

	Total			Males			Females		
	1	2	3	1	2	3	1	2	3
Against Belief	72.9 (-10.9)	7.6 (2.8)	13.1 (8.0)	65.1 (-9.9)	8.7 (1.6)	14.3 (7.2)	77.6 (-12.4)	7.0 (3.9)	12.6 (8.8)
Worried about pregnancy	14.0 (10.0)	19.2 (0.4)	16.3 (-2.1)	13.6 (6.5)	19.1 (0.3)	17.5 (-2.1)	14.5 (12.6)	19.2 (0.4)	15.4 (-2.1)
Worried about STDs	9.6 (6.7)	16.6 (-0.3)	15.2 (6.7)	9.5 (4.1)	19.8 (-0.7)	14.3 (2.7)	9.8 (8.5)	15.0 (0.6)	15.0 (8.7)
Not the right person	16.3 (13.4)	20.7 (5.6)	15.2 (5.3)	18.3 (12.9)	26.2 (11.0)	15.1 (7.1)	15.0 (13.7)	17.8 (2.8)	15.0 (3.7)
Not emotionally ready	7.0 (6.6)	13.1 (4.6)	16.9 (5.1)	6.3 (6.3)	8.7 (5.1)	19.0 (14.5)	7.5 (6.9)	15.9 (4.0)	15.0 (-1.9)
Emotional concern	8.2 (6.7)	10.8 (3.8)	15.2 (7.1)	7.9 (6.1)	8.7 (-0.2)	18.3 (12.0)	8.4 (7.1)	11.2 (5.6)	13.6 (4.2)
Fear of being caught	7.3 (7.3)	7.9 (4.2)	18.1 (10.4)	9.5 (9.5)	7.9 (6.1)	16.7 (7.8)	6.1 (6.1)	7.9 (2.9)	18.7 (11.8)
No partner	9.3 (7.3)	6.4 (4.2)	13.1 (10.4)	11.9 (9.5)	7.1 (6.1)	15.9 (7.8)	7.9 (6.1)	6.1 (2.9)	11.2 (11.8)
No interest in sex	7.6 (6.9)	4.4 (1.5)	14.9 (12.7)	7.9 (7.9)	4.8 (2.1)	15.9 (14.1)	7.5 (6.2)	4.2 (1.1)	14.0 (11.5)
Medical/health	7.6 (6.9)	3.8 (1.6)	10.8 (8.6)	7.1 (6.2)	5.6 (3.8)	12.7 (10.9)	7.9 (7.3)	2.8 (0.3)	9.3 (6.8)
No opportunity	5.5 (4.4)	7.0 (4.8)	13.4 (11.6)	6.3 (4.5)	8.7 (6.0)	15.1 (12.4)	5.1 (4.5)	6.1 (4.2)	12.1 (10.8)
Partner unwilling	5.5 (4.4)	2.3 (1.2)	13.7 (12.2)	6.3 (4.5)	3.2 (0.5)	14.3 (11.6)	5.1 (4.5)	1.9 (1.9)	13.1 (12.5)
Issues of past abuse	5.8 (5.8)	2.9 (2.2)	14.9 (13.8)	5.6 (5.6)	3.2 (3.2)	14.3 (14.3)	6.1 (6.1)	2.8 (1.5)	15.0 (13.1)
Performance Issues	4.7 (4.0)	5.0 (5.0)	12.0 (11.6)	3.2 (2.3)	7.1 (7.1)	12.7 (11.8)	5.6 (5.0)	3.7 (3.7)	11.2 (11.2)

Note: All values represent percentages of responses.

## Conclusions

For the time period studied, 1995-2012, the participants at the prohibitionist university report a consistently lower rate of alcohol use, binge drinking, tobacco, and marijuana use, compared to a number of national studies. While their level of commitment to their religious beliefs is likely to play a role in this, it is not known to what extent it plays that role.

As noted at the beginning we were interested in the difference between perceived and reported use of substance. The theory behind social norms is the notion that not only do peers generally misperceive the amount of substances used, but that this can have a causal effect on their behavior (Perkins, 2002). Table 2 showed that not only do misperceptions occur for both data sets, and that they estimate more use than is being reported, but that our samples reported use was at a lower percent than MTF's data. One possible explanation is that our subject's personal religious views are some type of modifying variable; of course other explanations may exist.

One of the issues we attempted to look at was whether cultural leveling was occurring with substance abuse. Comparing our samples total average use for 2012 against MTF's data in the tables above we get the following; Alcohol 41.4%, Binge 20.9%, Tobacco 39.7% and Marijuana 30%. In our 2005 study we had; Alcohol 41.2%, Binge 19.1%, Tobacco 37.8%, and Marijuana 31.3% (in the article 36.1% was reported, but this was wrong) (Helm, Lein, McBride, & Bell 2009). As one can see there are very small changes with no substance showing more than a 2% difference in 7 years. This may be due to actual changes, differences in samples, or that some of our samples use of certain substances is so small (e.g. tobacco at 7%) that it is hard to bring down that amount of use. So in general, either cultural leveling is not occurring, or it is at a very small rate.

As noted at the beginning, attending a prohibitionist school does not prevent risk behaviors from occurring. However, whether it is due to personal or religious beliefs, or other reasons, participants attending this particular university did have consistently lower scores on risk behaviors than other national and university comparison. It is recommended that future research attempt to study more in-depth the influence of religiosity on these risk behaviors.

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