



# ***MICHIGAN STATE UNIVERSITY STUDENT HEALTH ASSESSMENT:***

## **Results of the 2022 NCHA Survey of MSU Students**

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**MICHIGAN STATE UNIVERSITY**  
Student Health & Wellness



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# MSU Student Health Assessment: 2022 NCHA

## INTRODUCTION AND METHODS

In the Spring of 2022, Michigan State University participated again in the National College Health Assessment Survey (NCHA) through MSU Student Health and Wellness' membership in the American College Health Association (ACHA). The survey is designed to gauge the health and health behaviors of college students, especially as they impact their academic performance. The purpose is to enable university administrators to plan efforts that might help students thrive, to evaluate efforts to-date, and to inform students.

The NCHA was first conducted at MSU in 2000 and has been repeated every two years since then. The survey was administered on the ACHA website as a web survey designed by ACHA staff and the CORE Institute. At MSU, the online survey was managed by the Office for Survey Research within the Institute for Public Policy and Social Research.

In Fall 2019, ACHA began administering a greatly revised version of the NCHA questionnaire that had been used since 2009 (NCHA II). While most of the same topics were addressed in NCHA III as had been covered in the previous version (NCHA II), relatively few of the questions were retained and some of those retained were provided different response options than in the previous version. Furthermore, NCHA III was designed to utilize programmed commands to skip respondents past questions not relevant to them based on their answers to previous questions. With the different programming structure, MSU staff were uncertain as to how well the items in NCHA III would replicate the measurements of NCHA II, especially for longitudinal tracking. While NCHA III is, most likely, the survey questionnaire for the next ten years, it seemed prudent to many of the involved MSU staff to assess the continuity of its results with the measurements of NCHA I and NCHA II from the past. Consequently, MSU staff elected to administer both NCHA II and NCHA III to separate random samples of MSU students during exactly the same time periods.

However, the COVID pandemic began almost immediately after data collection concluded for both the 2020 NCHA II and NCHA III surveys. Because of the need to monitor student health and behavior during and following the complex health, education, policy, and political environment of the COVID pandemic, MSU staff elected to conduct another survey in 2021 using the NCHA II questionnaire. It is the NCHA II questionnaire that was administered in 2022 as well. This report will focus on the NCHA II results for 2022 in comparison to the previous NCHA II and the similar NCHA I results which have been the basis for highlighting trends in students' health statistics since data collection first started in 2000. Results of the NCHA III 2020 survey will not be used for this summary.

On February 10, 2022, a stratified random sample of 5,000 MSU students was sent a pre-notification email informing them that they would be receiving an e-mail invitation from ACHA to participate in the

National College Health Assessment. On February 12, the same sample was sent an e-mail invitation from ACHA containing a web-link to the survey. The survey began February 12 and concluded March 1. Email reminders were sent to non-responders on February 16, February 20, and February 25. Additional global messages encouraging participation were sent on February 14, and February 26.

A total of 1,167 students responded, but several were excluded from analysis because of missing data, particularly on demographic items used for weighting. The final data file contained useable responses from 1,157 students. The overall response rate was 17%.

The same survey is administered annually on more than 100 other campuses across the nation. ACHA makes available the results of the surveys administered across the nation so individual colleges and universities can compare their results to the nationwide results. However, the NCHA is administered at different times during the academic year, following quite varied sampling methodologies, and at a broad mix of colleges and universities. The national data sets are not weighted to correct for disproportionate sampling and non-response. At MSU, the NCHA has always been administered to probability samples during the same four-week time period of the Spring Semester and has used the same weighting approach to match the enrollment profile at the time. Consequently, the nationwide results are in fact not suitable as a basis of comparison.

The questionnaire covered a diverse set of topics including perceived health status, sexual behaviors and beliefs, alcohol-tobacco-drug behavior and beliefs, injury prevention, disease prevention and screening, victimization, exercise and rest, emotional and mental health, incidents of disease or injury, incidents of stressors, sources and credibility of health information, and background questions.

The questionnaire administered in 2022 was nearly the same version of the questionnaire (NCHA II) as was administered in 2010 through 2020. This was a substantially modified version of the questionnaire administered from 2000 through 2008 (NCHA I). While many questions remained the same, some questions were added and some formerly used questions were dropped or modified.

The 2022, 2021, 2020, 2018, and 2016 version of NCHA (II) differed from the earlier versions of NCHA II primarily by the inclusion of questions about e-cigarettes and an expanded battery regarding sex, gender identity, and sexual orientation.

This summary will report the findings of the 2022 survey. Where relevant, we will compare results to the earlier surveys to note changes in health behaviors and beliefs of MSU students over time.

Because some segments of the student body were somewhat over- or under-represented among respondents, the data set has been weighted based on gender, race/ethnicity, and academic class status so that the final weighted sample more nearly matches the proportions of these groups in the MSU student body as a whole.

Table 1 provides a demographic profile of the sample after applying weighting adjustments to make the weighted sample more proportionately representative of the MSU student body during Spring Semester 2022. The table shows the profile of the student respondents overall and among undergraduates and among graduate/professional students. The table indicates, for example, that 27.3% of MSU students report having at least one type of disability and that the most prevalent disabilities are ADHD (14.6%), a psychiatric condition (10.3%), a chronic illness (5.9%), a learning disability (2.8%), blindness or partially sighted (2.3%), and a hearing impairment (1.0%).

The analyses summarized here are based on the 1157 weighted cases. A weighted sample of this size has an overall margin of sampling error of  $\pm 2.8\%$  or less ( $\pm 3.3\%$  among undergraduates,  $\pm 5.5\%$  among graduate/professional students).

Characteristic		% Overall	% Undergrads	% Grad/ Professional
Gender	Male	46.1%	47.1%	42.5%
	Female	51.3%	50.1%	55.9%
	Transgender	2.6%	2.9%	1.6%
Age	18	11.9%	15.1%	0.0%
	19	15.4%	19.6%	0.0%
	20	18.6%	23.6%	0.0%
	21	20.5%	25.7%	0.8%
	22	10.5%	10.9%	9.0%
	23	3.4%	2.1%	8.2%
	24	2.7%	1.1%	8.6%
	25	2.3%	0.2%	10.2%
	26	3.0%	0.7%	11.9%
	27	1.8%	0.0%	8.6%
	28	1.6%	0.2%	6.6%
	29	1.3%	0.4%	4.5%
	30	1.3%	0.0%	6.1%
	31+	5.6%	0.2%	25.4%
Race	White (not Hispanic)	66.3%	68.5%	58.3%
	African American (not Hispanic)	6.9%	7.2%	6.1%
	Hispanic	6.0%	6.2%	5.3%
	American Indian/Alaskan	0.2%	0.1%	0.4%
	Asian/Pacific Islander	7.8%	7.9%	7.3%
	Not Reported/Other	5.5%	5.3%	6.1%
	International Student	7.4%	4.8%	16.6%
Year in School	First	17.6%	22.3%	0.0%
	Second	17.1%	21.8%	0.0%
	Third	19.5%	24.8%	0.0%
	Fourth	20.8%	26.4%	0.0%
	Fifth or more	3.7%	4.7%	0.0%
	Graduate Student/other	21.4%	0.0%	100.0%
Cumulative GPA	A	63.3%	60.4%	74.0%
	B	29.8%	34.0%	14.2%
	C	4.2%	5.1%	1.2%
	D/F	0.2%	0.2%	0.0%
	Not Applicable	2.5%	0.3%	10.6%
Full-time Student		91.0%	93.4%	82.2%



Table 1. (Continued)

Characteristic	% Overall	% Undergrads	% Grad/ Professional
Residence			
Residence Hall	33.1%	41.5%	2.4%
Fraternity/Sorority	1.6%	2.1%	0.0%
Other campus housing	3.2%	3.4%	2.4%
With Parents/Guardian	5.5%	5.5%	5.7%
Other off campus	53.5%	46.3%	80.2%
Other	2.9%	1.2%	9.3%
Member of Fraternity/Sorority	10.0%	11.7%	3.7%
Have Health Insurance			
University Plan	13.5%	4.0%	48.8%
Parents' Plan	73.7%	87.7%	22.0%
Another Plan	10.8%	6.3%	27.6%
No	1.3%	1.4%	0.8%
Not Sure	0.7%	0.7%	0.8%
Employed weekly	58.6%	56.4%	66.8%
Volunteer weekly	25.1%	22.4%	35.1%
Sexual Orientation			
Heterosexual	80.2%	79.5%	82.9%
Gay/Lesbian	6.9%	7.0%	6.1%
Bisexual	10.0%	10.6%	7.8%
Unsure	2.9%	2.9%	3.3%
Varsity Athlete	1.5%	1.8%	0.4%
Club Sport Athlete	9.1%	11.1%	1.6%
Disabilities: None	72.7%	74.4%	66.7%
ADHD	14.6%	14.7%	14.2%
Chronic illness (e.g., cancer, diabetes, etc.)	5.9%	5.0%	9.4%
Deaf/hard of hearing	1.0%	1.0%	0.8%
Learning disability	2.8%	3.2%	1.2%
Mobility/dexterity disability	0.3%	0.2%	0.8%
Partially sighted/blind	2.3%	2.2%	2.9%
Psychiatric condition	10.3%	8.8%	16.0%
Speech or language disorder	0.3%	0.3%	0.4%
Other disability	2.0%	2.0%	2.1%

## RESULTS: Perceived Health Status

Table 2 shows the percentages of respondents who rated their health as excellent, very good, good, fair or poor. The table indicates that:

- Overall, 48.0% of respondents rated their health as excellent (14.0%) or very good (34.1%).
- Male students were more likely to rate their health as excellent or very good (51.3%) than were female students (45.0%).

Table 2. Percentage Distribution of Perceived Health Status of Student Respondents: 2022						
How would you describe your general health?		Excellent	Very Good	Good	Fair	Poor
Overall		14.0%	34.1%	31.7%	17.5%	2.7%
Student Status						
	Undergrad Student	14.1%	33.9%	30.9%	17.9%	3.2%
	Grad./Prof. Student	13.6%	34.6%	35.0%	15.6%	1.2%
Gender						
	Males	18.5%	32.8%	29.8%	16.6%	2.3% *
	Females	10.0%	35.0%	33.4%	18.4%	3.2%
Race						
	White Domestic	13.6%	36.5%	30.9%	16.2%	2.8%
	Other Domestic	13.4%	29.4%	32.4%	21.7%	3.0%
	International	19.0%	28.6%	35.7%	15.5%	1.2%
Age						
	18-19	16.2%	30.4%	31.7%	18.2%	3.6%
	20-21	12.2%	37.0%	30.6%	16.8%	3.4%
	22-23	13.5%	33.3%	32.7%	19.2%	1.3%
	24 or older	15.0%	33.5%	33.0%	17.6%	0.9%
Residence						
	On campus	16.8%	29.6%	31.1%	18.5%	4.0% *
	Off campus	12.4%	36.6%	32.0%	17.0%	2.1%
GPA						
	A	14.2%	37.3%	33.0%	13.4%	2.1% *
	B	14.1%	29.7%	28.2%	23.4%	4.5%
	C or less	12.0%	16.0%	36.0%	34.0%	2.0%
* $p(\chi^2) < .05$						

- There were no statistically significant differences by student status, race, or across age groups.
- Students performing better academically were more likely to rate their health as excellent or very good; off campus students were more likely to rate their health as excellent or very good than were students living on campus.

Figure 1 below indicates that, although very stable for the ten-year period from 2004 to 2014, the overall percentage of MSU students rating their health as excellent or very good has continued to decline since then while the percentage rating their health as only fair or poor has increased slightly from 2014 to 2022. This pattern had a momentary reversal during the height of the pandemic (2021) when nearly all students were taking classes remotely away from campus.

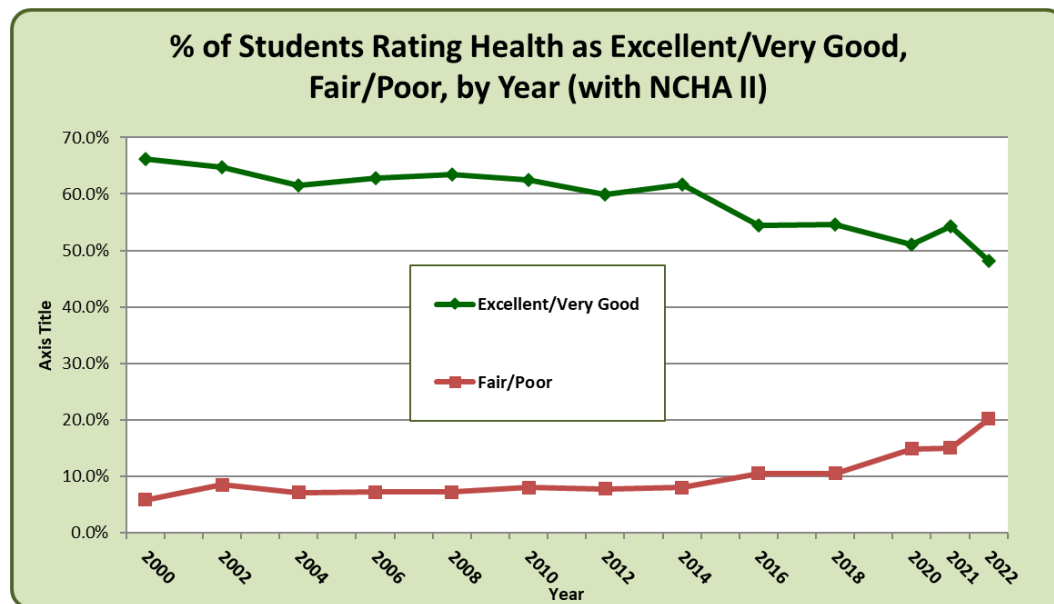


Figure 1. Percentage of Respondents Rating Own Health Excellent/Very Good, Fair/Poor 2000-2022

## RESULTS: Weight Status, Exercise and Rest

Respondents were asked to indicate their height, weight, how many days in the past week they exercised either vigorously for 20 minutes or moderately for 30 minutes, how many days they did muscle strengthening exercises, how many days in the past week they got enough sleep, and how many servings of fruits and vegetables they typically eat per day.

The respondents' heights and weights were converted into Body Mass Index (BMI) scores (kilograms/meters<sup>2</sup>) and then categorized into weight statuses with BMI scores of 25.0 - 29.9 coded as overweight and 30.0 or greater coded as obese. The results for these questions are presented in Table 3 along with the comparisons on each between males and females, domestic White and Other racial/ethnic group and international respondents, those living on campus and those living off campus, and among GPA categories.

The table indicates that:

- 35.0% of the respondents were overweight (22.27%) or obese (12.8%) based on BMI – virtually the same as the 35.0% found in 2020 but up slightly from the 38.1% found in 2021.
  - Females, Other Domestic students, undergraduates and respondents with higher GPAs were less likely to be overweight or obese than were their counterparts.
- 65.1%% of respondents indicated that they exercised three or more days during the previous week – up appreciably from the 56.0% found in 2021, but similar to the 63.5% found in 2020 and the 66.5% in 2018.
  - Domestic White respondents were more likely (68.7%) than Other domestic students or international students (56.9% and 62.4% respectively) to report exercising three or more days per week.
- 40.6% of the respondents did muscle strengthening or toning exercises two or more days in the previous week – virtually the same as the 39.2% found in 2020 and the 41.3% found in 2021 and the 43.1% found in 2018.

Health Problem	%	GENDER		RACE/ETHNICITY			STUDENT STATUS		CUMULATIVE GPA		
		Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof.	A	B	C/D/F
<b>Weight Status</b>											
Acceptable/Not Overweight	65.0%	61.8%	67.9% *	67.3%	59.3%	65.4% *	69.7%	47.9% *	68.0%	61.9%	52.0% *
Overweight	22.2%	27.1%	17.7%	21.6%	22.6%	25.9%	20.4%	28.5%	20.5%	26.4%	20.0%
Obese	12.8%	11.1%	14.4%	11.1%	18.0%	8.6%	9.9%	23.6%	11.5%	11.7%	28.0%
<b>Participate in vigorous exercise for 20 minutes or moderate exercise for 30 minutes...</b>											
0 days per week	15.7%	16.3%	15.3%	11.9%	22.7%	24.7% *	15.2%	17.5%	16.4%	13.4%	17.6%
1-2 days per week	19.2%	18.9%	19.4%	19.5%	20.4%	12.9%	18.0%	23.6%	18.0%	21.3%	23.5%
3 or more days per week	65.1%	64.9%	65.3%	68.7%	56.9%	62.4%	66.9%	58.9%	65.6%	65.3%	58.8%
<b>Do exercises to strengthen/tone muscles...</b>											
0 days per week	48.8%	41.9%	54.9% *	47.6%	51.5%	50.0%	48.5%	50.0%	49.4%	47.7%	44.0%
1 day per week	10.7%	10.7%	10.6%	10.9%	10.5%	8.3%	10.3%	12.2%	9.4%	13.2%	14.0%
2 or more days per week**	40.6%	47.4%	34.5%	41.5%	38.0%	41.7%	41.3%	37.8%	41.2%	39.2%	42.0%
<b>Guideline for Physical Activity Met or Not [30 min. moderate activity 5+ days/week OR 20 min. vigorous activity 3+ days/week OR equivalent combination (2 days mod. = 1 day vigorous)]</b>											
Not Met	51.2%	48.5%	53.5%	48.8%	56.1%	56.0%	49.2%	58.5% *	51.8%	48.4%	62.7%
Met	48.8%	51.5%	46.5%	51.2%	43.9%	44.0%	50.8%	41.5%	48.2%	51.6%	37.3%
<b>Get enough sleep so feel rested when wake up in the morning...</b>											
< 4 days per week	57.9%	53.8%	61.4% *	56.2%	62.0%	58.3%	58.7%	54.7%	54.2%	64.6%	70.6% *
4-5 days per week	29.0%	30.2%	27.9%	31.6%	23.6%	25.0%	29.0%	29.4%	31.3%	26.0%	15.7%
6-7 days per week	13.1%	16.0%	10.6%	12.2%	14.4%	16.7%	12.4%	15.9%	14.5%	9.4%	13.7%
<b>Number of servings of fruits and vegetables eat per day</b>											
None	9.5%	11.3%	8.0%	8.0%	12.2%	14.5% *	10.9%	4.5% *	8.6%	11.1%	12.0%
1-2	65.8%	64.9%	66.6%	64.9%	68.8%	65.1%	67.3%	60.2%	64.3%	67.9%	74.0%
3-4	21.4%	21.2%	21.7%	23.6%	17.8%	14.5%	19.3%	29.7%	24.1%	17.8%	12.0%
5 or more	3.2%	2.6%	3.7%	3.5%	1.3%	6.0%	2.5%	5.7%	3.0%	3.2%	2.0%

\* p(x2) &lt; .05

\*\* Note: This was reported for 0 days, 1-2 days, 3 or more days in the tables for previous years' surveys. The category groupings were revised this year to be consistent with CDC guidelines of muscle strengthening exercises 2 or more days per week.

- Slightly less than half (48.8%) of all students met the guideline for aerobic physical activity (a combination of vigorous and moderate exercising) – similar to the 49.5% found in 2020 but up from the pandemic period drop to 42.3% in 2021.
  - Undergraduate students were more likely than their counterparts to meet the physical activity guideline.
- More than half the respondents (57.9%) reported getting sufficient sleep fewer than four days out of the previous seven, virtually the same as in 2020 (56.0%) and 2018 (56.7%) but up from the pandemic period low of 49.0% -- that is, more students reported getting adequate sleep during the 2021 period than did so either before or subsequent to the pandemic-related separation of students from in-person classes and on campus living.
  - As in the prior surveys, females were less likely than males to report getting adequate sleep six or seven days in the previous week.

- International students were more likely than domestic students to report getting adequate sleep six or seven days in the previous week.
- Less than one in twenty respondents (3.2%) reported eating five or more servings of fruits and vegetables per day, the minimum recommended for good health by nutritionists – slightly lower than in the previous surveys, i.e., 4.2% in 2021, 4.9% in 2020, 5.9% found in 2018, 5.7% in 2016. More than seven out of ten (75.3%) reported eating two or fewer servings per day (vs. 69.8% in 2021, 71.9% in 2020, 63.6% in 2018, and roughly 65% in 2010 through 2016).
- More than 96% of both males and females fell short of the five per day recommendation
- International respondents were somewhat more likely to report eating more servings of fruits and vegetables per day than were their domestic student counterparts.
- Graduate/professional students were more likely than undergraduates to report eating greater numbers of servings of fruits and vegetables daily.
- There were no significant differences in reported servings eaten per day by students of differing GPAs.

Figure 2 shows the trends for these measures from 2000 to 2022.

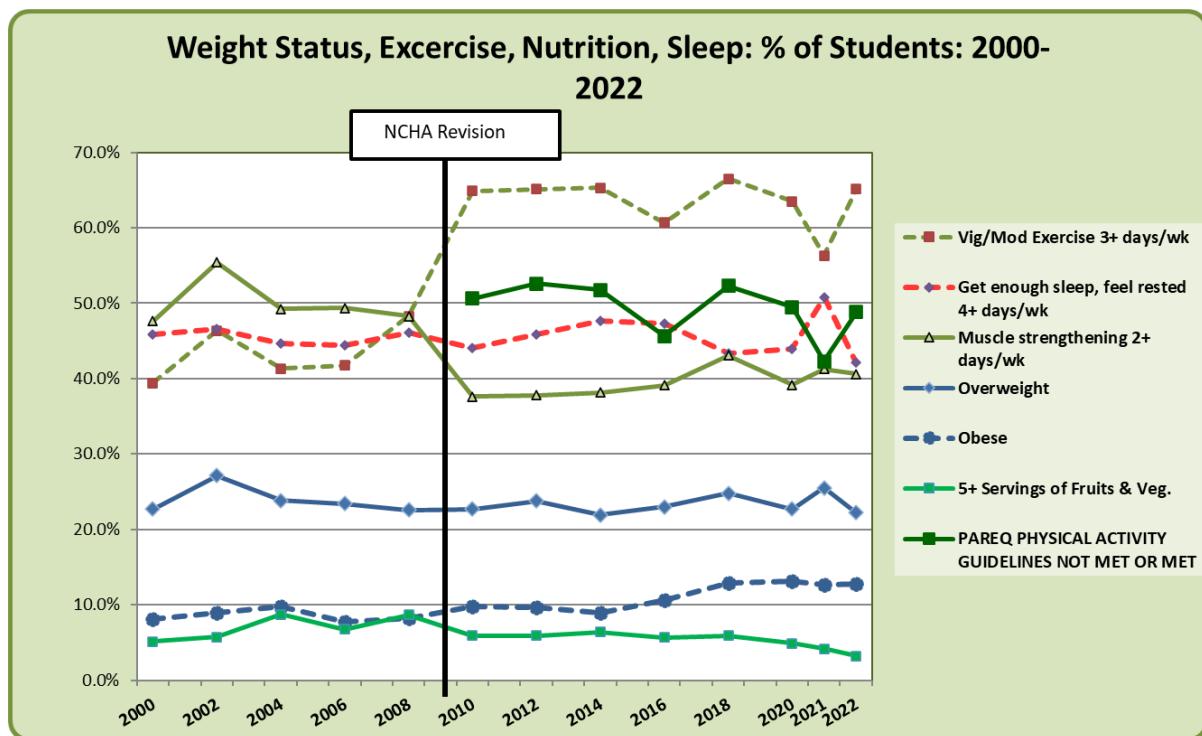


Figure 2. Weight, Exercise, Sleep and Nutrition Status: 2000 to 2022

The substantial increase in the percentage of students who reported exercising at least moderately for 3 or more days a week from 2008 to 2010 is undoubtedly an artifact of a change in the questionnaire in 2010. Two separate questions on moderate activities and vigorous activities were combined to produce a single exercise measure analogous to the one question used from 2000 to 2008, but the combined response appears to result in a greater measurement. The results were very similar from 2010 to 2022 with the exception of the blip during the 2021 pandemic period when fitness facilities were closed, people were encouraged to isolate, and team sports were temporarily discontinued. The change in measurement of exercise apparently came at the expense of weight training which showed a substantial decline from 2008 through 2010 but was also relatively unchanged between 2010 and 2022.

The question about muscle strengthening/toning in 2010 was also quite different than the question in the earlier questionnaire. Starting in 2010, the question specified a number of different exercises and a number of repetitions for each, whereas the earlier question left the number of exercises and repetitions unspecified. Therefore, we suspect most of the substantial drop in the percentage doing this type of exercise two or more days a week reflects the effect of the change in question wording.

There was no change in the question wording regarding days of adequate sleep. Figure 2 shows only small fluctuations in the percentage of students who reported getting adequate, restful sleep most nights of the week from 2000 through 2016 but a lower percentage from 2018 through 2022, except for the temporary increase in the 2021 pandemic period.

Figure 2 also indicates that the percentage of the students who were obese or overweight and the percentage who reported consuming five or more servings of fruits and vegetables have been relatively stable over the past eighteen years (the blip increase in the percentage who were overweight in 2021 being the exception), although the percentages that were obese has been increasing since 2014.

The questionnaire included several questions regarding how respondents perceive their own weight status, what they were trying to do about their weight, and if they had used any of several weight loss strategies in the previous 30 days. Table 4 shows the percentages of respondents giving each of the possible answers and then compares the percentage distributions of responses among respondents categorized by their BMI-based weight status.

The table indicates that:

- 91.2% of those in the “Not Overweight” category described themselves as either about the right weight or underweight – virtually the same as in 2020 (91.2%) and 2018 (90.6%) – while 8.8% of them perceived themselves to be at least somewhat overweight.
- About a quarter (36.6%) of those classified as overweight according to BMI indicated their weight was about right.
- While 30.6% of those classified as obese described themselves as “very overweight” more than six out of ten (61.2%) characterized themselves as “slightly overweight.”

- Overall, 43.4% of respondents said they were trying to lose weight, but this percentage increases to 63.0% among those classified as overweight, and to 77.6% among those classified as obese. Similar to the results in 2020, 2018 and 2016, about three out of ten (29.7%) of those who were not overweight or obese indicated that they were also trying to lose weight.

**Table 4. Percentage Distribution of Perceived Weight Status, Diet and Exercise Behavior, by BMI-Based Weight Status: 2022**

ITEM	% OVERALL	BMI-Based Weight Status		
		Not Overweight	Overweight	Obese
How describe own weight				
Very underweight	0.9%	1.3%	0.0%	0.0% *
Slightly underweight	11.9%	18.1%	0.0%	2.7%
About the right weight	55.6%	71.8%	36.6%	5.4%
Slightly overweight	27.0%	8.8%	61.0%	61.2%
Very overweight	4.5%	0.0%	2.4%	30.6%
Currently trying to . . .				
Doing nothing about weight	17.3%	20.5%	11.8%	8.8% *
Stay the same weight	25.0%	29.1%	20.9%	12.2%
Lose weight	43.4%	29.7%	63.0%	77.6%
Gain weight	14.4%	20.6%	4.3%	1.4%
Within last 30 days, did . . .				
Exercise to lose weight	47.7%	39.5%	62.4%	65.1% *
Diet to lose weight	37.1%	28.5%	51.0%	57.9% *
Vomit or take laxatives to lose weight	2.6%	2.4%	4.0%	1.4%
Take diet pills to lose weight	1.4%	0.7%	3.2%	1.4% *
None of the above	46.1%	55.1%	29.6%	26.7% *
* $p(\chi^2) < .05$				

- Among those who were classified as overweight, more than six out of ten (62.4%) said they had been trying to lose weight in the previous month by exercising, while a little more than half (51.0%) said they had been trying to lose weight by dieting. Among those classified as obese, nearly six out of ten (57.9%) said they had been trying to lose weight by dieting and more than six out of ten were trying to lose weight by exercising (65.1%).
- Among those classified as obese, 26.7% said they had not been trying to lose weight in any of the four methods listed – up from 15.1% in 2020 and 22.4% in 2018.

The questionnaire included several additional questions regarding sleep. Respondents were asked how much of a problem they had in the previous seven days with sleepiness during the daytime. One in ten students (9.6%) said it was ‘not a problem at all,’ while half (49.4%) said it was ‘a little problem.’ Nearly a quarter (23.6%) said it was ‘more than a little problem,’ 12.7% said it was ‘a big problem’ and 4.7% said it was ‘a very big problem’ – similar to results in previous surveys. As in earlier years’ surveys, females were



somewhat more likely to report sleep problems than their male counterparts, as were those with lower GPAs.

Respondents were asked how many days of the previous seven they awakened too early in the morning and could not get back to sleep, felt tired or dragged out or sleepy during the day, or went to bed because they just could not stay awake any longer, or had an extremely hard time falling asleep. On average, students reported:

- 1.28 days in the previous seven when they awakened too early and could not get back to sleep – 45.2% (compared to 47.9% in 2020, and roughly 55% in each of the prior surveys) reported no such days, 20.6% reported only one day, but 9.8% reported four or more days – similar to the 10.9% found in 2020.
- 3.3 days in which they felt tired, dragged out, or sleepy during the day – very similar to the 2020 and 2018 findings. One in thirteen (7.5%) reported no such days – compared to 9.4 in 2020 and 8.6% in 2018. One in eight (13.3%) reported one such day, but 42% reported four or more such days in the previous week – roughly the same as in 2020 and 2018.
- 1.7 days in which they went to bed because they just could not stay awake any longer – the same as in most previous surveys. Nearly four out of ten (38.7%) reported there were no such days, 18.5% reported there was only one, 15.1% reported there were two days, and 27.7% reported there were three or more such days.
- 1.8 days in the previous seven when they reported having an extremely hard time falling asleep – similar to the prior surveys. Nearly four out of ten (37.7%) reported there were no such days, 20.5% reported one day, 12.1% reported two days, and the remaining 29.6% reported there had been three or more such days in the previous week – an increase from prior surveys.

Examining the occurrence of these sleep problems among various types of students, the analysis indicated that, on average:

- Females reported more days than males in which they felt tired, dragged out or sleepy during the day, and more days that they had to go to bed because they just could not stay awake – roughly the same differences found in the prior surveys.
- Undergraduates reported more days in which they felt tired, dragged out or sleepy during the day than did graduate/professional students.
- Compared to domestic students, international students reported fewer days in which they felt tired, dragged out or sleepy during the day.
- There were no significant differences on any of these sleep issues between those living on campus and those living off campus or among students in different age groups. Neither were there

significant differences on these issues between students who were members of fraternities/sororities and non-members.

- As in previous surveys, those with higher GPAs reported fewer days in which they awakened too early, of feeling tired during the day, having to go to bed because they could not stay awake, and having extreme difficulty falling asleep problems than those with lower GPAs.

## RESULTS: Injury Prevention

Respondents were asked to indicate how often within the last twelve months they wore seatbelts when riding in a car or wore a helmet when bicycling, motorcycling, or inline skating.<sup>1</sup> Table 5 shows the percentages of respondents who indicated having taken these precautions to prevent injury and how often they did so.

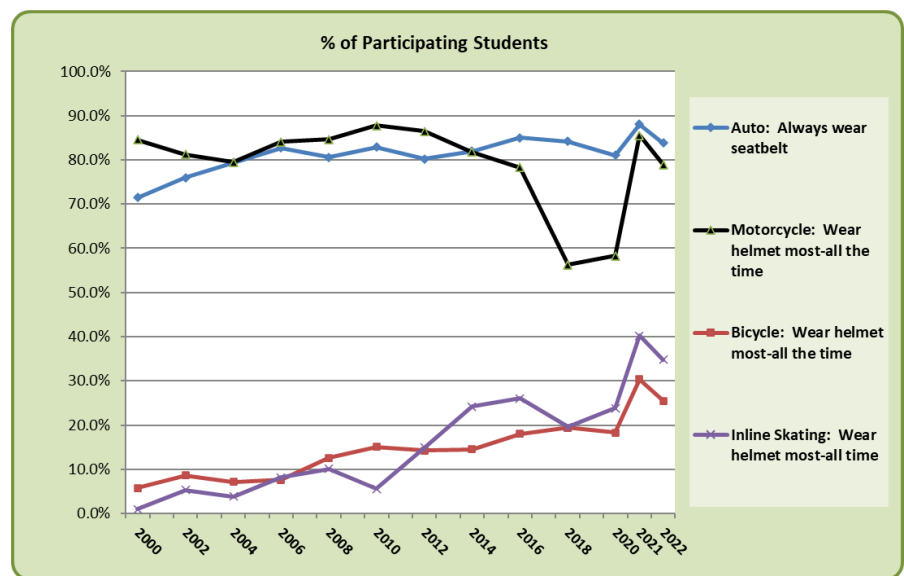
Table 5 indicates that:

- Nearly all students (99.4%) indicated having ridden in a car in the past year. Of those who did, only 2.0% of these said they wore a seatbelt less than most of the time – very similar to the results of prior surveys; 83.7% said they always wear a seatbelt when riding in a car – very similar to the results from 2020, 2018, and 2016.

Table 5. Percentage of Respondents Who Wore Protective Equipment to Prevent Injury During Last School Year (Of Those Engaging in the Activity): 2022					
Within last school year, how often did you . . .	Never	Rarely	Sometimes	Most of the Time	Always
Wear a seatbelt when rode in a car	0.3%	0.4%	1.3%	14.2%	83.7%
Wear a helmet when rode a bicycle	50.2%	13.7%	10.6%	7.2%	18.3%
Wear a helmet when rode a motorcycle	10.6%	4.3%	6.4%	7.1%	71.6%
Wear a helmet when inline skating	50.5%	13.0%	1.5%	4.5%	30.5%
* $p(\chi^2) < .05$					

<sup>1</sup> In the questionnaire administered prior to 2010, these questions referred to 'within the last school year' rather than the whole past year as the questions did beginning in 2010 so some difference in responses to those collected prior to 2010 would be reasonable to expect.

- Six out of ten respondents (59.0%) – about the same as in the three previous surveys – indicated they had ridden a bicycle during the past year. Of these, 50.2% indicated that they never wear a helmet – down from the 55.2% found in 2020, 57.6% found in 2018, the 62.6% found in 2016. – i.e., bicycle helmet use has been increasing.
- One in eight (12.1%, down from 16.9% in 2020) reported riding a motorcycle in the past year. Of those who did, more than seven out of ten (71.6%) said they always wear a helmet, while 10.6% reported never wearing a helmet. The percentage always wearing a helmet is up from 52.1% in 2020 and 51.3% in 2018 and, 66.0% in 2016, and is back up to roughly where it was in 2014 and earlier before the helmet law changed (i.e., 74.0% in 2014 and 76.9% in 2012). The percentage never wearing a helmet is substantially lower in 2022 than in 2018 and 2020 than in prior years. After the 2012 survey, Michigan signed a bill into law making it legal to ride without wearing a helmet. The change in the law had resulted in the decreasing use of helmets among MSU students who ride motorcycles until 2021 and 2022.
- 17.4% of all respondents indicated they had been inline skating in the past year. Of these, 50.5% reported that they never wore a helmet – a smaller percentage than in most of the previous surveys (with the exception of 2021 when 46.3% of inline skaters reported never wearing a helmet). In 2022, 30.4% of inline skaters said they always wear a helmet which, is similar to the 37.7% found in 2021 but still roughly 50%-80% greater than found in the surveys prior to 2021



**Figure 3. Student Use of Protective Equipment to Prevent Injuries: 2000 to 2022**

Figure 3 shows the changes in the students' use of the protective equipment for these activities from 2000 to 2022. The figure indicates that there has been a general, gradual increase in the percentage of students who:

- Always wear a seatbelt when riding in a car.

- Wear a helmet most or all of the time when riding a motorcycle until the law changed, then sharply declined until 2021 when it rose sharply only to drop again slightly in 2022 to roughly the same level as in 2016,
- Wear a helmet most or all of the time when riding a bicycle and when inline skating, spiking for both in 2021 during the pandemic period, before dropping slightly in 2022.

## RESULTS: Disease Prevention and Screening

The questionnaire asked respondents to indicate whether or not they had been vaccinated against various diseases and whether or not they had recently had preventive health screening exams such as dental exams and cleaning, breast exams (females only), gynecological exams (females only), testicular exams (males only), blood pressure checks, cholesterol checks, or used sunscreens. Figure 4 shows the differences in the results for 2022 compared to 2021, 2020, 2018, 2014, and 2010. The results for 2016 and 2012 generally fit the pattern represented for each preventive health measure listed but have been excluded from the chart for readability considerations.

Figure 4 indicates that:

- The percentages of students vaccinated against the Human Papilloma Virus (HPV), against influenza, against measles, mumps and rubella, against meningococcal disease, and against varicella have all gradually increased from 2010 to 2022 – especially the vaccination rates for HPV and varicella.
- The percentages of students vaccinated against hepatitis B continued to increase slightly from the previous survey years.

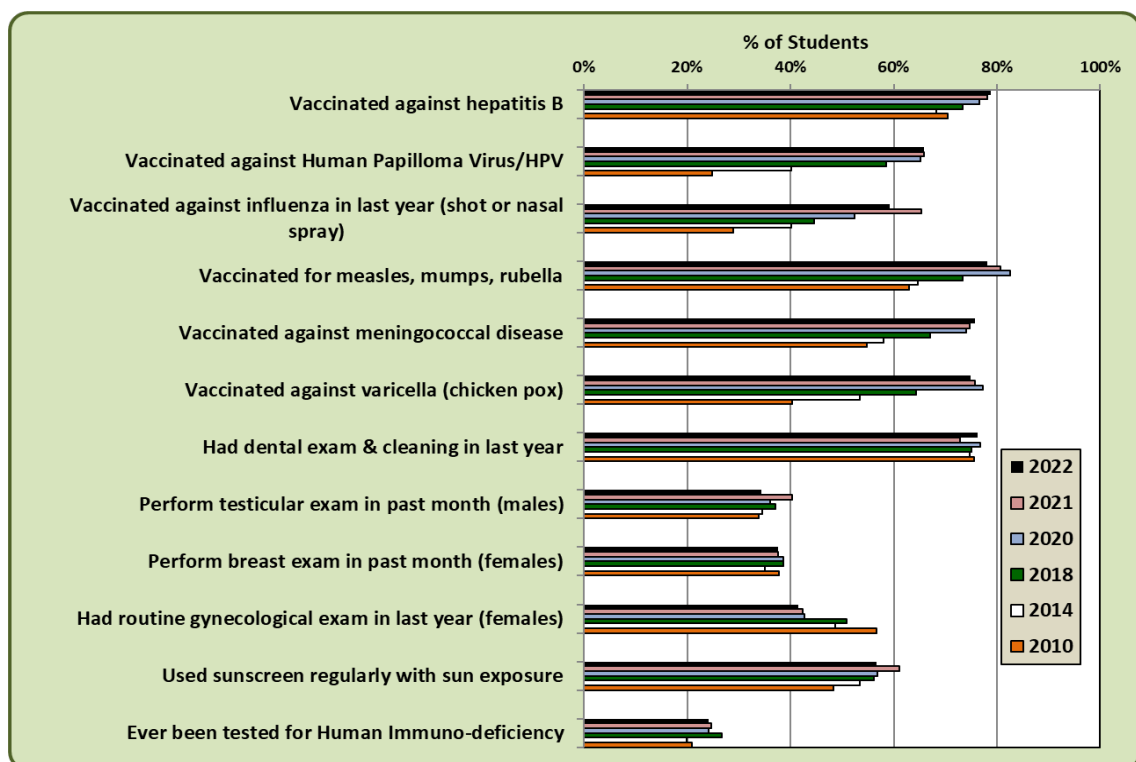


Figure 4. Percentage of Respondents Who Reported Having Done Various Disease Prevention, Early Detection Procedures: 2022 vs. 2021 vs. 2020 vs. 2018 vs. 2014 vs. 2010



- 
- The percentages having a dental exam and cleaning in the past year, performing testicular exams in the past month, performing a breast exam in the past month, and having been tested for HIV have all fluctuated some from survey to survey but, overall, have changed little.
  - The percentages of female students who had a routine gynecological exam in the last year had steadily declined from 2010 to 2016, increased to 50.8% in 2018, and then resumed its decline to 41.5% in 2022.
  - The percentages of respondents that used sunscreen regularly with sun exposure continued to increase gradually, except for a spike in 2021.

Table 6 shows the percentage of all respondents who said that they had done each of these and the percentage who indicated not knowing if they had or not. The table also compares the percentages of respondents who said they had done each of these across various demographic groups of respondents. The table indicates that:

- Females were more likely than males to report having been vaccinated against hepatitis B, HPV, measles-mumps-rubella, meningitis and varicella, more likely to report using sunscreen regularly, and also more likely to report having ever been tested for HIV.
  - International students were less likely to report having received any of the vaccinations or performing the screening tests than domestic students, except for a routine gynecological exam. White domestic respondents were more likely than Other domestic respondents to report having received each of the various vaccines and to have had each of the other prevention or early detection tests.
  - Graduate students were more likely than undergraduates to report having been vaccinated against influenza, and measles-mumps-rubella, more likely to have been tested for HIV, to have had a routine gynecological exam, to have performed a routine breast exam, or to use sunscreen regularly, but they were less likely than undergraduates to have been vaccinated against HPV, or varicella, and less likely to have had a dental exam and cleaning in the past year.
  - Respondents with higher GPAs were more likely than their lower GPA counterparts to report being vaccinated against HPV, influenza, measles-mumps-rubella, and meningitis, and using sunscreen regularly.
- 

**Table 6. Percentage of Respondents Who Report Having Done Various Disease Prevention or Early Detection Procedures, by Background: 2022**

Prevention/Early Detection Step			% Who Answered Yes									
	%	%	GENDER		RACE/ETHNICITY			STUDENT STATUS		CUMULATIVE GPA		
	Yes **	Don't Know	Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof.	A	B	C/D/F
Vaccinated against hepatitis B	78.8%	12.4%	74.9%	82.3% *	82.4%	74.7%	60.7% *	78.8%	79.1%	79.4%	78.5%	66.7%
Vaccinated against Human Papilloma Virus/HPV	65.9%	13.4%	60.3%	70.9% *	71.8%	60.7%	31.8% *	67.6%	59.3% *	65.0%	69.1%	50.0% *
Vaccinated against influenza in last year (short or nasal mist)	59.2%	5.9%	55.1%	62.8% *	60.5%	58.4%	50.6%	55.2%	73.5% *	61.8%	54.2%	35.3% *
Vaccinated for measles, mumps, rubella	78.2%	12.5%	72.6%	83.0% *	83.7%	72.1%	50.6% *	76.3%	84.9% *	79.5%	76.4%	62.7% *
Vaccinated against meningococcal disease	75.8%	14.1%	70.6%	80.6% *	81.6%	72.1%	37.6% *	76.2%	74.0%	76.3%	76.0%	60.8% *
Vaccinated against varicella (chicken pox)	74.9%	12.0%	69.8%	79.4% *	79.1%	70.1%	53.6% *	76.4%	69.3% *	75.8%	74.0%	60.8%
Had dental exam & cleaning in last year	76.2%	1.6%	73.6%	78.5%	80.1%	70.2%	61.7% *	78.3%	68.6% *	77.4%	76.2%	70.6%
Perform testicular exam in past month (males)	34.4%	3.6%	34.4%	--	41.2%	26.9%	7.8% *	33.9%	36.2%	30.4%	42.7%	35.0% *
Perform breast exam in past month (females)	37.6%	1.9%	--	37.6%	40.6%	34.5%	18.2% *	35.4%	45.3% *	39.8%	30.5%	38.7%
Had routine gynecological exam in last year (females)	41.5%	1.3%	--	41.5%	46.1%	31.6%	36.4% *	36.0%	60.4% *	44.5%	33.7%	41.9%
Used sunscreen regularly with sun exposure	56.7%	0.6%	46.0%	66.1% *	64.3%	44.0%	32.5% *	54.4%	65.2% *	60.9%	49.9%	43.1% *
Ever been tested for Human Immuno-deficiency Virus/HIV	24.1%	4.5%	19.1%	28.4% *	26.3%	20.5%	16.9% *	20.6%	36.9% *	24.4%	22.1%	23.5%
* $p(\chi^2) < .05$												

\*\* The percentage who said they had not done each of these is not reported in the table but can easily be calculated by summing the percentage who said they had done it and the percentage who said they did not know if they had done it and then subtracting this sum from 100%. The result is the percentage of respondents who said they had not done this.

## RESULTS: Alcohol, Tobacco, and Other Drugs

**FREQUENCY OF USE.** The questionnaire included a series of questions on the use of tobacco, alcohol and other drugs. Respondents were asked to report the number of days they had used each of eighteen different types of substances over the previous 30 days. Table 7 shows the percentage distribution of responses for each of these eighteen types of substances. The table indicates that:

- Eight out of ten (81.1%) of the respondents reported never having smoked cigarettes at all – virtually the same as in 2020 and 2018 and up gradually from 61.8% in 2010. Another 13.5% reported not having smoked in the previous 30 days; only 1.6% of respondents claimed to have smoked cigarettes 6 or more days out of the previous 30 – continuing a steady decline since 2010.
- One in fifty (1.5%) respondents claimed to have smoked tobacco from a hookah (i.e., water pipe) in the past month – about the same as in 2020 and 2018 and still down from 5.1% in 2016, 10.6% in 2014.

**Table 7. Percentage of Respondents Who Used Various Kinds of Drugs, Alcohol or Tobacco in the Past 30 Days: 2022**

In past 30 days, on how many days did you use:	Never	Not in Past Month	1-2 Days	3-5 Days	6 or More Days
Cigarettes	81.1%	13.5%	2.8%	1.0%	1.6%
Tobacco from a Hookah	87.0%	11.4%	0.8%	0.4%	0.3%
e-Cigarettes	67.2%	13.8%	4.2%	1.9%	12.9%
Cigars	84.1%	13.5%	1.9%	0.2%	0.3%
Smokeless tobacco	91.8%	6.2%	0.7%	0.4%	0.8%
Alcohol (beer, wine, liquor)	20.1%	12.1%	21.3%	16.5%	30.0%
Marijuana	50.0%	20.3%	9.3%	4.6%	15.7%
Cocaine	93.4%	5.6%	0.6%	0.0%	0.4%
Methamphetamines	98.4%	1.4%	0.1%	0.1%	0.0%
Other amphetamines	95.4%	3.0%	0.3%	0.1%	1.2%
Sedatives	97.4%	2.0%	0.2%	0.3%	0.1%
Hallucinogens	92.5%	6.3%	0.7%	0.3%	0.2%
Steroids	98.4%	0.9%	0.1%	0.3%	0.3%
Opiates	98.7%	1.0%	0.1%	0.1%	0.2%
Inhalants	98.2%	0.9%	0.4%	0.4%	0.2%
MDMA	96.1%	3.5%	0.2%	0.0%	0.2%
Other club drugs	98.4%	1.3%	0.1%	0.0%	0.2%
Other illegal drugs	97.6%	1.9%	0.4%	0.0%	0.2%

- More than eight out of ten respondents (84.1%) said they had never smoked cigars and 91.8% said they have never used smokeless tobacco – virtually the same as in 2020 and similar to 2018



findings. Only 1.9% of respondents claimed to have used smokeless tobacco in the previous 30 days – virtually the same as in 2020, 2018 and 2016, which was down from 5.9% in 2014 – while 2.5% claimed to have smoked cigars at least once in this time period – the same as in 2020.

- A question about smoking e-cigarettes had been added to the NCHA questionnaire in 2016. In 2022, 67.2% of respondents said they had never smoked an e-cigarette – virtually the same as in 2020 and down from 77.5% in 2018 and 82.4% in 2016. The percentage that reported having smoked at least one during the previous month increased to 19.0%, up from 16.6% in 2020, 13.3% in 2018, and 6.1% in 2016. Furthermore, nearly seven out of ten of these respondents – 12.9% of all respondents (compared to 9.8% in 2020, 6.5% in 2018, 3.0% in 2016) – reported smoking e-cigarettes six or more days in the past month.
- By contrast, 20.1% said they had never drunk alcohol – up somewhat from the 16.3% reported in 2020 and 16.9% in 2018. Another 12.1% reported they had not drunk alcohol in the previous 30 days – also similar to the results of the three prior surveys. Three out of ten (30.0%) claimed to have drunk alcohol on six or more of the previous 30 days – down slightly from the 33.0% reported for 2020, which was similar to the findings for 2018 and 2016, continuing the decline from 38.1% in 2012 and 39.3% in 2010.
- 50.0% claimed never to have used marijuana – down from the 53.7% found in 2020, 59.7% in 2018, 62.5% in 2016, 58.9% in 2014, 58.5% in 2012, and 61.0% in 2010 – while another 20.3% reported not having used it in the previous month; however, 15.7% reported having used it on six or more days in the previous month – up slightly from 13.0% in 2020, which was up from 7.4% in 2018, 8.9% in 2016, 11.0% in 2014, 9.9% in 2012, and 8.4% in 2010.
- 93.4% of respondents claimed to have never used cocaine – similar to the 95.1% in 2020, 93.7% in 2018, and the 96.0% reported in 2016, 2014 and 2012.
- 1.0% or fewer of respondents reported having used methamphetamines, steroids, opiates, sedatives, MDMA, inhalants or some other illegal drug in the previous month; less than 2% reported having used hallucinogens or other amphetamines in the previous month.

Table 8 shows the overall percentages of respondents who reported using these various drugs one or two days in the previous month or three or more days. The table also compares the percentages of respondents

Table 8. Percentage of Respondents Who Used Various Drugs, Alcohol or Tobacco in Past 30 Days, by Background: 2022												
Substance	% 1-2 Days	% 3 or More Days	% Who Answered 1 or More Days									
			GENDER		RACE/ETHNICITY			RESIDENCE		CUMULATIVE GPA		
			Male	Female	White Domestic	Other Domestic	Internatl	On Campus	Off Campus	A	B	C/D/F
Cigarettes	2.8%	2.5%	6.3%	4.6%	5.7%	3.0%	10.6% *	5.0%	5.6%	5.0%	5.6%	11.8%
Tobacco from a hookah	0.8%	0.8%	1.5%	1.6%	0.9%	2.3%	3.5%	1.2%	1.8%	1.1%	2.4%	0.0%
e-Cigarettes	4.2%	14.8%	20.1%	18.0%	22.4%	12.9%	9.4% *	16.7%	20.3%	18.5%	20.3%	23.5%
Cigars	1.9%	0.5%	3.7%	1.3% *	2.6%	2.0%	3.5%	2.2%	2.6%	2.3%	3.2%	0.0%
Smokeless tobacco	0.7%	1.3%	3.3%	0.7% *	2.4%	1.0%	2.4%	1.7%	2.2%	1.5%	3.2%	2.0%
Alcohol (beer, wine, liquor)	21.3%	46.6%	65.2%	70.2%	75.4%	52.6%	54.8% *	53.4%	76.1% *	65.5%	71.1%	80.0% *
Marijuana	9.3%	20.3%	31.4%	28.2%	34.3%	23.4%	9.4% *	23.6%	33.2% *	27.4%	33.4%	45.1% *
Cocaine	0.6%	0.4%	1.5%	0.5%	0.5%	1.7%	1.2%	0.5%	1.2%	0.3%	2.6%	0.0% *
Methamphetamines	0.1%	0.2%	0.2%	0.2%	0.0%	0.3%	1.2% *	0.2%	0.3%	0.1%	0.6%	0.0%
Other amphetamines	0.3%	1.2%	1.7%	1.6%	1.4%	2.0%	1.2%	1.4%	1.6%	1.1%	2.6%	0.0%
Sedatives	0.2%	0.4%	0.9%	0.3%	0.5%	0.3%	1.2%	0.7%	0.7%	0.3%	1.8%	0.0% *
Hallucinogens	0.7%	0.5%	0.9%	1.3%	1.0%	1.0%	1.2%	0.2%	1.6% *	1.0%	1.2%	3.9%
Steroids	0.1%	0.6%	0.9%	0.3%	0.4%	1.0%	1.2%	0.7%	0.5%	0.4%	1.5%	0.0%
Opiates	0.1%	0.2%	0.2%	0.3%	0.1%	0.3%	1.2%	0.2%	0.3%	0.1%	0.9%	0.0%
Inhalants	0.4%	0.5%	1.5%	0.3% *	0.7%	1.3%	1.2%	1.0%	0.8%	1.0%	0.9%	0.0%
MDMA	0.2%	0.2%	0.6%	0.2%	0.3%	0.3%	1.2%	0.5%	0.3%	0.3%	0.6%	0.0%
Other club drugs	0.1%	0.2%	0.2%	0.3%	0.1%	0.3%	1.2%	0.2%	0.4%	0.1%	0.9%	0.0%
Other illegal drugs	0.4%	0.2%	0.7%	0.3%	0.4%	0.3%	1.2%	0.5%	0.5%	0.3%	1.2%	0.0%
* $p(\chi^2) < .05$												

using these drugs one or more days by gender, race/ethnicity, campus residence, and cumulative GPA. The table indicates that:

- Males were more likely than females to report smoking cigars, using smokeless tobacco, and using inhalants.
- Domestic White respondents were more likely to report drinking alcohol, and e-cigarettes and marijuana than their domestic Other and international counterparts; Other domestic respondents were less likely than their counterparts to report smoking cigarettes.
- Those living off campus were more likely than their on-campus counterparts to have smoked marijuana, used hallucinogens, and consumed alcohol.
- Those with “A” GPAs were less likely than those with lower GPAs to report having drunk alcohol and used marijuana in the previous month.

The questionnaire asked respondents to indicate what percentage of students at MSU used cigarettes, alcohol, and marijuana within the previous 30 days. On average, respondents estimated that 21.3% of students smoked cigarettes (down slightly from 23.4% in 2020, continuing the gradual decline from 33.0% in 2012). On average, respondents estimated that 68.9% of students drank alcohol in the previous month (virtually the same as in the surveys since 2012. And, on average, respondents estimated that 49.3% of students smoked marijuana in the previous month (slightly greater than the 46.6% found in 2020 and continuing the gradual increase in the perceived prevalence of marijuana from the 35.4% found in 2012).

As Table 9 indicates, 63.4% of students reported believing that the typical student smoked cigarettes in the previous month while only 5.4% of students actually did. Similarly, 89.4% of students reported believing the typical student smoked marijuana in the previous month, while only 29.7% actually reported doing so. That is, in both of these cases, the ‘typical’ student did not smoke cigarettes or marijuana so students over-estimated the prevalence substantially for both. In the case of alcohol consumption, 93.2% of students believed the typical student drank in the previous month, while 67.8%% of students actually reported doing so. In this case, the ‘typical’ student did drink.

Respondents were also asked to indicate whether they thought the “typical” student at MSU had, in the previous month, used each of these substances daily, one or more days, or not at all. Table 9 shows the results for these two sets of questions. Table 9 also indicates the percentage of respondents who believed that the “typical” student used each of the drugs more often than they did personally. The table indicates that:

- For all types of substances, 35-79% of respondents indicated thinking that “typical” students use the substance more frequently than they do themselves – not only than themselves, but also more than the actual prevalence of use among all students, i.e., they substantially over-estimate how common use of these substances really is.

**Table 9. Percentage of Respondents Who Used Various Kinds of Drugs, Alcohol or Tobacco in the Past 30 Days and the Percentage Who Believe Typical Students Used Various Kinds of Drugs, Alcohol or Tobacco in Past 30 Days: 2022**

	OVERALL						
	In past 30 days, on how many days did you use:			How often do you think typical students used:			% Who Perceive Typical Use > Own Use
	Never, Not in Past 30 days	1 or More Days	Daily	Never, Not in Past 30 Days	1 or More Days	Daily	
Cigarettes	94.6%	5.1%	0.3%	36.6%	58.4%	5.0%	74.7%
Tobacco from a Hookah	98.5%	1.5%	0.0%	49.8%	46.7%	3.5%	68.3%
eCigarettes	81.0%	12.9%	6.1%	13.5%	57.7%	28.8%	78.8%
Cigars	97.5%	2.5%	0.0%	50.9%	46.7%	2.5%	65.0%
Smokeless tobacco	98.0%	1.6%	0.4%	51.8%	44.9%	3.4%	64.5%
Alcohol (beer, wine, liquor)	32.2%	67.0%	0.8%	6.8%	80.3%	12.9%	77.0%
Marijuana	70.3%	23.6%	6.0%	10.6%	73.7%	15.7%	78.7%
Cocaine	99.0%	1.0%	0.0%	59.5%	39.5%	0.9%	58.3%
Methamphetamines	99.8%	0.2%	0.0%	77.7%	21.9%	0.5%	36.8%
Other amphetamines	98.4%	1.0%	0.5%	69.2%	29.4%	1.3%	44.9%
Sedatives	99.4%	0.6%	0.1%	70.1%	29.1%	0.8%	47.3%
Hallucinogens	98.8%	1.2%	0.0%	65.3%	34.2%	0.5%	53.6%
Steroids	99.3%	0.5%	0.1%	68.6%	30.6%	0.8%	45.4%
Opiates	99.7%	0.3%	0.0%	78.3%	21.1%	0.6%	35.1%
Inhalants	99.1%	0.9%	0.0%	77.9%	21.8%	0.3%	36.9%
MDMA	99.6%	0.4%	0.0%	69.3%	30.0%	0.7%	48.9%
Other club drugs	99.7%	0.3%	0.0%	74.6%	25.0%	0.4%	41.7%
Other illegal drugs	99.5%	0.5%	0.0%	72.9%	26.5%	0.6%	45.2%

- Roughly three-quarters or more indicated thinking that typical students drink, or smoke cigarettes, e-cigarettes, or marijuana more than they do personally.
- While more than 90% of students reported *not having ever tried* each of the illegal substances (except marijuana), yet 40-60% of students indicated thinking that typical students had tried them or used them recently.
- While less than 1% of respondents reported drinking alcohol daily in the previous month, nearly 13% of respondents (12.9%) believed that the typical students drank daily.

**UNPRESCRIBED USE OF PRESCRIPTION DRUGS.** Additionally, the questionnaire asked respondents to indicate if, in the previous twelve months, they had taken any of several prescription drugs that were not prescribed to them. Among all respondents, 3.0% reported having taken an antidepressant (e.g., Celexa, Lexapro, Prozac, Wellbutrin, Zoloft), 0.7% reported having taken an unprescribed erectile dysfunction drug (e.g., Viagra, Cialis, Levitra), 1.8% reported having taken an unprescribed pain killer (e.g., OxyContin, Vicodin, Codeine), 1.7% reported having taken an unprescribed sedative (e.g., Xanax, Valium), and 5.2% reported having taken an unprescribed stimulant (e.g., Ritalin, Adderall).

Figure 5 shows the findings for each of these across the six surveys since 2010. The figure indicates that there has been little change since 2010 in the percentages of students who reported using antidepressants, erectile dysfunction medications or sedatives. However, the figure also shows that there have been continuing declines in the percentages who reported using stimulants and pain killers since 2010.

Nearly nine out of ten (91.6% – up slightly from 88.3% in 2020 and continuing the gradual increase from 81.6% in 2010) reported having taken none of these types of drugs without a prescription in the previous year, while 6.2% reported having taken just one of these types. This represents a 55% reduction in the prevalence of prescription drug misuse since 2010.

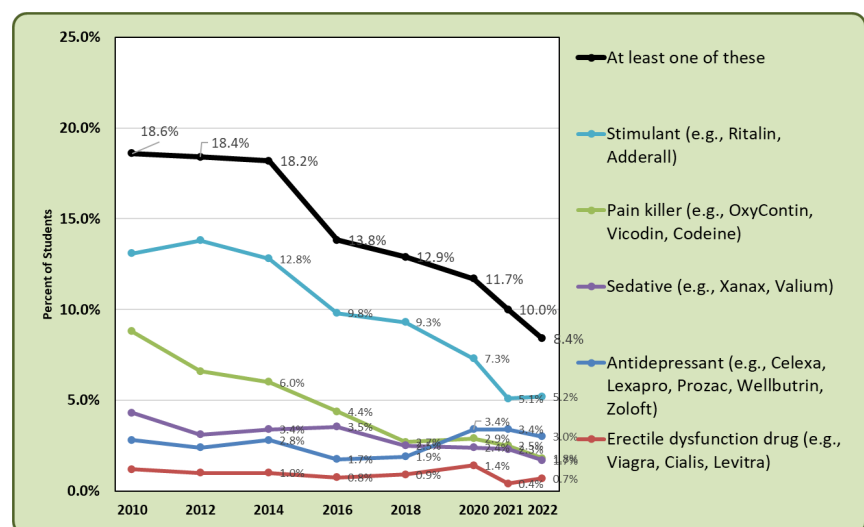
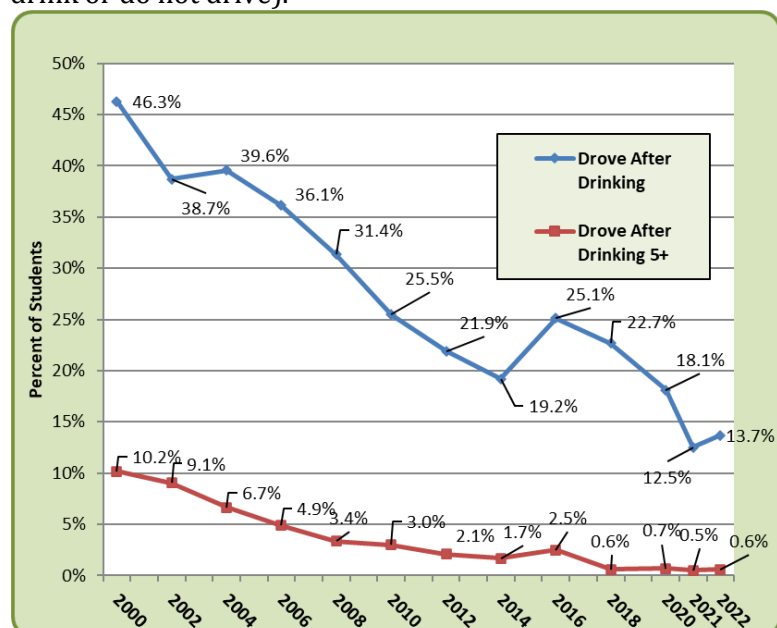


Figure 5. Percentage Misusing Prescription Drugs: 2010-2022

**ALCOHOL USE AND DRIVING.** The questionnaire asked respondents if, in the previous 30 days, they had driven after drinking any alcohol and if they had driven after having had five or more drinks. Figure 6 below shows the percentage of students in each of the surveys from 2000 to 2022 who said they had done each of these at least once in the previous month (excluding the students who said they do not drink or do not drive).



**Figure 6. Percentage Who Drove After Drinking, Consuming 5 or More Drinks: 2000 to 2022**

- 13.7% of the respondents (who drive and who drink) reported having driven after drinking at least some alcohol at least once in the previous 30 days – this is down from 18.1% in 2020, 22.7% in 2018 and 25.1% in 2016, and less than half the 46.3% in 2000 – a 70% decline.
- Less than 1% of the respondents who drink and who drive reported driving after having five or more drinks at least once in that time, continuing the downward trend from the 10.2% in 2000 – a 94% decline.

In 2022, among respondents who drive and who drink, males were more likely to report having driven after drinking alcohol than were females (16.8% vs. 11.2%).

Graduate/professional students were more likely to drive after drinking than were undergraduates (30.1% vs. 9.1%) partly because more of them live off campus. While the percentage of graduate/professional students who drove after drinking has changed little since 2014, the percentage of undergraduates who did so has declined more substantially from 14.3% in 2014. Those who live off campus were more likely to drive after drinking than those who live on campus (17.1% vs. 4.8% – both down from 24.1% and 3.8% respectively in 2020, 27.7% and 7.9% in 2018 and the 31.3% vs. 10.7% in 2016). Additionally, older students were more likely to drive after drinking than were younger students (29.4% among 24+-year-olds vs. 11.0% among 22-23-year-olds vs. 13.5% among 20-21-year-olds vs. 1.3% among 18-19-year-olds).

There were no significant differences regarding driving after drinking 5 or more drinks by sex, age group, academic status, residence, race/citizenship, or GPA.

**ALCOHOL AND THE LAST TIME PARTIED.** Respondents were asked to indicate for how many hours they drank alcohol the last time they “partied” and then the number of alcoholic drinks they consumed during this time. The results for all respondents are shown in Table 10.

The table indicates that, among all respondents, the average number of drinks consumed the last time “partied” or socialized was 3.32 – compared to 2.93 in 2021 during the pandemic when students off campus and taking classes remotely vs. 3.45 in 2020, 3.57 in 2018, 3.31 in 2016, 4.08 in 2014 and 4.46 in 2012; however, this average includes the numerous students who do not drink alcohol at all and those who did not drink the last time they “partied” or socialized. The second row of the table and the subsequent analyses are based on only those respondents who reported drinking at least one drink the last time they “partied.”

- Among those who drank, the average number of drinks reported was 4.64, up slightly from the 4.27 in 2021, but down from the 4.74 in 2018, 4.52 in 2016, 5.16 in 2014, and 5.59 in 2012.
- The average number of hours over which the drinking occurred increased slightly to 3.97 compared to 3.81 in 2021, 3.77 in 2020, and 3.82 in 2018. Consequently, the average Blood Alcohol Content (BAC) dropped slightly in 2022 to 0.042 from 0.054 in 2021, 0.056 in 2020, continuing the decline in average BAC since the 0.083 in 2012.
- The average number of drinks reported for both males and females increased slightly in 2022 compared to 2020 but still down from 2018 (i.e., males = 5.77 vs. 5.23 in 2020 vs. 5.91 in 2018; females = 3.77 vs. 3.67 in 2020 vs. 3.74 in 2018). The calculated BAC was a bit higher for females than males; it had increased slightly for males in 2022 (0.054 compared to 0.056 in 2020) while it continued to decline for females (0.061 compared to 0.060 in 2020, 0.070 in 2016).
- Males reported, on average, more occasions in which they consumed five or more drinks in the previous two weeks than females. The average number of occasions reported by males (1.28 times)

**Table 10. Mean Numbers of Drinks, Hours Drinking, Calculated Blood Alcohol Content (BAC) Last Time “Partied,” and Times Drank 5 or More Drinks in Past Two Weeks, Overall and by Demographic Group: 2022**

Demographic Group	Mean			
	Number Of Drinks	Hours Drinking	BAC	Number Times Drank 5+
All respondents	3.32	2.84	0.042	.76
Respondents who drank	4.64	3.97	0.058	1.05
Gender				
Males	5.77	4.14	0.054	1.28
Females	3.77	3.83	0.061	.88
	p<.05	p<.05	NS	p<.05
Race				
White	4.89	4.19	0.060	1.1
Other	4.16	3.49	0.055	.8
International	3.20	2.82	0.048	.9
	p<.05	p<.05		p<.05
Age				
18-19	4.52	3.68	0.070	1.2
20-21	5.26	4.08	0.068	1.2
22-23	4.70	3.77	0.061	1.2
24 or older	3.41	4.23	0.023	.5
	p<.05	p<.05	p<.05	p<.05
Residence				
On campus	4.45	3.73	0.066	1.1
Off campus	4.72	4.07	0.055	1.0
	NS	p<.05	p<.05	NS
GPA				
A	4.33	3.97	0.056	1.03
B	4.84	3.94	0.063	1.12
C or less	7.23	3.93	0.060	1.19
	p<.05	NS	NS	NS
Member of Frat./Soror.				
YES	6.53	4.35	0.082	2.01
NO	4.37	3.91	0.055	.91
	p<.05	p<.05	p<.05	p<.05
Student Status				
Undergraduate	4.96	3.94	0.066	1.21
Grad./Prof.	3.37	4.07	0.029	.42
	p<.05	NS	p<.05	p<.05

NS: Not significant F statistic

was down compared to 2020 (1.42 times) and 2018 (1.45 times) whereas it remained virtually the same among females (0.88 times compared to 0.86 times in 2020 and 0.69 times in 2018) but was similar to the average number times reported in 2016 (0.82 times).

- On average, domestic White respondents reported drinking more drinks over longer periods of time than domestic students of Other racial or ethnic backgrounds and reported more occasions in the previous two weeks when they consumed five or more drinks. International students reported averages on these that were generally lower than among both groups of domestic students.
- In general, younger students reported drinking fewer drinks and over shorter periods of time resulting in higher blood alcohol levels on average than their older student counterparts.
- On-campus students drank similar numbers of drinks, but over shorter periods of time compared to off-campus students resulting in, on average, higher blood alcohol levels. This was similar to the results of the six previous surveys (excluding 2021 when students were not living on campus).
- Respondents who were members of fraternities or sororities reported drinking, on average, more drinks resulting in appreciably higher average blood alcohol levels compared to non-members. The average BAC reported in 2022 was similar for both groups to their results in previous surveys (members: BAC = 0.082 in 2022 vs. 0.070 in 2020 vs. 0.077 in 2018 vs. 0.072 in 2016 vs. 0.089 in 2014; non-members: BAC = 0.055 in 2022 vs. 0.054 in 2020 vs. 0.061 in 2018 vs. 0.062 in 2016 vs. 0.072 in 2014). Members of fraternities or sororities reported drinking five or more drinks on more occasions in the previous two weeks than did non-members (i.e., 2.0 vs. 0.9), but the average number of occasions reported by fraternity/sorority members was still somewhat lower than in 2014 (i.e., 2.3) although it was higher than in 2020 (1.7 times).
- The average number of drinks, blood alcohol level, and number of occasions they drank five or more drinks were significantly greater among undergraduates than among graduate and professional students.

Alcohol consumption is an area where there have been concerted efforts at MSU since 2001 to reduce high-risk drinking and increase behaviors or strategies that may protect the drinker from some adverse consequences. The goal of the effort is not to increase abstinence but, rather, to reduce the likelihood of harm as a consequence of alcohol consumption. Figure 7 (along with Figure 6 and Figures 8-11) helps assess the impact of those efforts.

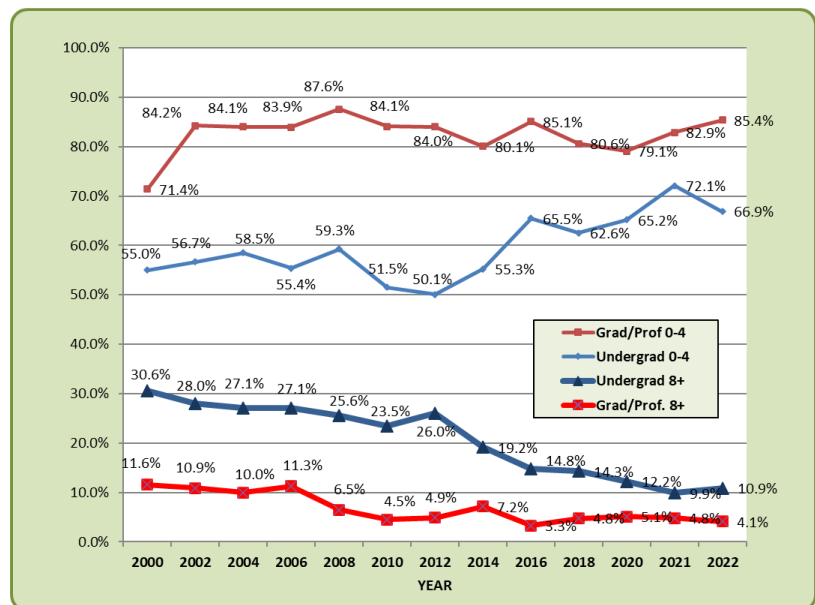


Figure 7 indicates that there has been little change from 2002 to 2020 in the percentage of graduate/professional students who reported consuming 0-4 drinks when they last “partied” while the percentage of undergraduates doing so has fluctuated slightly above or slightly below roughly 55% until increasing in 2016 through 2020. More importantly, Figure 7 shows that, there have been relatively steady declines in the percentages of both undergraduates and graduate/professional students who reported consuming eight or more drinks the last time they “partied.”

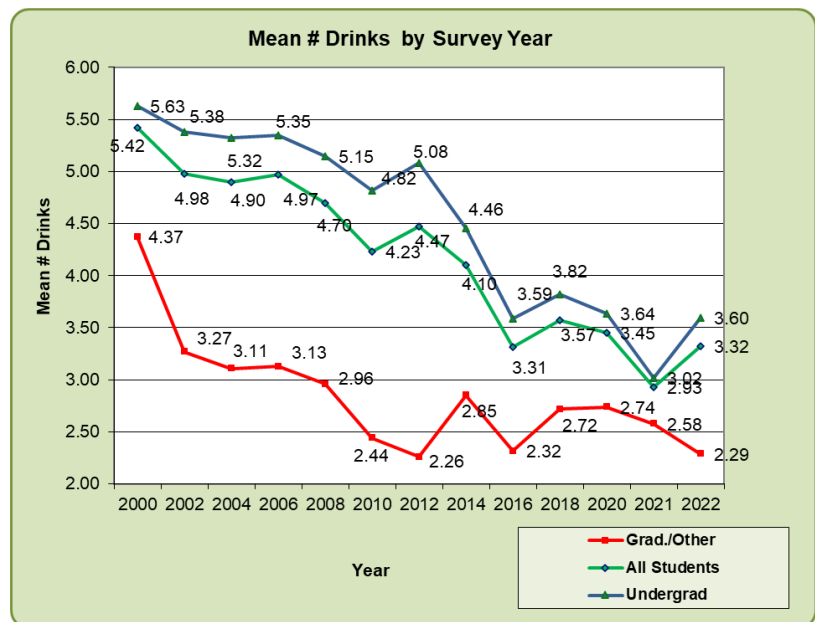
The overall impact of the effort is also reflected in Figure 8. This figure shows the average numbers of drinks reported by all students, by just undergraduates, and by just graduate/professional students the last time they “partied” for the surveys conducted from 2000 to 2020.

The figure shows that the average number of drinks reported by undergraduates had declined from 5.6 in 2000 to 4.8 in 2010 (a 14% decrease), increased to 5.1 in 2012, and then declined to 3.6 in 2016 and 3.0 in 2021 during the pandemic and then returned to 3.6 in 2022. The figure also shows that there had been a continuing decline among the graduate and professional students from 4.4 drinks in 2000 to 2.3 in 2012, rose to 2.9 in 2014, and then declined to 2.7 in 2018 and 2.3 in 2022. For all students, the decline has been from 5.4 in 2000 to 3.3 in 2022 – a 39% decline.

The approach being used to reduce high-risk drinking assumes that students often over-estimate what most students do and attempts to correct this misperception by distributing accurate information about what most students actually do. If this approach works, then there should be a decrease in the perceived



**Figure 7. Percentage of Undergrads, Graduate/Professional Students Who Reported 0-4, 8+ Drinks the Last Time They "Partied:" 2000 to 2022**



**Figure 8. Average Number of Drinks Consumed Last Time "Partied" for All Students, Undergrads, Grad/Professional Students: 2000 to 2022**

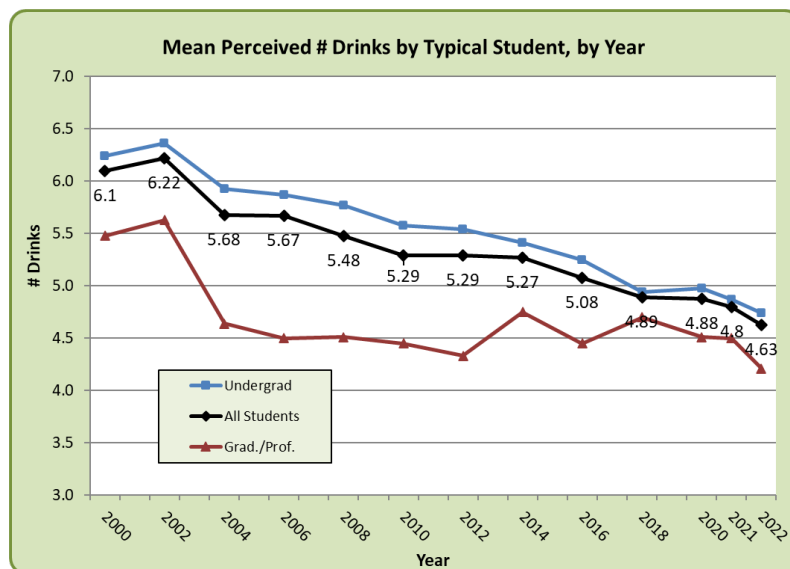
number of drinks students believe that students typically consume when they party as the efforts to correct the misperception continue over time. Respondents were asked to indicate how many alcoholic drinks they thought the “typical” MSU student had the last time he or she partied. On average, respondents indicated thinking that the “typical” student drank 4.6 drinks the last time the “typical” student “partied”. This is slightly less than the 4.9 drinks reported in 2018 and 2020, 5.1 drinks in 2016, and 5.3 drinks reported in 2014, and is much less than the 6.1 drinks students believed to be typical in 2000 before the effort to correct the misperception began.

Figure 9 shows the change from 2000 to 2022 in the average number of drinks students perceived the “typical” student drank the last time they “partied.”

The figure indicates that:

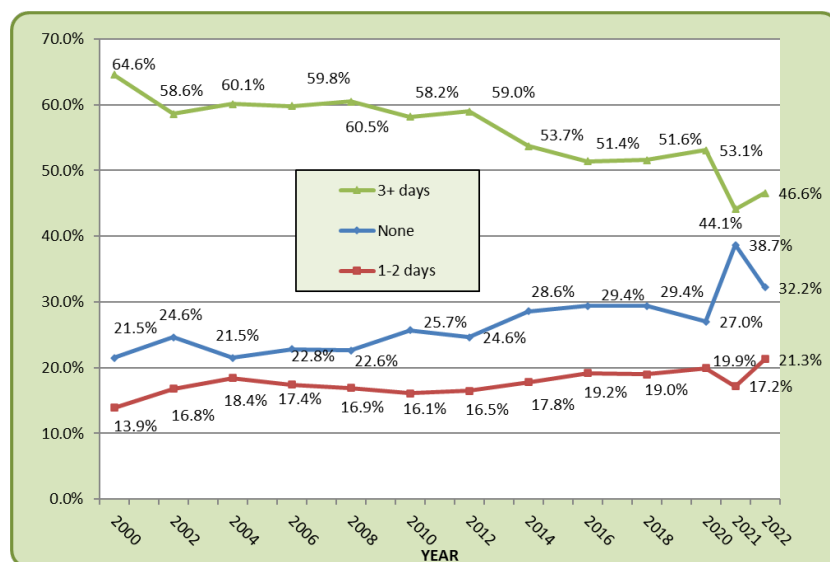
- There has been a substantial downward shift in students’ perceptions as to the number of drinks the “typical” student consumes.
- Undergraduates believe the “typical” student drank significantly more than graduate and professional students believe.

Over the past twenty years while the campaign to reduce high risk drinking has been underway, student perceptions as to what amount of drinking is typical has changed, the average number of drinks students consume when partying and percentages of students who drink larger quantities has declined, and the percentages of students who drive after they have been drinking have declined.



**Figure 9. Average Number of Drinks All Students, Undergrads, Grad/Professional Students Believe "Typical" Student Drank Last Time "Partied:" 2000 to 2022**

Additionally, Table 7 showed the percentages of students who reported how often they drink alcohol. For purposes of comparison across time, we have regrouped the responses to the item regarding alcohol use in Table 7 into three categories – do not drink alcohol at all or not in the past month, drank alcohol one or two days in the past month, and drank alcohol three or more days in the past month. Figure 10 shows the



**Figure 10. Percent Distribution Regarding Drinking Frequency per Month: 2000 to 2022**

percentage distribution of this breakdown among all students for each of the survey years since 2000.

The figure indicates there has been a general increase in the percentage of students who drink infrequently – not at all or only one or two days per month, and a general decrease in the percentage of students who drink three or more times per month. Since 2000, the percentage of students who reported drinking three or more days in the previous month declined by 28%, while the percentage of students who reported not drinking at all or not in the previous month increased by 50%.

**ALCOHOL-PROTECTIVE BEHAVIORS.** The questionnaire also included a series of questions regarding how often the respondent did various things to protect themselves from possible harms associated with alcohol consumption, e.g., having a designated driver, eating food before or while drinking, setting a drink limit in advance, pacing consumption to one or fewer drinks per hour, etc. These activities are often referred to as “protective behaviors” since they have been shown to reduce the likelihood of adverse consequences of alcohol consumption. The questionnaire used since 2010 included two such activities that were not asked about on the questionnaires used from 2000 to 2008 and did not ask about one activity that had been included previously. Therefore, comparisons to earlier survey results are limited. The comparisons are further compromised by a change in how the response options to the questions were formatted.

Table 11 shows the percentages of respondents who drink who reported doing each of eleven different strategies for drinking responsibly either always, usually, sometimes, rarely, or never. The results for each of these was at its lowest point in 2010, but the percentages of students who reported always or most of the time doing these have increased generally from 2010 to 2020. The table indicates that:

- More than half indicated they at least sometimes pace their drinking to 1 or fewer drinks per hour (56.6% – virtually the same as in 2020, 2018 and 2016), avoid drinking games (46.7% – down slightly from 50.5% in 2020), have a friend let them know when they have had enough (58.5% – similar to the 59.6% in 2020 and the 57.8% in 2018), or choose not to drink (57.1% – similar to the 59.7% in 2020, 55.7% in 2018, 62.9% in 2016, and 59.8% in 2014).
- More than two-thirds reported that they at least sometimes alternate non-alcoholic drinks with alcoholic beverage (67.1%) while six out of ten determined in advance not to drink more than a specific number of drinks (61.5%), down slightly from the 63.3% reported in 2020.
- More than eight out of ten reported that they at least sometimes keep track of the number of drinks they have had (82.8%, down slightly from 85.2% in 2020) and that they at least sometimes stick with the same kind of alcohol (84.5%, the same as in 2020).
- More than nine out of ten reported that they at least sometimes use a designated driver (95.0% – virtually the same as in 2020 and up slightly from the 94.1% in 2018, 92.9% in 2016, and 93.2% found in 2014), stay with the same group of friends while drinking (98.3%, – up slightly from 97.9% in 2020, 96.7% in 2018 and 2016, and from 95.5% in 2014), or eat before or while drinking (96.2%, down slightly from 97.8% in 2020 but similar to prior years..

**Table 11. Percentage Distribution How Often Respondents Who Partied Took Various Steps to Drink Responsibly: 2022**

During the last 12 months, if you partied, how often	Most of the Time				
	Never	Rarely	Sometimes	Most of the Time	Always
Alternated non-alcoholic with alcoholic beverages	15.0%	17.9%	29.3%	24.2%	13.6%
Avoid drinking games	28.5%	24.8%	20.9%	12.6%	13.1%
Chose not to drink alcohol	16.6%	26.3%	39.3%	14.6%	3.2%
Determined not to exceed number drinks	24.8%	13.7%	25.0%	20.7%	15.8%
Ate before/during drinking	1.2%	2.7%	13.6%	43.5%	39.1%
Have friend let you know when you've had enough	26.9%	14.6%	17.7%	17.8%	23.0%
Kept track of how many drinks were having	6.8%	10.3%	15.7%	25.5%	41.6%
Paced drinks to 1 or fewer per hour	21.9%	21.5%	25.8%	16.0%	14.8%
Stayed with same group of friends	0.6%	1.1%	5.9%	32.6%	59.8%
Stick with one kind of alcohol	3.2%	12.3%	32.0%	35.6%	16.9%
Use a designated driver	3.6%	1.4%	5.9%	15.0%	74.1%

- Among those who drink at least occasionally, the average number of protective behaviors respondents reported doing at least sometimes was 8.0 – virtually the same as in 2020, 2018, 2016, and 2014.
  - Among those who drank 0-4 drinks the last time they “partied,” the average number of protective behaviors they reported doing at least sometimes was 8.5 – virtually the same as the previous five surveys.
  - Among those who drank 5-7 drinks, the average number of protective behaviors they reported doing at least sometimes was 7.5, as it was in 2020, 2018, 2016, 2014, and 2012.
  - Among those who drank 8 or more drinks, the average number of protective behaviors they reported doing at least sometimes was 6.3 – similar to the 6.5 reported in 2020 and each of the surveys since 2012.

Table 12 compares the responses regarding using these protective behaviors based on gender, race, age, residence location, GPA, student status, and membership in Greek organizations. Table 12 shows the percentage of respondents who said they always or usually do the various protective behaviors. Table 12 indicates that:

- Females were more likely than males to report always or usually doing eight of the eleven protective behaviors – although not necessarily all at the same time. The protective behaviors on which males and females did not differ significantly were choosing not to drink, eating before or while drinking, and tracking the number of drinks consumed.
- Domestic White respondents were less likely than their domestic counterparts of Other racial or ethnic backgrounds and international students to choose not to drink, to have a friend tell them when they have had enough. International students were more likely than their domestic counterparts to avoid drinking games, set a drink limit ahead of time, have a friend tell them when they have had enough, and to stick with one kind of alcohol.
- There were statistically significant differences across age groups of respondents on eight of the eleven protective behaviors; however, the patterns of the differences were not consistent.

Table 12. Percentage of Respondents Who Partied Who Always or Usually Took Various Steps to Drink Responsibly, by Background Characteristics: 2022												
During the last 12 months, if you partied, how often did you...		Alternate Alc. & Non-Alc. Drinks	Avoid Drinking Games	Choose Not to Drink	Determine not to Exceed Number Drinks	Ate Before/ During Drinking	Have Friend Tell When Had Enough	Track How Many Drinks	Paced Drinks ≤ 1 per Hour	Stay with Friends	Stick with One Kind of Alcohol	Use Designated Driver
Gender	Males	33.3%	22.3%	16.6%	31.1%	81.6%	34.2%	64.1%	23.2%	88.4%	44.6%	84.2%
	Females	41.6%	28.5%	18.7%	40.8%	83.4%	46.1%	69.5%	37.0%	95.5%	59.0%	93.2%
		p<.05	p<.05	NS	p<.05	NS	p<.05	NS	p<.05	p<.05	p<.05	p<.05
Race	White	37.4%	23.3%	15.5%	33.8%	83.4%	38.0%	68.4%	29.0%	93.4%	52.6%	90.0%
	Other	40.1%	27.6%	22.0%	41.5%	81.4%	44.6%	60.2%	30.4%	89.2%	47.0%	88.3%
	International	35.2%	49.1%	29.8%	51.9%	77.4%	61.5%	75.5%	52.7%	92.3%	71.2%	83.3%
		NS	p<.05	p<.05	p<.05	NS	p<.05	p<.05	p<.05	NS	p<.05	NS
Age	18-19	42.4%	23.7%	25.2%	42.6%	85.1%	53.2%	77.1%	31.3%	91.7%	56.2%	91.0%
	20-21	34.3%	19.4%	15.3%	30.6%	79.8%	35.6%	62.3%	23.9%	93.6%	49.9%	89.9%
	22-23	28.7%	15.7%	8.7%	30.7%	85.7%	43.2%	65.7%	24.3%	88.6%	45.0%	91.4%
	24 or older	46.6%	48.8%	20.8%	46.2%	84.4%	35.5%	68.2%	50.9%	93.6%	61.0%	83.7%
		p<.05	p<.05	p<.05	p<.05	NS	p<.05	p<.05	p<.05	NS	p<.05	NS
Residence	On campus	39.9%	27.6%	23.9%	41.9%	81.3%	50.4%	72.3%	31.4%	90.4%	50.6%	88.9%
	Off campus	37.0%	24.9%	14.9%	34.1%	83.2%	36.5%	64.8%	30.7%	93.2%	53.4%	89.2%
		NS	NS	p<.05	p<.05	NS	p<.05	p<.05	NS	NS	NS	NS
GPA	A	37.1%	27.9%	18.6%	35.8%	84.0%	40.2%	65.2%	31.8%	91.8%	50.8%	88.6%
	B	38.8%	20.7%	16.8%	36.1%	81.1%	42.2%	72.0%	28.4%	93.2%	54.5%	90.3%
	C or less	38.1%	25.0%	14.0%	42.9%	71.4%	41.9%	50.0%	23.8%	90.5%	58.5%	87.2%
		NS	NS	NS	NS	NS	NS	p<.05	NS	NS	NS	NS
Member of Fraternity or Sorority												
		YES	7.7%	4.8%	21.0%	79.0%	39.6%	65.1%	21.0%	89.3%	50.0%	85.6%
		NO	28.2%	19.4%	38.6%	83.1%	40.9%	67.4%	32.3%	92.9%	52.9%	89.6%
		p<.05	p<.05	p<.05	p<.05	NS	NS	NS	p<.05	NS	NS	NS
Student Status	Undergrad	36.3%	20.0%	17.4%	34.4%	82.2%	41.2%	66.3%	25.3%	92.1%	50.8%	90.6%
	Grad./Prof.	44.0%	47.5%	19.1%	43.9%	84.6%	39.2%	70.7%	52.2%	93.9%	59.4%	83.2%
		NS	p<.05	NS	p<.05	NS	NS	NS	p<.05	NS	p<.05	p<.05
NS: Not significant Chi-square statistic												

- Respondents living on campus were more likely than their off-campus counterparts to report choosing not to drink, to determine not to exceed a specific number of drinks ahead of time, to have a friend tell them when they have had enough and to track the number of drinks consumed.
- Members of fraternities or sororities differed significantly from non-members on five of the eleven protective behaviors. Members were less likely than non-members to alternate alcohol and non-alcohol beverages, avoid drinking games, choosing not to drink, designate a drink limit ahead of time, and pace their drinking.
- Graduate/professional students were more likely than undergraduates to always or most of the time do four of the eleven protective behaviors but were less likely than undergraduates to report using a designated driver.

**ALCOHOL AND UNDESIRABLE CONSEQUENCES.** The questionnaire asked respondents to indicate if they had experienced, at least once during the last twelve months, any of seven different undesirable events because of their drinking. Table 13 shows the results for each of these events.

The table shows the percentage of respondents who drink at least sometimes who reported that the event in question did happen to them during the last year. The table shows the overall results for all surveys since 2010. For 2022, Table 13 indicates that:

More than a third of respondents who drink reported having done something when drinking that they later regretted (37.5%) – up appreciably since 2021 but only slightly from 2020 which was similar to the percentages found in the earlier years. Less than three out of ten (28.6%) reported having drunk to the point where they did not know where they were or what they did (down from the results for 2016 through 2020 and appreciably lower than the percentages found between 2010 and 2014).

- Roughly one in seven (14.3%) reported having injured themselves at least once as a consequence of their drinking; 20.9% reported having had unprotected sex as a consequence of their drinking – similar to most prior years; and 3.7% reported having seriously considered suicide – also similar to the results of the prior surveys.

The table also compares the likelihood of experiencing these events by gender, race/ethnicity, age group, residence location, GPA, and membership in a Greek organization. The table indicates that:

- None of the differences between males and females were statistically significant.
- Domestic students were more likely than international students to report having done something they later regretted, having forgotten where they were or what they did, and injured themselves.

**Table 13. Percentage of Respondents Who Drink Who Report Experiencing Various Health Threatening Consequences of Their Drinking Within the Last Year, Overall and by Background: 2022**

Within the last 12 months, have you experienced ____ as a consequence of your drinking?		% Who Said Yes								
				Got in	Had Sex	Had Sex				
			Forgot	Trouble	Without	Without	Had			Seriously
		Did, Later	Where,	With	Giving	Getting	Unprotected	Injured	Injured	Considered
		Regretted	What	Police	Consent	Consent	Sex	Self	Other	Suicide
Overall:	2022	37.5%	28.6%	0.6%	2.4%	0.1%	20.9%	14.3%	1.1%	3.7%
	2021	29.7%	22.9%	0.6%	1.2%	0.0%	24.2%	10.7%	0.9%	3.7%
	2020	35.7%	31.4%	1.4%	1.1%	0.4%	22.7%	13.1%	0.5%	2.8%
	2018	36.3%	30.9%	1.9%	1.4%	0.8%	23.1%	14.4%	1.2%	2.4%
	2016	39.5%	31.8%	2.0%	3.0%	0.8%	20.1%	13.7%	1.4%	3.5%
	2014	40.1%	38.8%	4.3%	1.3%	0.7%	22.0%	15.9%	2.3%	3.0%
	2012	46.6%	42.2%	6.2%	1.5%	0.9%	22.9%	20.2%	3.1%	2.1%
	2010	37.5%	37.2%	4.9%	1.8%	0.5%	17.6%	16.2%	2.3%	1.0%
Gender	Males	36.4%	28.9%	0.5%	2.4%	0.0%	22.3%	13.7%	1.0%	4.2%
	Females	38.4%	28.3%	0.6%	2.3%	0.2%	19.8%	14.8%	1.3%	3.4%
		NS	NS	NS	NS	NS	NS	NS	NS	NS
Race	White	42.1%	31.2%	0.8%	2.4%	0.0%	23.9%	16.1%	1.1%	4.4%
	Other	27.0%	23.8%	0.0%	2.2%	0.5%	11.4%	9.7%	1.6%	2.7%
	International	20.0%	14.0%	0.0%	2.0%	0.0%	20.0%	8.0%	0.0%	0.0%
		p<.05	p<.05	NS	NS	NS	p<.05	p<.05	NS	NS
Age	18-19	40.5%	31.6%	1.5%	4.7%	0.5%	18.5%	16.4%	1.5%	3.6%
	20-21	45.7%	37.5%	0.9%	2.0%	0.0%	21.9%	19.9%	1.4%	4.0%
	22-23	34.6%	23.3%	0.0%	3.0%	0.0%	25.6%	10.5%	0.0%	3.8%
	24 or older	19.5%	10.6%	0.0%	0.0%	0.0%	18.3%	3.5%	0.6%	2.9%
		p<.05	p<.05	NS	p<.05	NS	NS	p<.05	NS	NS
Residence	On campus	34.7%	29.8%	0.4%	4.2%	0.4%	16.2%	15.8%	1.5%	3.4%
	Off campus	38.8%	28.0%	0.7%	1.5%	0.0%	22.9%	13.6%	1.0%	3.9%
		NS	NS	NS	p<.05	NS	p<.05	NS	NS	NS
GPA	A	37.8%	26.6%	0.6%	1.5%	0.2%	19.8%	13.5%	1.3%	2.8%
	B	37.5%	32.6%	1.1%	3.8%	0.0%	21.7%	17.5%	0.7%	5.6%
	C or less	35.0%	30.0%	0.0%	4.9%	0.0%	27.5%	10.0%	2.4%	2.6%
		NS	NS	NS	NS	NS	NS	NS	NS	NS
Member of Fraternity or Sorority	YES	53.5%	49.0%	1.0%	4.0%	0.0%	40.6%	26.7%	2.0%	3.0%
	NO	35.4%	25.8%	0.5%	2.0%	0.1%	18.1%	12.6%	1.1%	3.9%
		p<.05	p<.05	NS	NS	NS	p<.05	p<.05	NS	NS
Student Status	Undergrad	41.1%	32.9%	0.7%	3.0%	0.1%	22.1%	17.2%	1.3%	4.3%
	Grad./Prof.	23.6%	11.7%	0.0%	0.0%	0.0%	16.3%	3.9%	0.6%	1.1%
		p<.05	p<.05	NS	p<.05	NS	NS	p<.05	NS	p<.05
NS: Not significant Chi-square statistic										

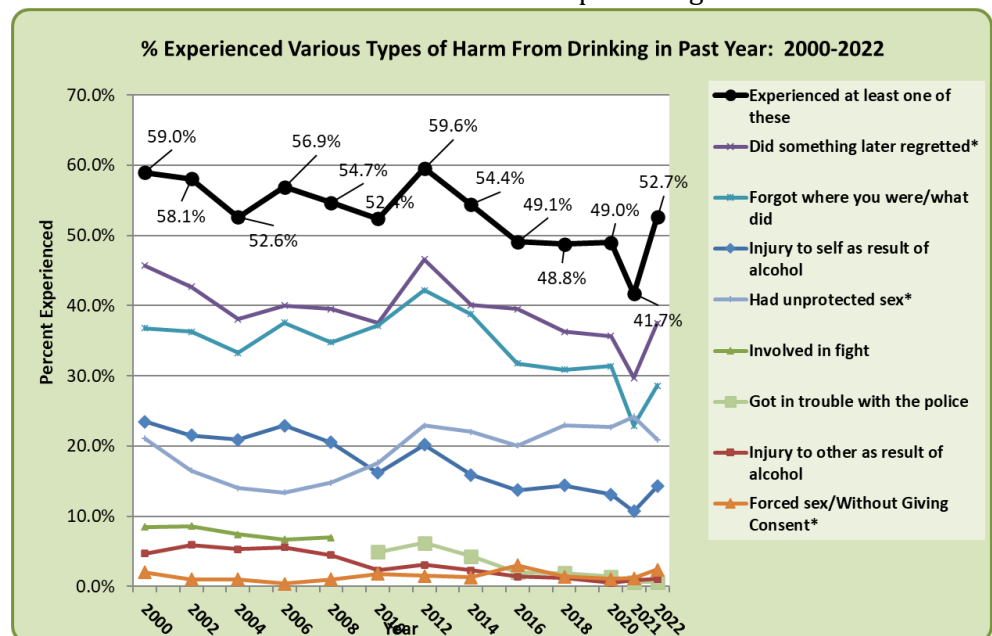
NS: Not significant Chi-square statistic



- Respondents 24 or older were significantly less likely to report drinking enough that they forgot where they were or what they had done, to report having sex without giving consent or to have injured themselves.
- There were no significant differences across GPA groups on any of the types of adverse outcomes; on campus students were somewhat more likely than their off-campus counterparts to report having had sex without giving consent, while off campus students were somewhat more likely to report having had unprotected sex.
- Undergraduates were more likely than graduate/professional students to report having done something they later regretted, forgotten where they were or what they had done, report having seriously considered suicide and having injured themselves.
- Members of fraternities or sororities were more likely than non-members to report doing something they later regretted, having drunk to the point where they did not know where they were or what they did, having unprotected sex, and injuring themselves.

Figure 11 shows the changes that have occurred from 2000 to 2022 in the percentages of students who

reported experiencing each of these adverse outcomes because of drinking. Three of the nine outcomes listed in Table 13 were newly added to the version of the questionnaire administered starting in 2010, and one (being involved in a fight) was no longer included after 2008. Additionally, starting in 2010, the questions asked respondents whether or not they had experienced these outcomes over the past twelve months while the questionnaire administered from 2000 through 2008 asked if they had experienced these outcomes during the last school year. Because of the longer time frame referred to, the percentages should be a bit higher in 2010 and thereafter compared to earlier even if no real increase in the likelihood of experiencing harm from drinking occurred.



**Figure 11. Percentage of Students Who Drink Who Experienced Various Undesirable Outcomes of Drinking in Past Year: 2000 to 2022**

Roughly half the students who drink (52.7%) reported experiencing at least one of these adverse outcomes in 2022 – (up appreciably from the pandemic-year low of 41.7% in 2021 but similar to the percentages in most other recent survey years). The average number of adverse outcomes reported per student was 1.0, virtually the same as in 2020, 2018, 2016, and 2014, but still down somewhat from 1.4 types of adverse outcomes in 2012. In 2022, 51.6% of students who drink reported experiencing none of these adverse outcomes, while 29.0% reported experiencing two or more of these outcomes.

Figure 11 shows that there had been a general decline in the reported incidence of most of these adverse outcomes from 2000 to 2022; although having unprotected sex has increased overall since 2000.

Overall, from 2000 to 2022, the percentage of students who, as a consequence of their drinking, reported:

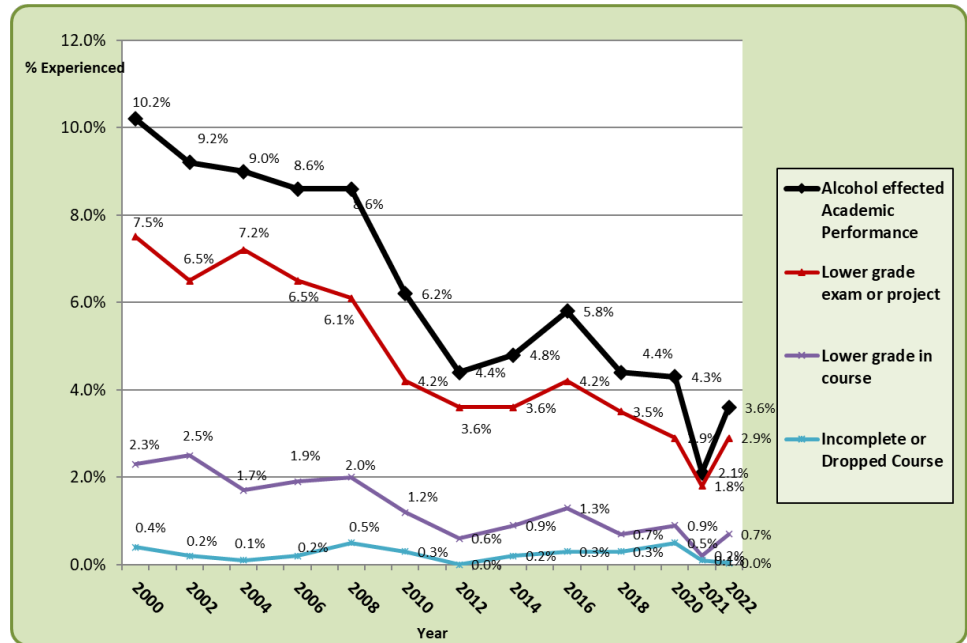
- Doing something they later regretted declined by 18%
- Forgot where they were or what they did declined by 22%
- Injuring themselves declined by 39%
- Being involved in a fight – to 2008 only, not asked in 2010 or subsequent surveys – declined by 18%
- Injuring someone else declined by 77%
- Having forced sex increased by 20% (although this should be viewed cautiously because of wording changes in the question) and
- Experiencing at least one of the adverse outcomes decreased by 11%

From 2010 to 2022 the percentage of students who, as a consequence of their drinking, reported getting in trouble with the police declined by 88%. The decline since 2018 might be attributed to the change in the Minor in Possession (MIP) law that occurred in 2018, shifting a MIP from a misdemeanor to a civil infraction, thereby limiting or altering interaction with police compared to before change in the law; however, this cannot explain the decline prior to 2018.

**ALCOHOL AND ACADEMIC PERFORMANCE.** In a later section of the questionnaire, respondents were asked whether their academic performance had been affected by 31 different health, behavior or relationship issues in the past twelve months and, if so, to what degree. One of the items listed was alcohol use. In 2022, 3.6% of all respondents indicated that their academic performance had been negatively impacted as a result of their alcohol use – down slightly from 4.2% in 2020 and 4.4% found in 2018, but up somewhat from the 2.1% during the 2021 pandemic year. One in thirty-four (2.9%) reported receiving a lower grade on an exam or a project because of their drinking, 0.7% reported receiving a lower grade in a course, and none reported having to drop a course or take an incomplete as a result of their drinking.

Figure 12 below shows the percentage of students experiencing the adverse academic effects of drinking based on the NCHA surveys conducted from 2000 to 2022. The figure indicates that there has been a substantial reduction in the percentage of students negatively impacted academically by alcohol use. From 2000 to 2022, the percentage of students who:

- Dropped a course or took an incomplete because of their alcohol use declined by 25%.
- Received a lower grade in a course because of their alcohol use declined by 61%.
- Received a lower grade on an exam or project because of their alcohol use declined by 61%.
- Experienced any of these negative impacts on their academic performance because of their alcohol use declined by 58%.



**Figure 12. Percentage of Students Experiencing Academic Harm as Result of Their Alcohol Use: 2000 to 2022**

## RESULTS: Sexual Health

The questionnaire included a series of questions regarding sexual behaviors and steps to prevent conception and sexually transmitted diseases. Table 14 shows the percentage distribution of the number of different partners, if any, with whom respondents reported having oral, vaginal, or anal sex during the previous twelve months.

The table indicates that:

- Nearly a third (32.8) reported having no sexual partners during the last year – a 37% increase since 2000.
- 43.8% reported only a single partner – similar to the results of the surveys since 2010.
- 8.8% of respondents reported having had four or more sexual partners during the past year – down slightly from 2020 and the other prior surveys since 2010.

Table 14 also indicates that:

- Graduate/professional students were less likely than undergraduates to report not having had any sexual partners but were much more likely than undergraduates to report having had only one partner in the past year. It is important to note in this regard that 30% of the

Within the past 12 months, with how many partners have you had oral sex, vaginal intercourse, or anal intercourse?		% of All Respondents					Ave. Number of Partners
		None	1	2	3	4 or More	
Overall		32.8%	43.8%	8.1%	6.4%	8.8%	1.4
Student Status							
	Undergrad	34.9%	39.6%	9.3%	6.8%	9.4% *	1.4
	Grad/Professional	25.2%	59.3%	3.7%	5.3%	6.5%	1.3
Gender							
	Males	33.2%	39.3%	8.3%	7.6%	11.5% *	1.6 **
	Females	32.5%	47.8%	7.9%	5.4%	6.4%	1.2
Race/Ethnicity							
	White Domestic	28.5%	48.0%	7.9%	5.7%	10.0% *	1.4
	Other Domestic	39.9%	36.0%	8.6%	7.9%	7.6%	1.4
	International	47.0%	33.7%	8.4%	8.4%	2.4%	1.1
Age							
	18-19	46.2%	32.4%	9.0%	4.8%	7.7% *	1.2
	20-21	30.8%	40.6%	9.5%	8.4%	10.7%	1.5
	22-23	23.6%	50.9%	9.3%	5.6%	10.6%	1.6
	24 or older	25.4%	60.5%	3.1%	4.8%	6.1%	1.3
Residence							
	On campus	46.2%	30.0%	10.1%	7.0%	6.7% *	1.2
	Off campus	25.2%	51.6%	7.1%	6.0%	10.0%	1.5
GPA							
	A	34.6%	43.7%	8.5%	6.0%	7.1%	1.3
	B	29.6%	43.4%	7.6%	7.0%	12.3%	1.5
	C or less	23.5%	49.0%	5.9%	7.8%	13.7%	1.9
Member of Fraternity/Sorority							
	YES	24.6%	33.3%	14.0%	11.4%	16.7% *	1.8 **
	NO	33.5%	45.1%	7.5%	5.8%	8.1%	1.3
Sexual Orientation							
	Heterosexual	32.6%	46.3%	7.2%	6.6%	7.3% *	1.2 **
	Gay/Lesbian	30.4%	25.3%	10.1%	10.1%	24.1%	3.1
	Bisexual	30.5%	36.8%	17.9%	3.2%	11.6%	1.6
	Unsure/Other	41.2%	41.2%	5.9%	3.9%	7.8%	1.3
* $p(\chi^2) < .05$		** $p(F) < .05$					

graduate/professional students were currently married or partnered at the time of the survey compared to only 4.0% of the undergraduates.

- Males tended to report having a greater number of partners than did females.
- White domestic students tended to report having one or more partners than domestic students of Other racial/ethnic backgrounds while international students were more likely than the others to report having no sexual partners.
- Older students were more likely to report having had a sexual partner, but younger students were more likely to report more sexual partners, suggesting older students tend to be involved in committed relationships.
- Off-campus students were more likely than on-campus students to have had at least one sexual partner in the past year (84% of all married students live off campus compared to 62% of single students).
- Those who are members of fraternities or sororities tended to report having more sexual partners than their respective counterparts.
- Gay/lesbian and bisexual students tended to report having more sexual partners than did heterosexual students.

The questionnaire asked respondents to indicate whether or not, within the previous twelve months, they had a sexual partner or partners who were female, male, or transgender. Among those who reported having any sexual partners and who identified themselves as a 'heterosexual male,' 98.4% reported having only female sexual partners in the past year. Of those who identified themselves as 'heterosexual female,' 98.5% reported having only one or more male sexual partners in the past year.

Among those who identified themselves as a 'gay male,' 86.8% reported having only male sexual partner(s) in the past year, while 5.3% reported having had only female partners. Among those who identified themselves as 'lesbian female,' 47.1% reported having had only a female sexual partner(s) in the past year, while 23.5% reported having had only a male sexual partner, and another 29.4% reported having had both male and female partners in the past year.

Among those who identified themselves as a 'bisexual male,' 41.2% reported having had only a male sexual partner and 35.3% reported having had both male and female partners in the past year. Among those who identified themselves as a 'bisexual female,' 74.5% reported having had only a male sexual partner in the past year, 7.8% only female partners, 11.8% had both male and female partners and 5.9% some other combination.

The questionnaire asked respondents to indicate if they had had each oral sex, vaginal intercourse, and anal intercourse in the previous 30 days. They were then asked to indicate how often they or their partner used

a condom when they engaged in that type of sexual activity. Table 15 shows the percentage distribution of responses for each of these. The results differ very little from each of the five previous surveys.

The table indicates that:

- Nearly half the respondents (47.2%) indicated having oral sex at least once in the previous month, while more than a quarter (27.7%) reported never having had oral sex.
  - Virtually the same percentage of respondents reported having participated in oral sex as reported participating in vaginal intercourse (47.2% vs. 47.6%).
  - Males and females were similarly likely to report having had oral sex.
  - Among those who reported participating in oral sex, 89.4% reported never using a condom while only 5.5% reported using a condom all or most of the time – similar to the results of the previous surveys.

**Table 15. Percentage of Respondents Who Report Having Oral, Vaginal, Anal Sex, by Gender, Sexual Orientation and Percentage Using Condoms, in Last 30 Days: 2022**

Within the last 30 days, did you have. . .	% of Respondents Who Had		
	Oral Sex	Vaginal Intercourse	Anal Intercourse
OVERALL			
Never	27.7%	33.7%	76.1%
Not in Last 30 days	25.1%	18.7%	17.7%
Yes	47.2%	47.6%	6.2%
Gender	(Percent Yes in past month)		
Males	48.0%	43.4% *	9.8% *
Females	46.6%	51.3%	3.0%
Sexual Orientation	(Percent Yes in past month)		
Heterosexual	46.7% *	51.1% *	3.1% *
Gay/Lesbian	54.5%	16.0%	35.9%
Bisexual	54.8%	49.1%	11.4%
Unsure	20.6%	22.9%	2.9%
If experienced in the last 30 days, how often respondent or partner used a condom during. . .			
Never Used Condom	89.4%	32.1%	44.5%
Rarely Used Condom	3.3%	9.0%	15.9%
Sometimes	1.9%	13.7%	10.0%
Most of the Time	1.7%	16.6%	8.0%
Always	3.8%	28.6%	21.6%
* $p(\chi^2) < .05$			

- Nearly half the respondents (47.6%) reported having had vaginal intercourse at least once in the previous month – generally similar to the results of the previous surveys.
  - As was the case in the prior surveys, females were more likely to report having had vaginal intercourse than males.
  - One in six (16.0%) of those who identified themselves as gay or lesbian reported having had vaginal intercourse at least once in the previous month.

- Among those who reported having had vaginal sex at least once, 32.1% said neither they nor their partner(s) used a condom, while 45.2% of those who reported having vaginal intercourse reported they or their partner used a condom all or most of the time – down slightly from 47.6% in 2020, 50.3% in 2018, 52.7% in 2016, and 53.5% in 2014.
- Anal intercourse was much less common than either oral sex or vaginal intercourse. Three quarters of respondents (76.1%) reported never having had anal intercourse and another 17.7% reported not having done so in the previous month. Roughly one in twenty (6.2%) reported having anal intercourse at least once in the previous month – very similar to the 4-5% reported in the previous surveys.
  - Males were more likely than females to report having had anal intercourse in the previous month.
  - Gay/lesbian respondents, especially gay males, were much more likely than others to report having had anal intercourse at least once in the previous month.
  - Among those who reported having had anal sex, 44.5% reported they or their partner never used a condom, while 29.6% reported using a condom all or most of the time – somewhat lower rate of use than reported in prior surveys.

For those who were sexually active, the questionnaire included another series of questions regarding the method the respondent and partner used to prevent pregnancy the last time they had vaginal intercourse. Respondents could use several methods simultaneously so multiple responses were possible. Among all respondents, 66.3% reported ever having had vaginal intercourse. Of these, 80.7% reported that they or their partner used birth control to prevent pregnancy the last time they had vaginal intercourse (similar with some fluctuations to the findings of the previous surveys since 2010), while 1.6% reported not using contraceptives because they were trying to get pregnant. That means – to the best of the respondents' knowledge – 16.1% of the respondents and their partners did not use contraception the last time they had vaginal intercourse but were not intending a pregnancy, while another 1.7% reported not knowing if they used birth control or not.

Table 16 shows the percentage of sexually active respondents who claimed using each of the various methods the last time they had intercourse. The table also compares the reported use of these across respondents of different backgrounds. The table indicates that:

- 56.8% of these respondents claimed to use birth control pills (slightly lower than in the six previous surveys), and 32.5% reported relying on withdrawal – also slightly lower than the previous three surveys, but similar to the results in 2014, 2012, and 2010.
- Females were more likely than males to report using birth control the last time they had vaginal intercourse while males were somewhat more likely to report not knowing.

- Males were somewhat more likely than females to report using a male condom.
- White domestic respondents were more likely than their domestic Other and international student counterparts to report using contraception the last time they had vaginal intercourse.
- White domestic respondents were more likely than Other domestic respondents and especially international respondents to report using an IUD or multiple methods.
- Generally, respondents 22 or older were less likely than younger respondents to report using contraception and more likely to report trying not to prevent pregnancy.
- Those younger than 24 were more likely than their older counterparts to report relying on birth control pills, male condoms, or multiple methods, while older respondents were more likely than younger to report using an IUD.
- Those with higher GPAs were more likely to report using withdrawal than those with lower GPAs, while those with lower GPAs were more likely than their counterparts to report using implants.
- Members of fraternities or sororities were equally likely as their non-Greek counterparts to report using contraception the last time they had vaginal intercourse; however they were more likely than their non-Greek counterparts to report using birth control pills.

Of those sexually active, 16.7% reported that they or their partner used emergency contraception at least once in the past year – slightly greater than the 14.8% reported in 2020 and 15.2% reported in 2018 which were up from the 11.7% reported in 2016, but similar to the 15.5% reported in 2014, 14.9% in 2012, and 15.1% in 2010.

Additionally, 0.4% of sexually active respondents reported they or their partner became unintentionally pregnant in the previous twelve months – virtually the same as in the three previous surveys, but still lower than the 1.2% reported in 2014, the 1.8% in 2012 and the 1.6% reported in 2010.



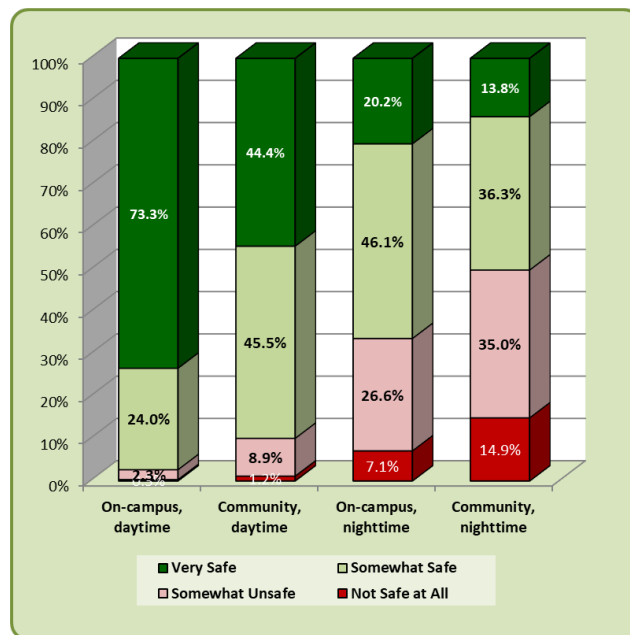
	OVERALL % Yes	% Who Answered Yes													
		GENDER		RACE/ETHNICITY			AGE				GPA			MEMBER FRAT./Sor.	
		Males	Females	White Domestic	Other Domestic	Internatl	18-19	20-21	22-23	24+	A	B	C/D	Yes	No
Ever had vaginal intercourse: Yes	66.3%	63.7%	68.5%	69.4%	61.1%	56.5% *	50.0%	68.0%	78.3%	76.9% *	63.8%	70.7%	76.5% *	83.5%	64.6% *
Respondent/partner used birth control last time had vaginal intercourse: Yes	80.7%	77.3%	83.4% *	85.1%	70.1%	70.8% *	84.1%	82.9%	77.9%	76.0% *	82.9%	76.3%	76.9%	80.0%	80.6%
No, Not trying to prevent pregnancy	1.6%	1.5%	1.7%	1.6%	1.7%	2.1%	0.0%	0.0%	0.8%	6.4%	2.2%	0.8%	0.0%	0.0%	1.9%
Which method(s) used the last time															
A Birth Control Pills	56.8%	55.7%	57.8%	56.7%	54.4%	66.7%	55.9%	63.2%	58.9%	43.8% *	58.7%	53.6%	72.4%	68.4%	55.1% *
B Birth Control Shots	1.5%	0.8%	2.1%	1.4%	1.6%	3.0%	1.6%	1.2%	3.2%	1.5%	1.1%	2.2%	0.0%	1.3%	1.7%
C. Birth Control Implants	8.3%	10.2%	6.8%	7.1%	13.7%	3.1% *	7.9%	9.1%	8.5%	7.0%	5.1%	14.6%	10.3% *	10.5%	8.1%
D. Birth Control Patch	1.4%	2.7%	0.3% *	0.9%	2.4%	3.0%	2.4%	1.7%	0.0%	0.8%	0.8%	2.2%	3.3%	1.5%	0.0%
E. Vaginal Ring	1.8%	2.4%	1.2%	2.1%	1.7%	0.0%	1.6%	2.5%	1.1%	0.8%	1.6%	2.3%	3.3%	2.7%	1.6%
F. Intrauterine Device	15.6%	16.5%	15.0%	18.5%	8.0%	6.1% *	7.9%	14.8%	18.1%	23.8% *	14.5%	15.7%	13.3%	10.7%	16.0%
G. Male Condom	60.7%	69.0%	54.4% *	58.7%	62.1%	84.8% *	74.8%	64.2%	53.2%	45.7% *	61.0%	61.2%	56.7%	56.0%	61.5%
H. Female Condom	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
I. Diaphragm/Cervical Cap	0.1%	0.0%	0.3%	0.2%	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.2%
J. Contraceptive Sponge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
K. Spermicide (e.g., foam, jelly, cream)	2.0%	3.1%	1.2%	1.6%	4.0%	0.0%	3.2%	1.6%	3.2%	0.8%	2.4%	1.7%	0.0%	1.3%	2.1%
L. Fertility Awareness (Calendar, Mucous, Basal Temperature)	9.6%	7.1%	11.5%	10.1%	8.0%	12.1%	12.6%	8.3%	8.6%	10.0%	9.7%	10.1%	10.0%	5.4%	10.2%
M. Withdrawal	32.5%	25.6%	37.8% *	33.6%	30.6%	24.2%	32.8%	39.1%	29.8%	22.3% *	35.3%	30.3%	10.3% *	30.7%	32.9%
N. Sterilization	2.1%	2.7%	1.5%	2.5%	0.8%	0.0%	0.8%	1.2%	1.1%	6.2% *	3.0%	1.1%	0.0%	1.3%	2.1%
O. Other Method	1.1%	1.6%	0.6%	1.4%	0.0%	0.0%	3.2%	0.8%	0.0%	0.8%	1.1%	1.7%	0.0%	4.0%	0.6% *
Used at least one method	80.0%	76.1%	83.2% *	84.1%	70.5%	70.2% *	82.2%	82.9%	77.0%	75.6%	82.0%	75.8%	76.9%	80.9%	80.0%
Used combined methods	53.9%	52.3%	55.1% *	58.0%	42.9%	48.9% *	63.2%	62.5%	46.7%	35.7% *	57.3%	49.4%	43.6%	54.3%	53.9%
You or partner used emergency contraception last 12 months	16.7%	16.1%	17.4%	16.1%	17.5%	21.3% *	21.3%	18.5%	17.2%	8.8% *	14.9%	19.6%	28.2% *	27.4%	15.2% *
Unintentionally became pregnant/ got someone else pregnant in last 12	0.4%	0.9%	0.0%	0.6%	0.0%	0.0%	0.0%	0.3%	1.6%	0.0%	0.0%	0.8%	2.6% *	0.0%	0.5%
* p(x2) < .05															

## RESULTS: Fear and Victimization

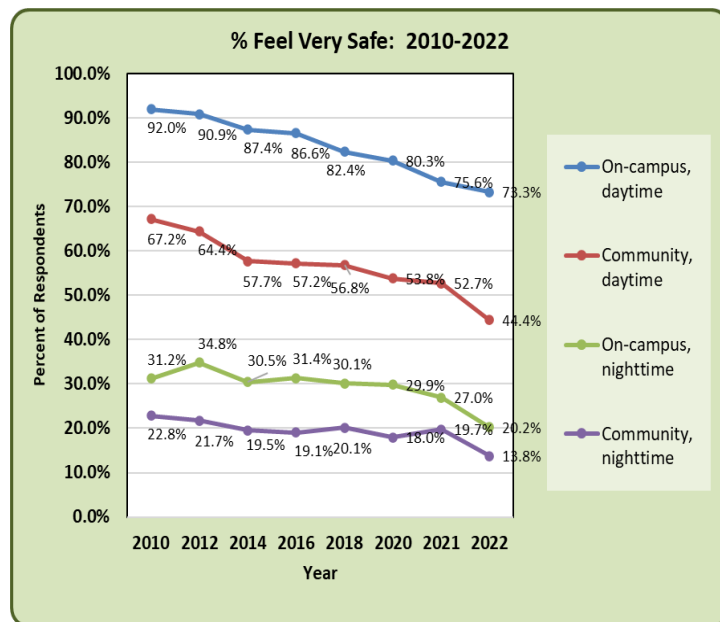
**FEELING SAFE.** The questionnaire asked respondents to indicate how safe they feel on campus and in the surrounding community during daytime and nighttime. Figure 13 indicates that students overwhelmingly reported feeling very safe on the MSU campus during the daytime and considerably more so than they do in the surrounding community.

Figure 13 indicates that students reported feeling much less safe on campus during the nighttime than in the daytime, but still more safe on campus than they do in the surrounding community during the nighttime.

These results are generally similar to the results of the five previous surveys. However, Figure 14 shows that the percentages of respondents who said they felt 'very safe' during the daytime declined for both on



**Figure 13. How Safe Students Feel On Campus and Off, Daytime and Nighttime: 2022**



**Figure 14. Percentage of Students Who Felt Very Safe On Campus and Off, Daytime and Nighttime: 2010 - 2022**

campus (a 20% decline) and off campus (a 34% decline) since 2010. The percentage of students that reported feeling 'very safe' on campus at nighttime also declined since 2020 (an overall decline of 35% since 2010), while the percentage of students who reported feeling 'very safe' in the surrounding community during the nighttime declined by 39%.

**VICTIMIZATION.** A section of the questionnaire asked respondents to indicate whether or not they had been involved in or were a victim of a variety of potentially harmful or troubling incidents during the last twelve months. As was noted in the four previous reports, prior to 2010, these questions referred to “in the past school year” rather than “the past twelve months.” As a result, other things being equal, the victimization rates would be expected to be somewhat higher in 2010 or later than in the previous years because of the longer time period referenced. Additionally, the wording to one of the items was modified to make it broader (‘verbally threatened’ rather than ‘verbally threatened for sex’) and a new item was also added.

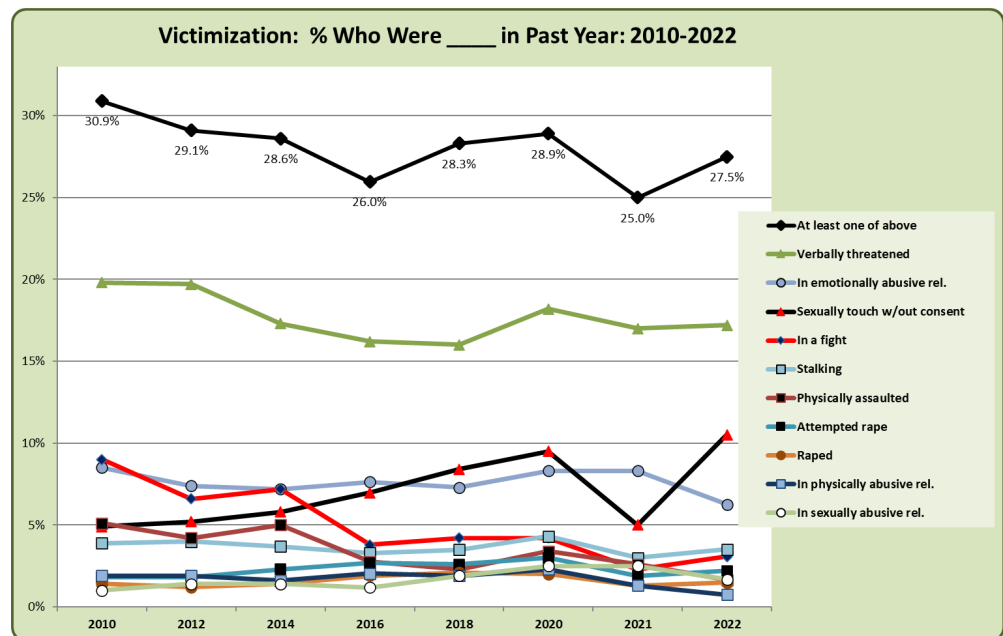
Table 17 lists the ten different types of situations asked about and shows the percentage of respondents who reported that they had been involved or victimized in that way at least once during the last year. The table also compares the experience of each of these across various categories of respondents.

The table indicates that:

- Roughly one in six students was verbally threatened, one in sixteen was involved in an emotionally abusive relationship, one in ten was sexually touched without their consent, one in thirty-two was involved in a physical fight, and one in sixty was physically assaulted.
- Overall, 27.5% of the respondents were victimized in at least one of these ten ways over the course of the previous year.
  - Males were more likely than females to have been in a physical fight, or verbally threatened; females were more likely than males to have been touched sexually without their consent, the victim of attempted sexual penetration and of rape, or to have been the victim of stalking or a sexually abusive relationship.
  - There were no significant differences on any of these among International students or domestic students.
- Those under age 22 were more likely than older students to have been verbally threatened, sexually touched without consent, or to have been victimized in at least one of these ways.
- Undergraduate students were twice as likely as graduate/professional students to have been victimized in at least one of these ten ways and were much more likely to have been in a fight, verbally threatened, sexually touched without consent, or the victim of an attempted rape.
- Members of fraternities or sororities were more likely than their non-Greek counterparts to have been in a physical fight; however, compared to previous years’ surveys in which members of fraternities or sororities were much more likely than non-members to have been victimized in at least one of these ways, there was no significant difference in the likelihood of some victimization between members and non-members in the results for 2022.

Table 17. Percentage of Respondents Victimized in Various Ways Within the Last 12 Months, by Background: 2022														
Victimization	% Who Answered Yes													
	OVERALL	GENDER		RACE/ETHNICITY			AGE				STUDENT STATUS		MEMBER FRAT./SOR.	
	% Yes	Male	Female	White Domestic	Other Domestic	Internatl	18-19	20-21	22-23	24+	Undergrad	Grad/Prof	No	Yes
Were in a physical fight	3.1%	5.7%	0.8% *	3.1%	2.3%	5.9%	3.2%	4.0%	3.1%	0.9%	3.6%	0.8% *	2.4%	8.8% *
Were physically assaulted	1.6%	1.7%	1.6%	1.7%	2.0%	1.2%	2.9%	1.3%	1.2%	0.9%	1.9%	0.4%	1.4%	3.4%
Verbally threatened	17.2%	20.4%	14.5% *	18.7%	15.2%	10.6%	19.4%	18.4%	19.1%	10.5% *	18.9%	10.6% *	16.5%	21.6%
Sexually touched without consent	10.5%	5.9%	14.7% *	10.7%	10.9%	8.2%	15.2%	14.1%	2.5%	3.1% *	12.7%	2.4% *	10.4%	11.3%
Attempted sexual penetration without consent	2.2%	1.1%	3.1% *	2.6%	1.3%	1.2%	4.4%	1.6%	1.2%	0.9% *	2.4%	1.2%	2.4%	0.9%
Sexually penetrated without consent	1.5%	0.4%	2.4% *	1.7%	1.0%	1.2%	2.5%	1.3%	1.2%	0.9%	1.7%	1.2%	1.6%	0.9%
Were victim of stalking	3.5%	2.0%	4.7% *	3.7%	3.0%	3.5%	5.7%	2.5%	3.1%	2.6%	3.7%	2.4%	3.8%	0.9%
In emotionally abusive relationship	6.3%	5.5%	6.8%	6.9%	5.2%	3.5%	6.7%	5.4%	8.0%	6.6%	6.6%	4.9%	6.6%	3.5%
In physically abusive relationship	0.7%	0.6%	1.0%	0.8%	0.7%	1.2%	1.6%	0.4%	0.0%	0.4%	0.8%	0.4%	0.8%	0.9%
In sexually abusive relationship	1.7%	0.7%	2.4% *	2.3%	0.3%	1.2%	2.9%	1.1%	1.2%	1.3%	1.8%	1.6%	1.8%	0.0%
<b>Any type</b>	<b>27.5%</b>	<b>26.8%</b>	<b>28.1%</b>	<b>29.2%</b>	<b>25.0%</b>	<b>21.2%</b>	<b>32.4%</b>	<b>30.8%</b>	<b>25.5%</b>	<b>15.7% *</b>	<b>30.9%</b>	<b>15.0% *</b>	<b>26.5%</b>	<b>33.9%</b>
* $p(\chi^2) < .05$														

Figure 15 shows the trends for each of these over the eight surveys from 2010 to 2022. The figure indicates that, prior to 2018, there had been a gradual decline in the percentage of students who report having been victimized, but that there was an increase in 2018 and 2020, a significant decline during the pandemic year of 2021, followed by a rise in 2022 to 27.5% -- less than 2018 but greater than 2016.



**Figure 15. Percentage of Respondents Victimized by Various Acts, At least One: 2010 - 2022**

Overall, there has been an 11% decline in the percentage of students reporting being victimized in at least one of these ways from 2010 to 2022. There were significant declines from 2010 to 2022 for three of these types of victimization: a 66% decline in being in a fight, a 68% decline in physical assault, and a 13% decline in being verbally threatened. However, there were also appreciable increases in others.

Virtually all of the overall increase in victimization from 2016 to 2022 is the result of increases in reporting of sexual victimization, i.e., being sexually touched without consent, attempted penetration without consent, and sexual penetration without consent. From 2010 to 2022, the percentages of students reporting they experienced these increased substantially: 115% increase in being sexually touched without consent, 30% increase in attempted sexual penetration without consent, 6% increase in sexual penetration without consent, and a 68% increase in being in a sexually abusive relationship. However, during this same twelve-year time period, a campus-wide sexual assault education program has been under way. It was initially directed at in-coming freshmen and transfer students each year so that, over time, an increasing proportion of the whole student body would better understand what is and what is not legal consent. Consequently, it is difficult to know if the increased percentages of students reporting these actions since 2010 represent actual increases in prevalence or if it is the understanding as to when consent is required and what constitutes legal consent of these that has increased, resulting in respondents now identifying behaviors as victimization that they might have overlooked otherwise.

Additionally, during the time the survey was being administered in 2018 and 2020, there was a great deal of reporting nationally about a series of cases of sexual abuse of female patients by an MSU physician during patients' physical exams that may have increased the salience of the consent issues for respondents.

## RESULTS: Emotional Well-Being

To measure the experience of depression, stress, anxiety, and other markers of emotional well-being, the questionnaire asked respondents to indicate how recently – if ever – they experienced the various feelings listed. Each of the feelings listed represented varied types and intensities of emotional difficulty – from “felt overwhelmed by all you had to do” to “felt overwhelming anger.”<sup>2</sup> The last three items in this set of questions represent behavioral or ideational responses to emotional distress.

Table 18 indicates the percentage distribution of responses to each of the different emotional states. That table indicates that:

- More than half the respondents indicated they felt overwhelmed by all they had to do and felt exhausted just in the previous two weeks.
- Roughly eight out of ten respondents reported feeling overwhelmed (87.4%) or exhausted (84.0%) at least once in the past year – both very similar to 2020, 2018, 2016, and 2014.
- Roughly seven out of ten respondents reported feeling very sad (70.6% – virtually the same as in 2020, but an increase from 67.7% in 2018 and from 62.3% in 2016 and 57.5% in 2014) at least once in the past year; two-thirds reported feeling overwhelming anxiety (69.4% – a slight increase from 67.5% in 2020 which was up from 59.6% in 2018, 57.6% in

**Table 18. How Recently Respondents Felt Emotionally Troubled in Various Ways: 2022**

Have you ever . . .	% of All Students				
	No, Never	Yes, But Not In Past 12 Mos.	Yes, In Past 12 Mos.	Yes, In Past Month	Yes, In Past 2 Weeks
Felt things were hopeless	29.0%	17.0%	21.9%	10.5%	21.6%
Felt overwhelmed by all you had to do	7.8%	4.8%	14.4%	14.6%	58.4%
Felt exhausted (not from physical activity)	10.8%	5.2%	11.7%	15.8%	56.4%
Felt very lonely	17.4%	15.7%	21.6%	14.5%	30.8%
Felt very sad	14.7%	14.7%	22.3%	14.3%	34.1%
Felt so depressed that it was difficult to function	32.9%	22.3%	19.6%	9.3%	16.0%
Felt overwhelming anxiety	19.6%	11.0%	20.6%	13.6%	35.2%
Felt overwhelming anger	32.1%	23.5%	19.7%	9.8%	14.8%
Intentionally injured self	79.3%	13.9%	3.6%	0.7%	2.4%
Seriously considered attempting suicide	74.5%	15.8%	5.8%	1.7%	2.3%
Attempted suicide	88.9%	9.7%	0.6%	0.3%	0.5%

<sup>2</sup> The list in the questionnaire used since 2010 included all the items from the previous questionnaire but included four other items as well. Additionally, the response options changed from the number of times the respondent felt or did something to how recently they felt or did something. Whereas the questions in the earlier version of the questionnaire focused on the past school year, the questionnaire used since 2010 was not limited in this way. This prevents any reasonable comparison to the results of surveys prior to 2010.

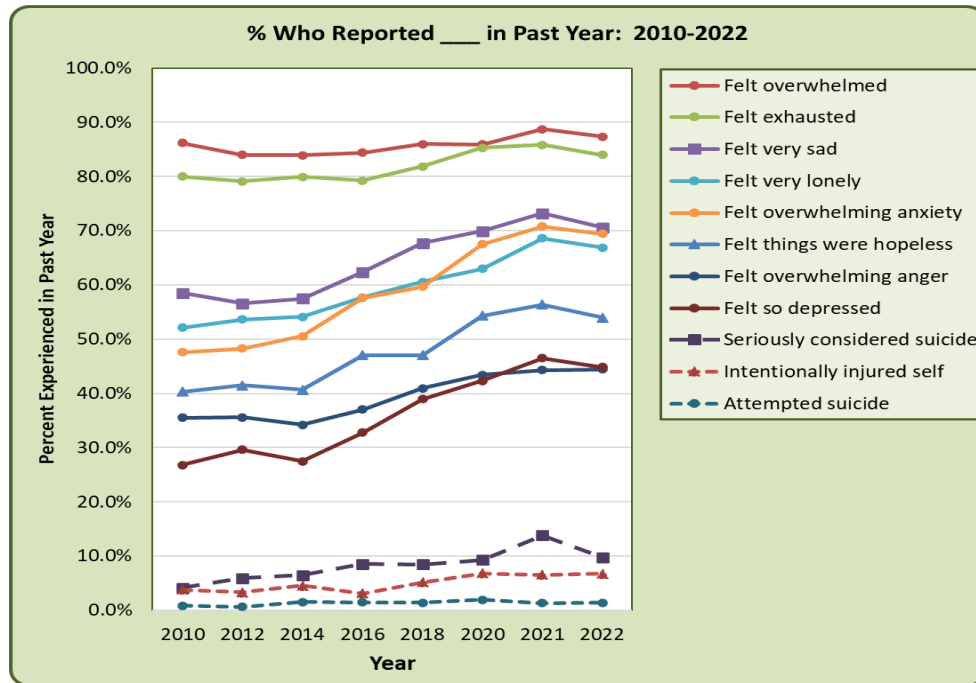
2016, and 50.6% in 2014); two-thirds (66.9%) also reported feeling very lonely (also an increase from 63.0% in 2020, which was up from 60.6% in 2018, 57.7% in 2016 and 54.1% in 2014).

- More than half reported feeling that things were hopeless at least once in the past year (54.0% – virtually the same as in 2020 which had represented a gradual increase from 40.7% in 2014).
- More than four out of ten reported feeling overwhelming anger (44.4% – similar to the 43.5% in 2020 which was up from 41.0% in 2018, 37.0% in 2016 and 34.3% in 2014) and feeling so depressed that it was difficult to function at least once in the past year (44.8% – up slightly from 42.3% in 2020 which had increased from 38.9% in 2018, 32.7% in 2016 and 27.4% in 2014).

The table also includes the percentages of respondents who, presumably as a consequence of their emotional states, behaved in self-destructive ways. The table indicates that:

- 6.7% of respondents reported intentionally injuring themselves at least once in the past year – virtually the same as in 2020 which was up slightly from 5.2% in 2018, 3.1% in 2016 and 4.5% in 2014.
- 9.7% of respondents reported seriously considering attempting suicide at least once in the past year – virtually the same as the 9.3% found in 2020 but which was slightly higher than the 8.5% in 2018 and 2016 and the 6.5% reported in 2014.
- 1.4% of respondents reported attempting suicide at least once in the past year – similar to the 2020, 2018, 2016, and 2014 findings.

Figure 16 shows the stability or the changes in the percentages of students experiencing these emotional challenges over the previous year for the surveys conducted since 2010. The figure illustrates that:

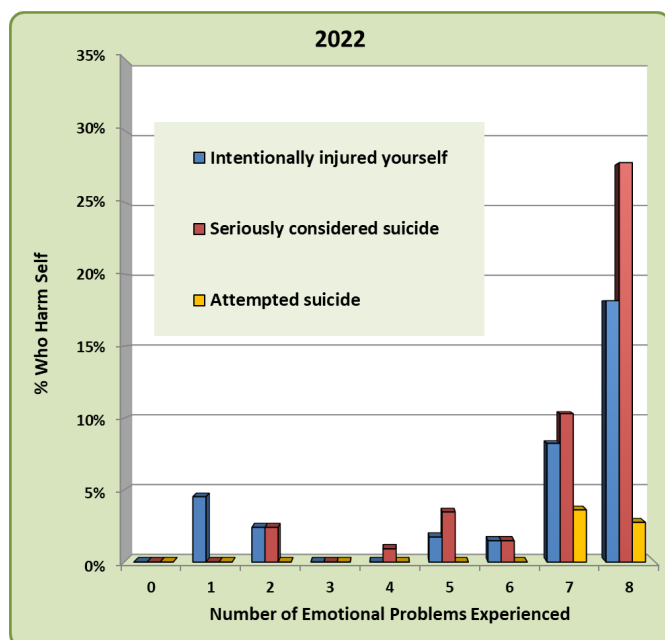


**Figure 16. Percentage of Students Experiencing Various Types of Emotional Distress, Engaged in Self Harm/Ideation in Past 12 Months, by Survey Year: 2010 – 2022**

- The percentages of students who, during the previous year, felt overwhelmed or felt exhausted but not from physical exertion were relatively constant across the four survey years.
- The percentages of students who reported feeling overwhelming anxiety, or felt things were hopeless, felt very sad, very lonely, felt overwhelming anxiety or so depressed that it was hard to function increased relatively steadily from 2010 to 2020, increased even more during the pandemic year of 2021, and then declined to roughly the pre-pandemic levels of 2020 in 2022
  - The percentage of students who reported feeling very lonely, very sad, or overwhelming anger each increased by roughly 28% from 2010 to 2022
  - The percentage who reported feeling things were hopeless increased by roughly 34%
  - The percentage who reported feeling overwhelming anxiety increased by roughly 46%, and
  - The percentage who reported feeling so depressed it was difficult to function increased by 67%



The first eight items listed in Table 18 are experiences of intense emotions. The last three items listed in Table 18 are possible problematic responses to such intense emotions. By themselves each of the strong emotional experiences could, at least temporarily, impede the student's academic, social or physical well-being. The effect of experiencing several of these intense emotions can be appreciably more consequential.



**Figure 17. Percentage of Students Engaging in Self-Harm by Number Emotional Problems Experienced: 2022**

As in previous years' reports, we have examined the relationship between the number of the different emotional problems the student experienced and the likelihood of having intentionally injured oneself, seriously considered suicide, or attempted suicide.

Figure 17 shows the percentages of respondents experiencing various numbers of emotional problems who intentionally injured themselves, considered suicide or attempted suicide in the past year. The figure clearly indicates that the likelihood of a student engaging in one of the three types of self-harms or self-harm ideation increases substantially the more different emotional problems the student experiences. The risk is relatively low if the student experiences four or fewer emotional problems, increases substantially if the student experiences seven and increases dramatically if the student experiences all eight.

To explore the experience of such emotional difficulties within the student population, we have counted the number of the eight different emotional experiences respondents reported having in the past twelve months. The index could vary from 0 to 8.

One in twelve respondents (8.6%) reported experiencing none of these emotional states in the past year and more than four out of ten (42.7%) reported experiencing seven or eight of the different emotional states – up from 40.5% in 2020, which was also up from 34.7 in 2018, 31.9% in 2016, and 25.5% in 2014. The overall average number of the emotional problems experienced was 5.2 with a standard deviation of 2.6 – virtually the same as in 2020 (which was up slightly from the average of 4.8 in 2018, 4.6 in 2016, 4.3 in 2012, 4.3 in 2010, and 4.3 in 2010. That is, it appears that more students are experiencing more of the emotional difficulties.

Not surprisingly, Figure 16 indicates that there has been a concomitant increase from 2010 to 2022 in the percentage of students who reported seriously considering suicide – an increase of 137% since 2010. Figure 16 indicates that there has been a slight increase in the percentage who reported having attempted suicide from 0.8% in 2010 to 1.4% in 2022 – a 73% increase. Figure 16 also indicates that there has been a slight increase in the percentage of students who reported having intentionally injured themselves – a 77% increase from 4.1% in 2010 to 6.7% in 2022. Although the percentages are small, it is useful to remember

that 1% difference in the prevalence of an action among MSU's student body represents a difference of roughly 480 students.

Table 19 compares the average number of emotional difficulties experienced in the past year across demographic groups. Table 19 indicates that:

- On average, females experienced more of the different emotional problems than males, domestic students more than international students, and undergraduates more than graduate/professional students.
- Sexual minorities experienced more of the different emotional problems than heterosexuals.
- Married/partnered students experienced fewer of the emotional problems than single students, while separated/divorced students experienced more.
- The table indicates there were no significant differences in the averages based on residence on campus vs. off, while members of Greek organizations reported fewer emotional problems than did non-members.

Table 19 also compares the average number of emotional problems experienced across individuals based on their experience of various types of victimization as well. The table indicates that:

- Those who had been verbally threatened, touched sexually without their consent, the victim of stalking or attempted rape, those who had been raped, and those who had been in an emotionally or physically or sexually abusive relationship in the past year reported experiencing, on average, a greater number of the different emotional problems in the past year than those who had not been victimized in these ways.

**Table 19. Mean Number of Emotional Problems Experienced in the Past 12 Months, by Background and Victimization Experience: 2022**

Characteristic		Mean	sd	F	p(F)
Overall	min=0, max=8	5.20	2.61		
Gender	Males	4.64	2.79	47.33	.000
	Females	5.69	2.35		
Race	White	5.28	2.50	4.71	.009
	Other	5.21	2.74		
	International	4.37	3.04		
Age	18-19	5.24	2.68	4.04	.007
	20-21	5.48	2.42		
	22-23	4.90	2.83		
	24 or older	4.82	2.67		
Residence	On campus	5.11	2.64	.82	.365
	Off campus	5.25	2.60		
Student Status	Undergrad	5.29	2.60	5.47	.019
	Grad/Prof	4.85	2.63		
GPA	A	5.13	2.64	1.32	.267
	B	5.24	2.60		
	C or less	5.73	2.49		
Member of Fraternity or Sorority	YES	4.71	2.59	4.45	.035
	NO	5.25	2.78		
International Student	YES	4.37	3.04	9.26	.002
	NO	5.26	2.57		
Marital Status	Single	5.29	2.56	5.45	.001
	Married/Partnered	4.23	2.94		
	Separated/Divorce	5.79	3.52		
	Other	5.70	3.02		
Sexual Orientation	Heterosexual	4.88	2.65	23.60	.000
	Gay/Lesbian	6.42	1.96		
	Bisexual	6.49	2.16		
	Unsure	6.42	1.98		

Table 19. (continued)

Characteristic		Mean	sd	F	p(F)
Hours Worked for Pay/Week	0 hours	5.03	2.68	3.03	.017
	1-9 hours	5.36	2.49		
	10-19 hours	5.39	2.53		
	20-29 hours	5.65	2.35		
	30+ hours	4.70	2.88		
Involved in physical fight In past 12 months	NO	5.18	2.61	1.64	.200
	YES	5.75	2.73		
Physically assaulted in Past 12 months	NO	5.19	2.61	.61	.433
	YES	5.67	2.78		
Verbally threatened in Past 12 months	NO	4.99	2.64	34.65	.000
	YES	6.18	2.21		
Sexually touched without Consent in Past 12 months	NO	5.02	2.64	43.39	.000
	YES	6.64	1.82		
Victim of stalking in past 12 months	NO	5.13	2.62	21.04	.000
	YES	7.03	1.62		
Victim of Attempted rape In Past 12 months	NO	5.16	2.62	11.12	.001
	YES	6.90	1.74		
Raped in past 12 months	NO	5.17	2.62	8.40	.004
	YES	7.01	1.84		
In emotionally abusive relationship	NO	5.09	2.63	31.15	.000
	YES	6.84	1.77		
In physically abusive relationship	NO	5.18	2.61	3.93	.048
	YES	6.96	2.22		
In sexually abusive relationship	NO	5.17	2.62	6.39	.012
	YES	6.68	2.15		
Intentionally injured self	NO	5.04	2.61	57.61	.000
	YES	7.32	1.51		
Seriously considered suicide	NO	4.95	2.61	102.80	.000
	YES	7.48	1.17		
Attempted suicide	NO	5.16	2.62	12.97	.000
	YES	7.53	.52		
* p( F)< .05					

## RESULTS: Mental Health

The questionnaire also asked respondents to indicate whether or not they had been diagnosed or treated by a professional in the previous twelve months for any of 15 different mental health conditions. The questionnaire allowed respondents to indicate if they had not been diagnosed, they had been diagnosed but not treated, they had been diagnosed and treated with medication, with psychotherapy, with medication and psychotherapy, or with some other treatment. For summary purposes, we focus on whether or not respondents have been diagnosed with the condition and, of those who report having been diagnosed, whether or not they have been treated in at least one of the ways listed.

**Table 20. Percentage of Respondents Who Were Diagnosed, Treated for Various Mental/Emotional Health Problems in the Past 12 Months, by Background: 2022**

Health Problem	% Diagnosed	% of Diagnosed Treated	% Diagnosed in Past 12 Months									
			GENDER		RACE/ETHNICITY			STUDENT STATUS		RESIDENCE		
			Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof	On Campus	Off Campus	
Anorexia	3.3%	56.9%	0.9%	5.3% *	3.6%	2.7%	2.4%	3.6%	2.1%	3.7%	3.0%	
Anxiety Disorder	28.2%	75.4%	15.0%	39.7% *	31.4%	21.5%	21.7% *	27.0%	32.4%	22.9%	31.1% *	
ADHD	11.1%	73.2%	11.0%	11.2%	12.6%	9.0%	4.8% *	11.1%	11.1%	8.2%	12.6% *	
Bipolar disorder	1.8%	74.6%	2.0%	1.6%	2.1%	1.3%	0.0%	1.9%	1.2%	1.7%	1.8%	
Bulimia	1.5%	43.7%	0.4%	2.5% *	0.8%	3.3%	1.2% *	1.8%	0.4%	1.9%	1.4%	
Depression	20.2%	79.8%	10.1%	29.2% *	22.0%	18.1%	12.3%	19.5%	22.5%	16.0%	22.5% *	
Insomnia	5.6%	68.4%	2.6%	8.2% *	5.9%	4.7%	6.1%	5.1%	7.0%	5.1%	5.9%	
Other sleep disorder	2.3%	59.3%	1.9%	2.6%	3.2%	0.3%	2.4% *	1.9%	4.1% *	0.7%	3.3% *	
Obsessive Compulsive Disorder (OCD)	3.6%	55.6%	2.8%	4.3%	4.5%	2.0%	2.4%	4.0%	2.4%	3.8%	3.6%	
Panic attacks	11.4%	75.7%	5.8%	16.4% *	13.4%	7.9%	7.2% *	11.5%	10.7%	8.9%	12.9% *	
Phobia	1.0%	49.8%	0.6%	1.3%	0.9%	1.0%	1.2%	1.2%	0.0%	1.5%	0.7%	
Schizophrenia	0.1%	100.0%	0.0%	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	
Substance abuse problem	1.4%	54.2%	1.1%	1.6%	1.6%	0.7%	2.4%	1.7%	0.4%	1.4%	1.4%	
Other addiction	0.4%	0.0%	0.4%	0.5%	0.5%	0.0%	1.2%	0.4%	0.4%	3.4%	3.3%	
Other mental health condition	3.4%	100.0%	4.2%	1.6%	4.2%	1.6%	2.4%	1.9%	4.8% *	4.1%	2.9%	

\*  $p(\chi^2) < .05$

Table 20 shows the results and also compares the percentage diagnosed across selected demographic groups. The table indicates that less than 30% percent of the respondents had been diagnosed in the past year with any one of the conditions. The most commonly diagnosed condition was anxiety disorder (28.2%) of all respondents – up from 23.7% in 2020, 18.1% in 2018, 13.2% in 2016, 10.7% in 2014, 9.8% in 2012, and 7.5% reported in 2010. That is, the percentage of students diagnosed with anxiety disorder has nearly quadrupled since 2010.

The second most commonly diagnosed mental health issue was depression (20.2%) – also up, from 18.0% in 2020, 14.1% in 2018, 11.9% in 2016, 8.5% in 2014, 8.8% in 2012, and 6.3% reported in 2010. That is, the percentage of students diagnosed with this mental health problem has more than tripled since 2010.

Among all respondents, 63.6% indicated that they had not been diagnosed with any of these conditions – down from the 68.0% in 2020, 75.1% in 2018, 77.3% in 2016, 82.0% in 2014, 82.1% in 2012 and 84.5% in

2010. In 2022, 12.2% reported having been diagnosed with one of these problems – continuing the gradual increase since the 7.2% in 2014 and 2012. Among those diagnosed with any, the average number they reported was 2.7 – virtually the same as in 2020 and slightly increased from the 2.4 found in 2012 through 2018.

The table also shows the percentage who were or are being treated among those diagnosed with a mental health condition in the past year. The majority of those diagnosed – with the exceptions of bulimia, and a phobia – also reported they had received some type of treatment.

Table 20 compares the percentages of students diagnosed in the past year based on gender, race, campus residence, and student status. That table indicates that:

- Females were more likely than males to have been diagnosed with anorexia, anxiety disorder, bulimia, depression, insomnia, and panic attacks.
- White domestic respondents were more likely than Other domestic students or international students to report having been diagnosed with anxiety disorder, ADHD, and panic attacks.
- Undergraduates and graduate/professional students did not differ significantly on having been diagnosed for any of the mental/emotional health conditions, except a sleep disorder which was more common among graduate/professional students; students living on campus vs. those living off campus were less likely to report having been diagnosed with anxiety disorder, ADHD, depression, a sleep disorder, and panic attacks.

The questionnaire asked respondents to indicate if they had ever been diagnosed with depression. More than a quarter (26.0%) reported that they had – up slightly from 23.6% in 2020, 20.8% in 2018, 18.4% in 2016, the 17.1% in 2014, 15.7% in 2012, and 14.1% in 2010. Of those who said they have ever been diagnosed, 72.4% reported they had been diagnosed or treated in the past year – similar to the 70.4% in 2020, which was up from 64.3% in 2018 continuing the rise from the 41.8% reported in 2010. That is, since 2010, an increasing percentage of students reported having been diagnosed with or treated for depression in the previous year.

**DIFFICULT/TRAUMATIC EVENTS.** The questionnaire asked respondents if any of twelve issues had been very difficult or traumatic for them in the past twelve months. Table 21 shows the percentages of students overall who reported great difficulty or trauma related to each of the issues. The table indicates that:

- Half the students (51.2%) reported that academic issues were very difficult or traumatic for them in the past year – up slightly from 47.0% in 2020 which was about the same percentage as in 2018 (47.1%), 2016 (45.9%) and 2014 (45.0%), but up from the 42.6% in 2012 and 42.8% in 2010.

**Table 21. Percentage of Respondents for Whom Various Issues Were Traumatic or Very Difficult in the Past 12 Months, by Background: 2022**

Issue	% For Whom Very Difficult, Traumatic	% Had Difficulty, Trauma In Past 12 Months											
		GENDER		RACE/ETHNICITY			RESIDENCE		YEAR/LEVEL IN SCHOOL				
		Male	Female	White Domestic	Other Domestic	Internatl.	On Campus	Off Campus	First	Second	Third	Fourth/ Fifth	Grad/Prof
Academics	51.2%	44.0%	57.4% *	50.9%	54.1%	42.7%	53.3%	49.9%	51.5%	54.1%	49.6%	54.5%	46.3%
Career-related issue	30.5%	26.7%	34.0% *	28.0%	35.2%	36.9% *	25.5%	33.4% *	17.3%	28.1%	34.2%	38.4%	31.0% *
Death of a family member or friend	18.8%	17.0%	20.4%	20.8%	15.1%	15.5%	20.1%	18.0%	18.9%	19.8%	17.5%	21.0%	16.6%
Family problems	27.9%	20.4%	34.4% *	26.1%	33.1%	25.3%	29.7%	26.7%	29.2%	27.0%	24.4%	31.7%	26.3%
Intimate relationships	31.0%	30.0%	32.0%	32.2%	29.3%	26.5%	29.2%	32.1%	29.1%	31.1%	34.2%	36.3%	23.6% *
Other social relationships	28.7%	22.1%	34.5% *	27.3%	32.5%	27.4%	32.3%	26.8% *	30.5%	37.4%	32.0%	27.4%	19.1% *
Finances	33.2%	29.5%	36.3% *	33.6%	34.5%	23.8%	29.0%	35.6% *	24.4%	33.0%	36.5%	40.9%	28.5% *
Health problems of a family member or partner	24.5%	21.5%	27.2% *	25.4%	23.0%	21.7% *	25.8%	23.7%	20.8%	27.6%	23.2%	25.1%	26.0%
Personal appearance	33.4%	24.5%	41.3% *	34.4%	34.1%	21.4%	36.8%	31.5%	33.3%	44.7%	41.3%	29.2%	22.0% *
Personal health issue	22.0%	16.3%	27.1% *	22.9%	20.1%	21.7%	19.2%	23.6% *	18.5%	19.9%	25.8%	22.8%	22.4%
Sleep difficulties	33.6%	28.2%	38.5% *	32.9%	36.3%	31.3%	34.4%	33.2%	35.0%	38.1%	34.2%	34.2%	28.3%
Other	8.6%	7.4%	9.5%	9.1%	7.7%	7.4%	9.1%	8.3%	11.7%	6.8%	10.7%	7.2%	6.7%
* $p(\chi^2) < .05$													

- A third of students reported great difficulty or trauma associated with
  - Their finances – (33.2%) up slightly from 2020 (30.8%), 2018 (29.2%) and 2016 (27.9%), but similar to results in 2014 (31.1%) and 2012 (30.8%),
  - Their personal appearance – (33.4%, similar to 30.9% in 2020 vs. 22.5% in 2018, 21.3% in 2016, 20.9% in 2014, 18.5% in 2012, and 16.7% in 2010), and
  - Sleep difficulties – (33.6%), continuing to creep up from 28.7% in 2020, 26.7% in 2018, 24.9% in 2016, 23.5% in 2014, 21.9% in 2012, and 21.8% in 2010.
- Three out of ten reported difficulty or trauma with
  - Career-related issues (30.5%) – virtually the same as in 2020 and 2018, which had risen from the 27.8% in 2016, 26.9% in 2014, and 25.0% in 2012 but not much greater than the 28.3% in 2010,
  - Intimate relationships (31.0%) in the past year – up from the 26.7% in 2020, and 27.9% in 2018, but similar to the 29.7% in 2016, 28.5% in 2014, 27.1% in 2012, and 29.3% in 2010.
- More than a quarter reported difficulty or trauma because of
  - Family problems – 27.9% (compared to 25.6% in 2020, 22.2% in 2018, 21.2% in 2016, 21.8% in 2014, 23.5% in 2012, and 20.6% in 2010), and
  - Problems with other social relationships --28.7% (compared to 27.0% in 2020, 21.7% in 2018, 23.3% in 2016, 22.8% in 2014, 23.6% in 2012, and 21.2% in 2010).
- A quarter reported difficulty or trauma because of the health problems of a family member or partner – 24.5% (compared to 19.9% in 2020, 17.6% in 2018, 16.4% in 2016, 14.9% in 2014, 17.4% in 2012, and 15.2% in 2010).
- Roughly one in five reported difficulty or trauma because of
  - A personal health issue – 22.0% (compared to 22.6% in 2020, 19.4% in 2018, 17.8% in 2016, 14.8% in 2014, 14.2% in 2012, and 14.4% in 2010).
- One in six (18.8%) reported difficulty or trauma because of the death of a family member or friend (compared to 17.0 in 2020, 13.3% in 2018, 13.0% in 2016, 15.1% in 2014, 12.9% in 2012, and 13.8% in 2010).

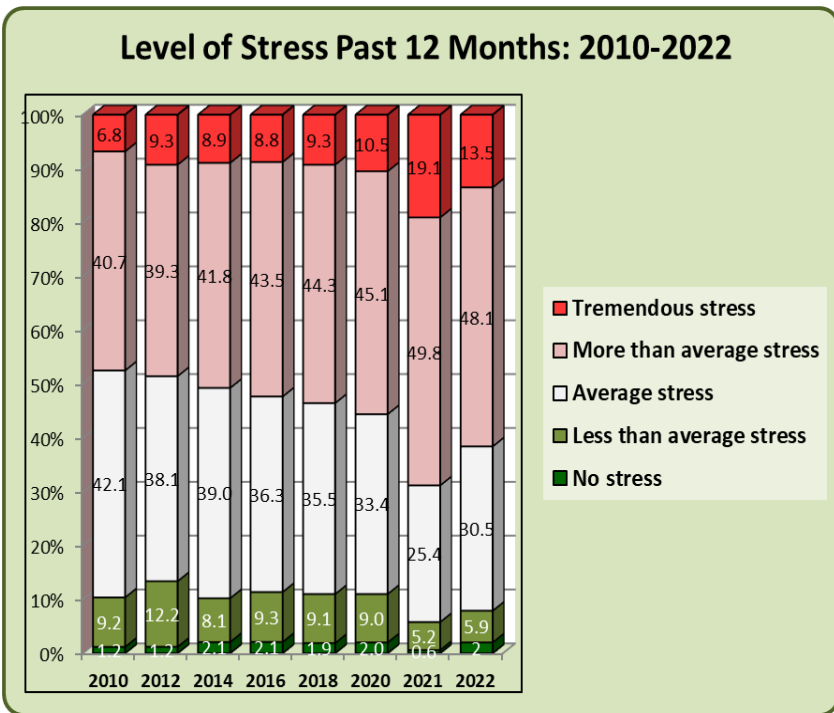
Table 21 compares the prevalence rates of the various issues by gender, race, residency, and year in college.

The table indicates that:



- Females were more likely than males to report experiencing great difficulty or trauma with each of these type of issues with the exceptions of intimate relationships and the death of a family member or friend.
- Other domestic students were more likely than White domestic and international students to report experiencing great difficulty or trauma with nearly all of the issues listed.
- Off-campus residents were more likely than on-campus residents to report experiencing great difficulty or trauma with career-related issues, finances, and personal health issues, but less likely regarding other social relationships.

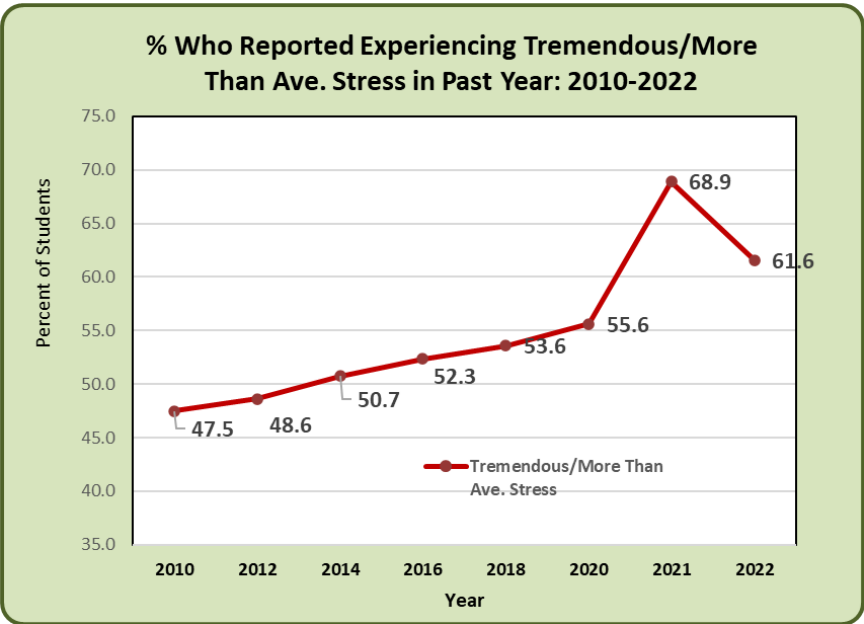
Although Table 21 does not include the breakdowns, there was a relationship between experiencing difficulty or trauma and the respondents' GPAs on some of the items as has been demonstrated on previous surveys. There were statistically significant differences across GPA categories on four of the twelve issues. In each case, those with an "A" GPA were less likely to report experiencing difficulty or trauma than those with a lower GPA. Those with higher GPAs were less likely to report experiencing difficulty or trauma regarding academics, social relationships, finances, and sleep difficulties.



**Figure 18. Respondents' Ratings of Overall Level of Stress Experienced in Past 12 Months: 2022 vs. 2021 vs. 2020 vs. 2018 vs. 2016 vs. 2014 vs. 2012 vs. 2010**

**STRESS.** Respondents were asked to rate the overall level of stress they experienced over the previous twelve months. Figure 18 shows the percentage distribution of responses for 2022, 2020, 2018, 2016, 2014, 2012 and 2010. The figure indicates the distributions have been similar across the five surveys, but that the percentages judging their stress as “tremendous” or “more than average” have gradually increased over the past dozen years. It indicates that more than six out of ten respondents (61.6%) in 2022 rated their stress levels over the past year as greater than average (i.e., “tremendous” or “more than average”) which was greater than the 55.6% reported in 2020, the 53.6% in 2018, 52.3% in 2016, 50.7% in 2014, 48.6% in 2012 and the 47.5% reported in 2010.

The increase in the percentage of students who reported experiencing “tremendous” or “more than average” stress is more easily seen in Figure 19. From 2010 to 2022, there has been a 29% increase in the percentage of students reporting above average levels of stress. It also indicates there has been a significant spike in the level of stress reported during the 2021 year while students dealt with COVID and remote learning arrangements.



**MENTAL HEALTH SERVICES.** The questionnaire asked respondents whether or not they had ever received psychological or mental health services from a counselor, therapist or psychologist, from a psychiatrist, from some other medical provider, or from a minister, priest, rabbi, or other clergy. Considering the numbers of respondents who reported experiencing a wide variety of emotional, psychological, and traumatic difficulties, relatively few students reported ever receiving psychological or mental health services. More than four out of ten respondents (43.7%, up from 40.7% in 2020) reported having ever received services from a counselor, therapist or psychologist, 19.1% from some other medical provider (also slightly higher than the 17.0% reported for 2020), 15.5% from a psychiatrist, and 3.7% from clergy. This, however, over-estimates the proportion of students who have received mental health services since many of those who received services from one type of provider also received services from another type of provider. Altogether, 47.4% of the respondents claimed to have ever received psychological or mental health services from some professional – a slight increase from 44.3% in 2020 which had been a substantial increase from the 37.9% in 2018 and 2016, 36.2% in 2014, 33.4% in 2012, and 30.7% reported in 2010 – while 52.6% reported they never have.

The question asked if the respondent had ever received psychological or mental health services, so we do not know if those services occurred in the past year. However, similar to the findings of the three previous surveys, the majority of those who said they had been victimized in the past year said they had received such counseling services at some point in the past –

- physically or sexually assaulted, 68.4% (roughly the same as in 2020 and 2018, up from 60.7% in 2016);
- attempted rape, 68.0% (the same as in 2020, down slightly from 71.0% in 2018, 73.1% in 2016, which was up from 61.9% in 2014);
- raped, 70.6% 64.7% (up from 64.7% in 2020, 65.4% in 2018, but still lower than the 78.9% in 2016 and 73.3% in 2014);
- in emotionally abusive relationship, 74.0% (up from 61.4% in 2020, 59.1% in 2018, 59.7% reported in 2016, and 55.6% in 2014);
- in a physically abusive relationship, 75.0% (up from 50.0% in 2020, 56.5% in 2018 but the same as the 75.0% in 2016);
- in a sexually abusive relationship, 70.0% (down from the 90.5% reported in 2020, but similar to the 65.2% in 2018, 66.7% in 2016, and 55.6% in 2014).

Similarly, between four out of ten and seven out of ten students who experienced great difficulty or trauma from various circumstances in the past year also reported having received such psychological or mental health services –

- career-related issues, 57.2% (vs. 54.3% in 2020, 44.1% in 2018, 50.7% in 2016 and 47.2% in 2014);
- academic problems 57.4% (vs. 56.0% in 2020, 6.3% in 2018, 46.2% in 2016 and 44.6% in 2014);
- financial concerns, 58.2% (vs. 57.4% in 2020, 49.7% in 2018, 50.7% in 2016 and 46.7% in 2014);
- problems with intimate relationships, 63.2% (vs. 57.1% in 2020, 48.2% in 2018, 51.4% in 2016 and 48.9% in 2014);
- problems with other social relationships, 65.5% (vs. 63.4% in 2020, 54.2% in 2018, 51.1% in 2016 and 53.1% in 2014);
- personal appearance issues, 63.2% (vs. 58.5% in 2020, 49.4% in 2018, 55.2% in 2016 and 52.0% in 2014);
- health problem of a family member, 60.5% (vs. 65.7% in 2020, 46.2% in 2018, 55.9% in 2016 and 52.2% in 2014);
- death of a family member, 58.8% (vs. 57.0% in 2020, 41.0% in 2018, 45.8% in 2016 and 41.3% in 2014);
- sleep difficulties, 64.0% (vs. 61.4% in 2020, 50.0% in 2018, 50.6% in 2016 and 52.7% in 2014);
- family problems, 62.8% (vs. 62.8% in 2020, 48.5% in 2018, 51.4% in 2016 and 53.8% in 2014); or
- a personal health issue, 70.1% (vs. 64.7% in 2020, 56.4% in 2018, 60.9% in 2016 and 58.3% in 2014).

On problems that are more emotionally or psychologically internal to the individual, the respondents were less likely to report having ever received services, except when the crisis was more acute. The percentage of those who experienced various emotional problems who reported ever receiving services was:

- overwhelmed by what had to be done, 50.6% (up from 47.7% in 2020, 40.8% in 2018, 40.1% in 2016 and 39.2% in 2014);
- felt exhausted, 52.3% (up from 47.4% in 2020, 41.5% in 2018, 40.6% in 2016, and 39.3% in 2014);
- felt very lonely, 53.2% (up further from 51.1% in 2020, 44.9% in 2018, 42.6% in 2016, and 42.1% in 2014);
- felt very sad, 52.9% (up from 50.6% in 2020, 43.1% in 2018, 42.7% in 2016, and 42.4% in 2014);

- felt overwhelming anger, 54.5% (up further from 52.7% in 2020, 46.7% in 2018, 46.0% in 2016, and 45.5% in 2014);
- felt hopeless, 58.2% (up from 52.4% in 2020, 48.1% in 2018, 45.5% in 2016, and 46.3% in 2014);
- felt overwhelming anxiety, 55.5% (up further from 53.5% in 2020, 47.4% in 2018, 45.2% in 2016, and 44.8% in 2014);
- felt too depressed to function, 60.7% (up from 56.5% in 2020, 51.2% in 2018, 49.8% in 2016, and 48.9% in 2014);
- intentionally tried to injure self, 70.5%73.4% (down slightly from 73.4% in 2020, but still greater than 63.0% in 2018, 68.9% in 2016, and 56.2% in 2014);
- seriously considered suicide, 72.8% (up from 68.2% in 2020, 68.2% in 2018, 66.7% in 2016, and 57.3% in 2014); or
- attempted suicide, 74.6% (similar to 74.6% in 2020, 76.2% in 2018, 73.1% in 2016, and 55.8% in 2014).

The questionnaire asked respondents whether or not they had ever received psychological or mental health services from their current college/university's counseling or health services. One in five (20.2%) of the students indicated that they had received psychological or mental health services from MSU's Counseling and Psychiatric Services or the Student Health and Wellness Center (virtually the same as in 2020). However, these were slightly greater than the 18.2% reported in 2018, 15.4% in 2016, 13.0% in 2014, 11.1% in 2012, and 9.9% reported in 2010. That is, since 2010, there has been roughly 110% increase in the percentage of students who report having received psychological or mental health services from MSU's counseling or health services.

Respondents were also asked whether or not they would consider seeking help from a mental health professional in the future if they were having a personal problem that was really bothering them. Among all respondents, eight out of ten (80.4%) said that they would consider seeking help – similar to the 82.9% in 2020 and 81.7% reported in 2018, but still up from 77.8% in 2016, 70.6% in 2014, and 67.2% reported in 2012 and 2010. That is, there has been a noteworthy increase – a 22% increase – in students' professed willingness to seek mental health assistance in the past nine years.

Among those who reported that they had never received psychological or mental health services from a professional in the past, 70.6% said they would consider doing so in the future if they had a problem that was really bothering them, but 91.0% of those who have received such services from a professional in the past indicated they would consider doing so again in the future.

## RESULTS: Physical Health in the Past Year

Respondents were asked to report whether or not they had been diagnosed or treated by a professional for any of 26 different health problems within the previous twelve months. Table 22 shows the percentages of all respondents who reported having been diagnosed or treated with each of the problems during the past year. The results are very similar to those reported for the five surveys from 2010 to 2018. The table indicates that:

- Roughly one in six reported having been diagnosed with or treated for allergy problems (17.4%); one in eight for a sinus infection (12.4%); one in nineteen (6.3%) reported having been diagnosed with or treated for strep throat; one in five reported being diagnosed or treated for back pain (9.9%); roughly one in thirteen (7.3%) for a urinary tract infection, and one in twelve for asthma (8.4%); one in thirty-seven for bronchitis (2.8%), a broken bone or sprain (3.3%), and one in twenty for an ear infection (5.0%), or irritable bowel syndrome (4.4%).
- Less than half of the respondents (48.8%) reported having been diagnosed with or treated for at least one of the 26 health problems in the previous year. This is very similar to the lower than the 52.3% reported in 2020, 51.6% reported in 2018, 50.1% in 2016, 54.4% reported in each 2012 and 2010, but similar to the 48.7% in 2014.
  - Females were more likely than males (59.2% vs. 36.9%) to report having been diagnosed with or treated for at least one of the health problems.
  - There were no statistically significant differences among the three groups of students based on race/ethnicity or nationality in the likelihood of being diagnosed or treated for at least one of these health conditions.
  - There were no significant differences between undergraduates and graduate/professional students; those living on campus were somewhat less likely than those living off campus to have been diagnosed or treated for at least one of these health problems.
- Females were more likely than males to report having been diagnosed with or treated for allergy problems, asthma, back pain, bronchitis, an ear infection, endometriosis, herpes, irritable bowel syndrome, migraine headaches, sinus infections, and urinary tract infections.
- Domestic white respondents were more likely than other students to report having been diagnosed with or treated for bronchitis, an ear infection, irritable bowel syndrome, and urinary tract infections.
- Those living off campus were more likely than on-campus students to report having been diagnosed or treated for Chlamydia, high cholesterol, irritable bowel syndrome, and repetitive stress injuries.

Health Problem	Overall % Diagnosed or Treated	% Diagnosed or Treated During Past 12 Months								
		GENDER		RACE/ETHNICITY			STUDENT STATUS		RESIDENCE	
		Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof	On Campus	Off Campus
Allergy Problems	17.4%	14.1%	20.5% *	17.7%	17.2%	15.5%	18.1%	14.3%	18.0%	17.1%
Asthma	8.4%	5.2%	11.2% *	9.5%	6.6%	6.0%	8.5%	7.7%	8.7%	8.4%
Back pain	9.9%	7.1%	12.5% *	9.6%	8.6%	16.7%	8.9%	13.8% *	8.9%	10.5%
Broken bone/fracture/sprair	3.3%	3.0%	3.6%	3.0%	3.9%	3.6%	3.4%	2.8%	3.4%	3.3%
Bronchitis	2.8%	1.5%	3.9% *	3.7%	0.7%	1.2% *	3.3%	0.8% *	2.6%	2.9%
Chlamydia	1.5%	2.2%	0.8% *	1.3%	2.0%	1.2%	1.3%	1.6%	0.2%	2.1% *
Diabetes	1.0%	0.7%	1.3%	0.9%	0.7%	2.4%	1.0%	0.8%	1.2%	0.8%
Ear infection	5.0%	2.6%	7.2% *	6.2%	2.6%	2.4% *	5.1%	4.5%	5.8%	4.5%
Endometriosis	0.9%	0.0%	1.6% *	0.8%	1.3%	0.0%	0.8%	0.8%	1.0%	0.8%
Genital herpes	0.5%	0.0%	1.0% *	0.7%	0.3%	0.0%	0.4%	0.4%	0.0%	0.8%
Genital warts/HPV	0.4%	0.2%	0.5%	0.0%	1.3%	0.0% *	0.4%	0.0%	0.2%	0.4%
Gonorrhea	0.6%	0.9%	0.3%	0.5%	1.0%	1.2%	0.4%	1.2%	0.2%	0.8%
Hepatitis B or C	0.1%	0.0%	0.3%	0.0%	0.7%	0.0%	0.0%	0.4%	0.0%	0.3%
High blood pressure	3.6%	3.5%	3.6%	3.4%	4.3%	2.4%	2.8%	6.1% *	2.9%	4.0%
High cholesterol	3.1%	3.2%	2.9%	3.4%	2.3%	3.6%	2.3%	5.7% *	1.7%	3.8% *
HIV infection	0.2%	0.2%	0.2%	0.1%	0.3%	0.0%	0.2%	0.0%	0.0%	0.3%
Irritable bowel syndrome	4.4%	2.0%	6.4% *	5.5%	2.3%	2.4% *	4.3%	4.5%	1.7%	5.9% *
Migraine headache	7.7%	3.3%	11.4% *	8.0%	6.6%	8.4%	7.2%	9.4%	8.1%	7.4%
Mononucleosis	1.8%	0.9%	2.5%	2.4%	1.0%	0.0%	1.9%	0.8%	1.4%	1.9%
Pelvic inflammatory disease	0.1%	0.0%	0.2%	0.1%	0.3%	0.0%	0.1%	0.0%	0.2%	0.1%
Repetitive stress injury	1.1%	1.1%	1.0%	1.3%	0.7%	1.2%	0.4%	2.9% *	0.0%	1.6% *
Sinus infection	12.4%	7.2%	17.0% *	15.3%	7.2%	6.0% *	13.7%	7.3% *	12.5%	12.4%
Strep throat	6.3%	5.8%	6.5%	7.1%	4.6%	4.8%	7.3%	2.0% *	7.0%	5.9%
Tuberculosis	0.1%	0.2%	0.2%	0.1%	0.3%	0.0%	0.0%	0.4%	0.0%	0.3%
Urinary tract infection	7.3%	0.4%	13.2% *	8.7%	5.3%	2.4% *	7.3%	6.5%	6.0%	8.1%
At least one of the above	48.8%	36.9%	59.2% *	51.0%	45.2%	42.4%	49.1%	47.2%	43.8%	51.6% *
* p(x <sup>2</sup> ) < .05										

- Graduate/professional students were more likely than undergraduates to report having been diagnosed with or treated for back pain, high blood pressure, high cholesterol, and repetitive stress injury, but less likely than undergraduates to report having been diagnosed with or treated for bronchitis, strep throat, or sinus infection.

Across all respondents, the average number of these various health problems they reported having been diagnosed with or treated for in the past year was 0.9, but 51.2% of the respondents reported having none of these health problems – slightly higher than the 47.7% in 2020, 48.4% in 2018, 49.9% in 2016, and 48.1% found in 2014. Among those who were diagnosed with or treated for at least one problem, the average number was 2.0 different problems, virtually the same as in 2020, 2018, 2016, 2014, 2012 and 2010.

## RESULTS: Impediments to Academic Performance

Another section of the questionnaire asked respondents if, within the previous twelve months, they had each of 31 different kinds of problems – illnesses, substance abuse, victimization, emotional problems, and other behavioral problems – and, if so, the extent to which the experience affected their academic performance. Table 23 shows the percentage of all respondents who reported not having had each of the various problems, the percentage who said they had the problem but that it did not affect their academic performance, and the percentage who said they had the problem and that, as a result, they received a lower grade on an exam or important project, received a lower grade in a course, received an incomplete or dropped a course, or their thesis or dissertation work was disrupted. The table indicates that the most common health problem was stress which was reported to have been a problem for 66.7% of students (similar to the reported 67.3% in 2020, 68.0% in 2018, 66.9% in 2016, 71.0% in 2014, 79.1% in 2012 and 74.8% in 2010) – 36.4% had problems with stress but claimed it did not affect academic performance plus 30.3% who had problems with stress and claimed it did affect academic performance in one of the four ways – this is very similar to the 31.9% in 2020, 29.9% reported in 2018, but still greater than the 26.9% in 2016, 27.6% in 2014, 24.5% in 2012 and the 21.9% in 2010.

The table indicates that the ten most common health problems were:

1. Stress (**66.7%** vs. 67.3% in 2020, 68.0% in 2018, 66.9% in 2016, and 71.0% in 2014)
2. Anxiety (**57.7%** vs. 54.2% in 2020, 46.7% in 2018, 45.7% in 2016, and 47.3% in 2014)
3. Sleep difficulties (**48.9%** vs. 49.4% in 2020, 46.8% in 2018, 46.2% in 2016, and 49.3% in 2014)
4. A cold/flu/sore throat (**37.3%** vs. 50.0% in 2020, 47.7% in 2018, 43.9% in 2016, and 53.8% in 2014)
5. Work (**36.9%** vs. 39.0% in 2020, 40.0% in 2018, 39.8% in 2016, and 46.6% in 2014)
6. Depression (**33.5%** vs. 34.1% in 2020, 28.9% in 2018, 24.8% in 2016, and 25.2% in 2014)



Table 23. Percentage of Respondents Who Had Various Problems in Past 12 Months That Did or Did Not Affect Academic Performance: 2022																
Health Problem		% Did Not Have	% Had, No Effect	% Had, Some Effect	% Who Had and Academic Performance Affected											
					GENDER		RACE/ETHNICITY			RESIDENCE		Student Status		CUMULATIVE GPA		
					Male	Female	White Domestic	Other Domestic	Internatl.	On Campus	Off Campus	Undergrad	Grad/Prof	A	B	C/D/F
A.	Alcohol use	69.3%	27.1%	3.6%	4.1%	3.1%	4.3%	2.3%	1.2%	2.4%	4.4%	4.2%	1.2% *	1.9%	6.2%	11.8% *
B.	Allergies	80.7%	18.4%	0.9%	1.5%	0.5%	0.8%	1.3%	1.2%	1.2%	0.8%	0.9%	0.8%	0.3%	2.4%	2.0% *
C.	Anxiety	42.3%	29.5%	28.1%	22.6%	33.1% *	30.7%	24.2%	20.2% *	27.1%	28.7%	30.4%	19.3% *	21.5%	39.2%	45.1% *
D.	Assault (physical)	97.7%	1.9%	0.4%	0.4%	0.5%	0.4%	0.3%	0.0%	0.7%	0.1%	0.3%	0.4%	0.3%	0.3%	2.0%
E.	Assault (sexual)	95.3%	3.5%	1.2%	0.7%	1.6%	1.4%	0.7%	1.2%	1.2%	1.2%	1.2%	0.4%	1.1%	0.9%	3.9%
F.	Attention Deficit Disorder	82.2%	5.9%	11.8%	11.2%	12.5%	13.1%	10.0%	5.9%	9.5%	13.1%	12.6%	9.0%	7.0%	20.4%	17.6% *
G.	Cold/Flu/Sore Throat	62.7%	24.3%	12.9%	9.1%	16.4% *	14.7%	9.3%	9.6% *	15.3%	11.7%	15.0%	5.3% *	8.8%	22.4%	16.0% *
H.	Concern for troubled friend/family	72.0%	18.7%	9.3%	6.2%	11.9% *	8.8%	11.0%	8.2%	9.3%	9.4%	9.3%	9.0%	7.0%	13.2%	7.8% *
I.	Chronic illness (diabetes, asthma, etc.)	90.6%	6.1%	3.3%	0.9%	5.4% *	3.3%	3.6%	2.4%	2.4%	3.8%	2.9%	4.5%	2.7%	4.4%	3.9%
J.	Chronic pain	92.3%	5.0%	2.7%	1.1%	4.1% *	2.4%	3.0%	4.8%	2.4%	2.9%	2.3%	3.7%	2.2%	3.0%	7.8%
K.	Death of friend or family member	82.8%	10.4%	6.9%	5.2%	8.3% *	6.7%	8.2%	4.8%	6.7%	7.0%	7.5%	4.5%	5.2%	8.3%	13.7% *
L.	Depression	66.5%	13.6%	20.0%	15.2%	24.1% *	20.2%	21.1%	13.4%	17.8%	21.2%	20.9%	16.1%	13.5%	27.2%	54.9% *
M.	Discrimination	92.2%	6.5%	1.3%	1.1%	1.3%	0.9%	2.3%	1.2%	1.2%	1.2%	1.3%	0.8%	1.1%	1.2%	2.0%
N.	Drug use	92.2%	5.8%	2.0%	2.2%	1.8%	2.5%	1.3%	0.0%	1.0%	2.6%	2.2%	0.8%	1.2%	3.2%	5.9% *
O.	Eating disorder/problem	91.0%	6.6%	2.4%	0.6%	4.1% *	2.5%	2.3%	1.2%	1.9%	2.6%	2.9%	0.4% *	1.9%	3.6%	2.0%
P.	Finances	76.1%	18.3%	5.7%	4.8%	6.4%	5.0%	7.6%	4.8%	3.4%	7.0% *	5.8%	4.9%	4.1%	8.8%	5.9% *
Q.	Gambling	96.6%	3.0%	0.4%	0.4%	0.3%	0.3%	0.7%	0.0%	0.0%	0.7%	0.3%	0.4%	0.1%	0.6%	3.9% *
R.	Homesickness	75.2%	19.3%	5.5%	3.4%	7.4% *	4.5%	5.7%	13.4% *	5.8%	5.2%	5.8%	4.1%	4.1%	7.9%	3.9% *
S.	Injury	93.5%	5.3%	1.2%	0.9%	1.3%	1.2%	1.0%	1.2%	1.0%	1.2%	1.0%	1.6%	1.0%	1.8%	0.0%
T.	Internet use/computer games	70.6%	18.3%	11.0%	13.8%	8.7% *	10.9%	11.5%	9.6%	10.4%	11.5%	12.4%	5.7% *	7.2%	16.5%	27.5% *
U.	Learning disability	95.5%	1.7%	2.8%	1.9%	3.5%	2.8%	3.3%	1.2%	2.9%	2.8%	3.3%	0.4% *	1.2%	5.9%	3.9% *
V.	Participation in extracurricular activities	72.3%	21.9%	5.8%	4.9%	6.7%	5.3%	6.6%	9.5%	5.5%	6.0%	7.0%	1.6% *	4.9%	7.6%	7.8%
W.	Pregnancy (self or partner)	98.6%	0.9%	0.6%	0.4%	0.7%	0.4%	1.0%	0.0%	0.2%	0.8%	0.4%	0.8%	0.7%	0.0%	3.9% *
X.	Relationship difficulty	76.6%	15.3%	8.1%	6.6%	9.3%	7.6%	8.6%	10.7%	8.7%	7.7%	9.0%	4.5% *	5.9%	11.2%	13.7% *
Y.	Roommate difficulties	76.3%	18.5%	5.2%	3.2%	7.1% *	5.8%	4.3%	3.6%	5.8%	4.9%	5.8%	2.9%	4.3%	6.2%	7.8%
Z.	Sexually transmitted disease	98.1%	1.7%	0.2%	0.0%	0.3%	0.1%	0.3%	0.0%	0.2%	0.1%	0.1%	0.0%	0.1%	0.3%	2.0%
AA.	Sinus/ear infection, bronchitis, strep	87.8%	8.8%	3.4%	0.7%	5.7% *	4.5%	1.0%	2.4% *	3.6%	3.3%	3.9%	1.2% *	2.6%	4.7%	5.9%
BB.	Sleep difficulties	51.1%	28.4%	20.5%	17.7%	23.0% *	20.9%	21.5%	13.1%	21.1%	20.2%	22.8%	11.6% *	14.0%	31.5%	39.2% *
CC.	Stress	33.3%	36.4%	30.3%	25.9%	34.3% *	32.8%	28.0%	16.7% *	31.9%	29.5%	33.0%	20.4% *	22.1%	42.8%	58.8% *
DD.	Work	63.1%	26.5%	10.4%	7.1%	13.3% *	10.1%	11.8%	8.4%	6.3%	12.9% *	10.8%	8.6%	8.8%	14.2%	13.7% *
EE.	Other	96.8%	0.9%	2.3%	1.2%	3.2%	1.9%	3.8%	0.0%	3.0%	1.8%	1.9%	3.1%	1.6%	2.8%	9.4% *
* $p(\chi^2) < .05$																

7. Alcohol use (**30.7%** vs. 36.0% in 2020, 36.0% in 2018, 35.0% in 2016, and 48.5% in 2014)
8. Internet use/computer games (**29.4%** vs. 30.3% in 2020, 30.1% in 2018, 37.1% in 2016, and 42.2% in 2014)
9. Concern for a troubled friend/family member (**28.0%** vs. 29.9% in 2020, 27.9% in 2018, 29.1% in 2016, and 32.3% in 2014)
10. Participation in extracurricular activities (**27.7%** vs. 34.7% in 2020, 33.2% in 2018, 34.3% in 2016, and 40.5% in 2014)

The eight least common problems were:

1. Chronic pain (7.7%)
2. Injury (6.5%)
3. Sexual assault (4.7%)
4. Learning disabilities (4.5%)
5. Gambling (3.4%)
6. Physical assault (2.3%)
7. Sexually transmitted disease (1.9%)
8. Pregnancy (1.4%)

The first five most common problems are the same five problems as were reported in 2020. The only difference is that ordering of colds/flu/sore throat and sleep difficulties switched around.

The eight least common problems include the same set of problems as in 2020. However, the ordering of the eight least common problems in 2022 varies slightly from that of 2020. For most of these eight problems, the difference in the percentages who reported experiencing the problem for 2022 and 2020 is less than the margins of error for the samples, so the change in the ordering of these eight problems means little.

Figure 20 shows the percentage of students who reported experiencing problems with various circumstances and the portion of these who also reported their academic performance was impaired by having the problem in the past year. The problems are listed in descending order of prevalence. The figure indicates that not all problems, if experienced, were equally likely to adversely impact academic performance.

This can be more clearly seen in Figure 21. This figure shows only the percentages of students who reported their academic performances were adversely impacted if they experienced the problem at all.

Comparing Figures 20 and 21 makes it clear that many students experience difficulties with some problems but manage the problem without it affecting their academic work. For example, similar percentages of students report experiencing problems with alcohol and with depression (30.7% vs. 33.5%), but far more students report that their academic performance was impaired by depression than by alcohol use (20.0% vs. 3.6%). In fact, 59.5% of the students who reported having a problem with depression said their

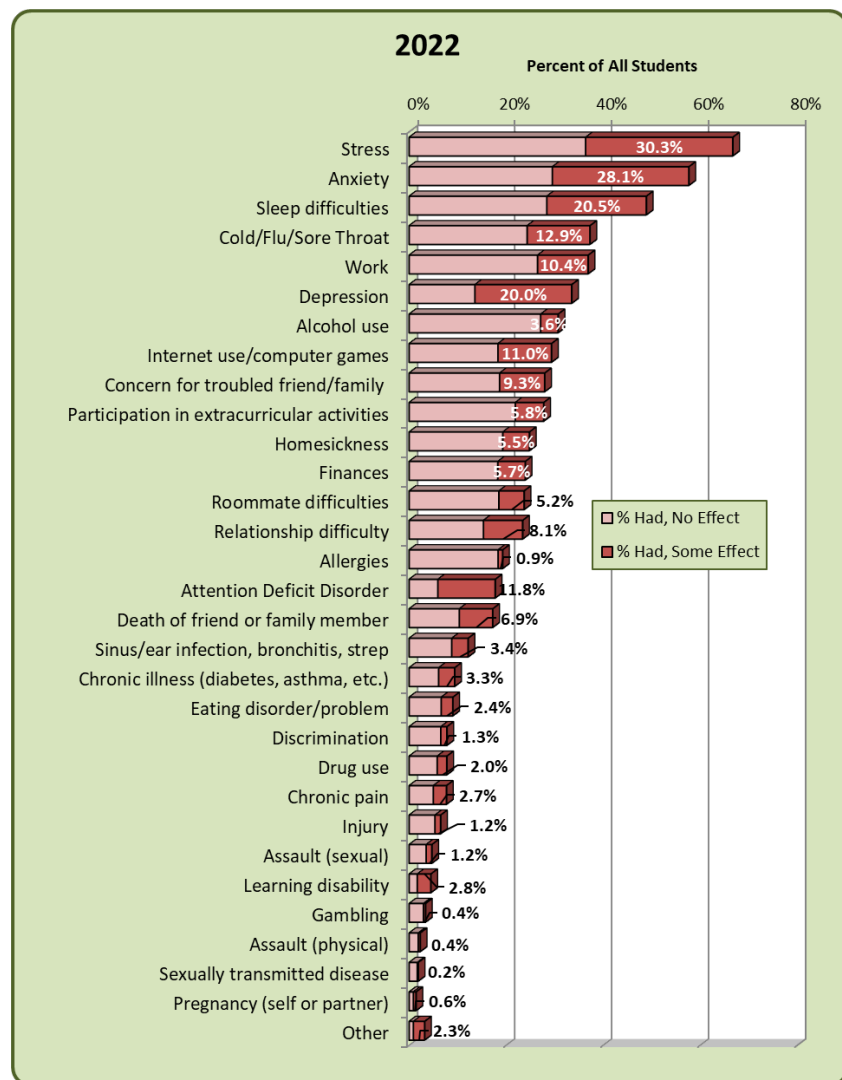


Figure 20. Percentage of Students Whose Academic Performance Was Impaired by Problems Encountered During Year, 2022

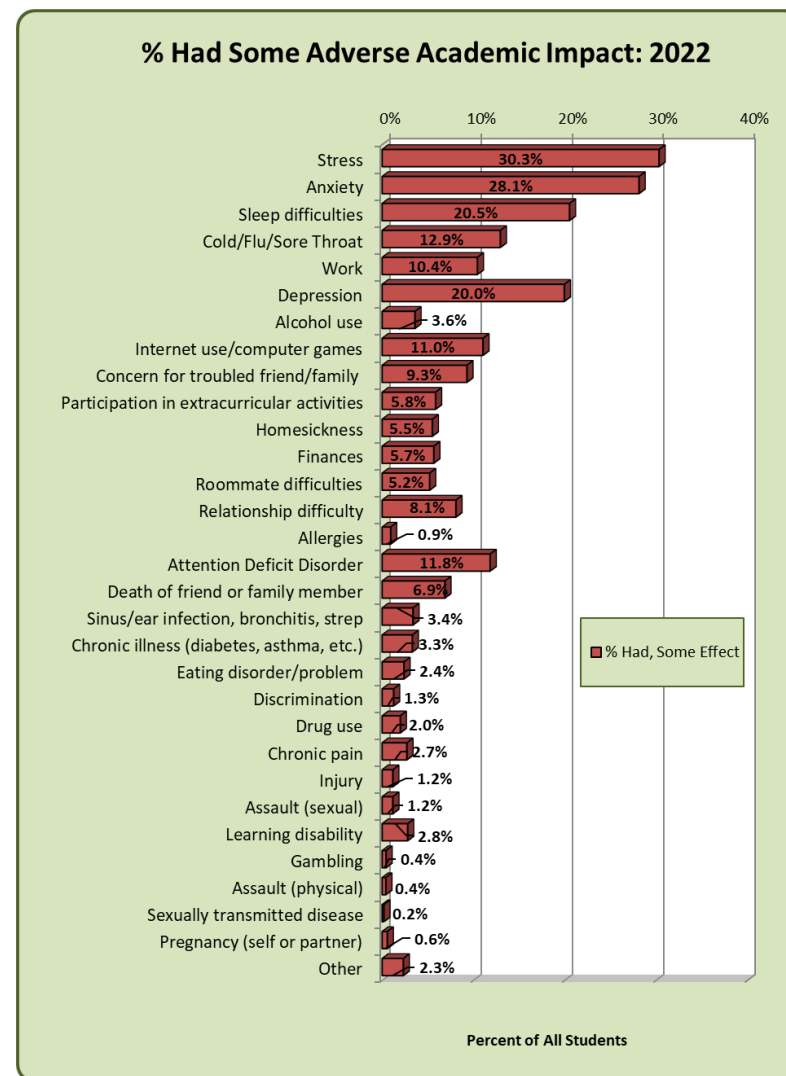


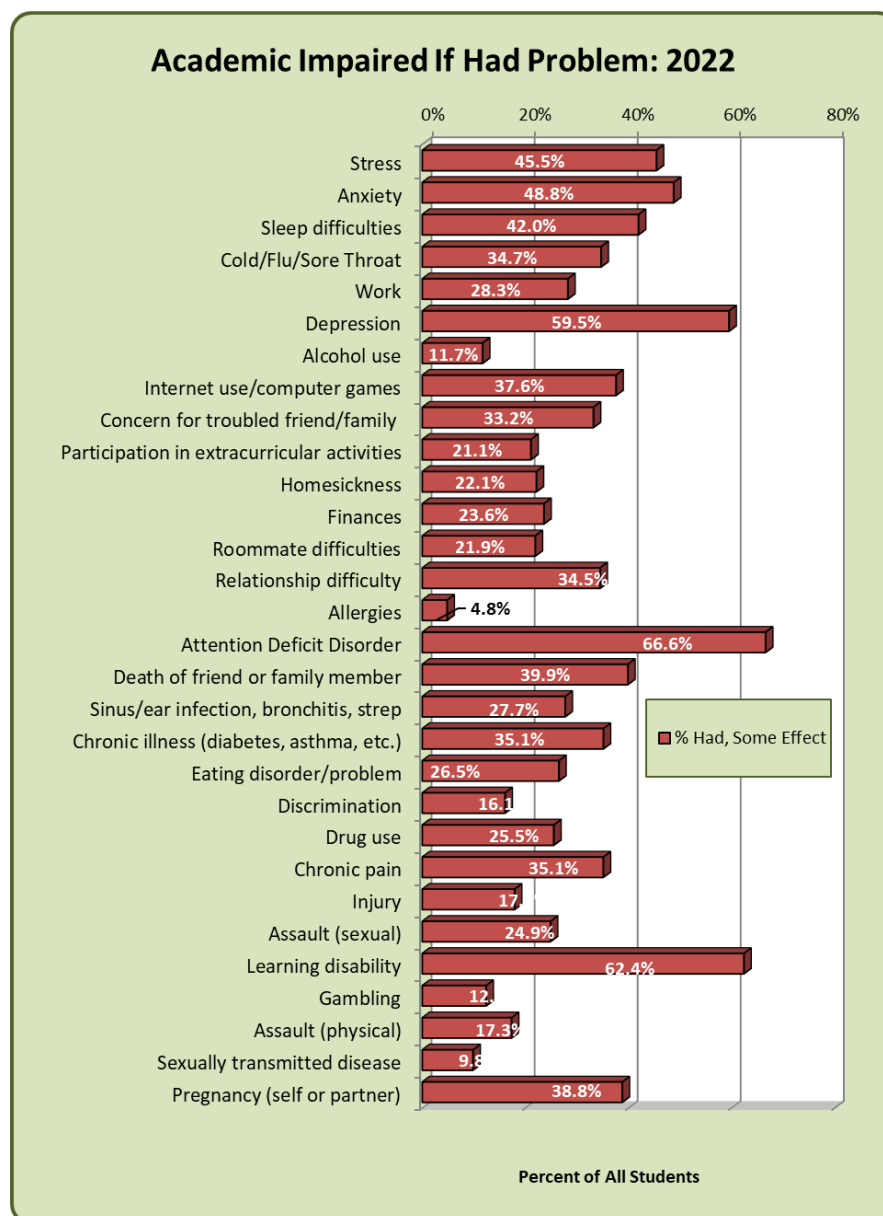
Figure 20. Percentage of Respondents Academically Impaired by Various Health-Related Problems: 2022

academic performance was adversely impacted as a result. By contrast, only 11.7% of the students who reported having a problem with alcohol said their academic performance suffered as a consequence.

There are also some problems which only a few students experience, but for those who do, the likelihood of academic impairment is quite great. This is more clearly seen in Figure 22. As Figure 20 shows, many students report experiencing roommate difficulties and few report problems with Attention Deficit Disorder (ADD), but Figure 22 indicates that, while 22% of those who experienced roommate problems were impaired academically as a result, 67% of those experiencing problems with ADD were academically impaired as a result. Besides ADD, depression, pregnancy, and learning disabilities are also examples of relatively uncommon problems that appear to be highly likely to affect adversely the individual's academic performance.

On the other hand, the figures indicate there are other problems that are quite commonly experienced – such as stress, anxiety or sleep difficulties – which also are very likely to adversely impact academic performance if encountered.

Table 23 indicates that the academic performances of some types of students were more likely to be impaired by the various health-related problems than others. The table indicates that:



**Figure 21. Percentage of Those Whose Academic Performance Impaired If Experienced Particular Problem During Year, 2022**

- Females were more likely than males to report academic impairment as a result of anxiety, cold/flu/sore throat, concern for a troubled friend/family member, a chronic illness, chronic pain, the death of a family member or friend, depression, an eating disorder, homesickness, roommate difficulties, sinus/ear infections, sleep difficulties, stress, and work, while males were more likely than females to report impairment as a result of internet use or computer games.
- White domestic respondents were more likely than other students to report academic impairment as a result of anxiety, a cold/flu/sore throat, a sinus/ear infection or bronchitis or strep throat and stress, while international students were more likely than domestic students to report academic impairment as a result of home sickness.
- Off-campus respondents were more likely than their on-campus counterparts to report academic impairment as a result of finances and work.
- Undergraduates were more likely than graduate/professional students to report academic impairment as a result of alcohol use, anxiety, a cold/flu/sore throat, an eating disorder, internet use or computer games, a learning disability, sleep difficulties and stress.
- There were statistically significant differences in the percentages who reported academic impairment on 20 of the 31 health-related types of problems among respondents with different grade point averages. In general, respondents with lower grade point averages were more likely than their counterparts to report having been academically impaired “as a result” of the problem. This is very similar to the pattern found in each of the other surveys since 2010.

The patterns described above have been very similar across the last six NCHA surveys. Here we repeat the comment we have made in the previous reports as well:

***It may be very useful to inform students how much their success in college may be directly influenced by these various problems. Some of the problems (e.g., participation in extracurricular activities, alcohol use, internet use) are within their power to prevent or control. Others (e.g., financial difficulties, death of a family member or friend, assault) may not be within their ability to prevent but may be managed or coped with more or less well. Making students aware of the prevalence of these problems and their potential impacts while also encouraging them to seek assistance and identifying resources available at the University seems key to improving students' chances to thrive and succeed.”***

In the next section, we examine results of questions intended to gauge the distribution and utility of information provided to students by the University to help them cope or thrive while at MSU.

## RESULTS: Distribution of Health Information on Campus

Respondents were asked to indicate whether or not they had ever received health-related information from MSU on each of a variety of health topics and about which of these they are interested in receiving information. Table 24 shows the percentages of all respondents, for each topic, who claimed to have received information from MSU. The table indicates that:

The five topics about which the greatest percentages of respondents reported receiving information were: Sexual assault/relationship violence, Alcohol and other drug use prevention, Depression/anxiety, How to help others in distress, and Relationship difficulties. The five topics about which the fewest said they received information were Pregnancy prevention, Injury and violence prevention, Eating disorders, Problem use of the internet/computer games, and Sleep difficulties.

- 96.3% reported receiving information on sexual assault/relationship violence prevention (virtually the same as in 2020, but up from 94.6% in 2018, 91.0% in 2016, 75.8% in 2014, 73.8% in 2012, 66.9% in 2010, 45.6% in 2008 and 49.1% in 2006) – the increase since 2008 is consistent with the implementation of a mandatory sexual assault/relationship violence prevention program begun a decade ago for all freshmen.
- More than eight out of ten (82.5%) reported receiving information on alcohol and other drug use prevention – similar to the 84.6% in 2020 and the 81.3% reported in 2018 and 80.3% reported in 2016, which was up from the 74.4% reported in 2014, 72.2% in 2012 and 71.7% in 2010.
- Three-quarters (75.3%) reported receiving information about depression/anxiety – up slightly from 73.9% in 2020, 70.0% in 2018, but clearly higher than the 65.4% in 2016 and 52.7% in 2014.
- Seven out of ten (70.4%) reported receiving information on how to help others in distress; this was not among the top five in previous surveys and substantially higher than the 55.1% in 2020 and 53.5% found in 2018, which were also both up from 46.8% in 2016, 37.0% in 2014, 34.1% in 2012, and 26.4% in 2010.
- Roughly two-thirds reported receiving information on Relationship difficulties (67.9%) and Violence prevention (65.1%).
- More than half reported receiving information about Cold/flu/sore throat, STD/I prevention, Stress reduction, and Suicide prevention.

Table 24. Percentage of Respondents Who Ever Received Information from MSU, Interested in Receiving Information on Various Health Topics: 2022				
Health Topic	All Respondents			
	% Who Ever Received Information	% Interested In Receiving Information	Received	
			No	Yes
			Want Info	Want More
Alcohol and other drug use prevention	82.5%	35.9%	53.1%	65.5%
Cold/flu/sore throat	53.1%	36.7%	29.5%	42.9%
Depression/anxiety	75.3%	61.1%	51.7%	64.2%
Eating disorders	26.6%	46.4%	44.7%	52.0%
Grief and loss	42.7%	50.4%	46.9%	55.5%
How to help others in distress	70.4%	62.0%	53.1%	65.5%
Injury and violence prevention	31.2%	43.5%	38.3%	54.7%
Nutrition	35.6%	60.7%	56.5%	68.1%
Physical activity	44.4%	56.7%	50.2%	64.5%
Pregnancy prevention	34.3%	38.0%	31.4%	51.3%
Problem use of internet/computer games	19.9%	27.3%	24.6%	38.8%
Relationship difficulties	67.9%	46.3%	41.6%	48.5%
Sexual assault/relationship violence prevention	96.3%	56.4%	20.9%	57.8%
STD/I prevention	54.6%	51.6%	42.6%	59.2%
Sleep difficulties	18.6%	60.7%	59.1%	67.1%
Stress reduction	58.6%	69.8%	65.6%	72.7%
Suicide prevention	57.4%	56.1%	49.7%	60.9%
Tobacco use	38.0%	32.2%	22.2%	48.9%
Violence prevention	65.1%	51.6%	40.9%	57.2%
<b>None of the above</b>	<b>4.2%</b>	<b>21.4%</b>	--	--

- 4.2% claimed never to have received information from the University on any of these topics, the same as in 2020.

Respondents were also asked to indicate if they would be interested in receiving information on each of these topics. Table 24 shows the results for this also.

Typically, 30-60% of respondents indicated interest in receiving information on the topics. The greatest percentages of students expressed interest in receiving information on stress reduction (69.8%), how to help others in distress (62.0%), depression/anxiety (61.1%) nutrition (60.7%), sleep difficulties (60.7%), and physical activity (56.7%) – a very similar list to those of the previous six surveys.



Most of these are issues that many students face in the course of the year and are also identified by many students as impediments to the academic performance. It is noteworthy that sleep difficulties continue to be the issue about which one of the greater percentages of students say they want information but one of the issues about which a smaller percentage of students report having received information yet.

In the table, we also show the percentage of students who expressed an interest in receiving information on each topic comparing those who said they had not already received information to those who said they had. Typically, those who reported having received information on a topic were more likely to indicate an interest in receiving more information than were those who said they had never received any information on the topic. This seems to suggest those who received information found it interesting or useful, and that it piqued their interest for more (perhaps) detailed information.

## RESULTS: Special Topics

The results reported thus far have been based on standard questions included in the NCHA questionnaire (Version II). However, from time to time, MSU officials choose to include additional questions on the NCHA questionnaire to be administered at MSU. Sometimes these have been extra questions related to topics already covered on the NCHA, while at other times the additional questions have been on other topics of interest to MSU that are otherwise not addressed or not fully addressed by the standard NCHA questionnaire. In 2022, MSU added a number of questions of both types, i.e., those that expand on topics already addressed, and those that address new topics.

In 2022 as in 2020 and 2018, MSU wanted to investigate a set of questions focused on campus safety and fears. The results for these additional items will be presented in this section of the report.

**Fear of Victimization.** Over the past decade, MSU has focused more sharply on preventing sexual assault and addressing the needs of victims. Some of this effort has involved educating students about legal issues regarding consent and what constitutes assault. Some of this effort has involved clarifying in what kinds of situations sexual assault might occur and how to avoid an attempted assault. Some of the effort has focused on supporting victims, reporting incidents, and apprehending and prosecuting perpetrators.

Earlier in this report, the results of questions regarding perceptions of safety on campus or in the community off campus were presented that indicated that there has been a gradual decline in respondents' feelings of safety on campus – at least during the daytime – and a gradual decline regarding feelings of safety off campus in the community both during the daytime and nighttime. At the same time, this report has indicated that the actual percentage of students who report being victimized has declined (by 11%) since 2000, but that reported sexual assault has increased.

In this context, some MSU staff requested that questions be included in the 2018 and 2020 NCHA at MSU to attempt to ascertain where on or near campus students seemed to be most apprehensive of the possibility of being sexually assaulted. These same questions were included in the 2022 NCHA questionnaire also. Respondents were presented the following question:



*“Thinking about the risk of being sexually assaulted or harassed, how safe do you feel in . . .”* and were then given a list of different settings and asked to indicate for each if they felt very safe, somewhat safe, somewhat unsafe, or not safe at all in the setting. The list of settings included an off-campus party not sponsored by a fraternity, a party sponsored by a fraternity house either at the chapter house or another location, an MSU team athletic event, in faculty or graduate student offices, at a football tailgate, and in the library. Table 25 shows the results.

The table indicates that eight out of ten students judged it to be very safe in the MSU library (86.2%) and in faculty or graduate student offices (79.3%). Roughly half judged it to be very safe at an athletic event (56.1%) or at a football tailgate (46.1%).

The setting where respondents most perceived a risk of sexual assault was a party sponsored by a fraternity house either at the chapter house or another location. Less than one in five respondents judged these two locations to be very safe: at a party at a fraternity or sorority house (14.3%), at a party sponsored by a fraternity or sorority at other locations (15.5%).

Roughly half the respondents (51.7%) judged parties at fraternity or sorority houses to be somewhat unsafe or not safe at all. In fact, 21.4% of respondents judged this setting to be not safe at all.

**Table 25. How Safe or Unsafe Respondents Feel Regarding Risk of Sexual Assault/Harrassment in Various Campus Locations, by Background Characteristics: 2022**

Thinking about the risk of being sexually assaulted or harassed, how safe do you feel in . . .			% Of Respondents **												
			GENDER		RACE/ETHNICITY			STUDENT STATUS		SEXUAL ORIENTATION				VICTIMIZED IN PAST YEAR***	
			Male	Female	White Domestic	Other Domestic	Internatl.	Under-grad	Grad/Prof	Hetero-sexual	Homosexual/ Gay/Lesbian	Bisexual	Unsure/ Other	Yes	No
OVERALL															
An off-campus party not sponsored by a fraternity	Not Safe at All	11.8%	8.7%	14.4% *	8.8%	18.8%	17.2% *	12.3%	9.7%	9.6%	14.8%	21.4%	29.3% *	12.9%	11.3%
	Somewhat Unsafe	32.6%	23.4%	39.7%	30.5%	39.7%	28.1%	33.5%	26.9%	30.5%	47.5%	34.5%	43.9%	36.0%	31.0%
	Somewhat Safe	37.1%	36.8%	37.2%	40.1%	29.9%	32.8%	36.8%	38.8%	39.8%	26.2%	29.8%	17.1%	33.5%	38.7%
	Very Safe	18.5%	31.1%	8.8%	20.6%	11.6%	21.9%	17.5%	24.6%	20.1%	11.5%	14.3%	9.8%	17.6%	19.0%
A party at a fraternity or sorority house	Not Safe at All	21.4%	17.8%	23.9% *	19.5%	28.6%	13.3% *	21.5%	21.0%	16.9%	36.7%	36.3%	47.6% *	27.2%	18.8% *
	Somewhat Unsafe	36.0%	26.0%	43.4%	36.9%	32.2%	40.0%	36.0%	36.1%	34.6%	46.7%	41.3%	33.3%	31.9%	37.8%
	Somewhat Safe	28.3%	29.7%	27.2%	28.3%	30.0%	23.3%	28.2%	28.6%	31.4%	15.0%	17.5%	14.3%	27.2%	28.7%
	Very Safe	14.3%	26.5%	5.4%	15.4%	9.3%	23.3%	14.4%	14.3%	17.1%	1.7%	5.0%	4.8%	13.6%	14.7%
Parties sponsored by Fraternities or Sororities at other locations	Not Safe at All	16.5%	15.1%	17.7% *	14.3%	22.9%	13.6%	16.1%	19.1%	12.8%	29.3%	27.8%	37.5% *	22.2%	13.9% *
	Somewhat Unsafe	35.2%	26.6%	41.4%	35.1%	35.4%	37.3%	35.7%	32.2%	34.0%	46.6%	38.0%	32.5%	33.3%	36.1%
	Somewhat Safe	32.8%	31.5%	33.8%	35.1%	27.8%	28.8%	32.8%	33.0%	34.5%	22.4%	30.4%	25.0%	32.2%	33.1%
	Very Safe	15.5%	26.8%	7.0%	15.5%	13.9%	20.3%	15.4%	15.7%	18.7%	1.7%	3.8%	5.0%	12.2%	16.9%
In faculty or graduate assistant offices	Not Safe at All	1.4%	1.7%	1.1% *	0.6%	3.1%	2.7% *	1.5%	1.0%	1.0%	1.4%	4.5%	2.2% *	2.1%	1.1%
	Somewhat Unsafe	2.2%	1.3%	3.0%	1.8%	1.2%	9.3%	2.5%	1.0%	2.4%	1.4%	2.2%	2.2%	2.1%	2.3%
	Somewhat Safe	17.1%	10.7%	22.5%	16.7%	20.8%	9.3%	17.2%	16.4%	15.7%	28.6%	13.5%	33.3%	17.9%	16.8%
	Very Safe	79.3%	86.3%	73.4%	81.0%	74.9%	78.7%	78.8%	81.5%	81.0%	68.6%	79.8%	62.2%	77.9%	79.7%
MSU Library	Not Safe at All	0.7%	1.0%	0.4% *	0.3%	1.1%	1.4% *	0.7%	0.5%	0.5%	1.4%	1.1%	2.2%	0.7%	0.7%
	Somewhat Unsafe	1.9%	1.9%	2.0%	1.0%	1.9%	11.0%	2.1%	1.0%	2.3%	0.0%	1.1%	0.0%	1.4%	2.2%
	Somewhat Safe	11.2%	6.9%	15.0%	9.9%	16.0%	6.8%	10.8%	13.1%	10.2%	20.3%	9.6%	20.0%	14.0%	10.1%
	Very Safe	86.2%	90.2%	82.7%	88.8%	81.0%	80.8%	86.4%	85.3%	87.1%	78.3%	88.3%	77.8%	83.9%	87.1%
At a tailgate	Not Safe at All	1.9%	1.8%	1.9% *	1.4%	3.4%	1.5% *	1.6%	3.3%	1.5%	4.8%	1.2%	5.0% *	3.2%	1.3%
	Somewhat Unsafe	13.1%	9.1%	16.5%	9.8%	17.9%	28.8%	13.3%	11.8%	10.8%	17.7%	23.3%	27.5%	13.3%	13.0%
	Somewhat Safe	38.9%	26.3%	49.5%	37.5%	46.4%	27.3%	38.8%	39.2%	37.0%	48.4%	45.3%	47.5%	40.7%	38.1%
	Very Safe	46.1%	62.8%	32.1%	51.4%	32.3%	42.4%	46.2%	45.8%	50.6%	29.0%	30.2%	20.0%	42.8%	47.6%
An athletic event	Not Safe at All	1.6%	2.0%	1.3% *	1.3%	2.1%	3.0% *	1.8%	1.2%	1.0%	4.6%	1.1%	7.5% *	2.4%	1.3%
	Somewhat Unsafe	9.1%	7.1%	10.8%	7.2%	9.2%	28.4%	8.9%	9.9%	7.5%	15.4%	16.9%	15.0%	10.5%	8.6%
	Somewhat Safe	33.2%	22.4%	42.4%	31.3%	41.8%	20.9%	33.1%	33.3%	29.7%	49.2%	42.7%	55.0%	34.5%	32.6%
	Very Safe	56.1%	68.4%	45.5%	60.1%	46.9%	47.8%	56.2%	55.6%	61.8%	30.8%	39.3%	22.5%	52.6%	57.5%
* p(x2) < .05															

\* p(x<sup>2</sup>) < .05

\*\* Excludes respondents who indicated the question was "not applicable" -- varied from 8.6% regarding in MSU Library to 23.6% regarding a parties sponsored by fraternities or sororities at other locations

\*\*\* Reported being victimized in the past 12 months in one or more of the ways listed in Table 17

The table compares the judgement for each setting across categories of sex, race, student status, sexual orientation, and whether or not the respondent reported having been a victim (as listed in Table 17) in the past year. In general, the table indicates that:

- Females judged each of the settings to be less safe than did males;
- Other domestic students tended to judge each of the settings as less safe than either White domestic or international students;
- There were no significant differences between Graduate/professional students and undergraduates regarding the perceived safety of any of the settings described
- Heterosexual respondents judged off campus parties generally, fraternity/sorority hosted or sponsored parties, tailgates, MSU team athletic events, and faculty or graduate student offices to be safer than did non-heterosexuals; and,
- Respondents who had reported being victimized in some way during the previous twelve months judged fraternity/sorority hosted or sponsored parties to be less safe than did non-victims.

It seems reasonable to suspect that respondents' judgments as to the safety or riskiness of the settings at least partly reflects their personal experience or the experience of their friends in the various settings. If so, then the settings in which females perceived substantially greater risk than males, or sexual minorities perceived greater risk than heterosexuals may have some basis in the factual experiences of those types of individuals. If that is the case, then some of the settings could be more directly targeted by policy, education, or oversight to reduce harmful language and behaviors.

## SUMMARY

This report has summarized key results of the 2022 NCHA survey of MSU students based on NCHA II. It is an overview of the results rather than an exhaustive statistical exploration of any particular topic. The focus of the analyses has been the prevalence of various health-related behaviors, problems, or conditions among MSU students.

In some parts of the summary, we have compared the results of the survey administered in 2022 to the results from the surveys administered in even-numbered years from 2000 to 2020 and 2021. Generally, the same sampling plan has been used for each of the surveys and they were administered at virtually the same time in the University calendar.

As was noted early in the report, the questionnaire used in 2010 through 2022 (NCHA II) had been greatly redesigned compared to the questionnaire used in the five earlier surveys. Some questions had been added, some in the earlier version had been dropped, some response options had been changed substantively or in format, and some time period references about which respondents were to provide information on events had been changed. It was also noted that ACHA greatly revised the questionnaire again in 2020. While the newer NCHA questionnaire may actually be more informative in the long run, the short-term impact of the revision has been that the results for many questions in NCHA III cannot meaningfully be compared to those from the earlier surveys. Using the NCHA II questionnaire in 2022 and in 2021 with a much smaller sample, this report has endeavored to show trends over time through 2022 to explore the impact of the COVID-19 pandemic restrictions and policies on the health and health behaviors of MSU students.

What has continued to be impressive has been the consistency of the findings for many of the questionnaire items from one survey year to the next since 2000. The primary exceptions to this consistency are in health areas that reflect changes in the larger economy that impacts students' financial uncertainties, episodic outbreaks of infectious diseases from year to year, and health education initiatives implemented within the university. In these areas, the inconsistencies in the findings from other years virtually always match what the presumed impacts of such circumstances and efforts would be. The results for 2021 with nearly all students being off campus and taking classes remotely because of COVID restrictions compared to survey results prior to and subsequent to 2021 clearly illustrate this. These difference in outcomes add credibility to the survey's findings both overall and on individual health items even when differences from year to year appear to be relatively small.

The results reported here represent an overview. Much additional analysis is possible that might answer more specific questions about the health, health behaviors, and academic circumstances of MSU students. Nevertheless, much of the analyses covered here might be informative to students regarding what they might do to optimize their attempts to thrive while at MSU and to university administrators who wish to build the supportive environments that lead to student success. That is the continuing goal of the reports of this regularly administered survey.