

Missouri Student Survey Results – 2018

Generalized Key Findings

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This section provides a review of some of the key findings from 2006 to 2018 (except 2014) for St. Charles County public school students ranging from 6th to 12th grades collected from the Missouri Student Survey (MSS; developed and implemented by the Missouri Department of Mental Health). The Missouri Student Survey contains hundreds of questions on a variety of topics including: depression, use of alcohol and drugs, mental health, bullying experiences, school-based behaviors, and self-injury/suicide. It is important to mention that the schools are instructed to have all 9th graders complete the survey, and to select an additional grade level to survey. The selection process of this additional grade is not consistent over time or across all St. Charles County schools. The data table was developed by Cynthia J. Berry, Ph.D. of Berry Organizational & Leadership Development (BOLD) LLC., to compare St. Charles County to the state of Missouri on hundreds of relevant Missouri Student Survey items. The table also quantifies changes over time from 2006 to 2018 on each reviewed item for the St. Charles County student sample (note that minimal rounding errors occur). Items that are showing positive trends are highlighted in green on the Table and items showing a negative trend or underperformance are highlighted in red. The last column in the table provides the rating scale option that was linked to the data presented. The full survey, including how questions were specifically worded including the full rating scale, can be found at: <https://dmh.mo.gov/sites/dmh/files/media/pdf/2019/04/missouri-student-survey-questionnaire-2018.pdf>.*

The statewide random sample (tied to MO reported data) included a total of 96 schools (48 middle and 48 high) as part of the random sample. Of these, 62 (65%) schools with 3,339 students participated in the final 2018 MSS. Data was weighted to represent the state level demographics, and this information is available in the public report. The sample was evenly represented by males (47.7%) and females (52.3%), also similar to the state's gender distribution (49% males and 51% females), and the St. Charles County sample. For county-level data, after data cleaning and adjustments were made to ensure the data represented the demographic characteristics of each county, the sample size equaled 118,105, representing 102 counties (89%).

Implications of Findings

While the survey data was not collected from every 6th through 12th grade student in St. Charles County, due to proper data collection methods the sample of student respondents for St. Charles County were representative of the population of students for that year, especially for 9th graders since this was the predominant grade sampled. For generalization purposes, there were an estimated 31,600 6th through 12th grade St. Charles County public school district students who were enrolled in 2017-2018, with a range of 4,400-4,700 per grade level. Therefore, when it is found that 23% of student respondents said they were often/always very sad in the past 30 days, this could be representative of 7,268 6th through 12th grade St. Charles County public school district students. Additional examples of this are provided throughout the report to allow the reader to be mindful of just how many individual students are rating each item.

Strengths

There were various positive trends that occurred with alcohol use among students from 2006 to 2018. The trends included: decreases in lifetime, past month alcohol use and peer alcohol use; driving and riding with a driver under the influence, and binge drinking.

Item	2006	2018	Change
Lifetime alcohol use	61.2%	31.6%	-29.7%
Past month alcohol use	33.7%	14.1%	-19.5%
Past month driving under the influence	6.6%	1.6%	-5.0%
Past month riding with a driver under the influence	24.7%	17.5%	-7.2%
Past two weeks binge drinking	17.0%	5.4%	-11.6%
Peer alcohol use	60.0%	45.2%	-14.8%
Responses tied to percentages shown per item: Lifetime use = yes; Past month = 1+ days; Peer use = 1+ friends			

Bullying trends improved since data was gathered on this topic beginning in 2010/2012 with the exception of bullying online and being a victim online and a victim via cell phone. In addition, while the wording of the questions changed in 2014 on the MSS regarding online and/or cell phone bullying, there were some positive trends from

Item	2010	2018	Change
Past 3-month emotional bullying	75.9%	48.4%	-27.5%
Past 3-month physical bullying (2012 data)	14.7%	10.0%	-4.7%
Past 3-month rumor spreading	37.9%	20.5%	-17.4%
Past 3-month victim of emotional bullying	70.5%	58.4%	-12.1%
Past 3-month victim of physical bullying (2012 data)	21.7%	18.4%	-3.3%
Past 3-month victim of rumor spreading	52.2%	42.7%	-9.5%
Responses tied to percentages shown per item: Past 3-month = 1+ times			

2014 to 2018 on being a victim of bullying online or cell phone and being the bully in these situations. Although there was almost a 10% difference between students who felt they were the victim at least 1 time in the past 30-days in comparison to students claiming to be the victim, which was 15.4% of respondents.

Lifetime use of many illicit drugs decreased over time and were at some of their lowest levels in 2018.

Item	2014	2016	2018	2014-2018
Past 3-mo bullying online or via cell phone	19.8%	19.1%	15.4%	-4.5%
Past 3-mo victim of bullying online or via cell phone	26.6%	25.4%	24.3%	-2.3%
Responses tied to percentages shown per item: Past 3-month = 1+ times				

Item	2006	2008	2010	2012	2014	2016	2018	Change
Lifetime club drug use	4.2%	2.8%	2.4%	1.7%	1.9%	1.1%	0.6%	-3.6%
Lifetime cocaine use	3.9%	2.0%	1.8%	1.2%	1.3%	0.8%	0.7%	-3.2%
Lifetime hallucinogen use			3.6%	2.0%	2.6%	1.9%	2.0%	-1.5%
Lifetime heroin use			0.7%	0.6%	0.5%	0.2%	0.1%	-0.5%
Lifetime inhalant use	12.3%	10.3%	6.7%	4.5%	3.2%	2.3%	2.3%	-10.0%
Lifetime marijuana use	20.3%	16.4%	16.2%	11.9%	15.4%	14.4%	13.9%	-6.4%
Lifetime methamphetamine use			0.6%	0.9%	0.5%	0.2%	0.2%	-0.5%
Lifetime over the counter drug misuse			7.9%	5.7%	3.1%	3.5%	3.3%	-4.6%
Lifetime prescription drug misuse			10.5%	7.0%	8.2%	11.3%	5.7%	-4.8%
Lifetime synthetic drug use				5.2%	3.9%	1.3%	1.2%	-4.0%
Responses tied to percentages shown per item: Lifetime use = yes								

In 2018, only 1.2% of student respondents identified that they misused OTC at least one day in the past month, a decrease of 3.8% since 2010.

Many items assessing cigarette use among students decreased since 2006. Lifetime cigarette use decreased by 23.5% since 2006 to 8.9% in 2018. Peers smoking decreased by 20.7% to 20.1%, and past-month smoking decreased by 10.6% to only 2.6% of student respondents. Lifetime cigarette use among

Item	2006	2018	Change
Lifetime cigarette use	32.4%	8.9%	-23.5%
Past month cigarette use	13.3%	2.6%	-10.6%
Peer smoking cigarettes	40.8%	20.1%	-20.7%
Responses tied to percentages shown per item: Lifetime use = yes; Past month = 1+ days; Peer use = 1+ friends			

students is now lower than lifetime e-cigarette use, which was at 29.1% in 2018, and showing increasing trends over time. E-cigarettes will be covered in greater detail in the “needs attention” section.

Needs Attention

As shown in the previous section on strengths, a majority of the bullying trends had been positive within St. Charles County. However, it is important to note that for emotional bullying, 58% of students had been a victim in the previous three-month

Item	2010	2018	Change
Past 3-month engaged in emotional bullying of others	75.9%	48.4%	-27.5%
Past 3-month victim of emotional bullying	70.5%	58.4%	-12.1%
Past 3-month victim of rumor spreading	52.2%	42.7%	-9.5%
Responses tied to percentages shown per item: Past 3-month = 1+ times			

period at least one time with 48% of students who claimed they were the ones who engaged in the emotional bullying of others at least one time in the past 30-days. Furthermore, there were 43% of respondents who claimed to be a victim of rumor spreading, which can be emotionally damaging for youth in these years. Relating these findings back to the implications section in the beginning of this report, there could have been at least 13,200 students who experienced each of these issues.

Various items measure components of students' mental health within the MSS. Six items that measure "depression" worsened over time, and there were higher percentages of students exhibiting depressive behaviors in 2018 than ever before. Within the mental health category,

Depression Scale	2010	2012	2014	2016	2018	Change
Student did not feel like eating or ate more than usual	15.8%	14.5%	17.0%	18.6%	19.2%	3.4%
Student feels hopeless about the future	11.0%	10.6%	12.0%	11.1%	14.1%	3.1%
Student irritable, grouchy, or in a bad mood	21.3%	19.9%	25.6%	28.8%	30.1%	8.8%
Student had difficulty concentrating on school work	25.5%	24.3%	27.9%	28.6%	29.7%	4.2%
Student slept a lot more or a lot less than usual	23.0%	18.7%	19.3%	21.6%	29.5%	6.5%
Student very sad	14.5%	15.8%	20.5%	19.5%	23.0%	8.5%
Responses tied to percentages shown per item: Often/always in the past 30 days for all items.						

there were 60% of students who agreed/strongly agreed that they "handle stress in a healthy way". There could be an estimated 12,800 6th -12th grade students in St. Charles County who don't believe they can handle stress in a healthy way (based on enrollment data for the 2017-2018 school year). The item also decreased by 3.6% since 2016. In addition, while 78.7% of student respondents agreed/strongly agreed that they have

Items	2016	2018	Change
Student feels optimistic about their future	82.2%	78.0%	-4.2%
Student feels that they handle stress in a healthy way	63.6%	60.0%	-3.6%
Student has adults in their life to turn to when things feel overwhelming	79.6%	78.7%	-0.9%
Student knows where to go in their community to get help	77.5%	77.3%	-0.2%
Responses tied to percentages shown per item: Agree/Strongly Agree for all items			

"adults in their life to turn to when things feel overwhelming", there are 21.3% who don't. This finding could be representative of six to seven thousand students in St. Charles County. There is a need for programming at the middle school and high school level for students to learn how to manage and cope with stress and emotions. The school staff survey completed in 2019 within St. Charles County further supports this as one of the most critical behavioral health needs.

Related to the mental health category, but included in its own section were the items linked to suicide, suicidal ideations, and self-harm. Seventeen percent (17.1%) of student respondents confirmed that they had engaged in self-injury in the previous year, which increased by 6% since 2012. St. Charles County has experienced some positive trends relating to suicide, but the percentage of students who "seriously considered suicide" was still too high (12.5%). Further, 8.6% of students had planned suicide, and 4.8% had attempted

suicide in 2018. For these reasons, suicide as a category was not included as a strength considering the outcome for these items is irreversible.

There were various new items assessed on the MSS in 2018, many of which focused on students’ misuse and perception of OTC and prescription drugs. Age of first use for OTC and prescription drug misuse was 11.5 years for both. Teachers, parents and grandparents are most likely unaware of these types of dangers in their home. St. Charles County should consider including this type of information in educational resources for parents and grandparents since youth have access to medication from both sources. Students were asked how easily available OTC and prescription drugs were in 2018. 58.6% of students rated OTC as very easy or sort of easily available” in comparison to 30.1% for prescription drugs. Availability trends increased over time as well for these two items. When asked about behavior in the past month, 7.1% of respondents identified that they misused a prescription drug at least one day, which had slightly increased since initially measured in 2010. OTC trends relating to past month use had been positive as shared in the “strengths” section. For prescription medication misuse within the past 30-days, pain meds were the most misused, followed by stimulants, then sleeping meds, and sedatives/anxiety meds. Students who misused prescriptions medication at some point in their life were asked why they made this decision. The highest percentage of these students (23.2%) misused prescription medication “to reduce/manage pain”, followed by “to help me sleep (19.8%)”, and “to help with stress (19.4%)”.

There was a new set of questions asking youth how they access alcohol, OTC, prescriptions, e-cigs, marijuana, etc. This information is valuable, but it is important to note that these percentages are linked to youth that endorsed being a lifetime user. For alcohol, cigarettes, e-cigarettes, and marijuana, the primary method of access was friends or peers. However, for prescription medication, the primary method of access was a family member.

Method of Alcohol Access:	Alcohol	Cigarette	E-Cig	Marijuana	Prescriptions
A family member gives or sells it to me	34.4%	9.9%	10.3%	13.3%	18.7%
A friend gives or sells it to me	47.2%	47.7%	61.5%	74.6%	14.4%
Buy it online	0.8%	1.6%	9.8%	1.3%	0.2%
I ask a stranger to buy it for me	3.8%	4.5%	4.6%	6.4%	0.7%
I buy it from the store / bar / etc.	4.6%	9.2%	12.1%	N/A	N/A
I take it without permission	20.6%	25.4%	3.7%	4.6%	11.8%
Other	14.2%	18.8%	15.6%	6.7%	4.2%
I buy it from a dealer	N/A	N/A	N/A	36.0%	N/A

Within school-based behaviors, there had been a 6.1% increase in respondents from 2012 to 1.1% of students in 2018 who missed at least one day of school due to safety concerns. There were 28.7% of students who also skipped or cut class at least one day due to safety concerns. Perception of school safety had decreased as well from 87.2% (2010) to 83.1% (2018). This finding is not surprising considering the school shut downs that had occurred around 2018 in the community, including an event when a teacher was shot/inured near Francis Howell high school.

Various negative trends were seen with e-cigarette use and perception, with 29.1% of students who confirmed lifetime use, an increase of 4% since 2014. 59% of student respondents stated that it was very/sort of easy to get electronic cigarettes, which had increased by 13.8% since 2016. 61.5% of these students’ accessed e-cigs from their friends, which was a much higher percentage than the state at 50%. At the time of the survey, students were not perceiving the dangers of e-cigarettes. They perceived it as less wrong than cigarettes; 93.1% of respondents perceived cigarettes as wrong/very wrong in comparison to only 74.3% for e-cigs. For perception of harm, 88.4% of respondents identified cigarettes as a moderate/great risk with only 57.6% who identified e-cigs as a moderate/great risk.

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Cynthia Berry, Ph.D., is a Psychologist with a specialization in Industrial/Organizational, Personality and Experimental Psychology, and founded BOLD, Berry Organizational and Leadership Development, LLC in January of 2006. BOLD, LLC is a 100% woman-owned business registered with the State of Missouri.

She has over twenty-one years of experience in Human Resources, Organizational and Fund Development, Evaluation and Research including large-scale community needs assessments and customer/employee/stakeholder surveys, Psychometrics and Employee and Management Training. She has vast experience in organizational and community-based assessments allowing for guided strategic plan development complete with outcome measurement tools and procedures to match. Many of the community-based projects assess opinions, satisfaction and needs relating to a specific area of interest within a community.

BOLD is further strengthened by providing services for full organizational and program budget development, fund development and writing in-depth policies and procedures. She has worked with numerous not-for-profits, for-profits and government agencies involving strategic program planning and development, employee development, fundraising and/or fund development, survey/outcome development, board facilitation activities, and organizational assessments. Since 2007, Cynthia has personally raised over \$10 million dollars for many programs she has helped develop and implement. Furthermore, she has strengthened many not-for-profits with the development of measurement tools and processes to track outcomes, and the implementation of various quality improvement projects. Finally, she was an adjunct professor for the Evaluation of Programs and Services Master's level course at the George Warren Brown School of Social Work at Washington University from 2012 through 2019.