

Snapshots on Minnesota Youth

2022 Minnesota Student Survey Whole Child Report





Snapshots on Minnesota Youth: 2022 Minnesota Student Survey Whole Child Report

June 2023

Acknowledgment: The Minnesota Department of Education produced a Whole Child Report based on results from the 2016 Minnesota Student Survey. This report featuring 2022 results is modeled after the 2016 report. The authors would like to thank Lisa Burton for the original concept and design.

For more information about this report, please contact:

Maira Rosas-Lee, Minnesota Student Survey (MSS) and Statewide Longitudinal Education Data System (SLEDS) Coordinator, Data Practices and Analytics Division, Minnesota Department of Education: mde.studentsurvey@state.mn.us

Melissa Adolfson, Research Scientist, Wilder Research: melissa.adolfson@wilder.org

CONTENTS

Snapshots on Minnesota Youth: 2022 Minnesota Student Survey Whole Child Report	1
What is the Minnesota Student Survey (MSS) and why is it important?	1
What is the WSCC model?	1
What is the purpose of this report?	1
Survey respondents	2
Grade	2
Gender identity	2
Geographic location	2
Sexual orientation	2
Race and ethnicity	2
Poverty status	3
Healthy	4
Physical and overall health	4
Being physically healthy matters.	5
Mental health	6
Mental well-being matters.	7
Chemical health	8
Being substance-free matters.	9
Safe	10
Overall safety	10
Being safe matters.	11
Engaged	12
Overall engagement	12
Being engaged matters.	13
Supported	14
Overall support	14
Being supported matters.	15
Challenged	16
Overall challenge	16
Being challenged matters.	17
References	18
Appendix	20

What is the Minnesota Student Survey (MSS) and why is it important?



It asks about students' feelings and experiences related to health and well-being, supportive and caring relationships, safety, and engagement in school and activities. It provides students with the opportunity to tell us how they are doing, and what they need to thrive.



It's supported by local schools and the Minnesota Departments of Education, Human Services, Health, Public Safety, and Corrections.



It comes in three age-appropriate versions for 5th through 12th graders.



It has been done every three years for over 30 years. In 2022, 70% of Minnesota's school districts participated resulting in a sample size of 135,447.



Minnesota Student Survey Reports 2013-2022 Results are used by schools, districts, communities, and the state to create programs, change policies, and provide resources.



What is the WSCC model?

The Whole School, Whole Community, Whole Child model focuses on young people, emphasizes school-wide approaches, and recognizes that the local community plays a role in supporting young people. Schools, health agencies, parents, and communities can work together to ensure each student is healthy, safe, engaged, supported, and challenged.



Healthy: Physical and emotional health are fundamental to students' overall well-being.



Safe: Students need to feel safe to learn and thrive.



Engaged: Engaged students have better academic outcomes.



Supported: Supportive school environments and caring relationships can foster student motivation and engagement.



Challenged: Challenging students increases critical thinking skills and prepares for future pursuits.

What is the purpose of this report?

This report aligns key findings from the 2022 MSS with the WSCC model. In addition to key findings for each tenet, the report includes 9th grade trends and differences by demographic group. The data can help inform schools and whole communities about the current state of well-being among young people in Minnesota. Community partners can work alongside of, and in collaboration with, schools to better support students. The report was produced in collaboration with the Minnesota Student Survey Interagency Team and the WSCC Interagency Committee.

Survey respondents

Grade

While schools could also opt to survey students in 6th, 7th, 10th, and 12th grades, the standard grade levels surveyed are 5th, 8th, 9th, and 11th. Findings in this report are included for these core grades. Trend graphs throughout this report represent 9th graders only, as that is the grade level that has consistently been surveyed over the past 30 years.

Gender identity

Gender identity was asked of 8th, 9th, and 11th graders but not of 5th graders. Students could mark all applicable responses. As such, percentages do not sum to 100%. Throughout this report, findings are presented in charts for eight gender identity categories. Students who identify as genderfluid, gender nonconforming, genderqueer, nonbinary, and agender were combined into one group along with two-spirit students who do not identify as American Indian/ Alaskan Native or Native Hawaiian/Other Pacific Islander. This combined group is labeled as nonbinary+ in bar charts throughout the report.

Gender identity	N	%
Cisgender boy/man	46,847	48%
Cisgender girl/woman	43,608	44%
Genderfluid, gender non- conforming, or genderqueer	2,455	3%
Nonbinary+ ^a	2,977	3%
Questioning/unsure	2,854	3%
Transgender boy/man	1,618	2%
Transgender girl/woman	548	1%
Agender	1,338	1%
Identity not listed	1,373	1%
Two-spirit	395	< 1%

^a Nonbinary+ is not a standard classification. It was created specifically for this report. The MSS Interagency Team grouped together identities that are nonbinary/fluid, recognizing that questioning and "identity not listed" are neither binary nor nonbinary. Two-spirit is used in some Indigenous cultures to encompass cultural, spiritual, sexual, and gender identity. Because of its historical and cultural context, we separated those who identify as two-spirit and Native from those who are not Native. The count of 395 students identifying as two-spirit includes both Native and non-Native students.

In addition to gender identity, students were asked about their sex assigned at birth. Data shared in this report based on sex assigned at birth is noted throughout.

Geographic location

Location	N	%
Twin Cities seven-county metro area	71,899	53%
Greater Minnesota	63,548	47%

Sexual orientation

Sexual orientation was asked of 8th, 9th, and 11th graders but not of 5th graders. Students could only select one response.

Orientation	N	%
Straight	75,994	76%
Bisexual	8,399	8%
Pansexual	3,258	3%
Questioning/not sure	3,223	3%
Gay or lesbian	2,695	3%
I don't describe myself in any of these ways	1,864	2%
I am not sure what this question means	1,568	2%
Queer	1,424	1%
Asexual	1,263	1%

Race and ethnicity

Students were able to select all applicable race/ethnicity identities. The table below shows the number and percentage of students who selected that identity, either alone or in combination with one or more other identities. As such, percentages do not sum to 100.

Race and ethnicity	N	%
White	97,433	74%
Black, African, or African American	16,438	12%
Hispanic or Latino/Latina	13,633	10%
Asian, South Asian, or Asian American	11,276	9%
American Indian or Alaskan Native	6,024	5%
Middle Eastern or North African (MENA)	1,634	1%
Native Hawaiian or Other Pacific Islander (NHOPI)	1,112	1%

For all categories except NHOPI and White, students were presented with additional response options and they could select all that apply. Among those who identified as American Indian or Alaskan Native, alone or with other races, students identified as:

Race and ethnicity	N	%
Anishinaabe/Ojibwe	2,622	48%
Other tribal affiliation	2,132	39%
Dakota/Lakota	1,319	24%

Among those who identify as Asian, South Asian, or Asian American, alone or with other races, students identified as:

Race and ethnicity	N	%
Hmong	2,601	23%
Other Asian	1,982	18%
Indian	1,651	15%
Chinese	1,600	14%
Vietnamese	1,458	13%
Korean	1,289	11%
Filipino	782	7%
Lao	817	7%
Karen	371	3%
Pakistani	201	2%
Bangladeshi	106	1%
Burmese	103	1%
Nepali	143	1%

Among those who identify as Black, African, or African American, alone or with other races, students identified as:

Race and ethnicity	N	%
African American	8,191	51%
Other Black, African, or African American	3,823	24%
Somali	3,499	22%
Nigerian	865	5%
Liberian	840	5%
Ethiopian – Other	816	5%
Ethiopian – Oromo	742	5%

Among those who identify as Hispanic or Latino/ Latina, alone or with other races, students identified as:

Race and ethnicity	N	%
Mexican	9,035	67%
Spanish/Spanish-American	2,646	20%
Other Hispanic or Latino/Latina	1,841	14%
Guatemalan	846	6%
Puerto Rican	735	5%
Salvadoran	725	5%
Ecuadoran	592	4%
Colombian	408	3%

Among those who identify as MENA, alone or with other races, students identified as:

Race and ethnicity	N	%
Other Middle Eastern or North African	872	55%
Egyptian	258	16%
Iraqi	212	13%
Palestinian	158	10%
Lebanese	149	9%
Iranian	109	7%

Poverty status

Two survey items were used to estimate poverty status. One item asked students if they had to skip meals in the past 30 days because their family did not have enough money to buy food. The other asked students if they had to stay in a shelter, somewhere not intended as a place to live, or someone else's home because they had no other place to stay in the past 12 months. If students reported yes to one or both questions, they were identified as experiencing poverty. This is a proxy measure. The actual percentage of Minnesota students living in poverty is higher.

Poverty status	N	%
Experiencing poverty	5,061	6%
Not experiencing poverty	79,918	94%

Note. Fifth graders are not included in the count as they were only asked one of the two questions. In the past, a question about free and reduced-price lunch was also used a proxy measure for poverty. The 2022 survey did not include a question about free and reduced-price lunch as all students received meals during the COVID-19 pandemic regardless of eligibility status.



The Minnesota Student Survey (MSS) includes questions about **physical activity**, **nutrition**, and **overall health**.

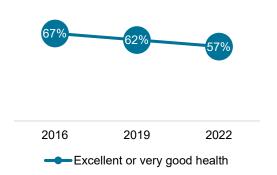
Physical and overall health

Key findings from 2022

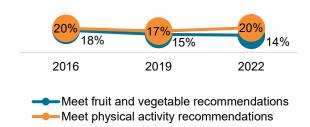
- The percentage of 9th graders who described their overall health as excellent or very good declined from 2016 to 2022.
- The percentage of 9th graders who reported eating the recommended five or more servings of fruits and vegetables per day in the past seven days declined from 18% in 2016 to 14% in 2022.
- In 2022, one out of five 9th graders reported being physically active for at least 60 minutes every day in the past seven days, as recommended. This changed little from 2016 to 2022.
- Seventy-three percent of students were at normal weight or underweight in 2022.
- In 2022, 45% of students reported getting at least eight hours of sleep on a typical school night. The percentage of students getting at least eight hours of sleep declined as grade level increased, from 71% of 5th graders to 23% of 11th graders.
- Eighty percent of students said they saw a dentist for a check-up, exam, tooth cleaning, or other dental work during the last year.

9TH GRADE TRENDS

SELF-REPORTED EXCELLENT OR VERY GOOD HEALTH



MEETS RECOMMENDATIONS FOR FRUITS AND VEGETABLES, AND PHYSICAL ACTIVITY



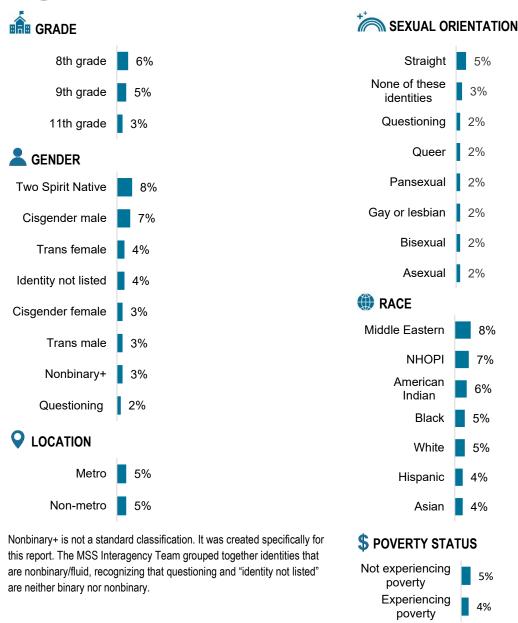
Being physically healthy matters.

Research has shown that nutrition affects students' thinking skills, and that access to nutrition improves cognition, concentration, and energy levels (Centers for Disease Control and Prevention, 2023; Wilder Research, 2014). Similarly, students who are physically active tend to get better grades, have better school attendance, and show improved cognitive performance, self-esteem, and self-concept (Centers for Disease Control and Prevention, 2022; Liu et al., 2015). Data from the 2022 MSS show that compared to students who did not meet the recommendations for weekly fruit and vegetable consumption and physical activity, those who met both requirements:

- Reported lower rates of past two-week depression symptoms: 20% vs. 28%
- Reported lower rates of past month substance use: 12% vs. 16%
- More frequently reported getting mostly A grades: 54% vs. 49%



MEETS RECOMMENDATIONS FOR BOTH FRUITS AND VEGETABLES, AND PHYSICAL ACTIVITY, BY DEMOGRAPHIC



Mental health

The Minnesota Student Survey (MSS) includes questions about **mental health** as well as **suicidal ideation** and **attempt**.

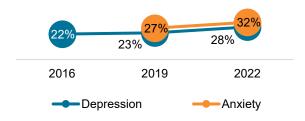
Key findings from 2022

- The percentage of 9th graders reporting past two-week symptoms of depression and anxiety increased.
- Compared to male students, female students¹ reported higher rates of depression (35% vs. 20%) and higher rates of anxiety (45% vs. 19%) in 2022.
- In 2022, 29% of students reported having a long-term (lasting six months or longer) mental health, behavioral, or emotional problem.
- The percentage of 9th graders reporting past year suicidal ideation increased slightly from 12% in 2016 to 14% in 2022, whereas 9th grade rates of past year suicide attempts remained flat.
- In 2022, 23% of students reported self-harm in the past year.
- The percentage of students with higher levels of positive identity (e.g., feeling good about themselves, their life, and their future) decreased from 43% in 2019 to 32% in 2022.
- Forty-nine percent of 8th grade female students said they would be "not at all comfortable" talking with a school mental health resource when feeling stressed or upset, as did 41% of male 8th graders. While the rates for 5th graders were lower, 30% of females and 28% of males said they would not be comfortable talking with a school counselor or social worker.¹

9TH GRADE TRENDS

PAST 2 WEEK MENTAL HEALTH SYMPTOMS

PAST YEAR SUICIDAL IDEATION AND ATTEMPT





Note. Questions about anxiety were not included on the 2016 survey.

¹ These results are based on sex assigned at birth rather than gender identity.

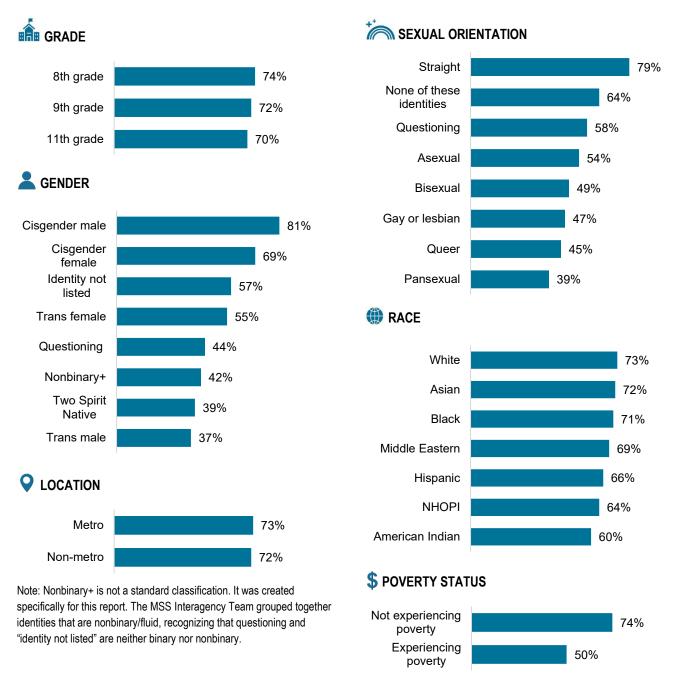
Mental well-being matters.

Coping with mental illness during adolescence can interfere with learning by affecting things like concentration, memory, and problem-solving. Mental health issues are also associated with frequent absences, trouble making and maintaining friendships, low energy for after school activities, and difficulty following school rules (Agnafors, 2021; SAMHSA, n.d.). Data from the 2022 MSS show that compared to students who experienced past two-week depression symptoms, those who did not:

- Reported lower rates of past month substance use: 11% vs. 28%
- More frequently reported getting mostly A grades: 54% vs. 38%



NO PAST 2 WEEK DEPRESSION SYMPTOMS, BY DEMOGRAPHIC



Chemical health

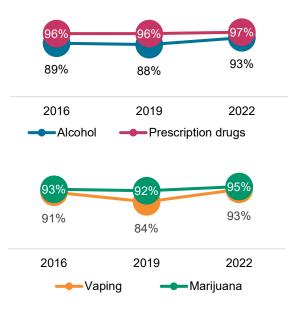
The Minnesota Student Survey (MSS) includes questions about chemical health including use of **alcohol**, **tobacco**, and other drugs.

Key findings from 2022

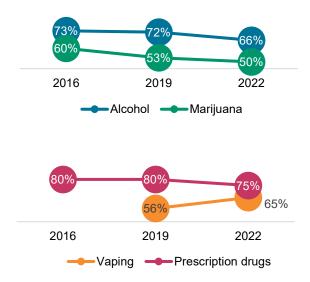
- The percentage of 9th graders who reported past 30-day use of alcohol, tobacco, marijuana, or misuse of prescription drugs decreased from 2019 to 2022.
- While perceived risk of great or moderate harm from using alcohol, marijuana, or prescription drugs decreased among 9th graders, perceived risk of harm from vaping² increased.
- From 2019 to 2022, students' perceptions that their friends would disapprove of them drinking alcohol or using marijuana increased.
- In 2022, 86% of students agreed or strongly agreed that parents and other adults should clearly communicate with young people about the importance of not using alcohol.
- While students overestimated peer use, the percentage of students who thought most students at their school drink alcohol monthly or more often fell from 46% in 2019 to 35% in 2022. Similarly, the percentage who thought most use marijuana monthly or more dropped from 45% to 33%.

9TH GRADE TRENDS

SUBSTANCE FREE IN THE PAST 30 DAYS



PERCEIVED RISK OF HARM FROM USE



² The survey question about perceived risk of harm from vaping was first added in 2019.

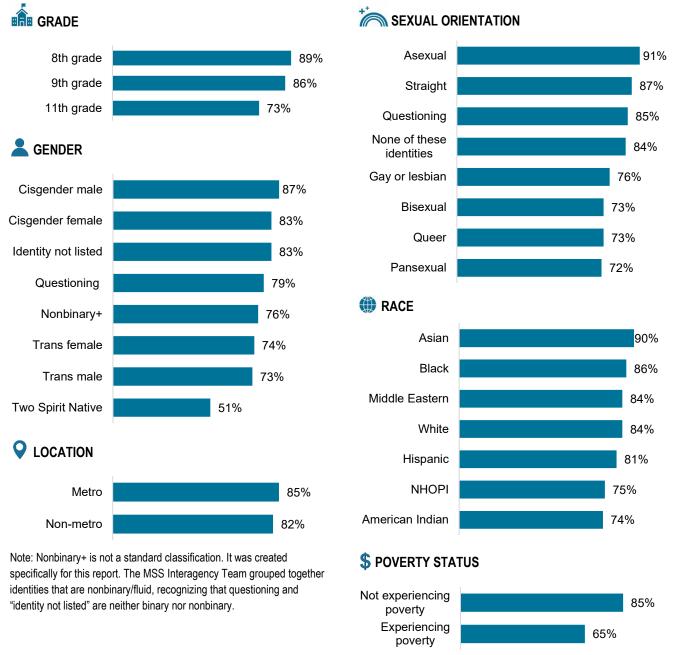
Being substance-free matters.

Research has linked adolescent substance use with cognitive and behavioral problems, declining grades, absenteeism from school and other activities, and risk of dropping out of school. Further, studies show that the later in life a young person starts using alcohol or other drugs, the lower their risk of misuse or addiction over their lifetime (Jordan & Andersen, 2017; King et al., 2006; Lees et al., 2021; National Center on Addiction and Substance Abuse, 2011). Data from the 2022 MSS show that compared to students who used alcohol, tobacco, marijuana, and/or misused prescription drugs in the past month, those who did not use substances:

- Reported lower rates of past two-week depression symptoms: 23% vs. 49%
- More frequently reported getting mostly A grades: 53% vs. 34%



NO PAST 30 DAY SUBSTANCE USE, BY DEMOGRAPHIC





The Minnesota Student Survey (MSS) includes questions about **perceptions of safety** and **bullying/ harassment.**

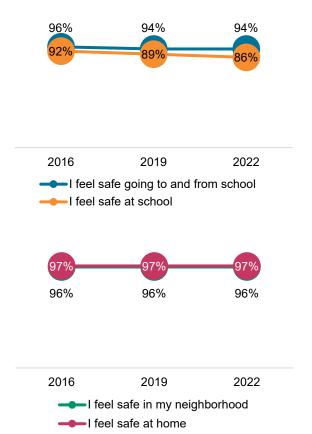
Overall safety

Key findings from 2022

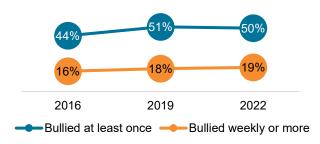
- Almost all students in grades 5, 8, 9 and 11 reported feeling safe at home (97%).
- The percentage of 9th graders who felt safe at school decreased steadily from 92% in 2016 to 86% in 2022.
- Fifty-four percent of students in grades 5, 8, 9 and 11 experienced bullying behaviors in the past 30 days. Twenty-one percent of these students experienced frequent bullying.
- Seventeen percent of students in grades 5, 8, 9 and 11 experience cyber-bullying in the past 30 days.
- Reasons students felt they were harassed or bullied, from most frequently reported to least, were their appearance (29%), size/weight (25%), gender expression (21%), race (15%), sex or gender (13%), sexual orientation (12%), religion (10%) or a physical or mental disability (10%).

9TH GRADE TRENDS

I FEEL SAFE...



IN THE PAST MONTH I'VE BEEN...



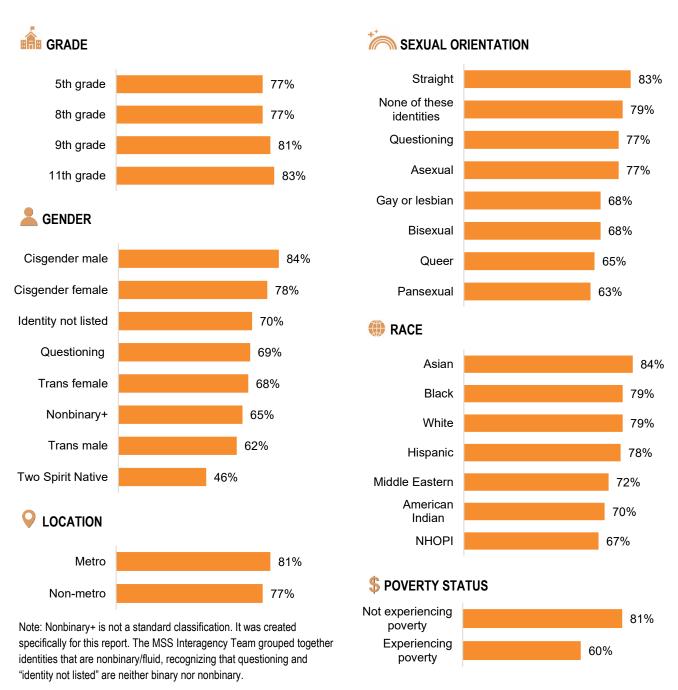
Being safe matters.

Students need to feel safe in order to learn and thrive (Lacoe, 2013; Readiness and Emergency Management for Schools, 2018). Frequent and chronic bullying and peer victimization is associated with disparities in school engagement and academic achievement (Ladd et al., 2017). Data from the 2022 MSS show that compared to students who were bullied weekly or more often in the past month, those who were not bullied frequently:

- Reported lower rates of past two-week depression symptoms: 22% vs. 50%
- Reported lower rates of past 30-day substance use: 12% vs. 30%
- More frequently reported getting mostly A grades: 50% vs. 39%



FREE FROM WEEKLY OR MORE FREQUENT BULLYING, BY DEMOGRAPHIC





The Minnesota Student Survey (MSS) includes questions about **educational engagement** and **participation** in out of school time activities.

Overall engagement

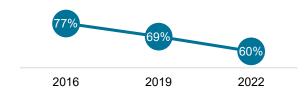
Key findings from 2022

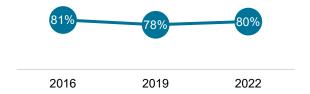
- The percentage of 9th graders who reported higher levels of <u>educational engagement</u> decreased steadily from 77% in 2016 to 60% in 2022.
- Among the items that make up educational engagement, students were most likely to agree that if something interests them they try to learn more about it (97%). Students were least likely to agree that being a student is one of the most important parts of who they are (55%).
- The percentage of 9th graders who participated in one or more out of school time activities in a typical week, changed little from 2016 to 2022.
- Activities with the highest participation rates were sports (53%), artistic activities (29%), and physical activity lessons (26%). Activities with the lowest participation rates were cultural heritage programs (5%) and community clubs like 4H or Scouts (8%).
- Benefits of out of school time activities most often reported include getting joy and energy out of participation (76%) and building trusting relationships with peers (62%).

9TH GRADE TRENDS

EDUCATIONALLY ENGAGED

WEEKLY PARTICIPATION IN OUT OF SCHOOL TIME ACTIVITIES





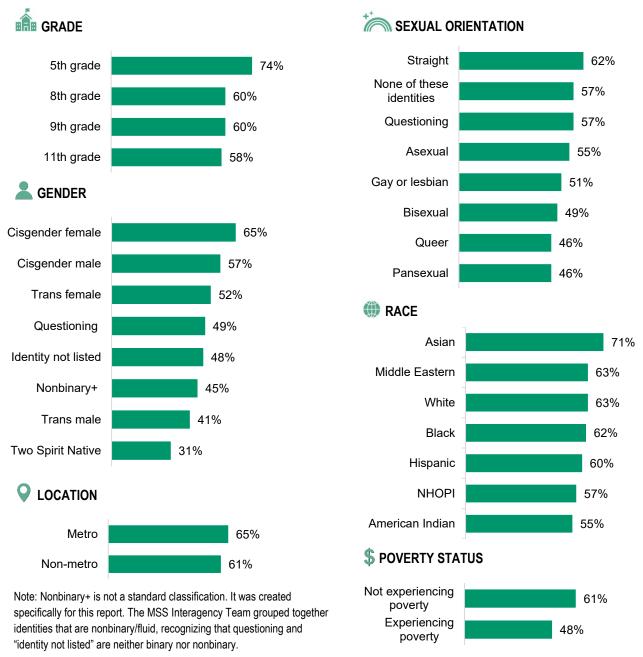
Being engaged matters.

Engagement in school and out-of-school time activities includes a focus on three areas: behavioral (i.e., participation, effort, attention), emotional (i.e., relationships), and cognitive (i.e., desire to learn). Both engagement and afterschool programs positively influence academic achievement, attendance, graduation, and postsecondary readiness (Akey, 2006; Gallup, 2017; Neild et al., 2019). Afterschool programs have also been shown to improve social and emotional competency (Neild et al., 2019). Data from the 2022 MSS show that compared to students with lower levels of educational engagement, those with higher levels of engagement:

- Reported lower rates of past two-week depression symptoms: 21% vs. 39%
- Reported lower rates of past 30-day substance use: 10% vs. 24%
- More frequently reported getting mostly A grades: 58% vs. 29%



HIGHER LEVELS OF EDUCATIONAL ENGAGEMENT, BY DEMOGRAPHIC





The Minnesota Student Survey (MSS) includes questions about feeling cared about, having trusted adults to talk with about problems, and school climate.

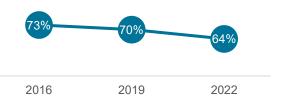
Overall support

Key findings from 2022

- The percentage of 9th graders who reported they feel cared about by at least three groups of people (parents, other adult relatives, friends, adults at school, and adults in the community) decreased steadily from 73% in 2016 to 64% in 2022.
- Students were most likely to report that their parents care about them very much or quite a bit (89%), and were least likely to report that other adults at school (besides teachers) care, and adults in the community care (35%).
- Eighty-nine percent of students reported having at least one adult they could talk to about problems they are having.
- The percentage of 9th graders who reported **positive school climate** decreased steadily from 59% in 2016 to 49% in 2022.
- Among the items that comprise school climate, students were most likely to agree that teachers at their school care about students (89%), and least likely to agree that most teachers are interested in them as a person (68%).

9TH GRADE TRENDS

FEEL CARED ABOUT BY THREE OF MORE GROUPS OF PEOPLE



POSITIVE SCHOOL CLIMATE



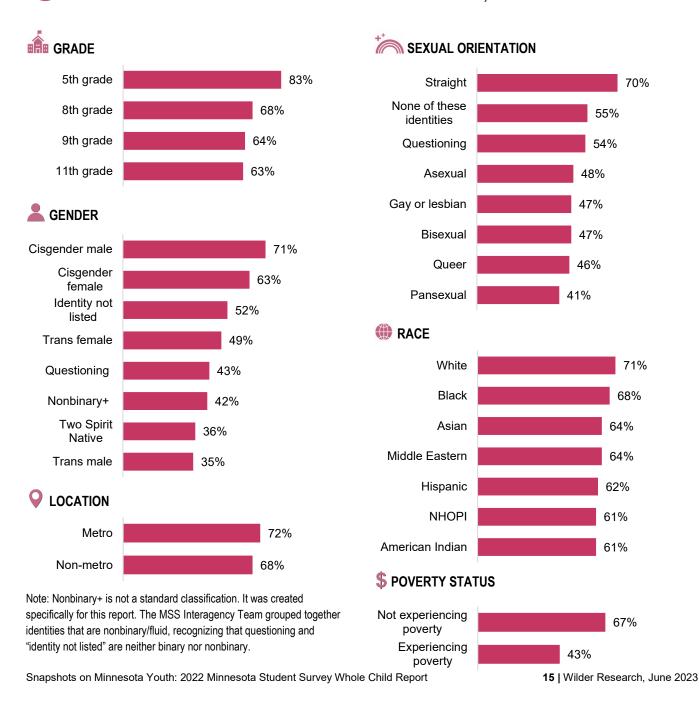
Being supported matters.

Healthy relationships with friends, parents, caregivers, teachers, coaches, and mentors allow young people to safely feel and express respect for themselves and others through trust-building, good communication, and consent (Office of Population Affairs, n.d.). Teachers providing support to and sharing power with students, in addition to expressing care for them, can have an impact on academic motivation and sense of belonging (Scales et al., 2020). Data from the 2022 MSS show that compared to students who feel two or fewer groups of people care about them very much or quite a bit, those who feel three or more groups care about them:

- Reported lower rates of past two-week depression symptoms: 18% vs. 47%
- Reported lower rates of past 30-day substance use: 11% vs. 24%
- More frequently reported getting mostly A grades: 50% vs. 37%



FEEL CARED ABOUT BY THREE OR MORE GROUPS OF PEOPLE, BY DEMOGRAPHIC





The Minnesota Student Survey (MSS) includes questions about learning new skills and being given useful roles and responsibilities.

Overall challenge

Key findings from 2022

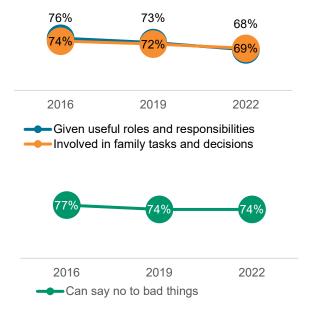
- In 2022, 58% of 9th graders who spent time doing activities outside the regular school day said they often or very often learn teamwork or leadership, down slightly from 63% in 2016. During the same time period, the percentage who reported that they help make decisions fell from 58% to 51%.
- There were also declines from 2016 to 2022 in the percentage of 9th graders who reported the following statements describe them "very or often" or "extremely or almost always":
 - I am given useful roles and responsibilities: 76% to 68%
 - I am included in family tasks and decisions: 74% to 69%
 - I say no to things that are dangerous or unhealthy: 77% to 74%

9TH GRADE TRENDS

SKILL-BUILDING DURING PROSOCIAL ACTIVITIES



DEVELOPMENTAL ASSETS³



Developmental Assets are skills and behaviors based on a Search Institute framework of adolescent development. They are used and adapted here with permission from Search Institute (2004). The Developmental Assets Profile. Minneapolis: Author. Copyright © 2004 by Search Institute (www.search-institute.org). All rights reserved.

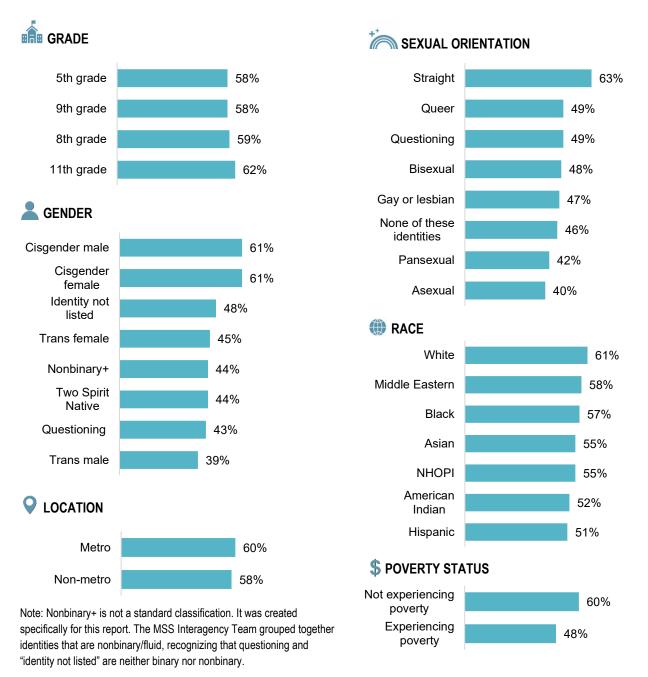
Being challenged matters.

Young people find challenging tasks more interesting and rewarding. Encouraging young people to stretch their abilities and expect their best is associated with improved academic performance and overall resilience (Search Institute, 2023). Further, young people's abilities to select and reach goals while navigating obstacles has been linked to positive youth development (Lerner & Lerner, 2013). Data from the 2022 MSS show that compared to students who do not learn teamwork or leadership skills often or very often, those who do:

- Reported lower rates of past two-week depression symptoms: 22% vs. 36%
- Reported lower rates of past 30-day substance use: 13% vs. 19%
- More frequently reported getting mostly A grades: 51% vs. 38%



LEARN TEAMWORK OR LEADERSHIP SKILLS OFTEN OR VERY OFTEN



References

- Agnafors, S., Barmark, M., & Sydsjo, G. (2021). Mental health and academic performance: A study on selection and causation effects from childhood to early adulthood. *Social Psychiatry and Psychiatric Epidemiology*, *56*, 857-866. https://doi.org/10.1007/s00127-020-01934-5
- Akey, T. M. (2006). School context, student attitudes and behavior, and academic achievement: An exploratory analysis. MDRC. https://files.eric.ed.gov/fulltext/ED489760.pdf
- Centers for Disease Control and Prevention. (2022). *CDC healthy schools: Physical activity facts*. https://www.cdc.gov/healthyschools/physicalactivity/facts.htm
- Centers for Disease Control and Prevention. (2023). *CDC healthy schools: School nutrition*. https://www.cdc.gov/healthyschools/nutrition/schoolnutrition.htm
- Gallup. (2017). Engagement and hope positively influence student outcomes: Key findings from Gallup's Student Poll analysis in Texas. https://www.gallup.com/education/267740/engagement-hope-positively-influence-student-outcomes.aspx
- Jordan, C. J., & Andersen, S. L. (2017). Sensitive periods of substance abuse: Early risk for the transition to dependence. *Developmental Cognitive Neuroscience*, *25*, 29-44. https://doi.org/10.1016/j.dcn.2016.10.004
- King, K. M., Meehan, B. T., Trim, R. S., & Chassin, L. (2006). Substance use and academic outcomes: Synthesizing findings and future directions. *Addiction*, 101(12), 1688-1689. https://doi.org/10.1111/j.1360-0443.2006.01695.x
- Lacoe, J. (2013). Too scared to learn? The academic consequences of feeling unsafe at school (Working Paper 02-13). Institute for Education and Social Policy. https://files.eric.ed.gov/fulltext/ED556783.pdf
- Ladd, G. W., Ettekal, I., & Kochenderfer-Ladd, B. (2017). Peer victimization trajectories from kindergarten through high school: Differential pathways for children's school engagement and achievement? *Journal of Educational Psychology, 109*(6), 826-841.

 https://www.apa.org/pubs/journals/releases/edu-edu0000177.pdf
- Lees, B., Debenham, J., & Squeglia, L. M. (2021). Alcohol and cannabis use and the developing brain. *Alcohol Research*, 41(1). https://arcr.niaaa.nih.gov/volume/41/1/alcohol-and-cannabis-use-and-developing-brain
- Lerner, R. M., & Lerner, J. V. (2013). *The positive development of youth: Comprehensive findings from the* 4-H Study of Positive Youth Development. Institute for Applied Research in Youth Development. https://dunn.extension.wisc.edu/files/2018/04/4-H-Study-of-Positive-Youth-Development-Full-Report.pdf
- Liu, M., Wu, L., & Ming, Q. (2015). How does physical activity intervention improve self-esteem and self-concept in children and adolescents? Evidence from a meta-analysis. *PLoS One*, 10(8). https://doi.org/10.1371/journal.pone.0134804

- National Center on Addiction and Substance Abuse. (2011). *Adolescent substance use: America's #1 public health problem.* Columbia University. https://files.eric.ed.gov/fulltext/ED521379.pdf
- Neild, R. C., Wilson, S. J., & McClanahan, W. (2019). *Afterschool programs: A review of evidence under the Every Student Succeeds Act.* Research for Action. https://files.eric.ed.gov/fulltext/ED593600.pdf
- Office of Population Affairs. (n.d.). *Healthy relationships in adolescence*. U.S. Department of Health and Human Services. https://opa.hhs.gov/adolescent-health/healthy-relationships-adolescence
- Readiness and Emergency Management for Schools. (2018). Student perceptions of safety and their impact on creating a safe school environment.

 https://rems.ed.gov/docs/Student_Perceptions_Safety_Fact_Sheet_508C.pdf
- Scales, P. C., Van Boekel, M., Pekel, K., Syvertsen, A. K., Roehlkepartain, E. C. (2020). Effects of developmental relationships with teachers on middle-school students' motivation and performance. *Psychology in the Schools, 57,* 646-677. https://www.search-institute.org/wp-content/uploads/2020/07/Dev-Rel-Psych-in-the-Schools-Online-PUBLISHED-2020.pdf
- Search Institute. (2023, March 14). Challenging growth. https://blog.searchinstitute.org/challenging-growth
- Substance Abuse and Mental Health Services Administration (SAMHSA). (n.d.). *Issue Brief: Mental health and academic achievement*. Now Is The Time Technical Assistance Center (NITT-TA). https://www.education.nh.gov/sites/g/files/ehbemt326/files/inline-documents/mental health and academic achievement.pdf
- Wilder Research. (2014). *Nutrition and students' academic performance*. https://www.wilder.org/sites/default/files/imports/Cargill lit review 1-14.pdf

Appendix

Anxiety: Anxiety is measured using the 2-item Generalized Anxiety Disorder (GAD) scale. Students are asked: "Over the last 2 weeks, how often have you been bothered by the following problems?":

- Feeling nervous, anxious or on edge
- Not being able to stop or control worrying

Response options include: not at all, several days, more than half the days, and nearly every day. These response options are scored from 0 to 3, and the two items are summed. A score of 3 or more points (out of 6 possible) is the cut-off for identifying possible cases of anxiety. Fifth graders were not asked these questions.

Bullying: Students are asked how frequently they experienced various types of bullying behaviors during the past 30 days. Response options include every day, several times a week, about once a week, once or twice, and never. This report presents findings on students free from any types of bullying behavior. Types of bullying behaviors asked about include:

- Being pushed, shoved, slapped, hit, or kicked by a student that wasn't just kidding around
- A student threatened to beat them up
- A student spread mean rumors or lies about them
- A student made sexual jokes, comments, or gestures towards them. (This was not asked of 5th graders.)
- A student excluded them from friends, other students, or activities

Students were also asked about the reasons other students have harassed or bullied them during the past 30 days. Students could select all applicable reasons, including:

- Race, ethnicity, or national origin
- Religion
- Sex or gender (being male, female, transgender, genderqueer, or genderfluid)
- Gender expression (style, dress, way they walk; this was not asked of 5th graders)
- Sexual orientation (being bisexual, gay, lesbian, asexual, pansexual, queer, or because someone thought they were; this was not asked of 5th graders)
- Physical or mental disability
- Size or weight
- Physical appearance

Depression: Depression is measured using the 2-item Patient Health Questionnaire (PHQ). Students are asked: "Over the last 2 weeks, how often have you been bothered by the following problems?":

- Little interest or pleasure in doing things
- Feeling down, depressed or hopeless

Response options include: not at all, several days, more than half the days, and nearly every day. These response options are scored from 0 to 3, and the two items are summed. A score of 3 or more points (out of 6 possible) is the cut-off for identifying possible cases of depression. Fifth graders were not asked these questions.

Educational engagement: Students with greater educational engagement reported that they care about doing well in school, pay attention in class and go to class prepared most or all of the time. In addition, they strongly agreed or agreed that if something interests them, they try to learn more about it; the things they learn in school are useful; and being a student is one of the most important parts of who they are. Each item is scored on a scale from 1 to 4 (with 4 representing strongly agree and 1 representing strongly disagree), then the six items are summed. Students with a score of 18 or more have greater educational engagement.

School climate: Students experiencing a positive school climate reported that adults at their school treat students fairly, adults at school listen to the students, the school rules are fair, teachers care about students at their school, and most teachers at their school are interested in them as a person. Each item is scored on a scale from 1 to 4 (with 4 representing strongly agree and 1 representing strongly disagree), then the five items are summed. Students with a score of 15 or more experience positive school climate.

To view the full set of survey questions, visit the Minnesota Department of Education's <u>Minnesota</u> <u>Student Survey Reports 2013-2022 Results</u>, and click on the **2022 survey** hyperlink.