

# SPIRIT

Missouri School-based Substance Abuse Prevention  
Intervention and Resources Initiative

## Twelfth Year Report

2013-2014

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### Missouri Department of Mental Health Division of Behavioral Health

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# Executive Summary

## Introduction – An Overview of the SPIRIT Project

The School-based Prevention Intervention and Resources Initiative (SPIRIT), a project sponsored by the Missouri Department of Mental Health, Division of Behavioral Health (DBH), was launched in 2002 in an effort to prevent the use of alcohol and other drugs and incidents of violence in high-risk school districts. The project also aims to improve overall school performance as a result of these preventative efforts. This report highlights the impact of the SPIRIT project in its twelfth year which was implemented during the school year beginning in the fall of 2013 and ending in the spring of 2014.

SPIRIT currently operates in four sites serving six school districts across the state, including Carthage R-IX, Knox Co. R-1, New Madrid Co. R-1, Ritenour, Charleston R-1 and (starting in year thirteen) Scotland Co. R-1. Charleston R-1 was new to the SPIRIT program this year, and their findings will be reported in a separate report. Therefore, this year's aggregate report includes findings from four districts (Carthage R-IX, Knox Co. R-1, New Madrid Co. R-1, and Ritenour). At the time of their induction into SPIRIT, each school district served a high-risk student population characterized by: 1) more than 60% of students receiving free/reduced lunch; 2) standardized test scores below state average; 3) alcohol, tobacco, and other drug use above state average; 4) graduation rates lower than the state average; and 5) a high number of referrals to juvenile authorities. The individual needs of each district vary as do the demographics, such as the size of the population, the average student/teacher ratio, race/ethnicity distribution, location, resources and community setting (e.g., urban or rural). The approximate enrollment in SPIRIT in Year 1 was 3,900. Enrollment in the twelfth year has grown to 7,567 students in kindergarten through the ninth grade.

In the SPIRIT implementation model, a prevention agency is paired with each participating school district. Prevention specialists from the agencies, referred to as "providers" in this report, assist in facilitating evidence-based substance abuse and violence prevention programs, help to identify and respond to additional needs of some students for selective or indicated services, provide screening and referral services upon request, and offer resources and technical assistance as needed. Each district and school determines whether prevention specialists or classroom teachers implement the prevention programs. Thus, who implements the program varies by site and occasionally by school within each district.

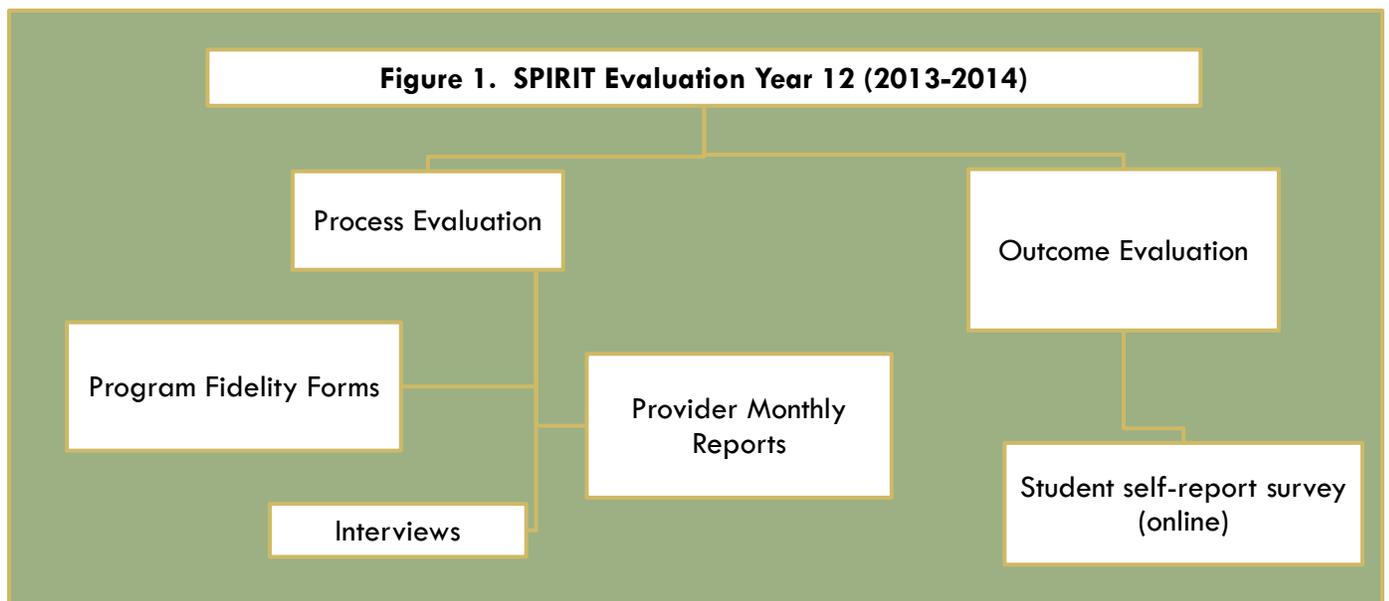
All prevention programs implemented are evidence-based and are listed on an approved list (e.g., the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry of Evidence-based Programs and Practices (NREPP)). Each participating district has identified specific behavioral challenges within their student population, such as bullying, aggressive behavior and substance use, and particular prevention programs are selected to address these issues. Some changes have been made in the programs implemented as a response to changing or further identification of needs of the school or district. Programs implemented in SPIRIT year twelve included PeaceBuilders or Second Step in the elementary schools (supplemented by Too Good for Drugs in some districts), Second Step or Too Good for Drugs in the middle schools and Too Good for Drugs or Project Towards No Drug Abuse in the high schools.

**Evaluation.** Annual evaluation of the SPIRIT program is conducted by the Missouri Institute of Mental Health (MIMH) at the University of Missouri St. Louis (UMSL). The evaluation includes an annual student survey, interviews with SPIRIT providers and school administrators, review of monthly reports submitted by the provider agencies, and analysis of program fidelity from forms documenting program implementation submitted by program implementers (Figure 1).

The self-report online survey completed by students in the 4<sup>th</sup> – 9<sup>th</sup> grades includes questions about use of substances, attitudes toward substance use and perceived risk of use, aggression and problem behaviors, school performance and attitudes toward school, individual protective factors and perceptions of SPIRIT effectiveness. This information is used to assess the degree to which the main goals of the program are being met. One site with limited computer access in its elementary schools continues to complete surveys via paper and pencil.

Throughout this report, SPIRIT student responses are compared to samples of Missouri and U.S. youth. Data for Missouri youth were drawn from the 2014 Missouri Student Survey (MSS), a statewide survey of 6<sup>th</sup> – 12<sup>th</sup> grade students attending public schools. The U.S. sample was drawn from youth who participated in the 2012 National Survey on Drug Use and Health (NSDUH).

All grade K-9 students attending schools in which SPIRIT is implemented receive prevention programming (n = 7,567 in the 2013-2014 school year). In order to participate in the evaluation, however, students must be in the 4<sup>th</sup> grade through 9<sup>th</sup> grades and have parental consent. The consent rates vary by district, but across all SPIRIT sites 85.1% of all students eligible to participate in the evaluation were consented in Year 12. Each consented student was assigned a unique identification code used each year of their participation in order to match and track responses over time while maintaining confidentiality. A stratified random sampling technique was used to select 1,193 students to represent the SPIRIT population, in effect equalizing the influence of district, school, sex, and grade level.



# Summary of Outcome Findings

## SPIRIT Substance Use

- Cigarettes:
  - SPIRIT youth had lower rates of cigarette use than Missouri and US samples of youth
  - Age of first use for SPIRIT youth was younger than that of the Missouri sample.
  - Males were more likely to report 30-day use of cigarettes than females in middle school (6-8<sup>th</sup>) and 9<sup>th</sup> grade.
- Alcohol:
  - Alcohol use in the past 30 days did not differ from the statewide sample.
  - The age of initiation of alcohol use was slightly lower in the SPIRIT sample than in Missouri.
  - Males were more likely than females to report 30-day alcohol use in 4-5<sup>th</sup> grades, but alcohol use rates are similar for boys and girls in middle school (6-8<sup>th</sup>) and 9<sup>th</sup> grade.
- Marijuana:
  - Lifetime and 30 day Marijuana use among SPIRIT youth was higher than among Missouri youth, but lower than the US as a whole.
  - On average, SPIRIT youth who had used marijuana in their lifetime began use at a slightly younger age than those in the Missouri sample.
  - Use among 9<sup>th</sup> grade youth is four times the use rates of 6-8<sup>th</sup> grade youth; there are no sex differences in use.
- Inhalants:
  - Past month inhalant use was higher among SPIRIT youth than among the Missouri and US samples, but lifetime use was lower.
  - Age of the initiation for students in the SPIRIT sample was slightly higher than Missouri.
  - Boys are more likely than girls to use inhalants in the older grades (6-8<sup>th</sup> and 9<sup>th</sup> grade).

Table 1. SPIRIT, Missouri and U.S. Drug Use Comparisons (6 <sup>th</sup> – 9 <sup>th</sup> grade)				
		SPIRIT <sup>1</sup>	Missouri <sup>2</sup>	US <sup>3</sup>
Cigarettes	Lifetime use	12.5	13.3	17.4
	Past month (30-day)	4.2	5.1	6.6
	Age of initiation	10.8	11.61	n/a
Alcohol	Lifetime use <sup>4</sup>	31.7	---	---
	Past month (30-day)	8.3	7.9	12.9
	Age of initiation	10.85	11.78	n/a
Marijuana	Lifetime use	10.9	8.4	17.0
	Past month (30-day)	5.4	4.1	7.2
	Age of initiation	12.45	12.73	n/a
Inhalants	Lifetime use	2.3	2.9	6.5
	Past month (30-day)	2.3	1.3	0.8
	Age of initiation	11.35	11.05	n/a

<sup>1</sup> SPIRIT, spring 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 3873 (average age = 13.16); note: there were no 9<sup>th</sup> grade youth participating from the Knox Co. School District.

<sup>2</sup> Missouri Student Survey (MSS) 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 44,710 (average age = 13.45)

<sup>3</sup> National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

<sup>4</sup> The SPIRIT survey lifetime alcohol use question was worded differently from the MSS and NSDUH; thus comparison data have not been included in this report. SPIRIT students were asked “how old were you the first time you had more than a sip or two of alcohol?”. The Missouri and U.S. questionnaires included more specific instructions: “by a ‘drink,’ we mean a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it.” SPIRIT youth were not instructed to only count those times when they consumed an entire drink, but rather anything more than a sip or two.

## Past Month Substance Use Over Time

- Cigarettes:
  - The percentage of youth in the 6<sup>th</sup> – 9<sup>th</sup> grades that reported using cigarettes in the past month has steadily declined from 6.0% in 2011 to 4.2% in 2014
  - The percent of youth who report 30-day cigarette use more than quadruples from 6-8<sup>th</sup> grade to 9<sup>th</sup> grade.
- Alcohol:
  - The past month use of alcohol was reported by fewer youth in 2014 (8.3%) than in any previous year.
  - Like cigarettes, alcohol use rises dramatically among 9<sup>th</sup> graders; use is approximately 250% higher compared to youth in 6-8<sup>th</sup> grades.
- Marijuana:
  - The percent of past month marijuana users increased from 2013 to 2014, losing much of the drop that occurred between 2012 and 2013.
- Inhalants:
  - The percentage of inhalant users increased slightly compared to 2013, becoming more similar to pre-2013 levels.

Table 2. Estimates of SPIRIT 30-day Substance Use (6 <sup>th</sup> – 9 <sup>th</sup> grade), 2011-2014				
	2011	2012	2013	2014
Cigarettes	5.1	4.7	4.3	4.2
Alcohol	12.2	10.3	9.7	8.3
Marijuana	6.0	4.9	4.0	5.4
Inhalants	2.0	2.1	1.8	2.3

## Attitudes toward Substance Use

- Positive Attitudes towards Substance Use:
  - More than nine out of ten students in grades 4<sup>th</sup> – 9<sup>th</sup> did not think smoking made them look cool or more grown-up, or let them have more fun.
  - Positive attitudes toward cigarette and alcohol use have consistently decreased since 2011; however, more youth in 2014 believed that smoking makes you look grown-up than in 2013 (5.5% vs 3.5%).
- Substance Use Norms:
  - Most youth agreed that adults were more likely to use cigarettes and alcohol than teenagers, but thought that teenagers were slightly more likely to use marijuana.
  - Youth in the 9<sup>th</sup> grade were more likely than younger students to think that most teenagers used alcohol, cigarettes and marijuana.
  - Ninth grade students were the more likely than younger students to think that teenagers use alcohol and marijuana.
  - Younger (4-5<sup>th</sup>) grade students were more likely than older students to believe adults use cigarettes and marijuana.

- Females were more likely than males to think that most teenagers and adults use marijuana and alcohol.
- Substance Use Intentions:
  - The intention to use alcohol continues to decrease, with only a quarter of youth intending to use alcohol in the future in 2014 (versus a third in 2011)
  - About a quarter of students in grades 4-9 agreed that they might use alcohol in the future, versus less than 1 in 10 for marijuana and less than 1 in 20 for cigarettes.
  - The largest increase in intention to use occurs between the middle and high school grades. Twice as many youth in the 9th grade indicated they might use marijuana (16%) compared youth in 6-8th grade (7%).
- Risk of Harm from Substance Use:
  - Over two-thirds of all students in grades 4-9 thought cigarettes and alcohol posed a moderate or great risk. About three-quarters of youth thought using marijuana was risky.
  - More than 8 in 10 of 6th – 9th graders thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription posed a moderate to great risk, with use of methamphetamine perceived as the most risky.
  - Younger students (4-5th grades) believed cigarettes were less risky than older students, whereas older students (9th grade) perceived marijuana as less risky than younger students.
  - The percentage of youth who think using marijuana is risky dropped slightly between 2013 and 2014, but marijuana is still seen as more risky than alcohol or cigarettes.
- Disapproving Attitudes towards Substance Use:
  - Over 90% of youth in the 6th-9th grades thought use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription was wrong or very wrong; and over two-thirds of students thought the use of alcohol was either wrong or very wrong.
  - As grade level increased, students were less likely to consider the use of substances to be wrong.
  - Girls are more likely than boys to believe using substances is wrong. The one exception is alcohol; while girls in 4-5th grades are more likely to believe using alcohol is wrong than boys, by 6th grade girls and boys are equally likely to believe using alcohol is wrong.
  - The percentage of youth who thought alcohol use was wrong or very wrong has remained relatively consistent from 2011 to 2014.

## **Problem Behavior**

- More than 40% of youth in the 4th – 9th grade reported being harassed or bullied within the past three months.
- Students who reported they had been bullied or harassed at least one time in the past three months were more likely to report engaging in and experiencing almost every aggressive and problem behavior more frequently than those who had not been bullied.
- Very few youth (less than 1 in 20) reported using the internet or a cell phone to embarrass or hurt another student, or conversely, being harassed by another student by internet or cell phone.
- A very small percentage of youth (less than 3%) reported using a weapon to threaten or bully another or having a weapon used against them in a similar manner.
- The percentage of youth who admitted making fun of others increased in higher grade levels, whereas spreading of lies and rumors decreased as youth got older.

- As grade levels increased, youth were less likely to report that others physically assaulted them. In fact, by 9<sup>th</sup> grade, youth were more likely to report physically assaulting someone else than having been assaulted.
- Males were more likely than females to report making fun of or physically assaulting others; they were also more likely to report being physically assaulted. Females were more likely to report that they were made fun of by others or had rumors spread about them. Males and females were just about as likely to report that they spread rumors or lies about other kids at school.
- The percentage of students who report physically assaulting others or being physically assaulted has decreased substantially since 2011. Furthermore, fewer students were afraid of being beaten up in 2014 compared to 2011.

## School Performance

- Grades, Attendance, and Disciplinary Incidents:
  - Most students reported their average grades last school year were either A's or B's, similar to last year. While there were no sex differences in reported grades for youth in 4-5<sup>th</sup> grades, among 6-9<sup>th</sup> grade students a greater percentage of females than males reported receiving mostly A's or B's.
  - When they were asked how many whole days of school were missed in the past 30 days because they skipped or cut, slightly more students in 2014 reported missing at least one day as compared to students in 2013. Students in 4-5<sup>th</sup> grades were most likely to skip school.
  - Similar to 2013, in 2014 approximately a quarter of students reported being sent to the office for disciplinary reasons in the past three months. Males were more likely than females to be sent to the office, but males in 9<sup>th</sup> grade were less likely than males in younger grades.
  - Slightly less than one in six students reported receiving in-school suspension or detentions. The percent of youth receiving in-school suspensions and detentions doubles for males and quadruples for females between 4-5<sup>th</sup> grade and 6-8<sup>th</sup> grade.
  - Approximately 6% of students received an out-of-school suspension, slightly lower than in 2013. As with other disciplinary actions, males were more likely than females to have received an out-of-school suspension.
- Attitudes towards School:
  - The large majority (about 9 in 10) students reported feeling safe at school. By and large attitudes toward school were positive; youth were least likely to agree that teachers treat them fairly, with about three-quarters agreeing with this statement.
  - In general, the higher the grade level the less positive youth felt toward school. Happiness at school and feeling safe at school steadily decreased at each grade level.
- Perceptions of Program Effectiveness:
  - The large majority of students (85.0%) responded that they liked the SPIRIT program at least a little.
  - Similar to responses in previous years, youth were most likely to report that the program helped them with resistance skills (82.3%) and that the time spent on the program was helpful (81.6%).
  - Students thought the program was least effective in helping others be nicer to them, with only slightly over half (53.2%) agreeing with that statement.
  - In general, as grade level increased youth were less likely to be satisfied with the program and think it was effective; the largest drop in perceived effectiveness occurred at the 9<sup>th</sup> grade level.

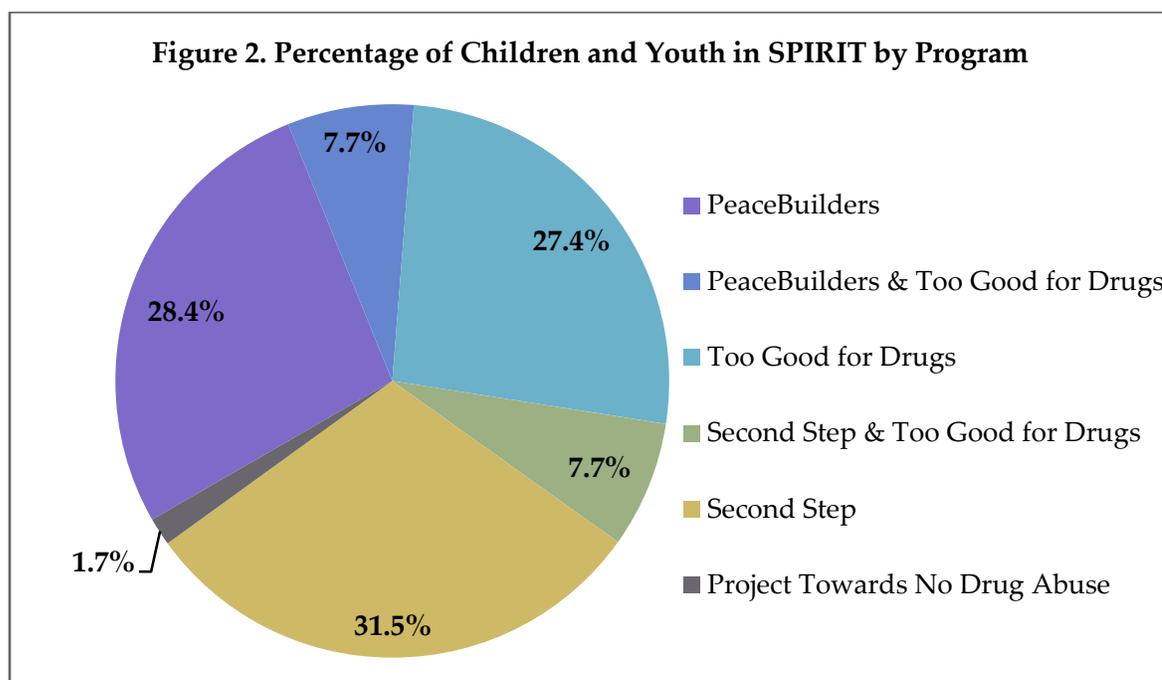
- Females were more likely than males to like the program and believe it helps them with resistance skills. Males were more likely than females to believe other kids are nicer to them because of the program.

## **Protective Factors**

- Empathy:
  - About three-quarters of students answered “agree” or “strongly agree” to every empathy statement, showing a strong level of empathy. Regardless of grade level, fewer males showed strong levels of empathy than females.
  - The percent of students agreeing to every empathy question dropped as grade levels increased, with 9<sup>th</sup> graders being the least empathic; empathy dropped more for boys than girls.
- Decision-making:
  - About 8 in 10 youth believe they make good decisions, though fewer (about 6 in 10) report that they often or always stop to think about their choices, how their choices affect others, and the consequences of their choices before making a decision.
  - Fewer than half of students answered “often” or “always” to every decision-making question. For young grades (4-5<sup>th</sup> and 6-8<sup>th</sup>) females reported significantly better decision-making skills than males, though by 9<sup>th</sup> grade decision-making skills were more similar among males and females.
- Caring Adults:
  - The large majority (about 9 out of 10) of youth indicated that they had a caring adult in their lives at either school or home; caring adults were more likely to be located at their home than at school.
  - About three-quarters of students “agreed” or “strongly agreed” that there were caring adults both at home and at school that they could go to if something was bothering them or if they had something to say.
  - The percent of girls reporting positive adult support is higher than males in 4-5<sup>th</sup> grade, but by 9<sup>th</sup> grade drops to a level significantly lower than males. In contrast, the percent of boys’ reporting positive adult support drops only slightly as they age.

# Chapter 1 - The SPIRIT Programs

As in previous years, information about program implementation was collected from interviews with prevention providers and school administrators, monthly reports from the prevention provider agencies, and fidelity forms completed by teachers of the evidence-based prevention programs selected to meet the needs of each district. Following are brief descriptions of information gathered from these sources.



## Participating School Districts

**Carthage R-IX.** In the Carthage School District, PeaceBuilders was taught by prevention specialists from the provider agency in all five elementary schools (K - 4<sup>th</sup> grade) and in the middle school (5<sup>th</sup>- 6<sup>th</sup> grade). In the middle school, Too Good for Drugs supplemented PeaceBuilders. This year the curriculum for 7<sup>th</sup>-9<sup>th</sup> grade students changed from Life Skills Training to Too Good for Drugs. Health and physical education (PE) teachers taught the curriculum to the junior high school students (7<sup>th</sup> – 8<sup>th</sup> grade) and to 9<sup>th</sup> grade students in the high school.

PeaceBuilders is a school climate program built on five basic principles that provide a common language that is used by everyone in the school community. These principles are: (1) praise people, (2) avoid put-downs, (3) seek wise people as advisors and friends, (4) notice and correct hurts we cause, and (5) right wrongs. Use of the PeaceBuilder pledge each day reinforces these concepts and the flexibility of the curriculum allows the prevention specialists to creatively build lessons around issues that are particularly relevant to specific classrooms or to the school as a whole. Over the years, principals have cited the strength of having the common language of PeaceBuilders as a powerful tool in creating understanding within the school community, whether in relation to disciplinary actions or praise.

Too Good for Drugs, another evidence-based prevention program, supplemented PeaceBuilders in the middle school in order to provide more specific alcohol, tobacco and other drug (ATOD) information and to teach resistance skills to the students. The same program was used in the junior high and high school for the first time during the 2011-2012 school year, and teachers reported that students responded positively to the interactive lessons.

The prevention specialists at Carthage have used creative ways to teach students about the application of principles presented in the curricula. They have also brought community awareness to SPIRIT through such activities as “Pinwheels for Peace,” an event in which the children and youth created their own pinwheels or class pinwheels that were displayed outside of the schools. This activity was highlighted in the local press.

**Knox County R-I.** In Knox School District, classroom teachers and a prevention specialist coordinated implementation of PeaceBuilders in the elementary school (K – 5<sup>th</sup> grade). A prevention specialist also taught Second Step in the middle school (6<sup>th</sup> – 8<sup>th</sup> grade). A mentoring program for high school freshman, begun during Year 8, was continued in an attempt to reduce the number of students dropping out of school. The district also has implemented Positive Behavioral Interventions and Supports (PBIS) and finds that this program interfaces well with SPIRIT. In addition to teaching the curriculum, the prevention specialists meet with small groups of students around specific issues and also work one-on-one with students when requested by teachers. Teachers also ask the specialists to come into the classrooms to address problem behaviors and have expressed appreciation for this assistance.

Prevention specialists have been actively involved with community members and organizations in support of the prevention efforts related to SPIRIT. Events like Donuts for Dads and Muffins for Moms have been supported by the community. Additionally, PeaceBuilder lessons have even been taught to pre-school children, so they are truly prepared when they enter kindergarten.

**New Madrid County R-I.** SPIRIT was implemented in all three elementary schools (K – 5<sup>th</sup> grade) in the New Madrid School District. The program was also implemented in the middle school (6<sup>th</sup> – 8<sup>th</sup> grade) and to 9<sup>th</sup> grade students at the high school. A prevention specialist from the provider agency taught PeaceBuilders at the elementary schools, and classroom teachers reinforced the lessons. School-wide activities, such as reciting the PeaceBuilder pledge also reinforced the PeaceBuilder message. A prevention specialist taught Second Step at the middle school and Project Towards No Drug Abuse to the 9<sup>th</sup> grade students at the high school. To strengthen the impact of the substance use prevention messages of the primary curriculum at each school level, supplemental lessons are provided. The elementary school curriculum was supplemented with lessons from NIDA’s “Brain Power” program, in the middle school lessons were supplemented with the Totally True Facts about Drugs Action Pack, and in the high school, The Truth about Drugs from the Foundation for a Drug Free World is used.

SPIRIT prevention specialists have worked with teachers in each of the schools to create events and innovative activities to reinforce SPIRIT. In the elementary schools, for instance, both students and teachers are recognized and given awards as PeaceBuilders to provide incentive to the children to use the skills they are learning through the program. The providers also offer activities to parents to involve them in understanding and reinforcing the programs. At the beginning of the school year, abbreviated lessons from SPIRIT were even offered to parents to help them understand more about the goals of SPIRIT and the specific programs provided.

**Ritenour.** In the Ritenour School District, prevention specialists implemented programming in all six elementary schools (4<sup>th</sup> – 5<sup>th</sup> grade), both middle schools (6<sup>th</sup> – 8<sup>th</sup> grade), and with 9<sup>th</sup> grade students in

the high school. Second Step was taught in the elementary schools with supplements from Too Good for Drugs. Too Good for Drugs was taught in the two middle schools and the high school. Students seem to enjoy the creative teaching methods used by the program providers. Additionally, the prevention specialists provide materials to the teachers so that they are able to reinforce the lessons from the curriculum, therefore increasing the effectiveness of the messages that have been taught.

## Fidelity Documentation and Interviews

Fidelity forms documenting implementation details were completed by each program implementer. The number of students, the specific curriculum lesson taught, the number of minutes, and the frequency of implementation were recorded as were any changes that the teacher made to the lessons (lengthened, shortened, material added, made more age or culturally appropriate). The most frequent modifications made were the addition of approved supplemental substance use prevention materials from the National Institute on Drug Abuse (NIDA) to programs.

Principals from all of the districts have expressed appreciation for being included in the SPIRIT program throughout the years during which the program has existed. Most comment on the ability of the prevention specialists to effectively work with the students in both program implementation and small group work, and cite examples of ways in which SPIRIT positively impacted their students and their schools. Following are some of those comments:

*“Character Education is the area that we like SPIRIT to focus on in the middle school and they do this well.” – Middle School Principal*

*“When our students participate in events with other schools, they are better behaved. I believe it is because of SPIRIT.” – Elementary Principal*

*“[SPIRIT is going] really well. I’ve had significantly fewer referrals this year and the one’s I’ve had have just been acting out, attention getting things and not peer and peer.” – Elementary Principal*

*“SPIRIT supports the values we try to teach our kids—respect for self and others.”  
– Middle School Principal*

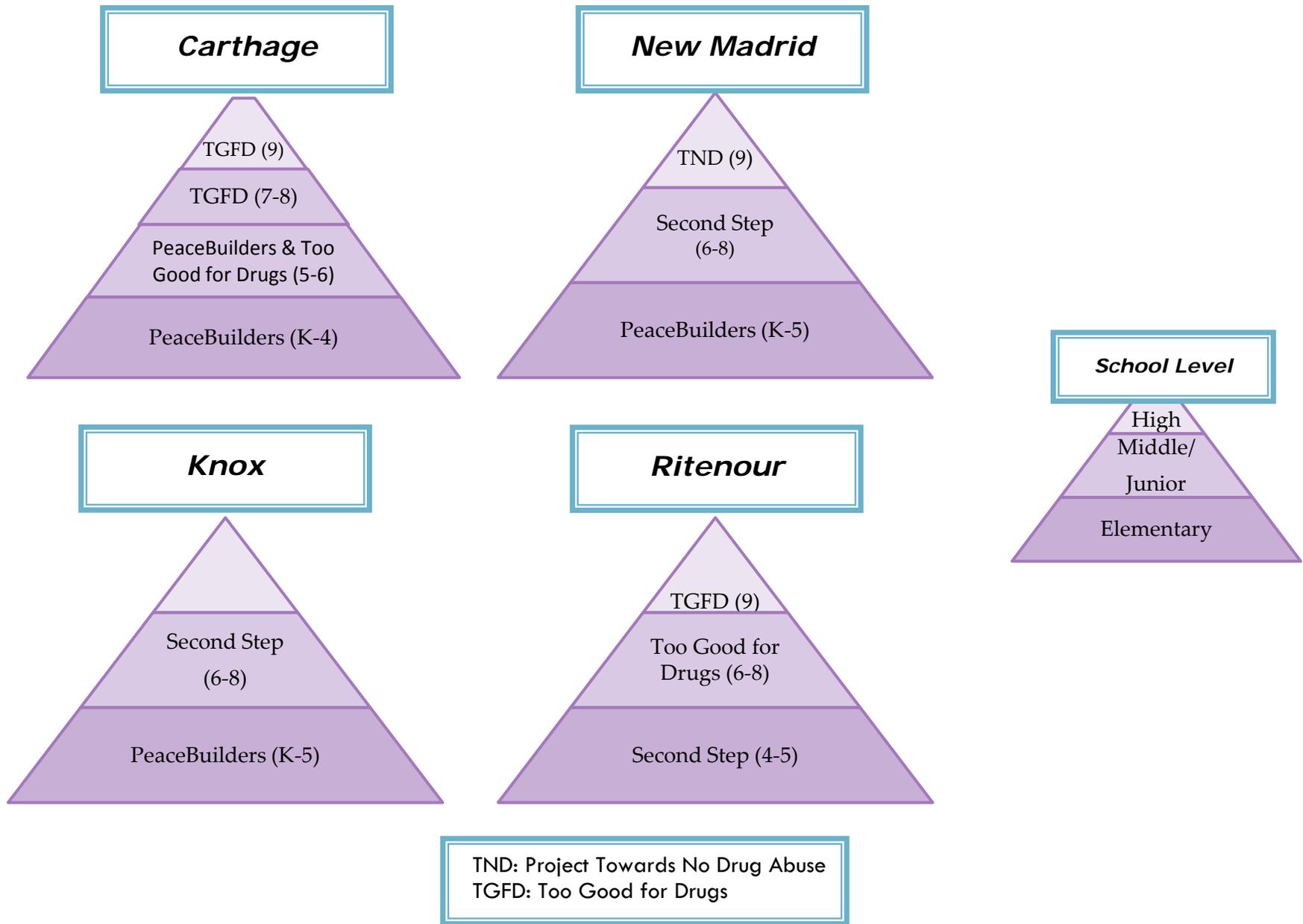
*“The strength of the program is its practical nature and the fact that it helps children to learn life skills at an early age. They use these skills both in and out of school.” –Elementary School Principal*

*“We love our SPIRIT provider and the kids relate to her so well. She is able to get through to them.”  
– High School Principal*

Principals, regardless of district, speak of budget cuts that have caused reductions in staff, larger classes and fewer resources. These problems are in addition to those common in the past: lack of parental involvement, parental substance use, poverty, transiency, and community violence. With all of these issues, SPIRIT has become even more important in helping to build protective factors against substance use and violence.

The following figure displays the prevention program being implemented in each district and grade level.

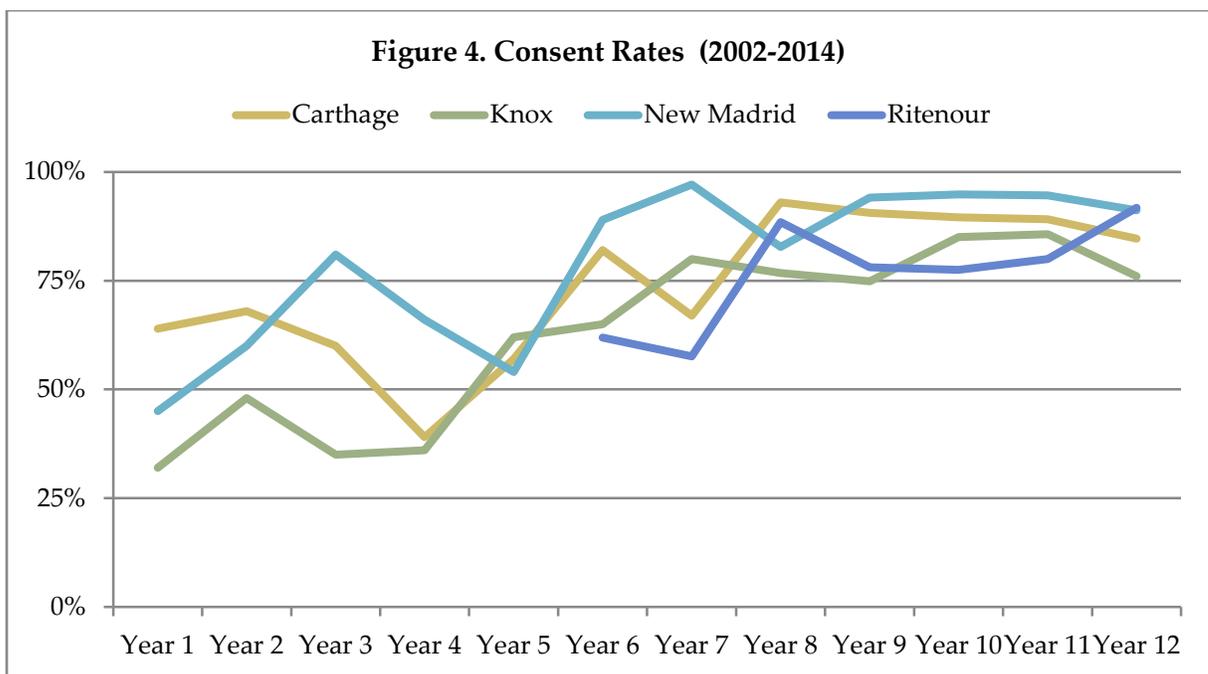
**Figure 3. Program Implementation by Site, Year 12 (2013-2014)**



## Chapter 2 – Sample Selection and Demographics

In Year 12, 7,567 students in kindergarten through ninth grades received prevention programming through SPIRIT. However, only students in grades 4-9 who received parental consent and assented to participate were eligible to be included in the evaluation.

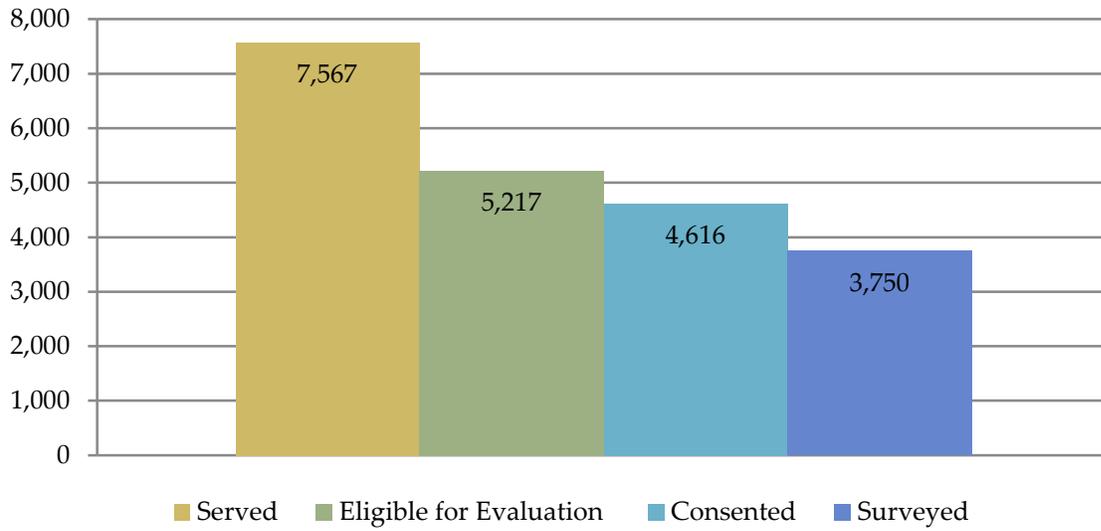
Of the 5,217 4<sup>th</sup>-9<sup>th</sup> grade students who were eligible to participate in the evaluation, 4,616 received parental consent, achieving an increase in consent rate from 85.1% in Year 11 to 88.5% in Year 12. All four school districts have a consent rate above 75%.



### Sample Weighting

Of the 4,616 students who received parental consent to participate in the evaluation, 3,750 completed a survey. According to enrollment numbers reported by the Department of Elementary and Secondary Education (DESE), approximately 5,801 students grades 4-9 were enrolled in SPIRIT participating school districts in 2013-2014. Due to sampling bias, the actual students surveyed ( $n = 3,750$ ) may not be representative of the students in the total school population ( $n = 5,801$ ). To address this bias, for each district the sample was weighted to match DESE enrollment numbers in terms of representation by school building, sex, and grade level. Thus, the resultant weighted sample should be reflective of the population of SPIRIT as a whole.

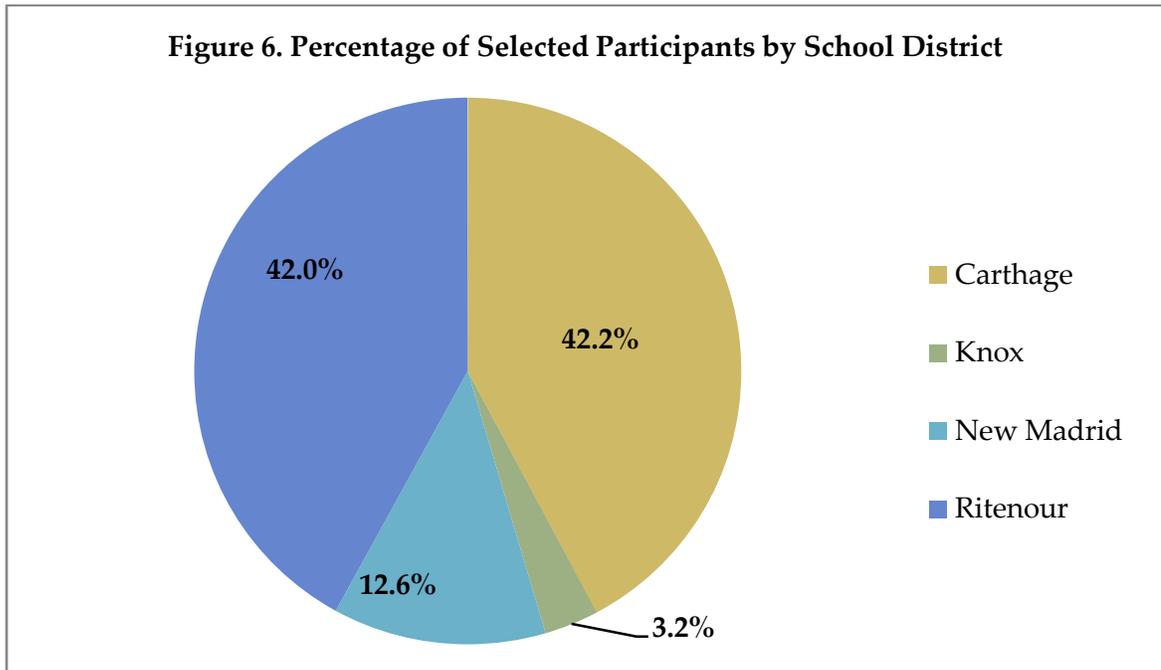
**Figure 5. Students Served, Eligible for Evaluation, Consented, and Surveyed in Year 12**



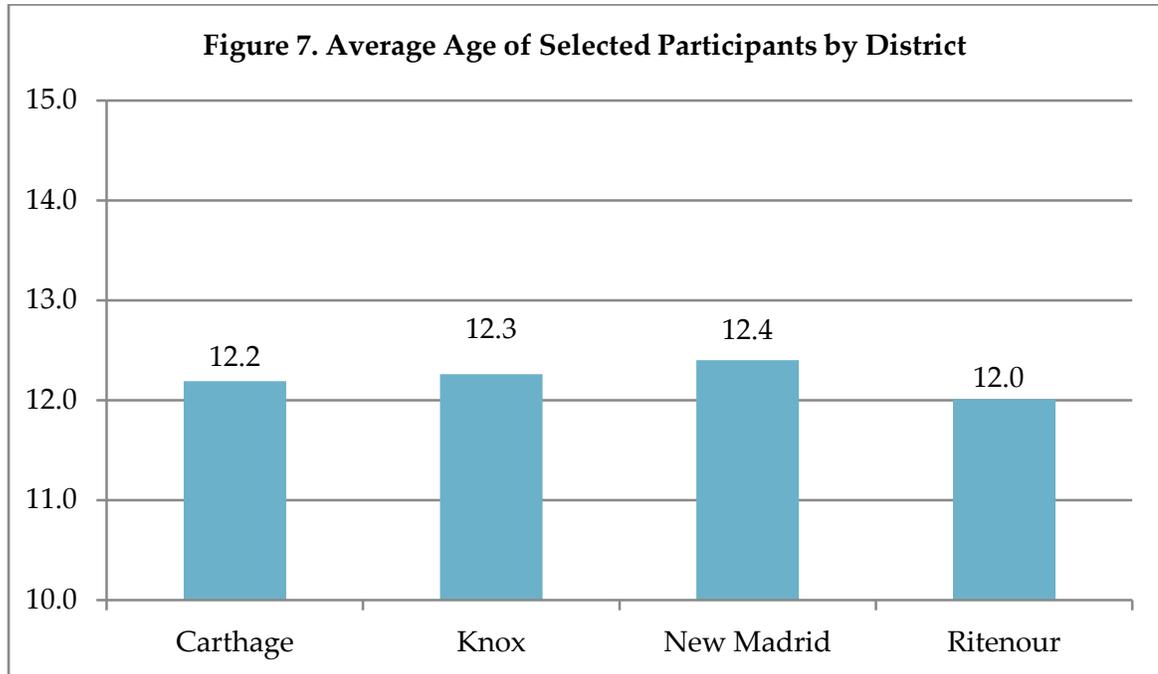
**Demographic Distributions of the Evaluation Sample**

Due to the small size of the Knox School District, this district accounted for the smallest percentage of students surveyed (3.2%).

**Figure 6. Percentage of Selected Participants by School District**



The average age of the participants ranges from 12.0 to 12.4 years of age.



The racial and ethnic profiles of each district were distinct from one another. The majority of youth in the Knox Co. School District were White (91.7%), but every other district has a variant demographic. The Carthage School District is mostly White (90.7%) and Latino (30.6%). The New Madrid School District is mostly White (65.5%) and Black (31.9%). The Ritenour School District is the most diverse, with almost equal percentages of White (47.1%) and Black (45.0%) participants, and some Latino (15.7%) representation as well.

Table 3. Race and Ethnicity of Selected Participants by District				
	Carthage	Knox	New Madrid	Ritenour
Hispanic/Latino (of any race)	30.6	1.7	2.4	15.7
Race:				
White/Caucasian	90.7	91.7	65.5	47.1
Black/African-American	6.6	1.7	31.9	45.0
Native American/Alaskan Native	7.1	4.3	2.8	3.4
Asian	0.7	0.8	0.5	4.3
Native Hawaiian or Other Pacific Islander	0.7	1.7	0.7	0.9

Note: Students were allowed to choose more than one option for race, so percentages will not equal 100

## Chapter 3 - Substance Use

The following chapter presents self-reported use of substances by youth in the 4<sup>th</sup> – 9<sup>th</sup> grades. The percentage of users among particular grade levels are generally reported by the following grade groups: 4<sup>th</sup> – 5<sup>th</sup>, 6<sup>th</sup> – 8<sup>th</sup>, and 9<sup>th</sup>. Wherever possible, substance use of students in the SPIRIT program was compared to use among youth of similar age or grade levels as reported in the 2014 MSS and the 2012 NSDUH.

### Lifetime Substance Use

Students in 4<sup>th</sup> – 5<sup>th</sup> grades were asked whether they had ever, even once, smoked part or all of a cigarette, had more than a sip or two of alcohol, or used marijuana. Students in the 6<sup>th</sup> – 9<sup>th</sup> grade were asked how old they were the first time they smoked part or all of a cigarette, had more than a sip or two of alcohol, used marijuana or a variety of other drugs.

**Lifetime Substance Use Comparisons with State and National Samples.** Among the 6<sup>th</sup> – 9<sup>th</sup> grade SPIRIT sample, a slightly smaller percentage of youth had smoked cigarettes in their lifetime (12.5%) than youth in Missouri (13.3%), though US use was much higher (17.4%). The use of marijuana in one’s lifetime was higher among SPIRIT youth compared to the Missouri sample, but lower than the US sample. However, a smaller percentage of SPIRIT youth had used inhalants (2.3%) than both others in Missouri (2.9%) and the US (6.5%). And fewer youth in SPIRIT used prescription drugs without a prescription (3.0%) than their counterparts elsewhere in Missouri (5.7%).

	SPIRIT Total <sup>5</sup>	MO <sup>6</sup>	U.S. <sup>7</sup>
Cigarettes	12.5	13.3	17.4
Alcohol (more than a sip) <sup>8</sup>	31.7	---	---
Alcohol (once or twice a month)	6.2	---	---
Marijuana	10.9	8.4	17.0
Ecstasy	1.2	---	---
Methamphetamine	0.7	0.4	---
Inhalants	2.3	2.9	6.5
Prescription Drugs without Rx	3.0	5.7	---

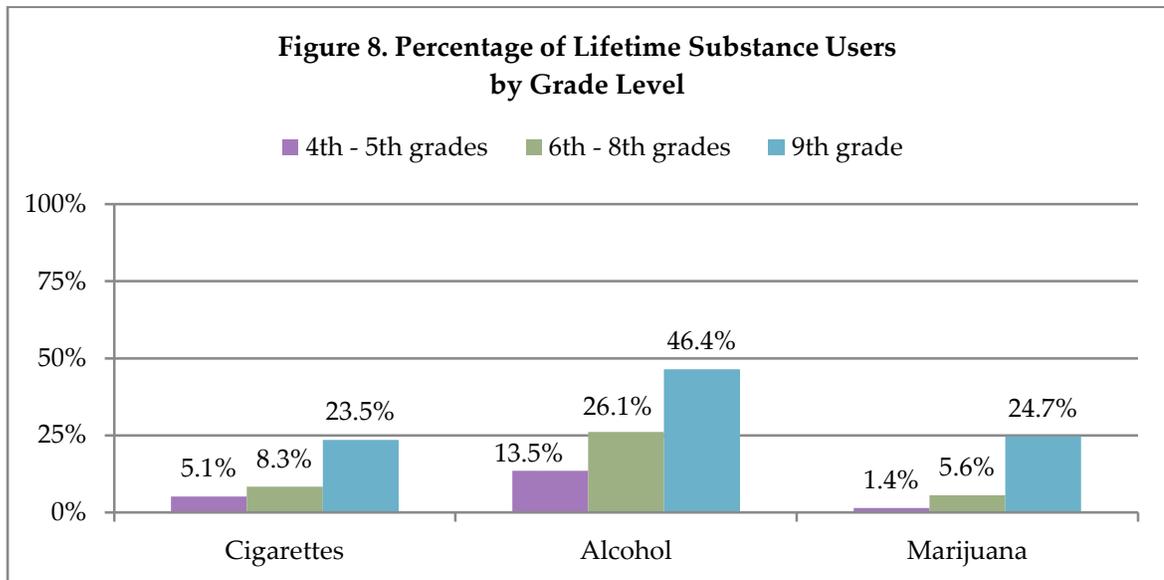
<sup>5</sup> SPIRIT, spring 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 3,873 (average age = 13.16); note: there were no 9<sup>th</sup> grade youth participating from the Knox Co. School District.

<sup>6</sup> Missouri Student Survey (MSS) 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 44,710 (average age = 13.45)

<sup>7</sup> National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

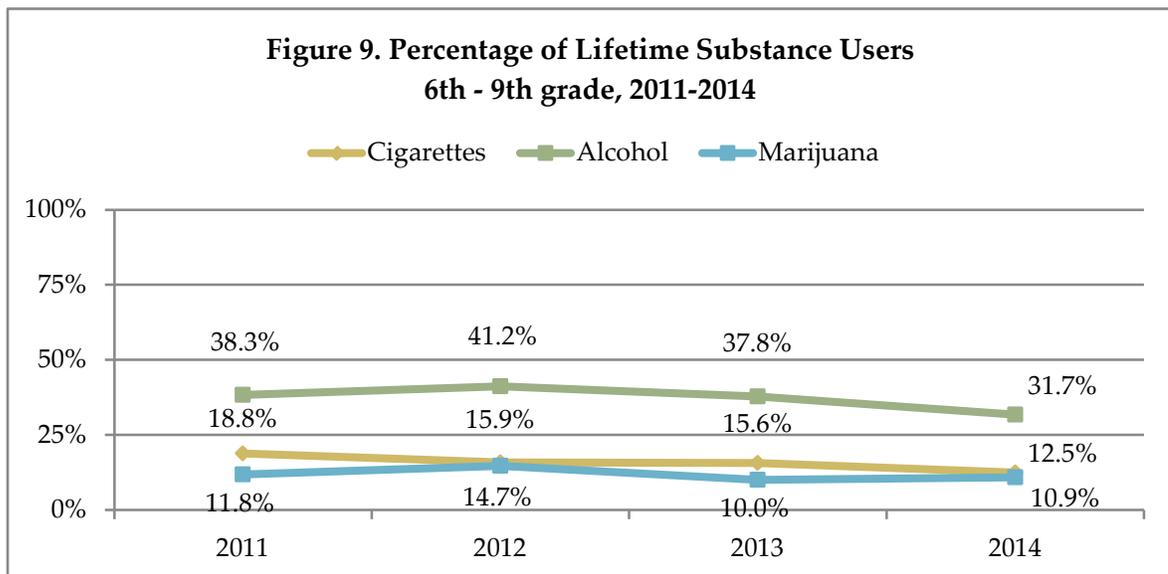
<sup>8</sup> Lifetime alcohol use cannot be compared between the SPIRIT, MSS, and NSDUH surveys. Please see footnote 4 for further explanation. Ecstasy also cannot be compared: SPIRIT asks specifically about ecstasy use, whereas the MSS asks about “club drugs”

**Lifetime Substance Use by Grade Level.** The percentage of youth who had used cigarettes, alcohol, or marijuana at least once increased with grade level. The largest increase in cigarette and marijuana users occurred between the middle school (6<sup>th</sup>-8<sup>th</sup>) and high school (9<sup>th</sup>) grade levels, whereas the percentage of alcohol users increased to a great extent between all grade levels. Among 9<sup>th</sup> grade students, marijuana use is higher than cigarette use.



**Lifetime Substance Use by Sex.** There were no differences between the percentage of males and females who reported having ever used cigarettes, alcohol or marijuana in their lifetime.

**Lifetime Substance Use by Year.** The percentage of youth who had used marijuana remained consistent from 2013 to 2014. However, there was a decrease from 2013 to 2014 in the percentage of youth reporting that they had tried alcohol or cigarettes in their lifetime. Over the course of four years, the percentage of cigarette users has decreased drastically from 18.8% in 2011 to 12.5% in 2014. There has been less effect on the use of marijuana, however, with the percentage of users only slightly dropping over a four year period.



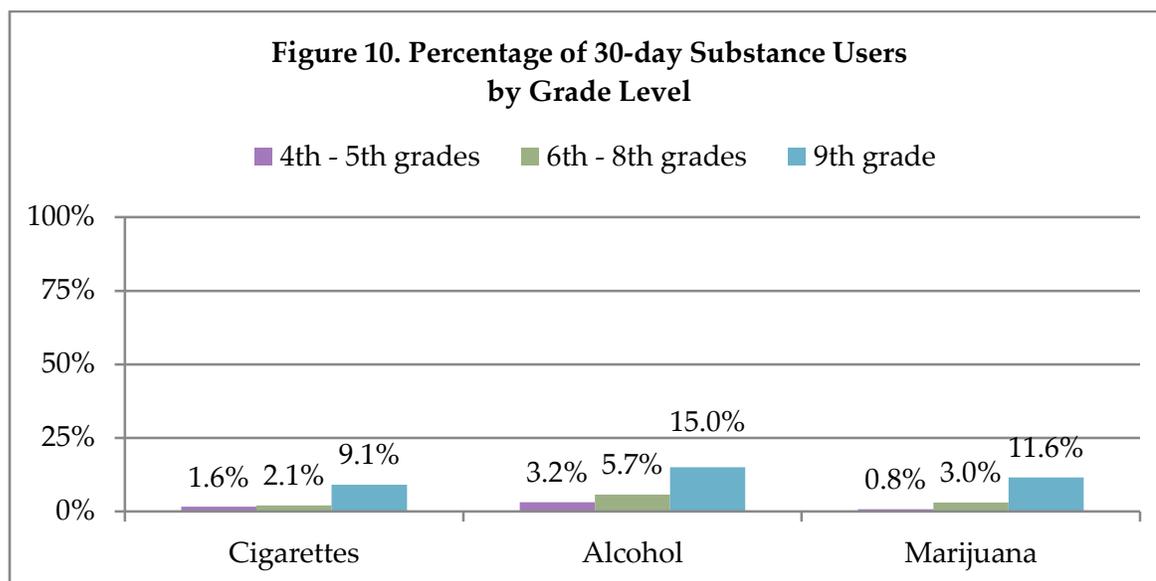
## Past Month (30-day) Substance Use

Students in 4<sup>th</sup> – 9<sup>th</sup> grade were asked whether they used substances in the month prior to taking the survey. Among the selected sample, 2.9% reported smoking a cigarette, 8.8% had consumed alcohol, and 4.1% had used marijuana in the past 30 days.

**30-day Substance Use Comparisons with State and National Samples.** A smaller percentage of 6<sup>th</sup> – 9<sup>th</sup> grade SPIRIT students used cigarettes in the past 30 days compared to the average student in Missouri or the U.S. The past month use of alcohol did not differ between the SPIRIT and Missouri samples. Marijuana and inhalant use in the past 30 days was higher among SPIRIT youth compared to Missouri samples, however marijuana use remained lower than US rates.

	SPIRIT Total <sup>9</sup>	MO <sup>10</sup>	U.S. <sup>11</sup>
Cigarettes	4.2	5.1	6.6
Alcohol	8.3	7.9	12.9
Marijuana	5.4	4.1	7.2
Inhalants	2.3	1.3	0.8

**30-day Substance Use by Grade Level.** There is a steady rise in the percentage of substance users for each increase in grade level. The greatest increase is among users of alcohol from the middle school to the high school level.



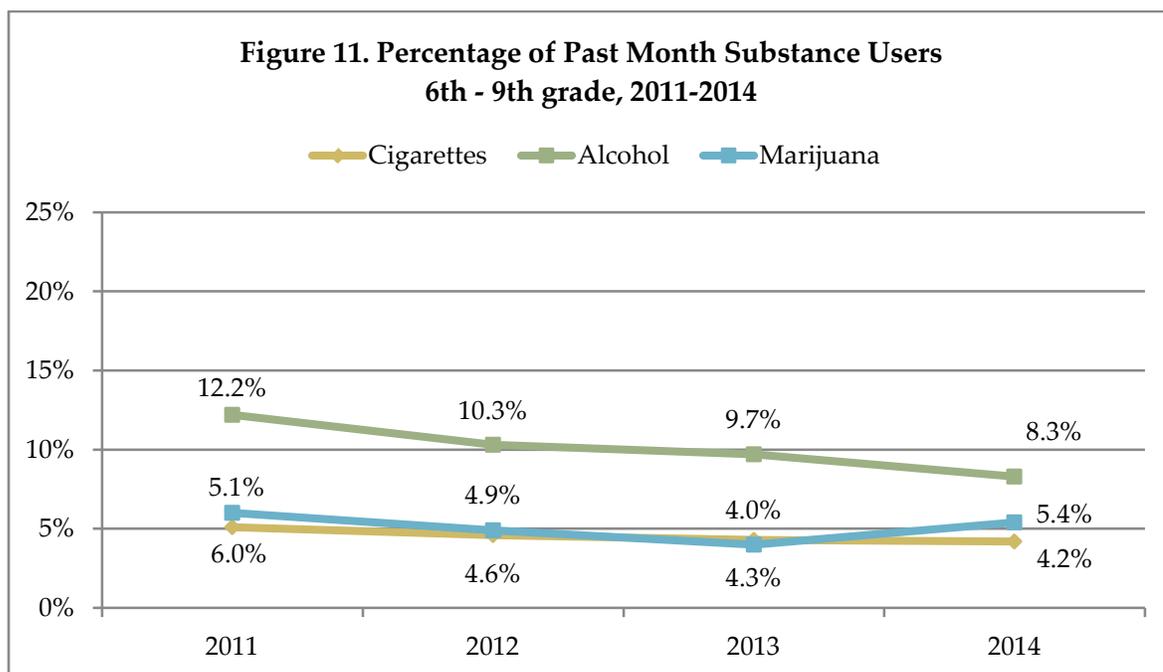
**30-day Substance Use by Sex.** Although males and females in grades 4-5<sup>th</sup> did not differ in cigarettes use, males in grades 6-8<sup>th</sup> and 9<sup>th</sup> were more likely to use cigarettes than females. Likewise, boys in grades 4-5<sup>th</sup> were more likely to use alcohol than females in those grades, though use did not differ by sex in grades 6-8<sup>th</sup> and 9<sup>th</sup>. Marijuana use did not differ by sex, but males in grades 6-8<sup>th</sup> and 9<sup>th</sup> were more likely to use inhalants in the past 30 days than females.

<sup>9</sup> SPIRIT, spring 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 3,873 (average age = 13.16); note: there were no 9<sup>th</sup> grade youth participating from the Knox Co. School District.

<sup>10</sup> Missouri Student Survey (MSS) 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 44,710 (average age = 13.45)

<sup>11</sup> National Survey on Drug Use and Health (2012), 12-17 years of age, n = 22,473

**30-day Substance Use by Year.** The percentage of youth in the 6<sup>th</sup> – 9<sup>th</sup> grades that reported using cigarettes in the past year has steadily declined from 6.0% in 2011 to 4.2% in 2014. The past month use of alcohol was reported by fewer youth in 2014 than in any previous year. The percent of past month marijuana users increased from 2013 to 2014, returning to pre-2012 rates.



### Age of 1<sup>st</sup> Substance Use (Age of Initiation)

Students in 6<sup>th</sup> – 9<sup>th</sup> grade were asked to indicate how old they were the first time they used alcohol, cigarettes, and other drugs.

**Age of 1<sup>st</sup> Substance Use Comparisons with State Samples.** On average, SPIRIT youth who had used cigarettes in their lifetime had first used them at 10.8 years of age, lower than those in the Missouri sample (11.61 years of age). Age of initiation of inhalant use was slightly higher among SPIRIT youth compared to the statewide sample (11.35 vs. 11.05).

	SPIRIT Total <sup>12</sup>	MO <sup>13</sup>
Cigarettes	10.8	11.61
Alcohol (more than a sip) <sup>14</sup>	10.85	---
Alcohol (once or twice a month)	12.08	---
Marijuana	12.45	12.73
Ecstasy	12.81	---
Methamphetamine	11.30	---
Inhalants	11.35	11.05
Prescription Drugs without Rx	11.95	---

<sup>12</sup> SPIRIT, spring 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 3873(average age = 13.16); note: there were no 9<sup>th</sup> grade youth participating from the Knox Co. School District.

<sup>13</sup> Missouri Student Survey (MSS) 2014, 6<sup>th</sup> – 9<sup>th</sup> grade, n = 44,710 (average age = 13.45)

<sup>14</sup> Lifetime alcohol use cannot be compared between the SPIRIT and MSS surveys. Please see footnote 4 for further explanation. Age of initiation questions for ecstasy, methamphetamine, and Rx drugs were not included in the MSS.

**Age of 1<sup>st</sup> Substance Use by Sex.** On average, males start using substances at a younger age than their female counterparts. Males begin cigarette use at a younger age than other substances while females begin using alcohol at a younger age.

Table 7. Age of 1 <sup>st</sup> Substance Use by Sex		
	Males	Females
Cigarettes	10.44	11.24
Alcohol (more than a sip)	10.58	11.13
Alcohol (once or twice a month)	11.69	12.41
Marijuana	11.96	12.98
Ecstasy <sup>15</sup>	12.14	--
Methamphetamine <sup>15</sup>	11.32	--
Inhalants	10.84	11.88
Prescription Drugs without Rx	11.33	12.70

## Substance Use Extent and Circumstances

SPIRIT students in 6<sup>th</sup> – 9<sup>th</sup> grade were asked how many cigarettes they smoked, how many drinks they had when they drank, if they binge drank in the past 30 days, if they were drunk or high at school in the past three months, if they rode in a vehicle when the driver was drinking, and whether they drove while drunk.

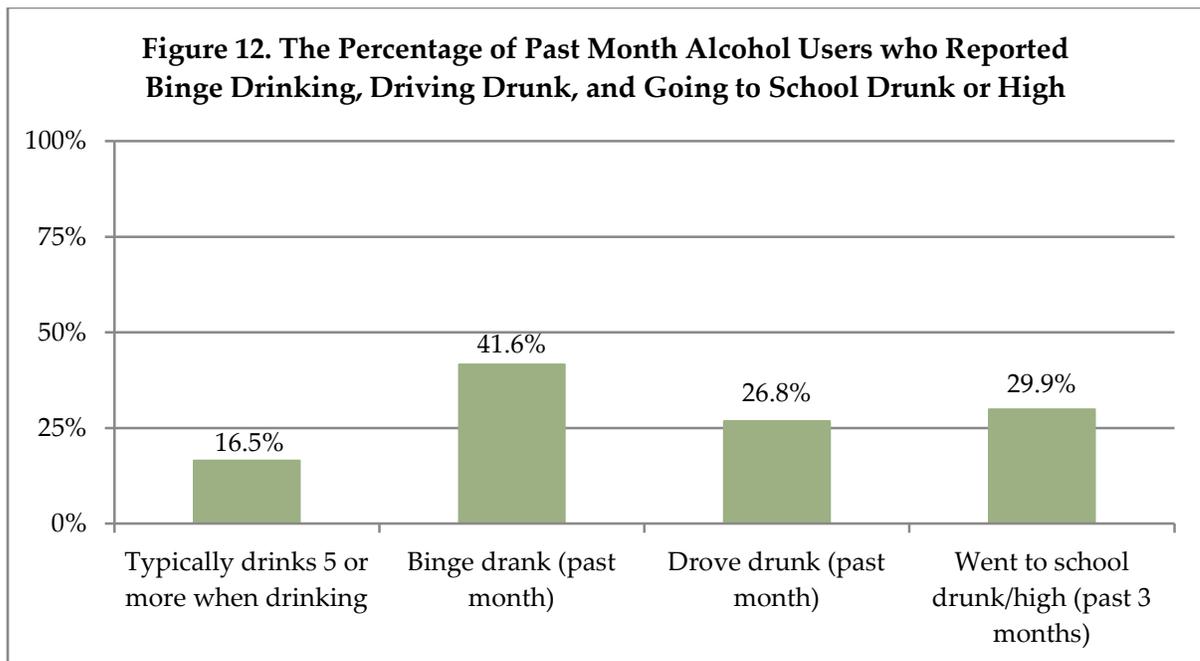
Of those who reported smoking cigarettes in their lifetime, only about a quarter (24.7%) reported smoking in the past 30 days. About one-fifth of students (20.5%) who reported smoking in the past month said they smoke half a pack or more a day.

Of those who reported drinking alcohol in the past 30 days, 25.5% reported that they do not usually drink and the majority (58.0%) reported usually drinking less than five drinks. The rest (16.5%) reported that it was typical for them to have five or more drinks on days they drink alcohol.

Students were asked to report if they had participated in binge drinking. Binge drinking is defined as having five or more drinks on the same occasion in the past 30 days. A total of 4.0% of all 6<sup>th</sup> – 9<sup>th</sup> grade youth reported binge drinking. Among those who reported having more than a sip of alcohol in their lifetime, 9.8% binge drank in the past 30 days. Binge drinking was reported by 41.6% of youth who drank any alcohol in the past month.

Among all 6<sup>th</sup> – 9<sup>th</sup> grade youth, 4.4% reported being drunk or high at school in the past three months; however, among youth who reported using alcohol or other drugs in the past month the instances of being drunk or high at school were quite high. For example, 29.9% of past month alcohol users and almost half (49.8%) of past month marijuana users reported being drunk or high at school in the past three months. More than a quarter of past month alcohol users reported driving drunk, and 42% reported binge-drinking.

<sup>15</sup> Too few females reported using ecstasy or methamphetamines to get an accurate estimate of age of first use.



Finally, students were also asked to indicate their experience with drunk driving, both as a driver and a passenger. Among students aged 16 or older, 6.5% reported having driven a car when they had been drinking. Among all 6<sup>th</sup> – 9<sup>th</sup> grade students, about 1 in 8 (12.2%) reported that they rode in a car with a driver who had been drinking.

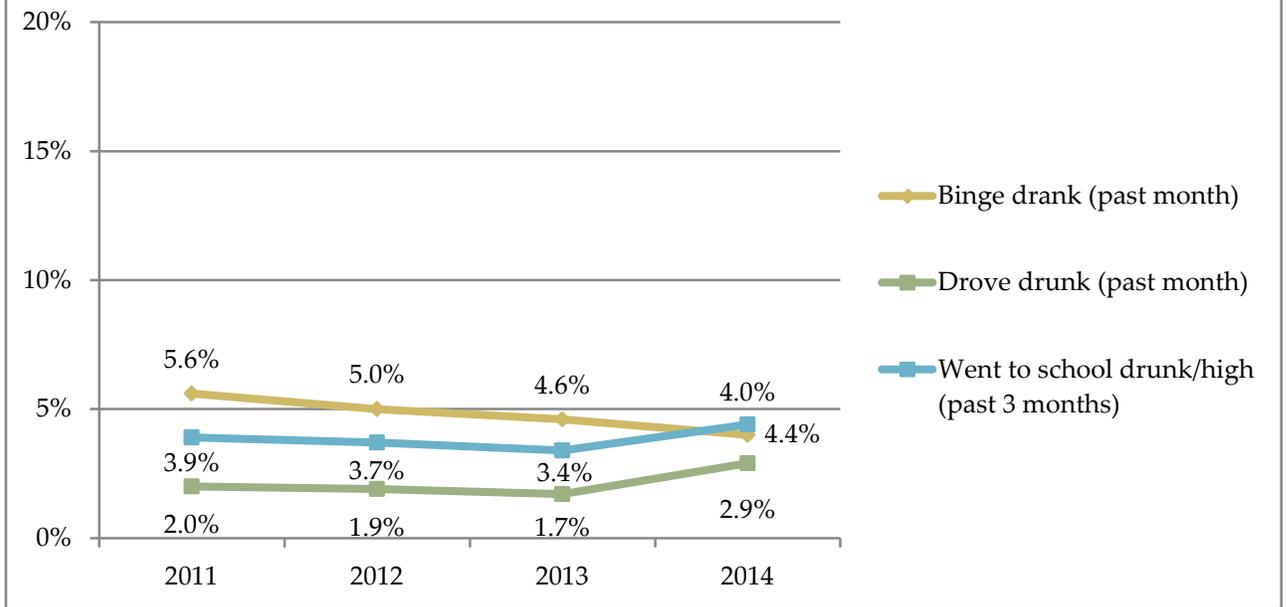
**Table 8. Percentage of Youth Within the Past Month Who Rode With a Driver Who Had Been Drinking or Drove Themselves After Drinking (6<sup>th</sup> – 9<sup>th</sup> Grade)**

	Total Sample (regardless of reported alcohol use)	Among Lifetime Alcohol Users	Among 30-day Alcohol Users
Rode in a vehicle with a driver who had been drinking (6 <sup>th</sup> – 9 <sup>th</sup> Grade)	12.2	21.5	46.5
Drove after drinking alcohol (aged 16+)	6.5	11.9	23.2

**Substance Use Extent and Circumstances by Sex.** Males and females are equally as likely to binge drink, ride in a car with a drunk driver, or drive drunk themselves.

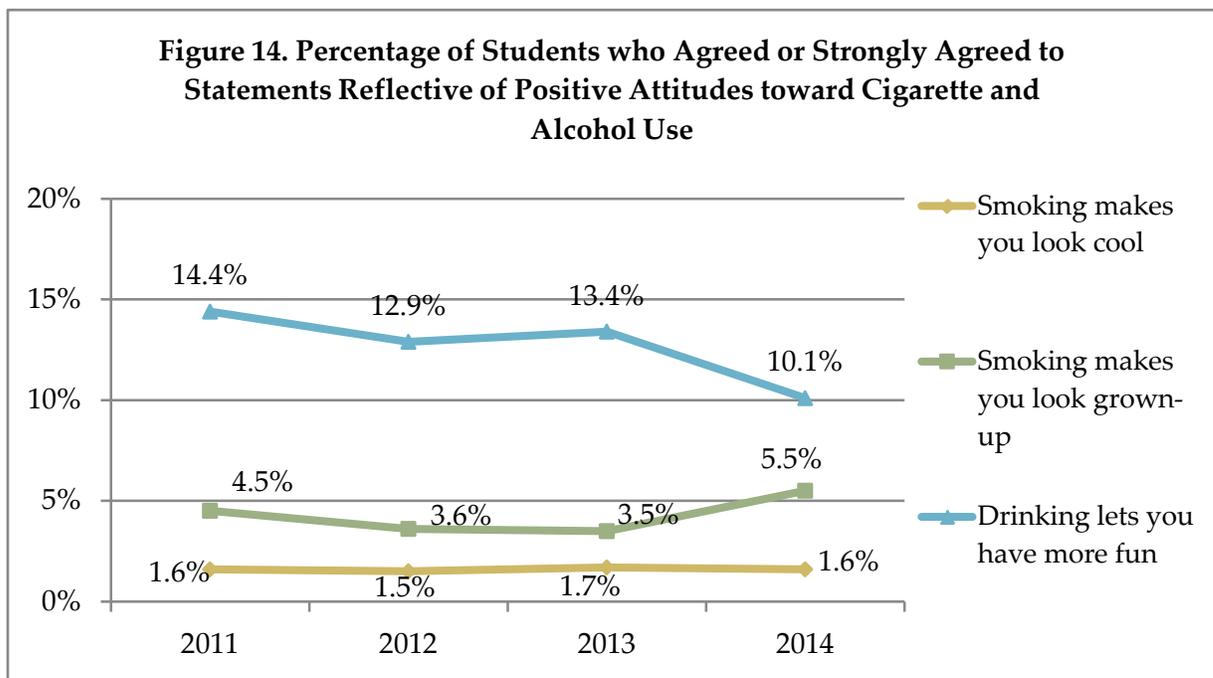
**Substance Use Extent and Circumstances by Year.** The percentage of youth in the 6<sup>th</sup> – 9<sup>th</sup> grade who reported binge drinking has decreased from 2011 to 2014. Those reporting driving drunk or going to school either drunk or high increased from 2013 to 2014.

**Figure 13. Alcohol Use Extent and Circumstances  
6th - 9th grade, 2011-2014**



## Chapter 4 - Substance Use Attitudes

Students in the 4<sup>th</sup> – 9<sup>th</sup> grades were asked to report on the extent to which they thought most teenagers and adults used drugs, whether they might use drugs when they were older, how risky drugs were to the health of those who use, and how wrong they thought the use of drugs was. Over 95% of all 4<sup>th</sup> – 9<sup>th</sup> grade students had disapproving attitudes toward cigarette use, in that they did not think making made them look cool or more grown-up. In addition, most youth (89.9%) did not think that drinking alcohol let them have more fun. There were fewer youth in 2014 than in 2011 who expressed positive attitudes toward cigarette and alcohol use. However, there was an increase from 2013 to 2014 in the percent of students who believe that smoking makes you look more grown-up.

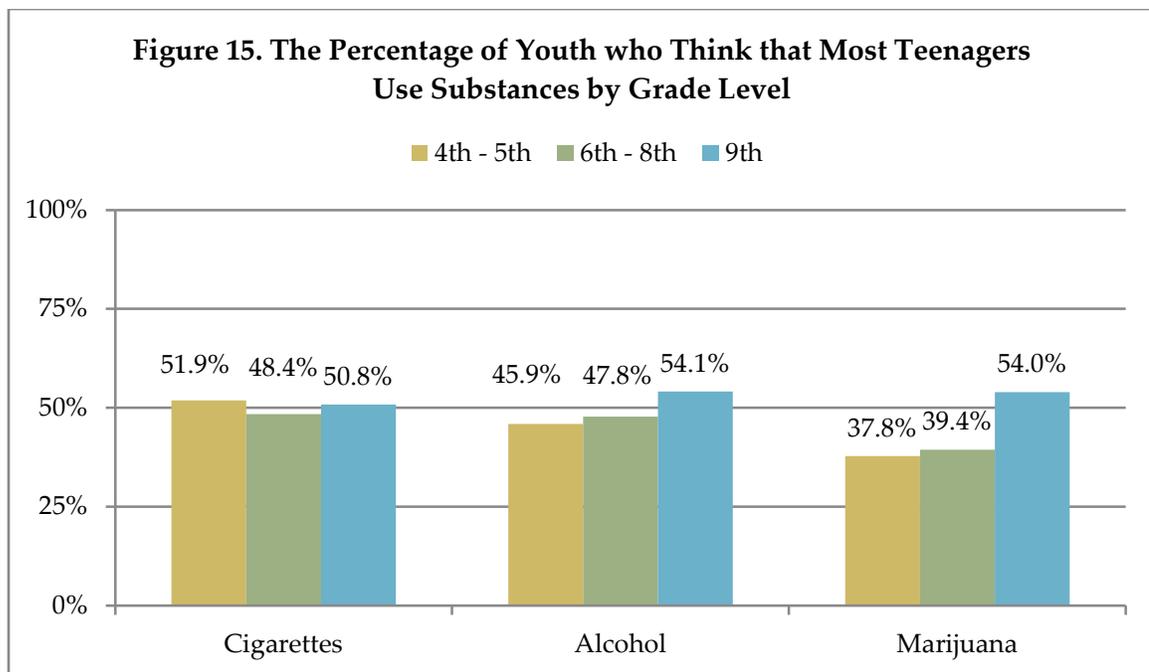


## Substance Use Norms

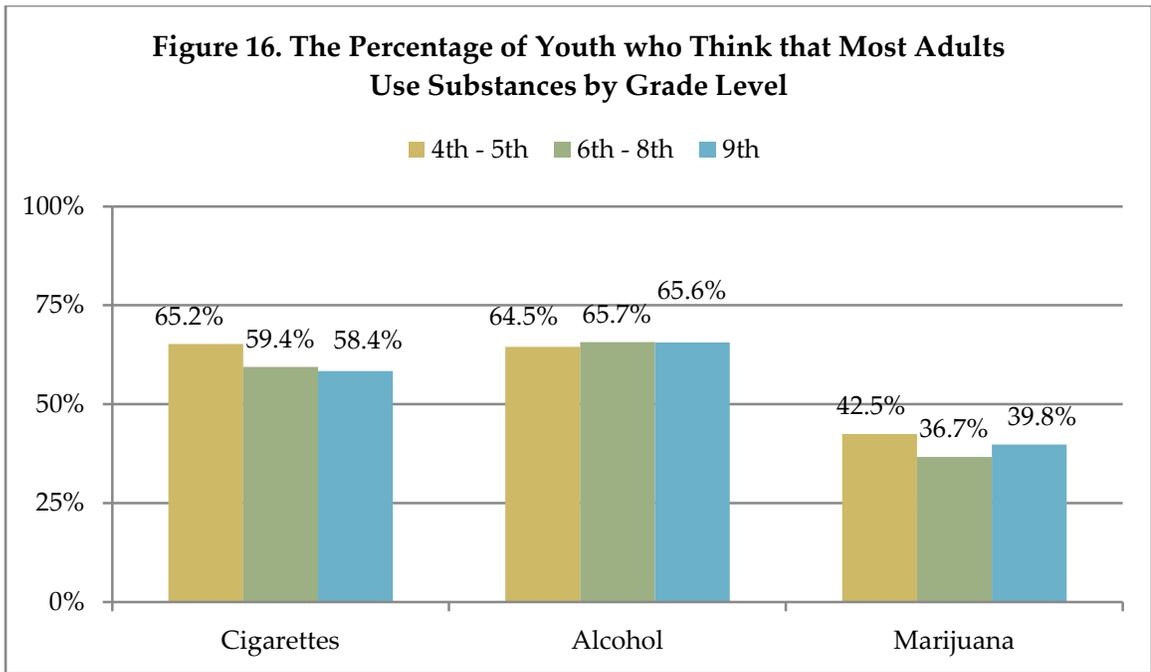
A large percentage of youth agreed (42-50%, depending on the substance) that most teenagers used substances. Similarly a large percentage of youth (39-61%) agreed that most adults used substances. Youth agreed that adults use cigarettes and alcohol more than teenagers, but thought that teenagers were slightly more likely to use marijuana.

Table 9. Youths' Perception of Substance Use among Adults and Teenagers (Response to the statement: Most teenagers/adults use "substance.")					
		Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Teenager Use	Cigarettes	26.1	23.9	37.8	12.1
	Alcohol	26.2	25.5	37.7	10.6
	Marijuana	34.4	24.1	29.0	12.5
Adult Use	Cigarettes	19.5	19.3	40.7	20.5
	Alcohol	20.2	14.6	41.2	24.0
	Marijuana	34.8	26.1	26.9	12.3

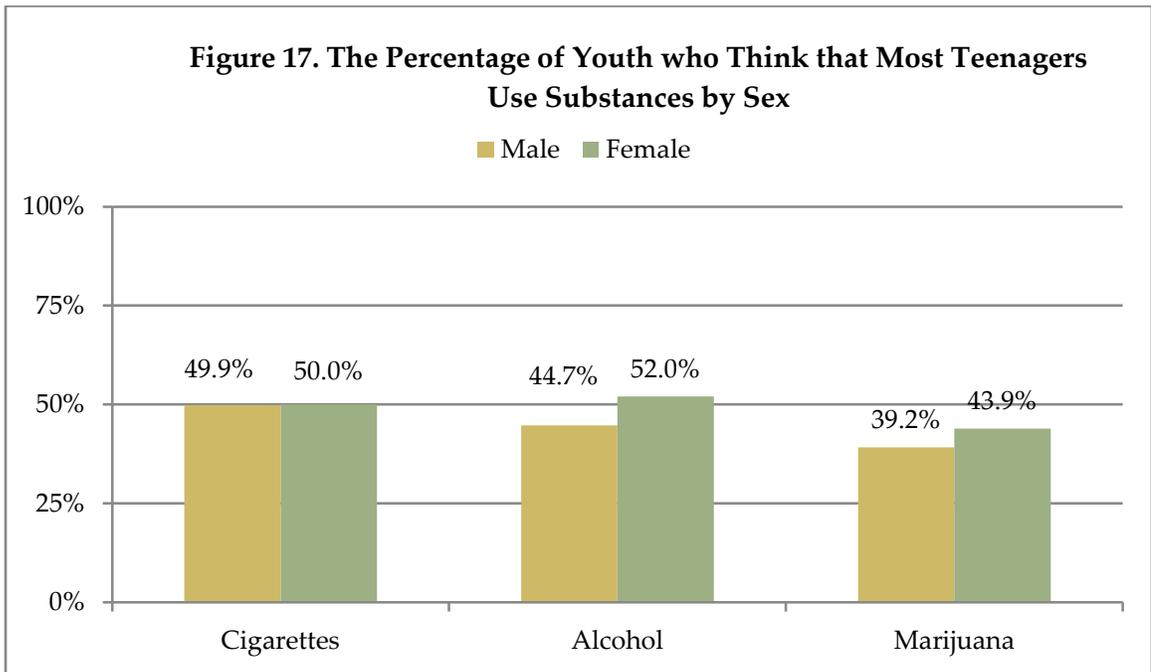
**Substance Use Norms by Grade Level.** Youth in the 9<sup>th</sup> grade were more likely than younger students to think that most teenagers used alcohol and marijuana.

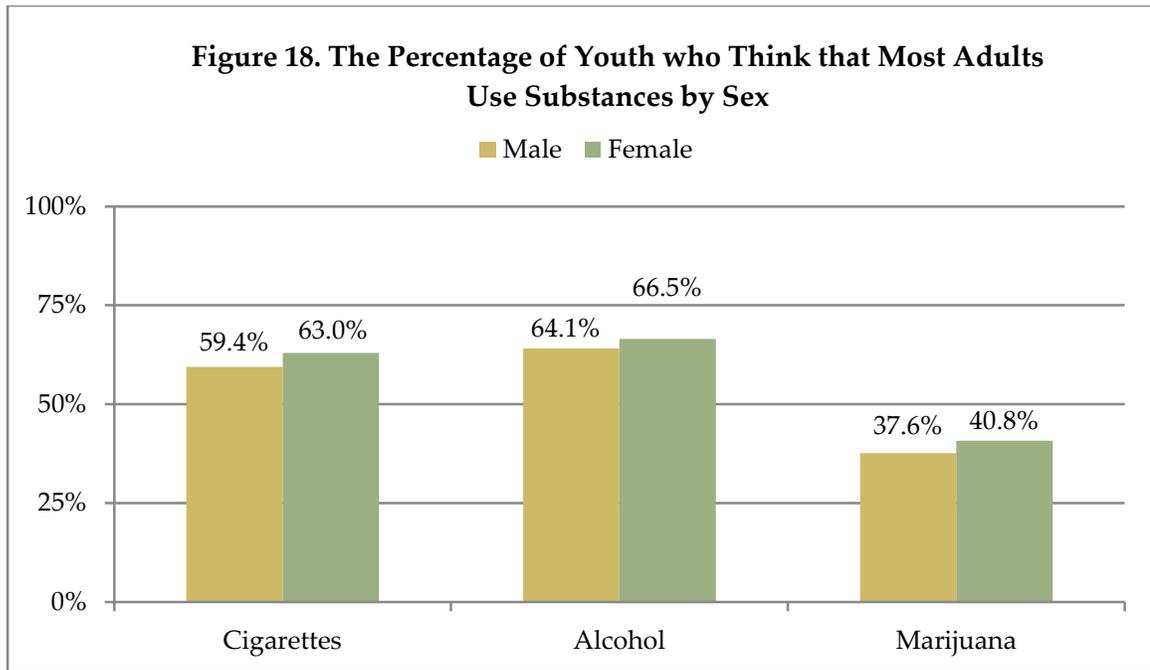


Youth in the 4-5<sup>th</sup> grades were the most likely to think that most adults smoke marijuana. Youth in the 6<sup>th</sup> – 8<sup>th</sup> grades were less likely than all others to think that adults used any substance.



**Substance Use Norms by Sex.** Females were more likely than males to think that most teenagers and adults use marijuana and alcohol.



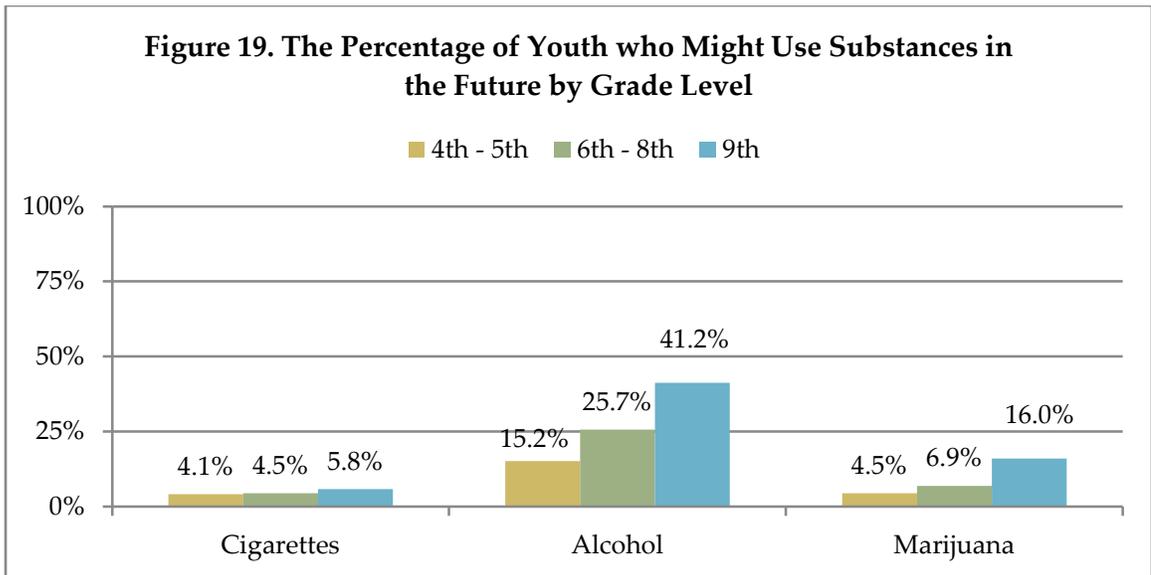


### Substance Use Intentions

Students were most likely to indicate that they might use alcohol in the future, with 25.1% of 4<sup>th</sup> – 9<sup>th</sup> graders agreeing with the statement, “I might use alcohol when I get older”. Very few youth reported that they might use cigarettes (4.6%) or marijuana (7.7%) when they get older.

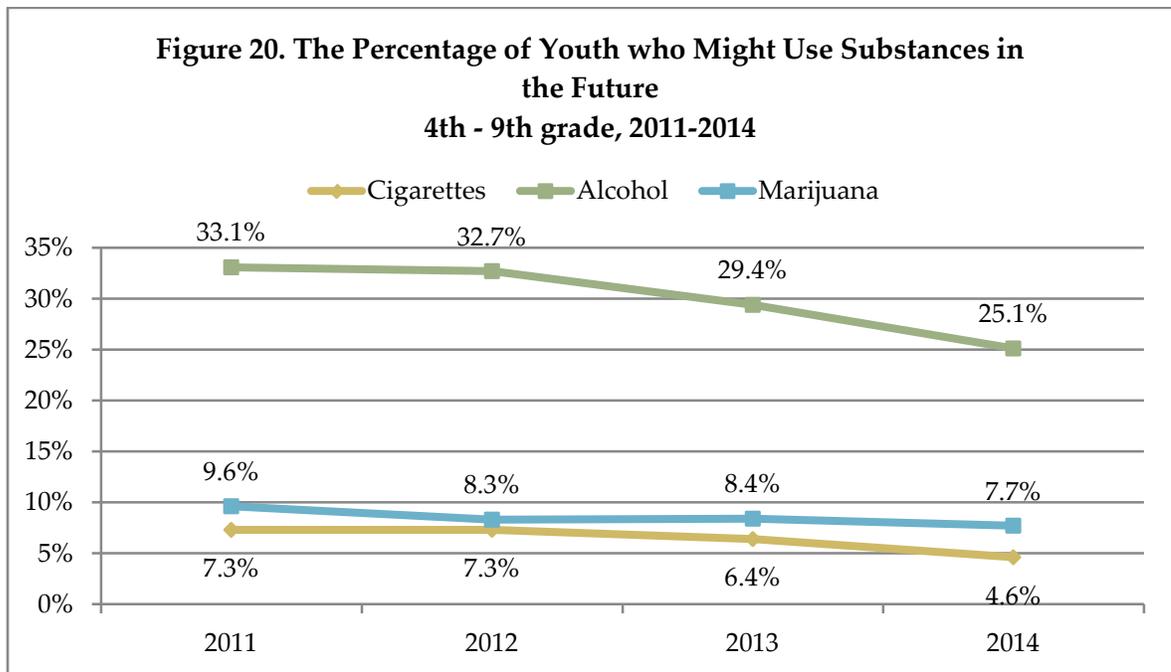
Table 10. Youths' Intentions to Use Substances (Response to the statement: I might use “substance” when I get older.)				
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Cigarettes	83.9	11.5	3.6	1.0
Alcohol	57.3	17.7	20.7	4.4
Marijuana	81.6	10.7	5.2	2.5

**Substance Use Intentions by Grade Level.** The largest increase in intentions to use occurred between the middle and high school grade levels. Twice as many youth in the 9<sup>th</sup> grade indicated they might use marijuana than those who indicated they might smoke cigarettes.



**Substance Use Intention by Sex.** Males and females were equally as likely to report that they might use cigarettes, alcohol, or marijuana in the future.

**Substance Use Intentions by Year.** The intention to use alcohol continues to decrease from 2011 to present.



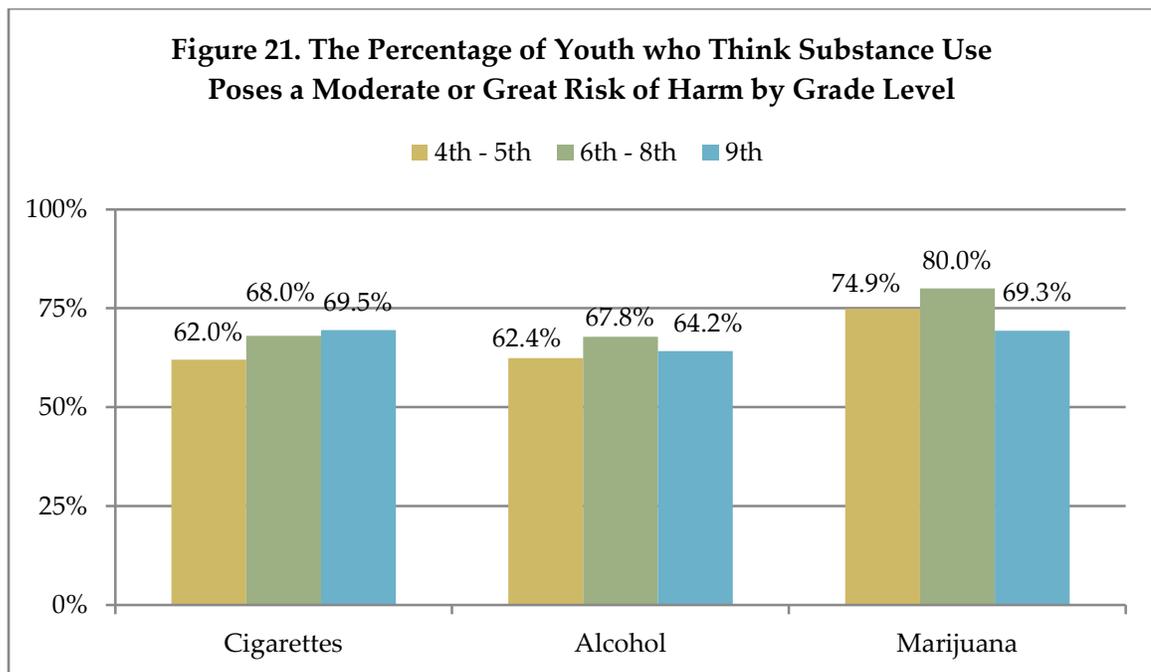
### Risk of Harm from Substance Use

All participating students, in grades 4<sup>th</sup> – 9<sup>th</sup>, were asked to indicate how much they thought people risked harming themselves physically, or in other ways, if they used substances (cigarettes, alcohol, and marijuana). Youth in grades 6<sup>th</sup> – 9<sup>th</sup> were also asked to report on their perception of the riskiness of other drugs. About two-thirds of students thought that cigarettes and alcohol posed a moderate or great risk if used. A higher percentage of youth (76.4%) thought that using marijuana was risky. Among those in the 6<sup>th</sup> – 9<sup>th</sup> grades, the majority thought the use of ecstasy, methamphetamine, inhalants, and

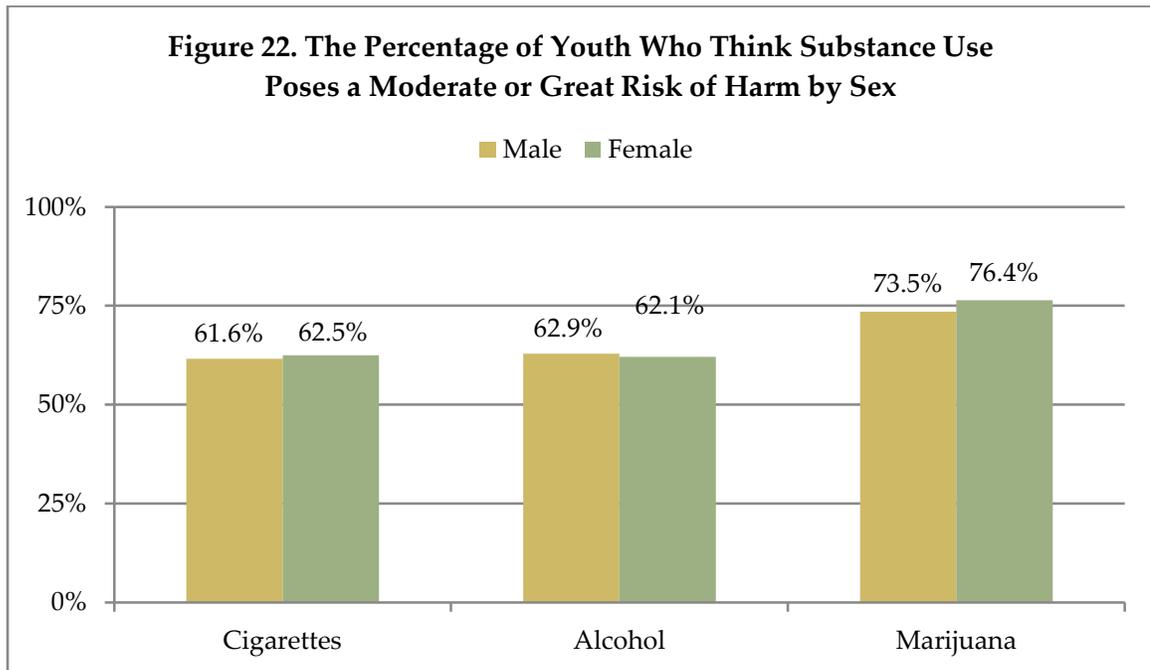
prescription drugs without a prescription posed a moderate to great risk. The use of methamphetamine was perceived to be most risky.

Table 11. Youths' Perception of Risk of Harm from Using Substances (4 <sup>th</sup> – 9 <sup>th</sup> grade)				
	No Risk	Slight Risk	Moderate Risk	Great Risk
Smoke part or all of a cigarette	12.8	20.9	30.1	36.1
Drink any type of alcohol	11.0	23.6	32.9	32.5
Use Marijuana	13.1	10.6	19.6	56.8
(6 <sup>th</sup> – 9 <sup>th</sup> grade)				
Use ecstasy occasionally	8.1	6.5	22.4	63.1
Use meth occasionally	7.6	4.4	14.6	73.4
Use inhalants	7.3	6.1	19.0	67.6
Use prescription drugs w/out Rx	7.9	5.4	19.6	67.0

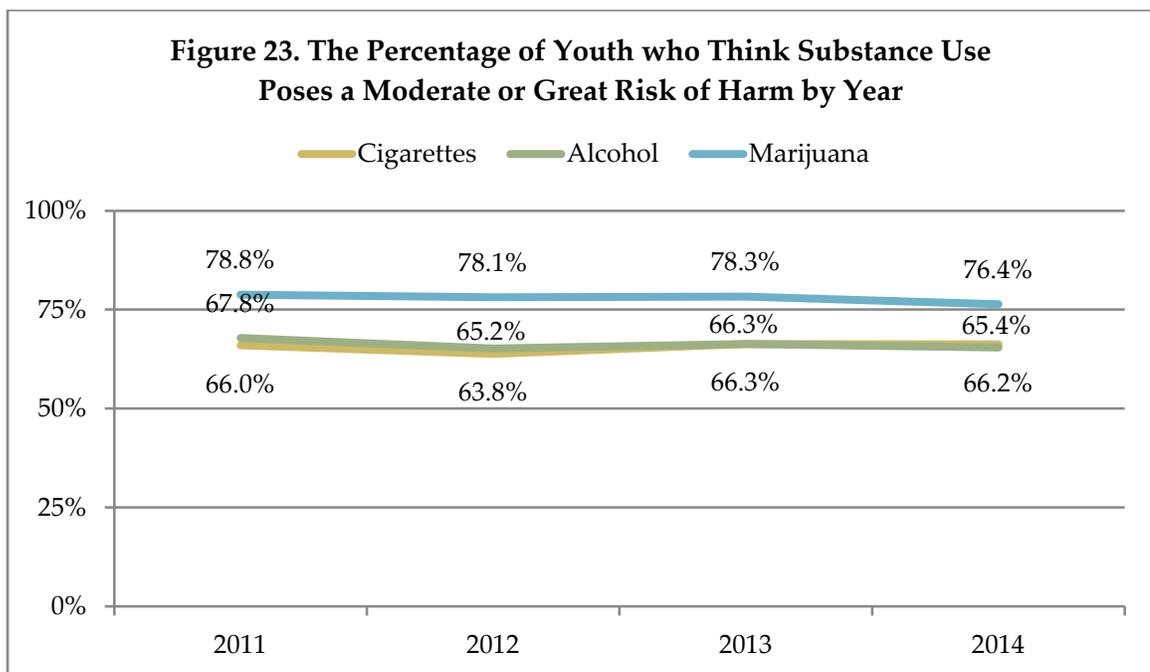
**Risk of Harm by Grade Level.** Fewer younger students (4-5<sup>th</sup> grades) than older students believed cigarettes were risky, whereas fewer older students (9<sup>th</sup> grade) than younger students perceived marijuana as risky.



**Risk of Harm by Sex.** A greater percentage of females than males perceived the use of marijuana to be risky.



**Risk of Harm by Year.** From 2011 to 2014 the perception of the riskiness associated with using alcohol and cigarettes has remained relatively consistent; perceptions of marijuana riskiness dropped slightly since 2013.

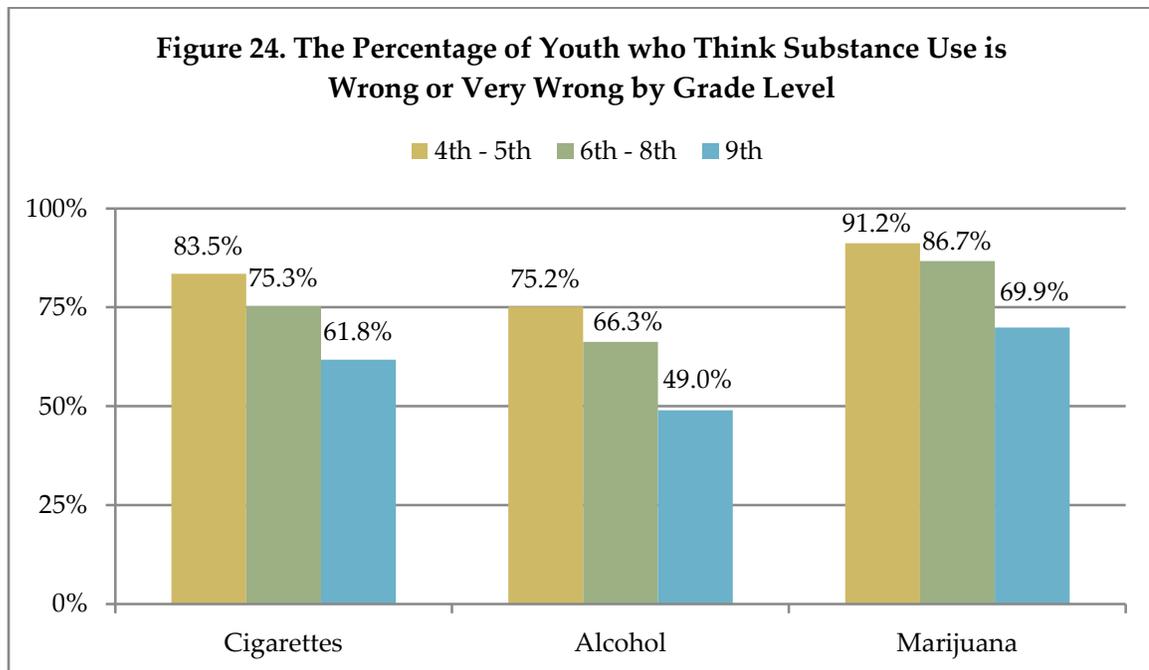


## Disapproving Attitudes toward Substance Use

The majority of SPIRIT youth thought that the use of substances was wrong. Alcohol was considered the most acceptable with only 66% reporting that they thought it was either wrong or very wrong to drink alcohol. Over 90% of youth in the 6<sup>th</sup>-9<sup>th</sup> grades thought ecstasy, methamphetamine, inhalants, and the use of prescription drugs without a prescription was wrong or very wrong.

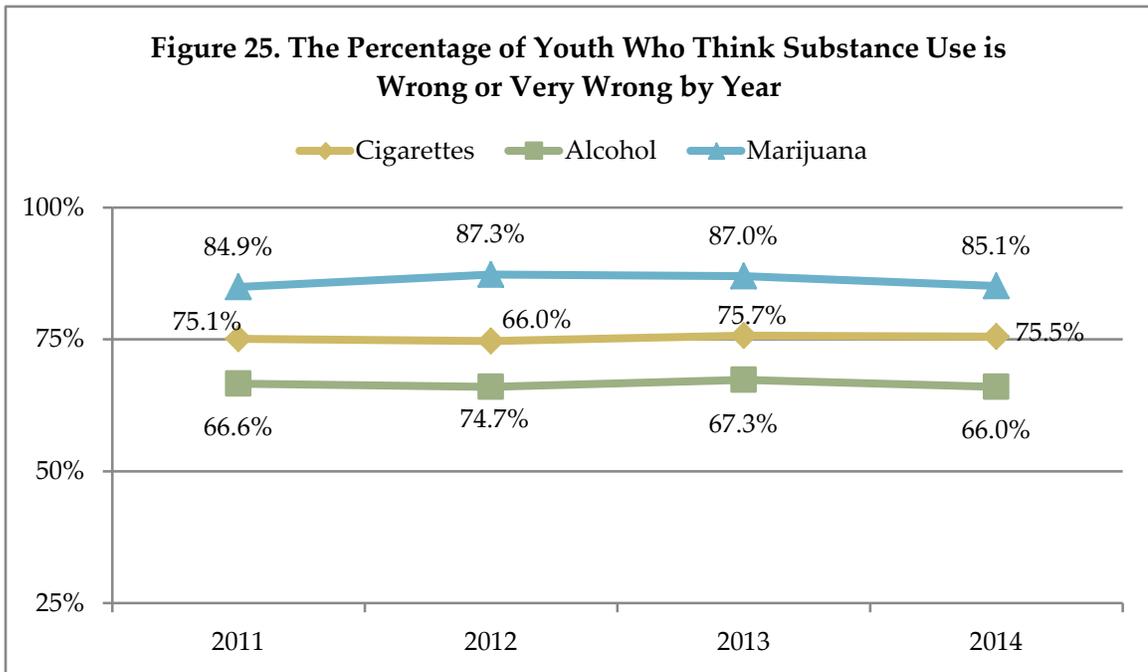
Table 12. Youths' Perception of Wrongfulness of Substance Use (4 <sup>th</sup> – 9 <sup>th</sup> grade)				
	Not Wrong at All	A Little Bit Wrong	Wrong	Very Wrong
Smoke part or all of a cigarette	7.6	16.9	31.3	44.2
Drink any type of alcohol	11.7	22.2	27.6	38.4
Use Marijuana	7.0	7.9	18.0	67.1
(6 <sup>th</sup> – 9 <sup>th</sup> grade only)				
Use ecstasy occasionally	3.4	5.4	21.7	69.5
Use meth occasionally	3.1	3.6	15.2	78.1
Use inhalants	3.2	5.0	19.3	72.5
Use prescription drugs w/out Rx	3.3	4.2	19.7	72.9

**Disapproving Attitudes by Grade Level.** As grade level increased, students were less likely to consider the use of substances to be wrong. Approximately half (49.0%) of those in 9<sup>th</sup> grade thought using alcohol was wrong.



**Disapproving Attitudes by Sex.** In general, girls are more likely to think that using substances is wrong than boys. The one exception is alcohol. While girls in 4-5<sup>th</sup> grades are more likely to believe using alcohol is wrong than boys, by 6<sup>th</sup> grade girls and boys are equally likely to believe using alcohol is wrong.

**Disapproving Attitudes by Year.** The percentage of youth with disapproving attitudes toward alcohol use has remained relatively consistent from 2011 to 2014. While the majority of youth think that the use of alcohol is wrong, they are more accepting of its use than cigarettes or marijuana.



# Chapter 5 - Problem Behavior

Students in 4<sup>th</sup> – 9<sup>th</sup> grades reported the number of times in the past three months they had engaged in aggressive and problem behaviors or were the victims of those behaviors. Over 40% of youth in the 4<sup>th</sup> – 9<sup>th</sup> grade reported being harassed or bullied within the past three months. Almost 5% reported that they were bullied ten or more times.

A similar percentage of youth reported both making fun of others (47.3%) and being made fun of by others (55.0%). Only 15.5% of youth reported spreading rumors about others; however a much larger percentage (38.0%) reported others had spread rumors about them.

The percentage of youth who reported being afraid of being beaten up (18.8%) was approximately the same percentage (16.4%) who reported having been in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student (22.5%) or being assaulted by someone else (25.4%). Physical assault includes hitting, pushing, slapping, kicking and shoving when one is not kidding around.

Very few youth reported using the internet (5.5%) or a cell phone (5.1%) to embarrass or hurt another student or being harassed by another student by internet (7.7%) or cell phone (7.3%). A very small percentage of youth reported using a weapon to threaten or bully another (2.4%) or having a weapon used against them in a similar manner (6.5%).

Those who reported they had been bullied or harassed at least one time in the past three months were more likely to report engaging in and experiencing almost every aggressive and problem behavior more frequently than those who had not been bullied.

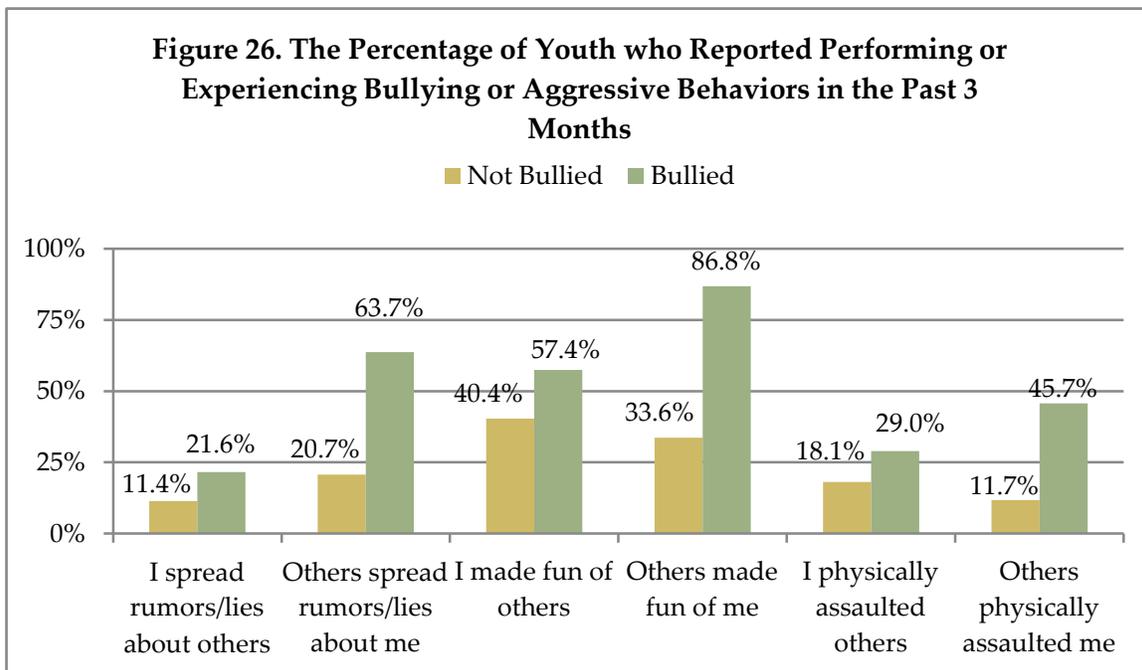
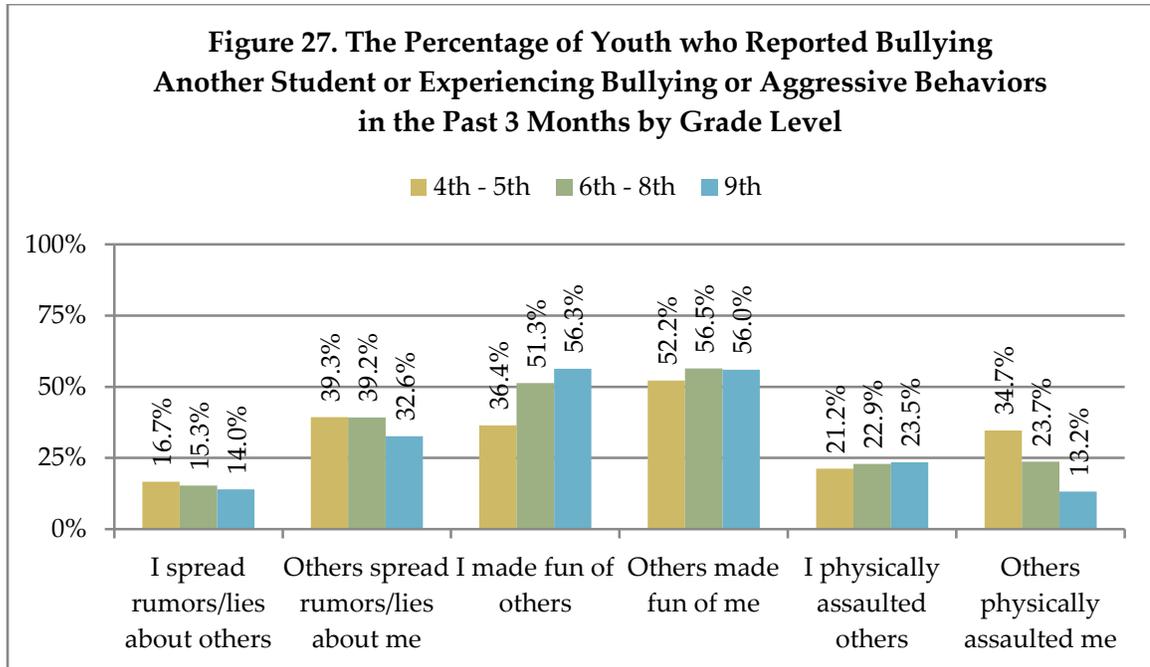


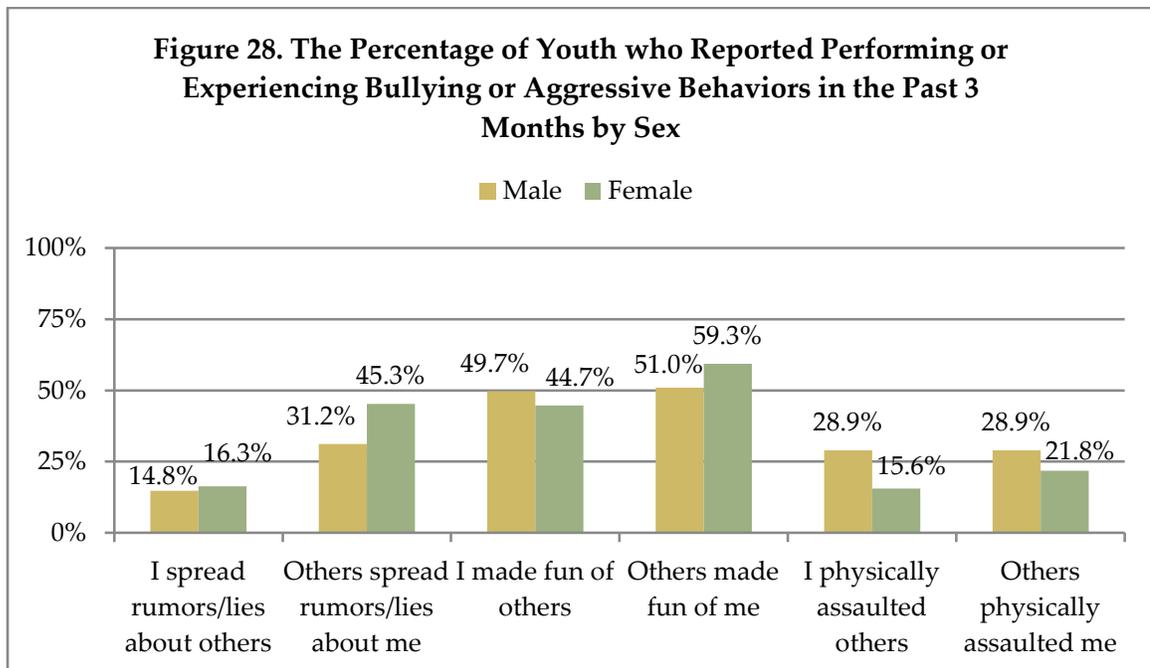
Table 13. Frequency of Problem Behavior in Past 3 months (4<sup>th</sup> – 9<sup>th</sup> grade)

	Never	1-2 times	3-5 times	6-9 times	10 or more times
Been harassed or bullied	59.6	22.9	9.1	2.9	5.4
Been afraid of being beaten up	81.2	12.2	2.5	1.1	3.0
<b>Emotional/Relational Problem Behavior</b>					
Made fun of other people	52.7	31.2	5.8	3.2	7.1
Been made fun of	45.0	31.6	9.7	4.3	9.4
Spread mean rumors or lies about other kids at school	84.5	12.2	1.7	0.6	1.0
Had mean rumors or lies spread about you at school	62.0	23.7	7.3	3.0	4.0
<b>Emotional/Relational Problem Behavior through Technology</b>					
Used the Internet to post pictures or text that might embarrass or hurt another student	94.5	3.5	1.1	0.3	0.6
Had pictures or text that embarrassed or hurt you posted through the Internet	92.3	5.7	1.1	0.2	0.9
Used a cell phone to send text messages or pictures that might embarrass or hurt another student	94.9	3.2	0.9	0.3	0.8
Had text or picture cell phone messages sent about you that were embarrassing or hurtful	92.7	4.9	1.0	0.4	1.0
<b>Physically Aggressive Problem Behavior</b>					
Hit/pushed other kids at school when not playing around	77.5	15.5	4.3	1.3	1.3
Been pushed, shoved, slapped, hit or kicked by someone who wasn't just kidding around	74.6	15.1	5.0	2.0	3.4
Been in a physical fight	83.6	12.3	2.3	0.9	1.0
<b>Use of weapons to threaten or bully</b>					
Used any weapon to threaten or bully someone	97.6	1.5	0.4	0.2	0.4
Been threatened or injured with a weapon, such as a gun, knife, or other weapon	93.5	4.2	1.0	0.4	0.8

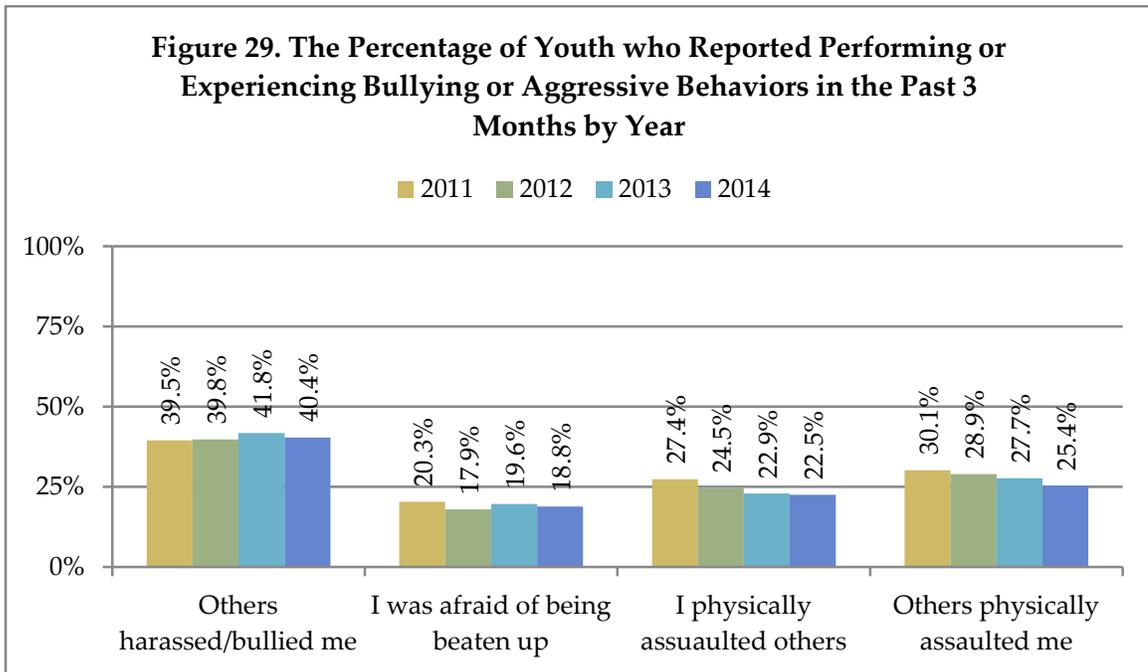
**Problem Behavior by Grade Level.** There is an increase in the percentage of youth who admit to making fun of others as grade levels increase. Youth in grades 4-5<sup>th</sup> were slightly less likely than older youth to say others made fun of them, whereas youth in 9<sup>th</sup> grade were less likely to say others spread mean lies or rumors about them. As youth increase in grade level, they are less likely to report that others have physically assaulted them. In fact, by 9<sup>th</sup> grade youth are more likely to report having physically assaulted someone else, than being assaulted themselves.



**Problem Behavior by Sex.** Males were more likely than females to report making fun of or physically assaulting others; they were also more likely to report being physically assaulted. Females were more likely to report that they were made fun of by others or had rumors spread about them. Males and females were just about as likely to report that they spread rumors or lies about other kids at school.



**Problem Behavior by Year.** Between 2011 and 2014, the percentage of students who reported being harassed or bullied in the past three months has remained relatively constant. However, the percentage of students who report physically assaulting others or being physically assaulted has decreased substantially since 2011. Furthermore, fewer students were afraid of being beaten up in 2014 compared to 2011.

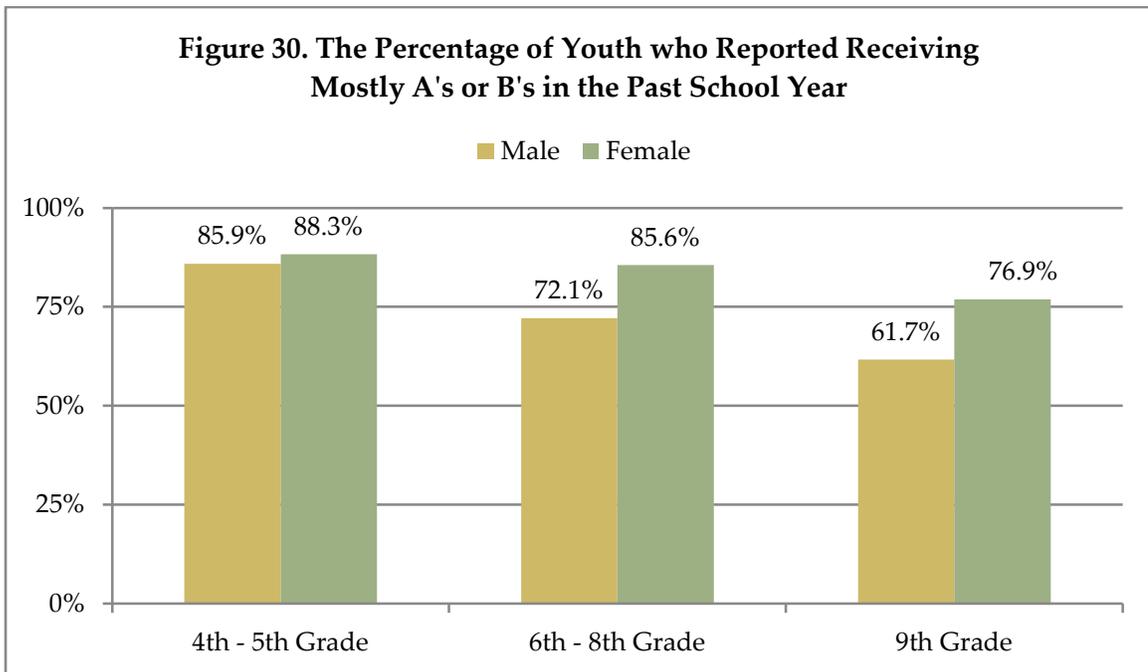


# Chapter 6 - School Performance and Attitudes

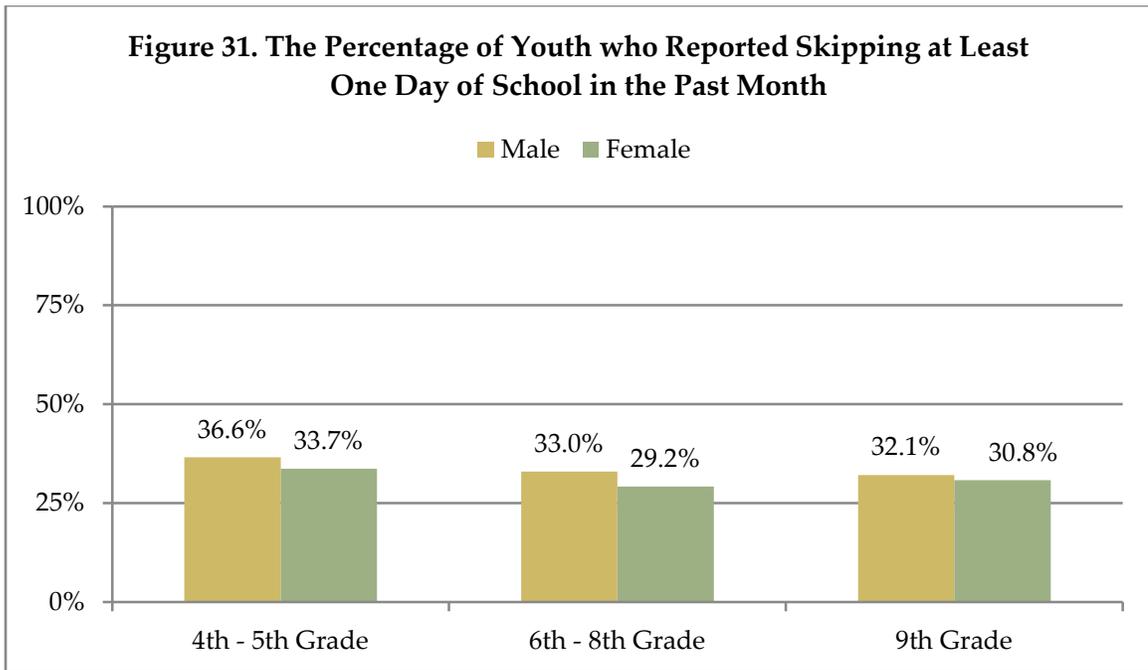
School performance and attitude data were collected from students in 4<sup>th</sup> – 9<sup>th</sup> grade. They were asked to report their average grades, the number of times they skipped school, and the number of times they received discipline in the form of in-school suspension/detention and out-of-school suspension.

## Grades, Absences, & Disciplinary Incidents

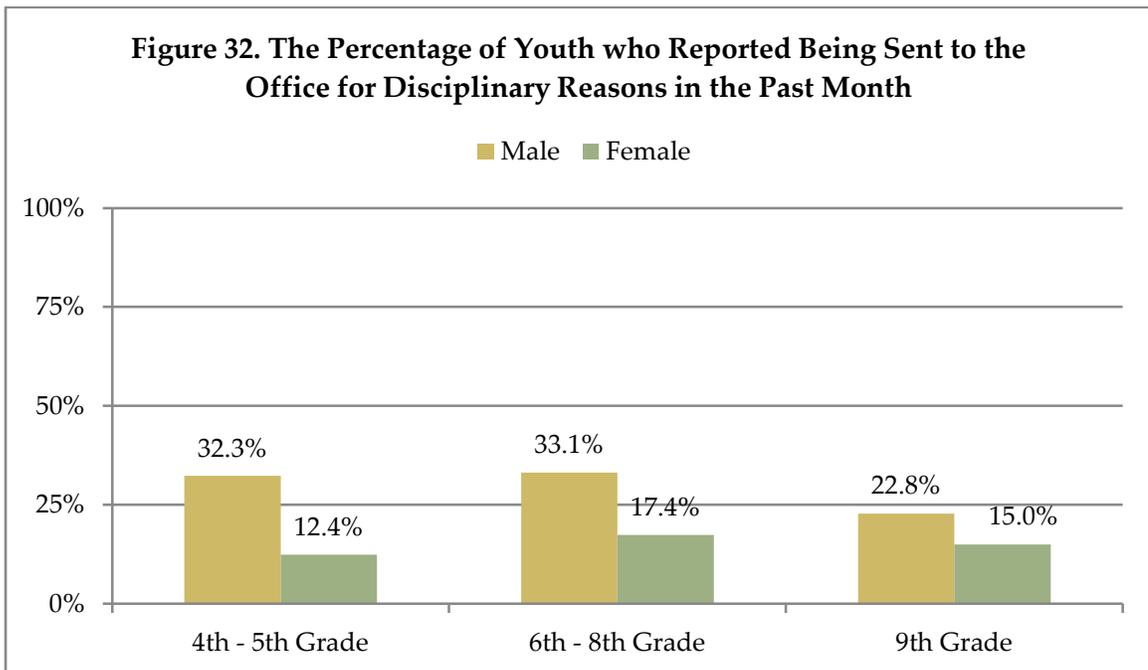
Most students (79.7%) reported their average grades last school year were either A's or B's, a similar percent to last year (80.8%). Regardless of grade, a greater percentage of females (84.9%) reported mostly A's or B's than did males (74.8%). While the percentage of males and females reporting good grades is similar for 4-5<sup>th</sup> graders, females in 6-9<sup>th</sup> grades are more likely to report A's and B's than males.



When asked how many whole days of school were missed in the past 30 days by students because they skipped or cut, 32.5% of students reported missing at least one day, as opposed to 30.5% in 2013. Over 10% of students reported skipping three or more days. Skipping was most common for youth in the 4<sup>th</sup> – 5<sup>th</sup> grades. Males were more likely to skip school than females.

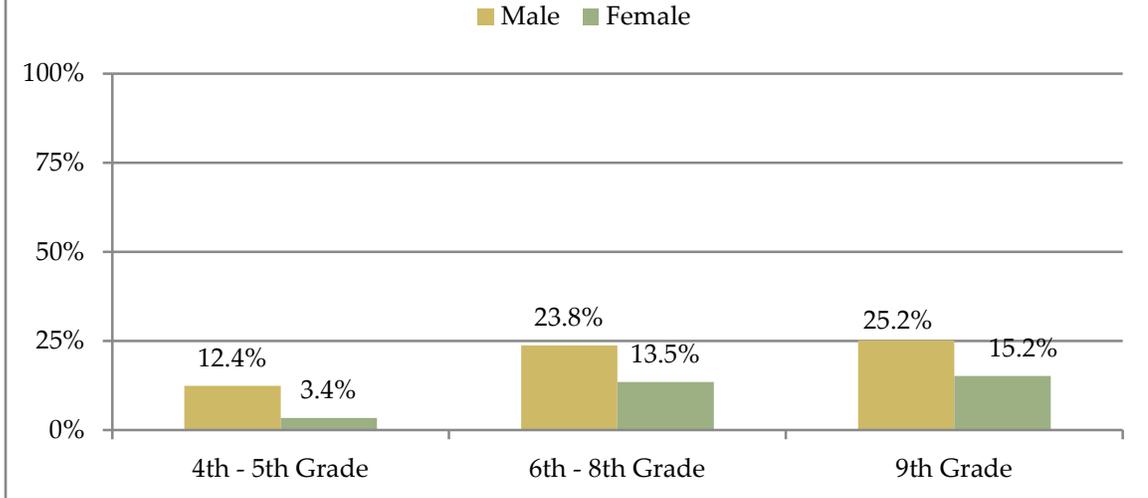


Approximately a quarter (23.4%) of the students reported having been sent to the office for disciplinary reasons in the past three months. Regardless of grade level, males (31.0%) were more likely than females (15.3%) to be sent to the office for disciplinary reasons. Males in 9<sup>th</sup> grade were less likely to be sent to the office for disciplinary reasons than males in younger grades.



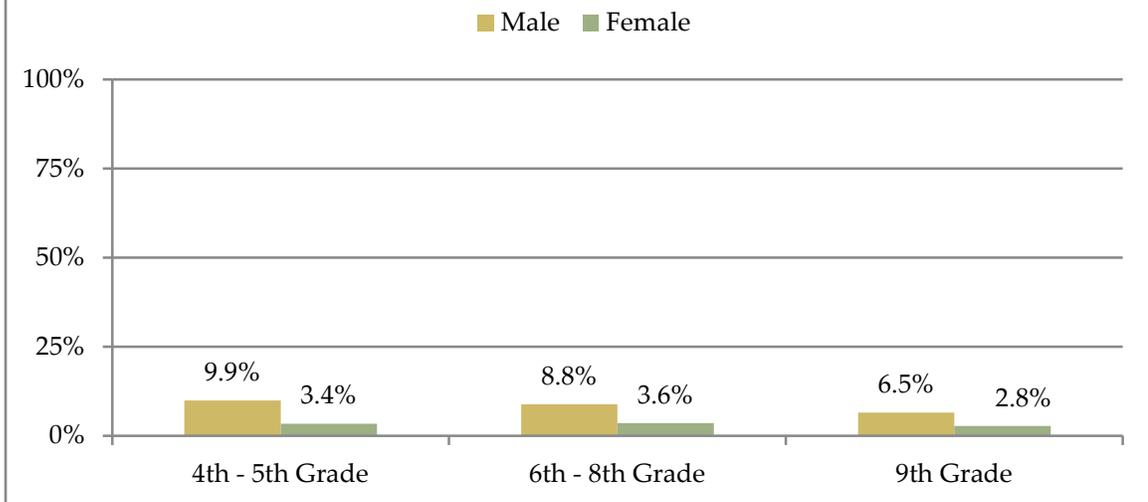
Less than one in six students (15.5%) reported receiving in-school suspension or detentions. Again, males (20.3%) were more likely than females (10.5%) to receive in-school suspensions, regardless of grade level. The greatest increase in receiving in-school suspensions or detentions increased between the 4<sup>th</sup>-5<sup>th</sup> grade level and the 6<sup>th</sup> – 8<sup>th</sup> grade level.

**Figure 33. The Percentage of Youth who Reported Receiving a Detention or In-School Suspension among those who were Sent to the Office in the Past 3 Months**

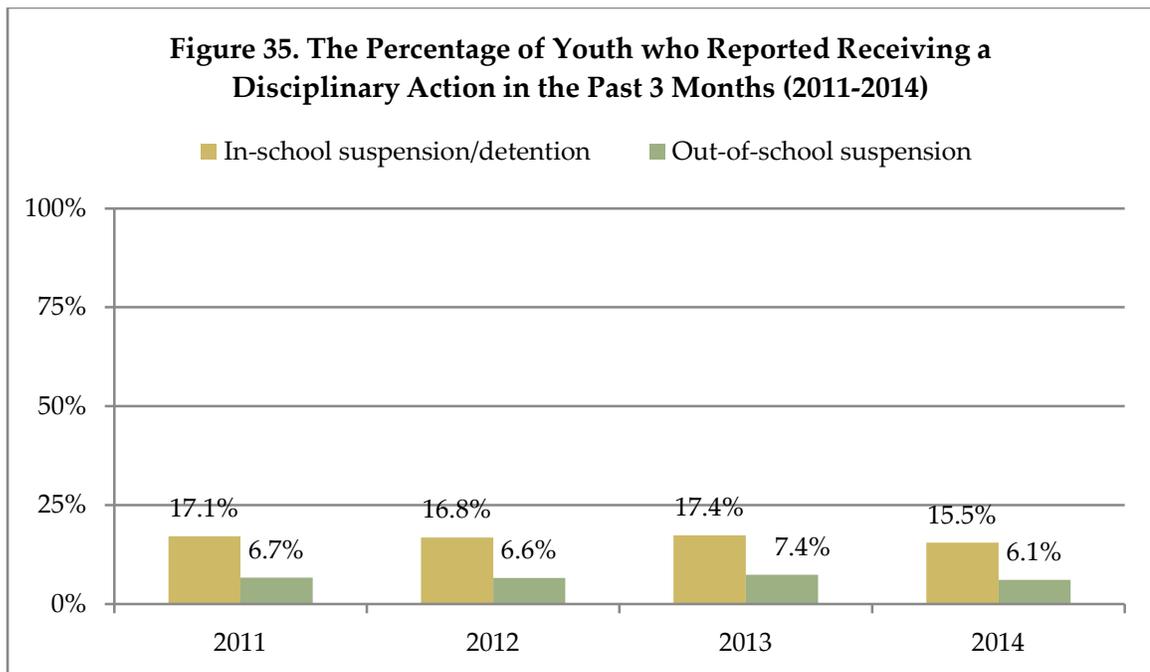


Approximately 6.1% of students received an out-of-school suspension. Similar to the rate of other disciplinary actions, males (8.7%) were more likely than females (3.4%) to have received an out-of-school suspension. Out-of-school suspensions drop slightly as students get older.

**Figure 34. The Percentage of Youth who Reported Receiving an Out-of-School Suspension among those who were Sent to the Office in the Past 3 Months**



The percentage of youth reporting having received a disciplinary action is trending downward from 2010 to 2013. In 2010, 21.9% of youth reported having received in-school suspension or detention, decreasing to 17.5% in 2013. Over 11% receiving an out-of-school suspension in 2010; less than 7% reporting being suspended in 2013.



## Attitudes toward School

Students in the 4<sup>th</sup> – 9<sup>th</sup> grades reported their attitudes toward school by the extent to which they agreed or disagreed with statements concerning their happiness, safety, and connectedness. The majority of youth responded to each question positively. They were most likely to feel safe going to or from school with 88.9% responding in the affirmative. They were more likely to feel safe going to and from school than at school. Youth were least likely to think that teachers treated them fairly with 75.7% agreeing with the statement.

Table 14. Attitudes toward School  
(4<sup>th</sup> – 9<sup>th</sup> grades)

	Strongly Disagree	Disagree	Agree	Strongly Agree
I feel close to people at this school.	3.2	11.3	58.7	26.8
I am happy to be at this school.	5.8	11.6	49.8	32.8
I feel like I am a part of this school.	4.6	13.0	50.7	31.7
The teachers at this school treat students fairly.	6.6	17.7	48.0	27.7
I feel safe at this school.	3.6	9.4	50.5	36.6
I feel safe going to and from this school.	3.1	8.0	49.8	39.1

**Attitudes toward School by Grade Level.** In general, the higher the grade level the less positive youth felt toward school. Feelings of connectedness and happiness at school and feeling safe at school steadily decreased at each grade level. Feelings of safety going to and from school stayed constant across grade levels.

Table 15. Attitudes toward School by Grade Level (Somewhat and Strongly Agree, combined Percentages)			
	4 <sup>th</sup> - 5 <sup>th</sup> Grade	6 <sup>th</sup> - 8 <sup>th</sup> Grade	9 <sup>th</sup> Grade
I feel close to people at this school.	85.8	86.3	83.0
I am happy to be at this school.	86.0	81.8	78.8
I feel like I am a part of this school.	86.6	82.1	75.7
The teachers at this school treat students fairly.	84.4	73.3	66.3
I feel safe at this school.	90.8	86.6	81.4
I feel safe going to and from this school.	89.1	88.9	88.8

**Attitudes toward School by Sex.** Males and females expressed similar attitudes toward school.

## Chapter 7 - Program Effectiveness

Students in 4<sup>th</sup> – 9<sup>th</sup> grades were asked to report both the extent to which they felt the program was effective and their level of satisfaction with the SPIRIT prevention program being implemented in their school. When asked if they liked the program, the majority of students (85.0%) responded that they liked it at least a little. Similar to responses in previous years, youth were most likely to report that the program helped them with resistance skills (82.3%) and that the time spent on the program was helpful (81.6%). Students thought the program was least effective in helping others be nicer to them, with only slightly over half (53.2%) agreeing with that statement.

Table 16. Effectiveness of and Satisfaction with SPIRIT  
(4<sup>th</sup> – 9<sup>th</sup> grades)

	No, not at all	No, not much	Yes, a little	Yes, a lot
Did you like the program?	6.0	8.9	42.3	42.7
Did the program teach you what to do when you are angry?	11.0	13.9	33.2	41.9
Do you act better because of the program?	11.0	18.2	36.7	34.2
Did the program help you feel better about yourself?	11.2	16.4	32.6	39.8
Does the program help you to say no to harmful things other kids might want you to do?	8.7	8.9	28.4	53.9
Has the program helped you to get along better with other people?	11.4	17.3	35.0	36.3
Are other kids nicer to you because of the program?	21.8	25.0	28.9	24.3
Was the time spent on the program helpful?	8.6	9.8	35.7	45.9

**Program Effectiveness by Grade Level.** In general, as grade level increased youth were less likely to be satisfied with the program and think it was effective. The largest drop in perceived effectiveness occurred at the 9<sup>th</sup> grade level, particularly in regard to the programs' ability to affect relationships and behavior.

Table 17. Effectiveness of and Satisfaction with SPIRIT by Grade Level (Yes, a lot & Yes, a little, combined Percentages)			
	4 <sup>th</sup> – 5 <sup>th</sup> Grade	6 <sup>th</sup> – 8 <sup>th</sup> Grade	9 <sup>th</sup> Grade
Did you like the program?	89.4	82.3	84.5
Did the program teach you what to do when you are angry?	82.7	72.2	69.5
Do you act better because of the program?	80.1	68.2	61.0
Did the program help you feel better about yourself?	83.6	69.2	60.7
Does the program help you to say no to harmful things other kids might want you to do?	86.9	81.6	76.2
Has the program helped you to get along better with other people?	81.6	68.4	60.4
Are other kids nicer to you because of the program?	63.4	50.4	42.5
Was the time spent on the program helpful?	88.1	79.2	76.0

**Program Effectiveness by Sex.** In general, males and females felt similarly about the program in terms of its appeal and effectiveness. However, males were more likely than females to think other kids were nicer to them because of the program.

Table 18. Effectiveness of and Satisfaction with SPIRIT by Sex (4 <sup>th</sup> – 9 <sup>th</sup> grades; Yes, a lot & Yes, a little, combined Percentages)		
	Male	Female
Did you like the program?	82.8	87.6
Did the program teach you what to do when you are angry?	74.1	76.3
Do you act better because of the program?	71.0	70.7
Did the program help you feel better about yourself?	72.3	72.6
Does the program help you to say no to harmful things other kids might want you to do?	80.3	84.6
Has the program helped you to get along better with other people?	72.2	70.3
Are other kids nicer to you because of the program?	55.9	50.4
Was the time spent on the program helpful?	80.3	82.9

# Chapter 8 - Protective Factors

Youth who have strong decision-making skills, high levels of empathy, and who feel connected to and cared for by adults in their lives are less likely to act aggressively, bully others, or start using alcohol, tobacco, and other drugs<sup>16,17</sup>. These skills and psychological variables are protective factors that form a barrier against these destructive behaviors. Youth in the 4<sup>th</sup> – 9<sup>th</sup> grades were asked to report their empathy, decision making skills, and their perception that adults in their life cared about them.

## Empathy

The majority of students reported strong levels of empathy. They reported being sad if witnessing an animal being hurt (88.6%), feeling sad if someone was left out (81.9%), and feeling bad if someone else got their feelings hurt (86.0%).

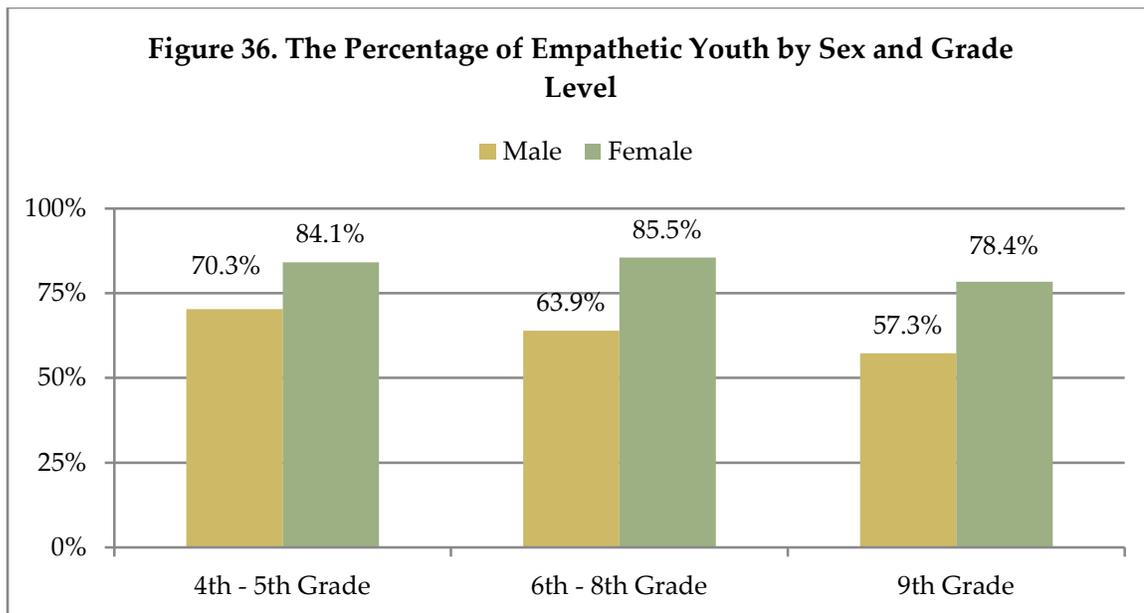
Table 19. Youth Capacity for Empathy  
(4<sup>th</sup> – 9<sup>th</sup> grades)

	Strongly Disagree	Disagree	Agree	Strongly Agree
It makes me sad if I see someone who is left out.	4.7	13.3	50.8	31.1
I get upset when I see an animal being hurt.	4.2	7.2	33.2	55.4
I feel bad when someone else gets their feelings hurt.	3.5	10.5	49.2	36.8

**Empathy by Sex & Grade Level.** Students who answered “agree” or “strongly agree” to every empathy statement showed a strong level of empathy (74%). Regardless of grade level, there were less empathetic males than females. The percent of students agreeing to every empathy question dropped as grade levels increased, with 9<sup>th</sup> graders being the least empathetic; empathy dropped more for boys than girls.

<sup>16</sup> For protective factors in substance use, see Hawkins, Catalano, and Miller (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. *Psychological Bulletin*, 112, 64-105.

<sup>17</sup> For the relationship between empathy and bullying see Jolliffe and Farrington, (2006). Examining the relationship between low empathy and bullying. *Aggressive Behavior*, 32, 540-550.



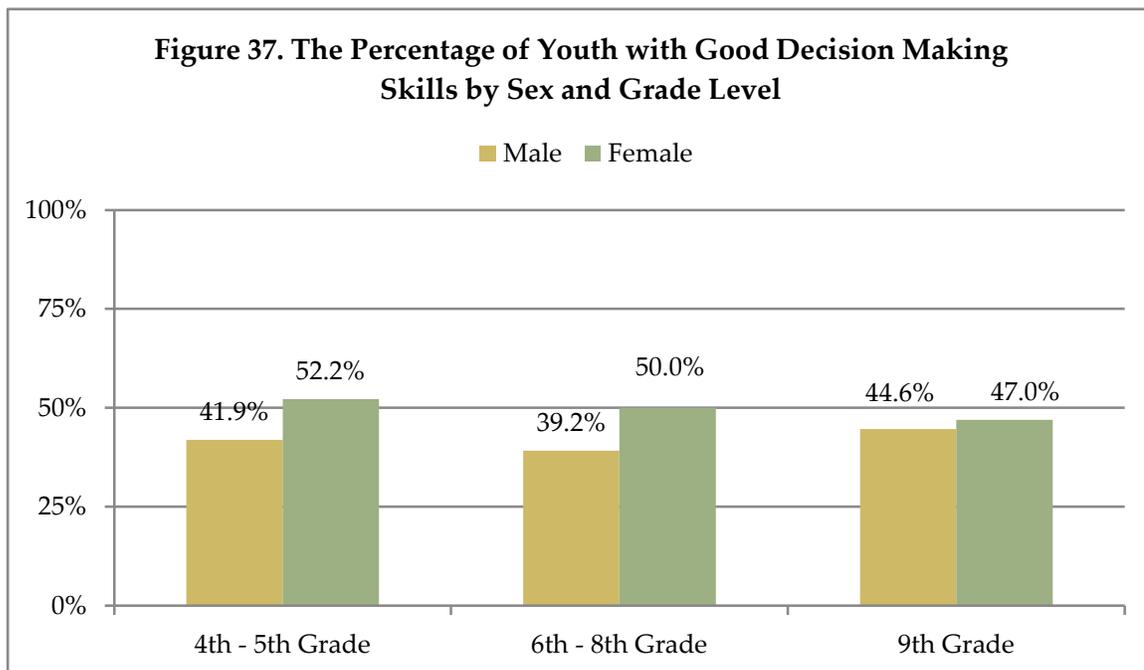
## Decision Making

A greater percentage of 4<sup>th</sup> – 9<sup>th</sup> grade youth reported that they made good decisions (82.0%) than thought about their choices (63.7%), how those decisions affect others (63.8%), and the consequences of their decisions (66.5%).

Table 20. Youth Decision Making Skills  
(4<sup>th</sup> – 9<sup>th</sup> grades)

	Never	Sometimes but not Often	Often	All the Time
How often do you stop to think about your choices before you make a decision?	3.8	32.4	48.9	14.8
How often do you stop to think about how your decisions may affect others' feelings?	6.1	30.1	43.4	20.4
How often do you stop to think about all of the things that may happen as a result of your decisions?	5.4	28.1	43.6	22.9
How often do you make good decisions?	1.9	16.1	65.2	16.8

**Decision Making by Sex & Grade Level.** 45.5% of students answered “often” or “all the time” to every decision making statement. Among youth in the 4<sup>th</sup> – 5<sup>th</sup> grades and the 6<sup>th</sup> – 8<sup>th</sup> grade level, a greater percentage of females than males reported good decision making skills in all aspects measured. By the 9<sup>th</sup> grade, however, similar percentages of females and males reported good decision making skills.



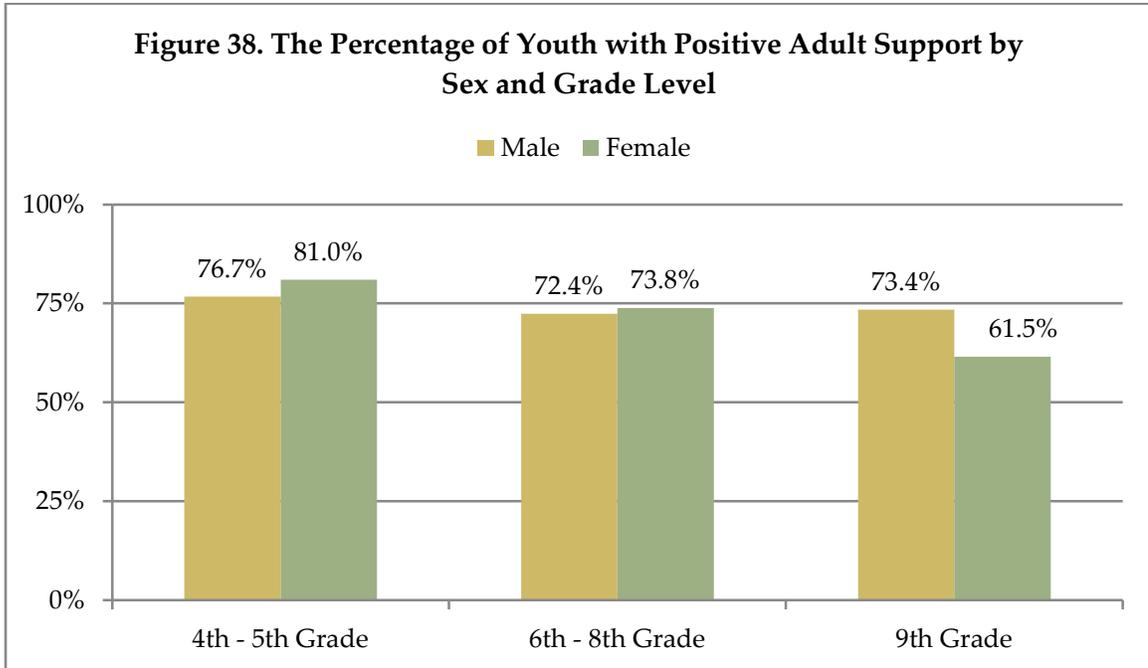
## Caring Adults

Youth in 4<sup>th</sup> – 9<sup>th</sup> grades were asked to indicate the extent to which they thought that the adults in their lives, both at school and at home, were supportive of them and listened to them. The majority of students reported the presence of caring adults in their lives. However, a greater percentage of youth reported the presence of caring adults in their home (90-91%) than in school (84-86%).

Table 21. Presence of Caring Adults  
(4<sup>th</sup> – 9<sup>th</sup> grades)

	Strongly Disagree	Disagree	Agree	Strongly Agree
At school, there is a teacher or another adult whom I can go to if something is really bothering me.	6.2	9.4	43.0	41.4
At school, there is a teacher or another adult who listens to me when I have something to say.	4.3	8.8	49.4	37.5
At home, there is a parent or another adult whom I can go to if something is really bothering me.	3.7	5.6	31.6	59.1
At home, there is a parent or another adult who listens to me when I have something to say.	2.9	5.9	35.8	55.4

**Caring Adults by Sex & Grade Level.** Almost three-fourths of the students answered “agree” or “strongly agree” to every statement about caring adults (74.0%). The percent of males with positive adult support stays relatively constant as grade levels increase, dropping only slightly between 4-5<sup>th</sup> and 9<sup>th</sup> grade. In contrast, the percent of girls reporting positive adult support is higher than males in 4-5<sup>th</sup> grade, and by 9<sup>th</sup> grade drops to a level significantly lower than males.



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