

SPIRIT

Missouri School-based Substance Abuse Prevention
Intervention and Resources Initiative

Tenth Year Report

2011-2012

Missouri Department of Mental Health Division of Alcohol and Drug Abuse

This report was prepared for the State of Missouri by:

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Executive Summary

Introduction – An Overview of the SPIRIT Project

The School-based Prevention Intervention and Resources Initiative (SPIRIT) was launched in 2002. SPIRIT is an alcohol and drug prevention and violence prevention project sponsored by the Missouri Department of Mental Health, Division of Alcohol and Drug Abuse (ADA). The purpose of the initiative is to delay the onset and decrease the use of substances, improve overall school performance, and reduce incidents of violence among children and youth in high-risk school districts. Fall 2011 to spring 2012 was the tenth year of the project.

The five school districts participating in SPIRIT are Carthage R-IX, Hickman Mills C-1, Knox Co. R-1, New Madrid Co. R-1, and Ritenour. Each of these districts is located in one of Missouri's five ADA regions. They serve high-risk populations in schools 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). Initially, regardless of the number of schools in a district, SPIRIT was implemented in only one at the elementary, middle, and high school; but beginning in Year 9 (2009-2010) all of the elementary, middle and junior high schools and most high schools in the districts were included in SPIRIT. The approximate enrollment in SPIRIT in Year 1 was 3,900. Over the years, the enrollment in the program has grown to 10,387 students in kindergarten through ninth grades.

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 even 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 needs of the school or district. Programs implemented in SPIRIT FY2011 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.

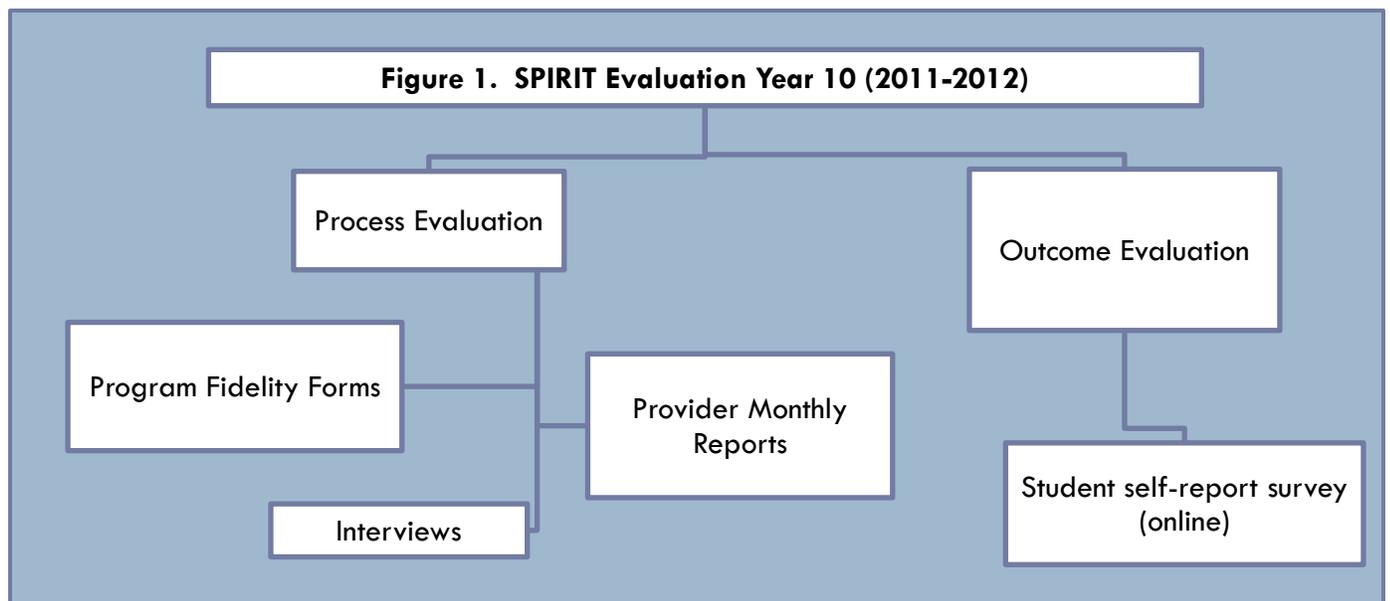
Evaluation. Annual evaluation of the SPIRIT program is conducted by the Center for Research and Evaluation, the Missouri Institute of Mental Health (MIMH), University of Missouri St. Louis (USML). The

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 4th – 9th grades includes questions about their level of substance use, 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 use paper/pencil methods of survey completion.

Throughout this report, SPIRIT student responses are compared to samples of Missouri and U.S. youth. Data for Missouri youth were drawn from the 2012 Missouri Student Survey (MSS), a statewide survey of 6th – 12th grade students attending public schools. The U.S. sample was drawn from youth who completed the 2009 National Survey on Drug Use and Health (NSDUH).

All students attending schools in which SPIRIT is implemented receive prevention programming (n = 10,387 in the 2011-2012 school year). In order to participate in the evaluation, however, students must be in the 4th grade through 9th grades and have parental consent. The consent rates vary by district, but across all SPIRIT sites 82.5% of all students eligible to participate in the evaluation were consented in Year 10. 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 responses of 1,319 students who completed surveys to represent the SPIRIT population, thus equalizing the influence of district, school, sex, and grade level.



Summary of Outcome Findings

Substance Use

- Among SPIRIT youth in the 6th – 9th grade sample, 14.5% reported using cigarettes in their lifetime, lower than use among students in Missouri generally (17.9%) and the United States (22.2%) and less than in Year 9.
- Lifetime use of prescription drugs without a prescription was also lower among SPIRIT students.
- The percentage of SPIRIT youth reporting inhalant use in their lifetime (4.2%) was considerably lower than the percentage in the U.S. (9.6%). SPIRIT youth began using marijuana at an older age than Missouri youth as a whole.
- Females who reported using prescription drugs without a prescription for the first time were younger than males. Males reported having consumed alcohol for the first time at a younger age than females.

Table 1. SPIRIT, Missouri and U.S. Drug Use Comparisons

		SPIRIT ¹	Missouri ²	US ³
Cigarettes	Lifetime use	14.5	17.9	22.2
	Past month (30-day)	4.1	7.8	8.9
	Age of initiation	11.05	11.54	n/a
Alcohol	Lifetime use ⁴	36.2	---	---
	Past month (30-day)	10.6	11.7	14.7
	Age of initiation	11.17	11.74	n/a
Marijuana	Lifetime use	11.1	10.6	---
	Past month (30-day)	6.5	5.6	7.3
	Age of initiation	12.41	12.60	n/a
Inhalants	Lifetime use	3.6	5.6	9.2
	Past month (30-day)	1.9	2.7	1.0
	Age of initiation	11.28	11.21	n/a

¹ SPIRIT, spring 2012, 6th – 9th grade, n = 869 (average age = 13.57); note: there were no participating youth in the 9th grade from the Knox school district.

² Missouri Student Survey (MSS) 2012, 6th – 9th grade, n = 70,874 (average age = 13.53)

³ National Survey on Drug Use and Health (NSDUH) 2009, n = 24,625 (12 – 17 years of age)

⁴ The SPIRIT survey 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: “We are not asking about times when you only had a sip or two from a drink or drank only for religious purposes. Throughout these questions, 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 can, bottle, glass, or shot, but rather anything more than a sip or two.

Table 2. Estimates of SPIRIT, Missouri, and U.S. 30-day Substance Use (6th – 9th grade)

	SPIRIT Total ¹	MO ²	U.S. ³
Cigarettes	4.1	7.8	8.9
Alcohol	10.6	11.7	14.7
Marijuana	6.5	5.6	7.3
Inhalants	1.9	2.7	1.0

¹ SPIRIT, spring 2012, 6th – 9th grade, n = 869 (average age = 13.57); note: there were no participating youth in the 9th grade from the Knox school district.

² Missouri Student Survey (MSS) 2012, 6th – 9th grade, n = 70,874 (average age = 13.53)

³ National Survey on Drug Use and Health (NSDUH) 2009, n = 24,625 (12 – 17 years of age)

- A smaller percentage of SPIRIT students used cigarettes in the past 30 days compared to the average 6th - 9th grade student in Missouri or the U.S. The use of alcohol, marijuana, inhalants, and prescription drugs without a prescription in the past month among SPIRIT students did not differ greatly from youth in Missouri or from the U.S.
- The percentage of youth who used cigarettes or marijuana in the past month did not increase much from the 4th – 5th grade to the 6th – 8th grade. However, a larger percentage of 9th grade students reported 30-day cigarette and marijuana use.
- SPIRIT students were also much less likely (13.8%) to ride in a vehicle with a driver who had been drinking compared to other Missouri students (18.7%).
- Among those students who had alcohol in the past 30 days, almost half (43.7%) had been a passenger in a vehicle with a driver who had been drinking.

Table 3. Estimates of SPIRIT 30-day Substance Use (6th – 9th grade) in Year 8, Year 9, and Year 10

	SPIRIT Year 8	SPIRIT Year 9	SPIRIT Year 10
Cigarettes	6.9	4.4	4.1
Alcohol	13.5	11.1	10.6
Marijuana	5.5	5.6	6.5
Inhalants	2.8	1.8	1.9

- Between Year 8 and Year 10, use of cigarettes in the past month decreased slightly from 6.9% to 4.1%. Alcohol use decreased from 13.5% to 10.6% and inhalant use decreased from 2.8% to 1.9%.
- Marijuana use between Year 8 and Year 10 increased slightly from 5.5% to 6.5%.
- There was no change from Year 9 to Year 10 in the percentage of 6th – 9th grade students who reported being drunk or high at school in the past three months.

- The percentage of 6th – 9th grade students reporting they had 5 or more drinks on days they drank has gone down each year since Year 8 when 28.9% of the students reported this use. In Year 9, 18% of 6th-9th graders who drank and in Year 10, 11% of students who drank reported usually having 5 or more drinks on the days that they drank.
- SPIRIT students were less likely to report riding in a vehicle with a driver who had been drinking in Years 9 and 10 than in Year 8, both among 6th – 9th grade youth and all lifetime alcohol users.
- In Year 10, SPIRIT students who used alcohol in the past 30-days compared to students who did not drink were less likely to report riding in a vehicle when someone was driving under the influence than students in Year 8.

Attitudes toward Substance Use

- The large majority of students (89.1%) strongly disagreed that smoking makes you look cool. Most (85.1%) also strongly disagreed that smoking cigarettes makes you look more grown-up. Fewer students, but still a majority (70.8%), strongly disagreed that drinking lets you have more fun.
- In Year 10 very few students had positive attitudes toward cigarettes and alcohol, many fewer than in both Year 8 and Year 9.
- Additionally, a large percentage (45% and 47%) of youth reported they thought most teenagers and adults used cigarettes and marijuana. Youth were more likely to think that adults used cigarettes more than teenagers. Youth were just as likely to think that most teenagers (36.3%) used marijuana as they were to think that most adults (33.3%) did.
- Regardless of grade, a similar percentage of youth thought that most adults smoke cigarettes. Youth in 9th grade were more likely to think that most adults used marijuana than younger SPIRIT students. In Year 10 compared with Year 9, more 9th grade students thought that most adults used alcohol.
- Students were much more likely to indicate they might use alcohol in the future (26.9%) than cigarettes (5.4%) or marijuana (6.4%). Students reported that 28.5% have already tried alcohol, 10.8% have smoked a cigarette, and 7.4% have tried marijuana.
- The percentage of youth who reported that they might use cigarettes or alcohol in the future increased with every grade level. The intention to use marijuana remained relatively low and consistent between the 4th-5th grade and the 6th-8th grade level, but was higher among 9th grade students. The largest increase occurred in the intention to use alcohol, where 12.2% of 4th – 5th grade youth reported that they intended to use compared to nearly half (47.3%) of those in 9th grade.
- In Year 9, students were less likely to indicate that they may use substances when they get older than in Year 8. Although students in Year 10 were still less likely to forecast future use than they were in Year 8, the percentage of students who reported they might use alcohol increased.

- There was a change in the perception of risk among youth in grades 6-9 from Year 9 to Year 10. In Year 10, students in grade 9 considered the use of alcohol to be less harmful than students in Year 9, and students in grades 6-9 considered the use of marijuana to be less harmful than students in the previous year.
- Males considered use of cigarettes and alcohol less risky in Year 10 than in Year 9.
- The majority of SPIRIT students thought the use of substances was wrong. Alcohol was considered the most acceptable with 65.3% reporting that they thought it was either wrong or very wrong to drink alcohol.
- Over 90% of youth in 6th-9th grades thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription was wrong or very wrong.
- The only difference from year to year in youths' attitudes toward substances is greater acceptance of marijuana by 9th graders. However, there is a trend toward students being slightly more accepting of alcohol use.
- Youth were less likely to consider the use of substances to be wrong as grade level increased. Fewer than half (47.9%) of those in 9th grade thought using alcohol was wrong.

Problem Behavior

- Victims of bullying were more likely to report that others had hurt or embarrassed them using the internet or a cell phone than those who were bullied. They were not, however, more likely to report that they had done so to others.
- Over 41.2% of youth in the 4th – 9th grade reported having been harassed or bullied within the past three months. Almost 6% reported that they had been bullied ten or more times.
- A similar percentage of youth reported making fun of others (54.6%) and being made fun of (56.5%). Only 16% of youth reported spreading rumors about others; however a much larger percentage (42.2%) reported others had spread rumors about them.
- The percentage of youth who reported being afraid of being beaten up (17.7%) was approximately the same as those who reported being in a physical fight in the past three months (17.4%). A greater percentage of youth reported physically assaulting another student (26.0%) or being assaulted by someone else (29.1%). Physical assault includes hitting, pushing, slapping, kicking and shoving when one is not kidding around.
- When compared with Year 9, a lower percentage of males reported assaulting others and a lower percentage of females reported spreading rumors or lies or having lies spread about them.

School Performance

- Most students (84.7%) reported their average grades last school year were either A's or B's. Regardless of grade level, a greater percentage of females (88.2%) reported mostly A's or B's than did males (81.4%). As grade level increased, fewer students, especially males, reported mostly A's or B's.

- Thirty-one percent of students reported missing at least one whole day of school in the past 30 days because they skipped or cut. Approximately 11% of students reported skipping three or more days. Students in the 6th-8th grades were the least likely to report skipping school.
- There was no difference in the percentage of males and females who reported skipping school in Year 10; however, in Year 10 compared to Year 9, a higher percentage of males in 4th-5th grades reported skipping school at least one day.
- As grade level increased, youth were less likely to have positive attitudes toward school. Youth in the 4th-8th grades felt similarly regarding school safety and feeling close to people at school. Ninth grade students were much less likely than their younger counterparts to be happy at school and think teachers treated students fairly.
- Over a quarter of students (28.1%) did not think teachers treated them fairly and 22.3% reported not being happy at school.
- Less than three-fourths of the 9th grade students reported feeling safe at school.
- Males were less likely than females to feel close to people at school.

Program Effectiveness

- The majority (84.6%) of students responded that they liked the program at least a little. Youth were most likely to report that the program helped them with anger management (77.9%), resistance skills (82.4%), and that the time spent on the program was helpful (81.0%).
- The higher the grade, the fewer the students who reported that they liked the program or thought the program affected their behavior, self-esteem, and interpersonal relationships.
- Females were more likely than males to like the program and think that it helped with resistance skills.

Protective Factors

- The majority of students reported strong levels of empathy. They reported being sad if witnessing an animal being hurt (85.4%), feeling sad if someone was left out (81.5%), and feeling bad if someone else got their feelings hurt (83.6%).
- Almost three-fourths of students (72.9%) “agreed” or “strongly agreed” they had caring adults both at home and in school.
- Among 4th-5th grade students, females were more likely than males to report the presence of caring adults. The percentage of females reporting the presence of caring adults decreased as grade level increased.
- A similar percentage of males in the 4th-8th grades reported the presence of caring adults, but the percentage decreased in 9th grade.

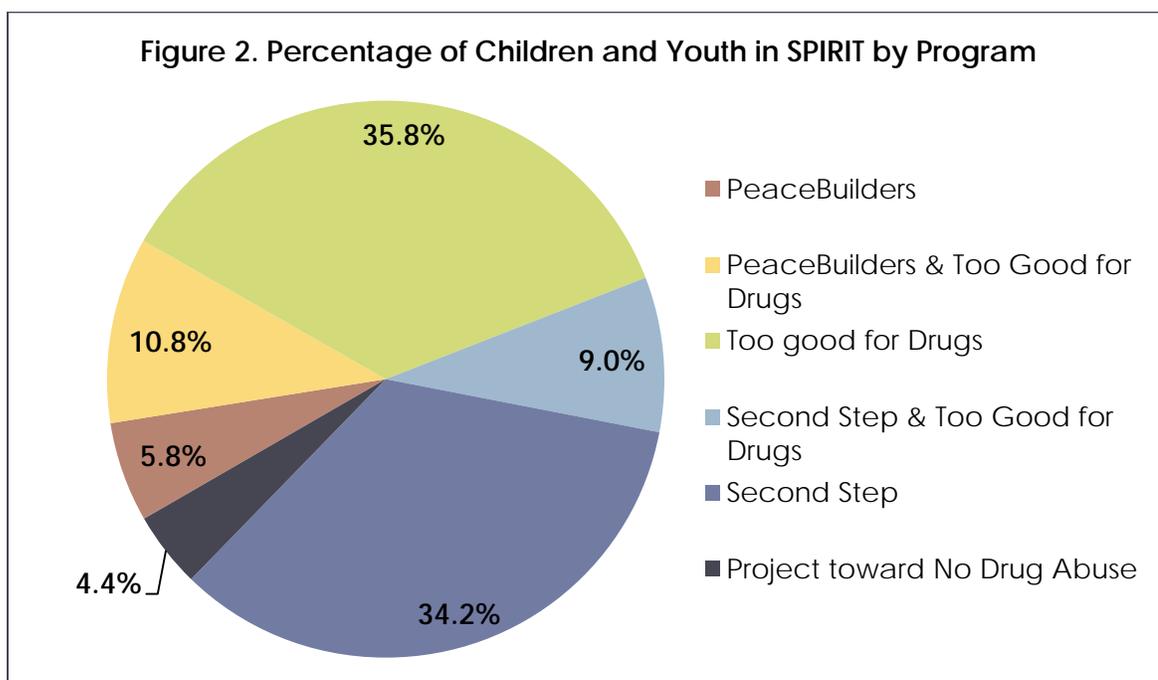
Recommendations

- Importantly, rates of alcohol use have dropped over the past few years. However, while only 10.6% of SPIRIT students reported using alcohol in the past month, rates of alcohol use were higher than rates of marijuana, cigarette or inhalant use. Additionally, over one-fourth intend to drink alcohol in the future, and a majority believed that most adults use alcohol, indicating an expectation of alcohol use in adulthood. Furthermore, a majority of students considered the use of alcohol to pose only moderate risk, and between Years 9 and 10, students became slightly more accepting of alcohol use. Continued emphasis on educating students about the harmfulness of alcohol use, actual use rates among teenagers and adults, and problems related to alcohol use in adulthood is recommended. Further teaching of decision-making and resistance skills is also recommended.
- In addition to alcohol use, there were decreases in cigarette use. However, almost half of students reported they thought most teenagers and adults smoked cigarettes and students were more likely to think that adults smoked cigarettes compared to teenagers. It is recommended that there be a strong emphasis on normative education in the elementary schools as well as the older grades related to cigarette use.
- When compared to Missouri youth generally, the age of initiation of marijuana use is lower among students in the SPIRIT sample. However, marijuana use in the past month increased slightly, and students considered the use of marijuana to be less harmful in Year 10 than in the previous year. These perceptions often precede increased use, so it is recommended that education focus on the harmfulness of marijuana, problems related to marijuana use and decision-making and resistance skills, particularly because the increased approval of medical marijuana encourages the notion that use is positive and negative consequences are minimal.
- Although inhalant use by SPIRIT students is half of that reported use by youth nationally and rates have decreased since Year 8, continued focus on the fact that inhalants are poisons and, therefore, potentially deadly is an essential step in continuing to lower use rates.
- Males and females are attracted to different substances at different ages, e.g. alcohol appeals to males and prescription drugs to females at earlier ages. Male use of alcohol is also higher than female use. There is a need to be aware and attentive to these differences and to use approaches that will be effective with both sexes.
- The transitional period between middle school/junior high and high school is a vulnerable time for students. Because reported tobacco, alcohol and marijuana use spiked in 9th grade as did intentions to use, it is recommended that providers discuss the challenges of transitions with 8th grade students and increase the focus on resistance and decision-making skills. Additionally, normative education is important at this time because 9th graders, in particular, have a distorted sense of the level of use by “most” teenagers and adults.
- A higher percentage of males in 4th-5th grades reported skipping school at least one day in Year 10 than in the previous year. The risk of early alcohol use is higher among males and males were less likely overall to report feeling close to people at school. An increased focus on ways to increase school bonding is recommended.

- Ninth grade students were much less likely than their younger counterparts to report being happy at school and that teachers treated students fairly. Additionally, less than three-fourths of the 9th grade students reported feeling safe at school and the percentage of 9th graders who reported the presence of caring adults decreased. It is recommended that the prevention specialists emphasize healthy ways students might deal with feelings and also work with the schools to address these problems.

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 – 4th grade) and in the middle school (5th- 6th grade). In the middle school, Too Good For Drugs supplemented PeaceBuilders. This year the curriculum for 7th-9th 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 (7th – 8th grade) and to 9th 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.

Hickman Mills C-1. Prevention specialists from the provider agency implemented programming in all eight elementary schools (4th – 5th grade), the middle school (6th – 7th grade) and junior high (8th – 9th grade) in the Hickman Mills School District. Second Step and Too Good For Drugs were implemented in the elementary schools and Second Step in the middle school and junior high.

This was another challenging year for Hickman Mills as the district continued to adjust to the changes in school configurations made last year and to additional budget cuts. Last year schools were reconfigured and combined, and a single middle school and a single junior high school were formed that serve almost 1000 students in each. The district has the additional pressure of operating with provisional accreditation. In light of these challenges, the importance and contributions of SPIRIT prevention specialists in the middle and junior high schools were recognized by the principals.

Knox County R-I. In Knox School District, classroom teachers and a prevention specialist coordinated implementation of PeaceBuilders in the elementary school (K – 5th grade). A prevention specialist also taught Second Step in the middle school (6th – 8th 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 – 5th grade) in the New Madrid School District. The program was also implemented in the middle school (6th – 8th grade) and to 9th 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 9th 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 (4th – 5th grade), both middle schools (6th – 8th grade), and with 9th 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.

Principals in the Ritenour district have been particularly appreciative of the way that prevention specialists have become part of the school and worked with small groups of students who need additional assistance in developing appropriate behaviors. They expressed the feeling that SPIRIT has made essential contributions to improvements in behavior and school climate.

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

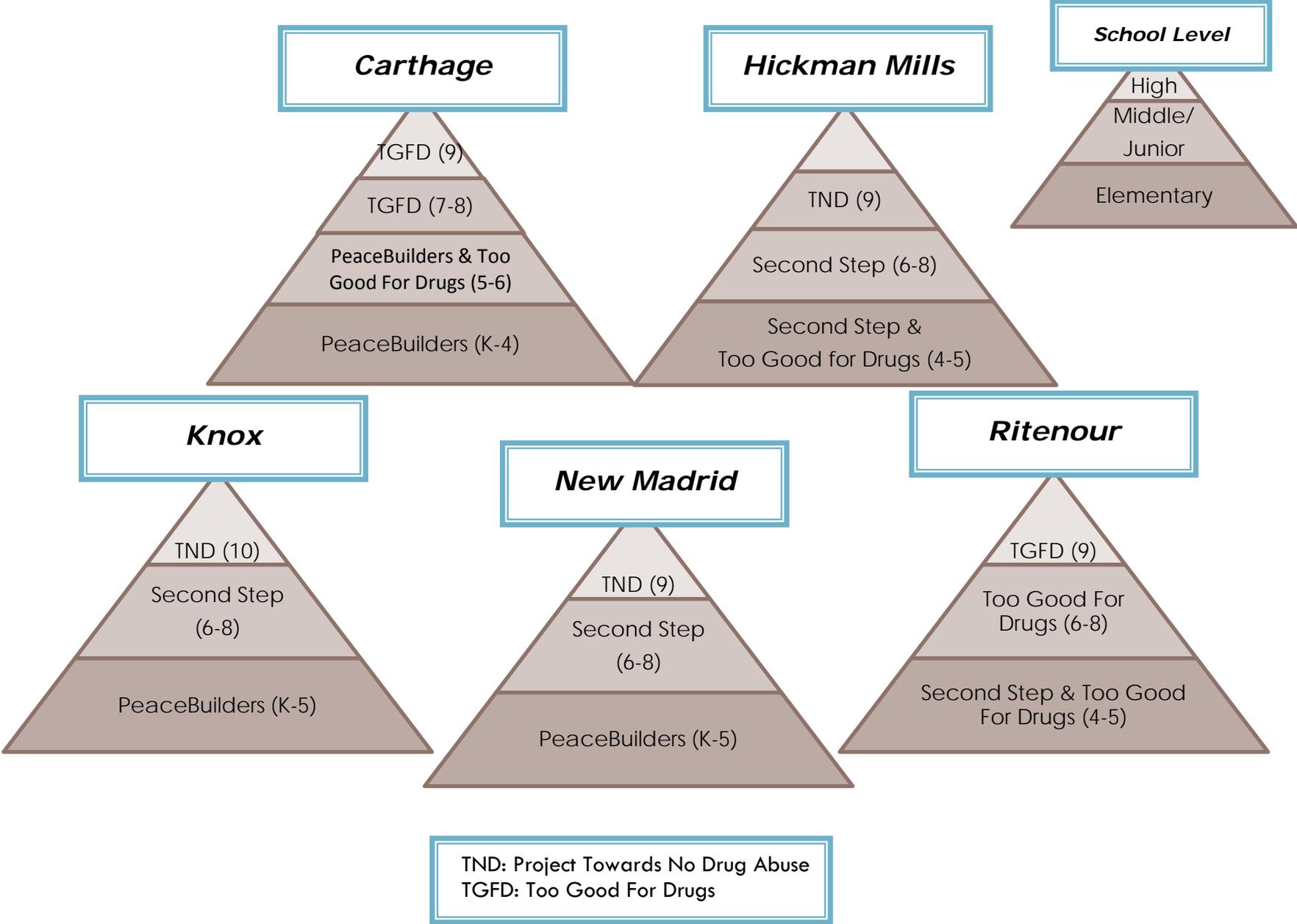
“The strength of the program is its practical nature and the fact that it helps children to learn life skills at an early age. They use these skills both in and out of school.” –Elementary School Principal

“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, 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.

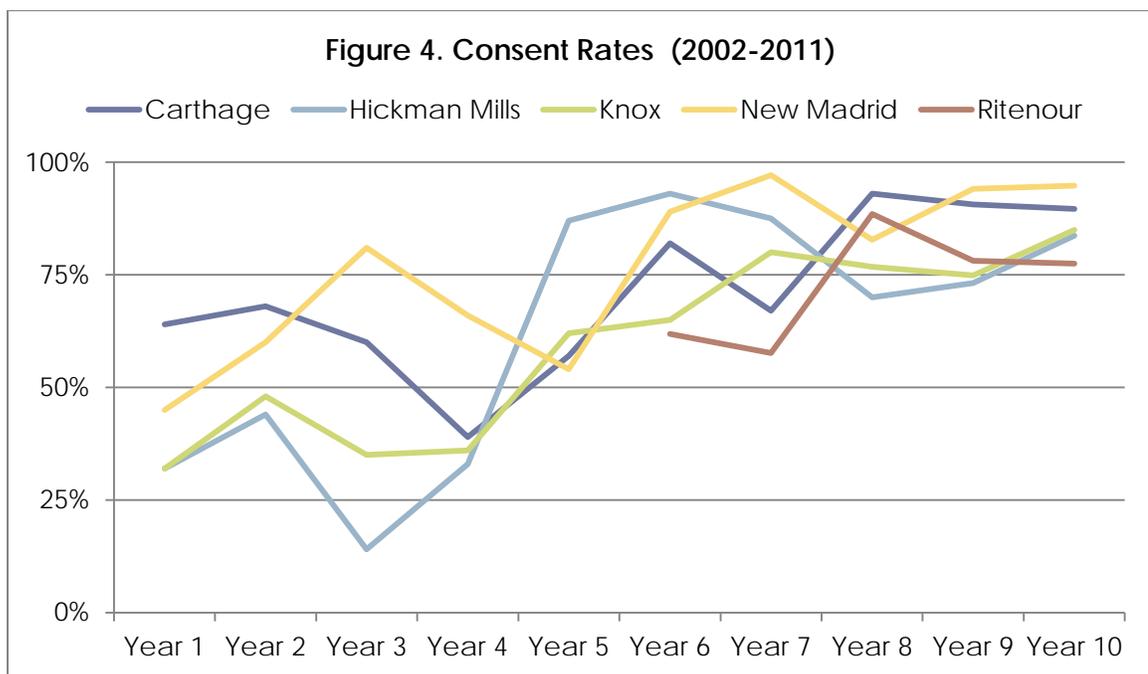
Figure 3. Program Implementation by Site, Year 10 (2011-2012)



Chapter 2 – Sample Selection and Demographics

In Year 10, 10,387 students in kindergarten through twelfth 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.

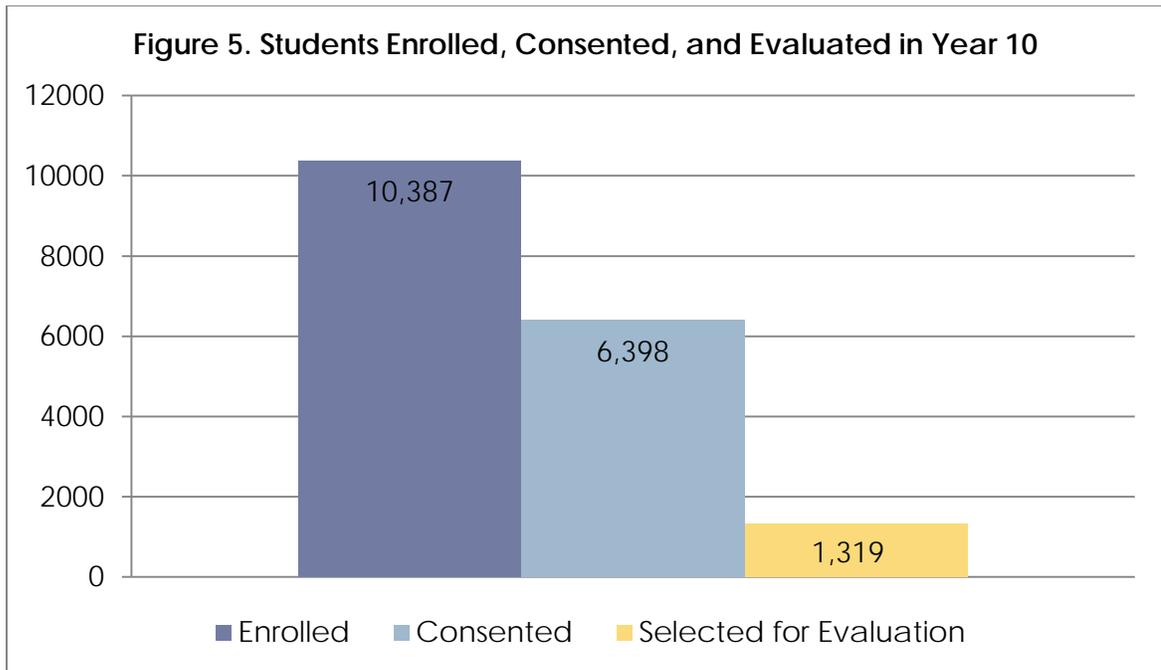
Of the 7,756 4th-9th grades students who were eligible to participate in the evaluation, 6,398 received parental consent, achieving an increase in consent rate from 81% in Year 9 to 82.5% in Year 10. Four of the five school districts have a consent rate above 80%.



Sample Selection

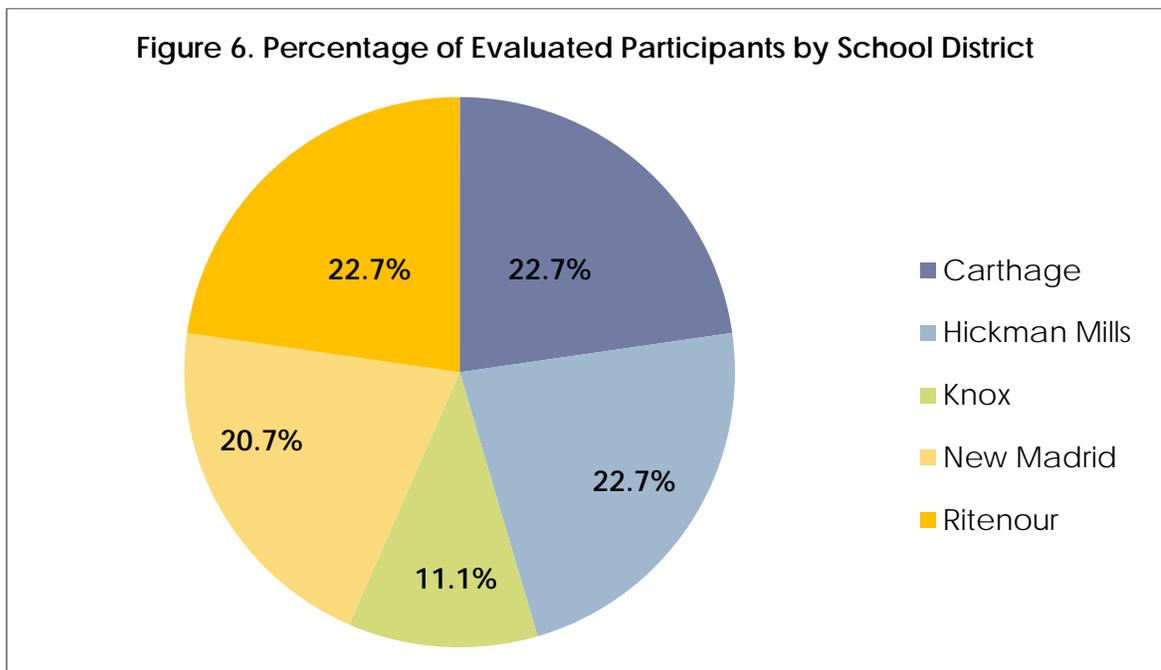
Students who received parental consent to participate in the evaluation completed a survey. From this total pool, a sample representative of the demographic characteristics of the participating districts was taken to assess the SPIRIT program in its entirety without bias or influence from any particular school district, school building, sex, or grade level. The final sample represented every participating school within each school district.¹ Fifty (50) male and 50 female students from each grade level group (4th-5th, 6th-8th, 9th) were selected from each of the districts wherever possible. The final evaluation sample size was 1,319 students. The statistics in the remainder of this report reflect the behaviors and attitudes of these students.

¹ School districts have varying demographic profiles, use different provider agencies, and in many cases implement different prevention programs. Considering these factors, the data set was post-stratified through random sampling to provide equal influence to each school district and within each district. Within each school district, each school, grade, and sex was represented equally.

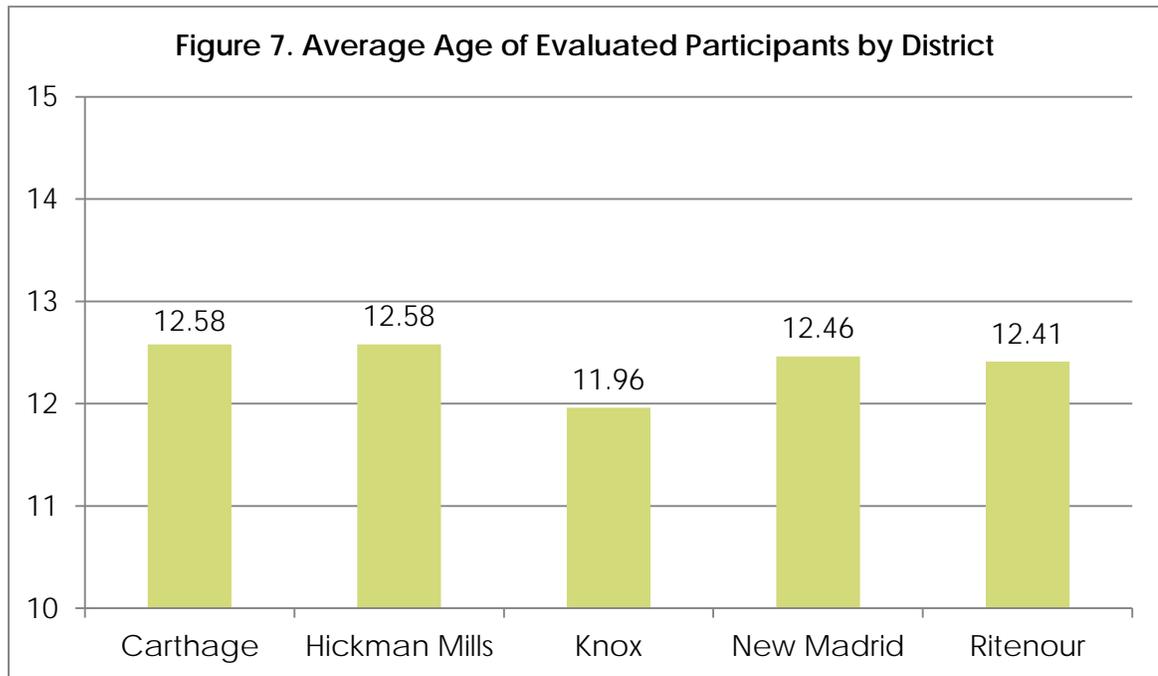


Demographic Distributions of the Evaluation Sample

Because fewer students are enrolled in the district and 9th grade students do not receive prevention programming. Knox School District has less representation within the evaluation sample. New Madrid, while larger than Knox, is also a small school district and there were fewer 9th grade participants from New Madrid than Carthage, Hickman Mills, and Ritenour.



The average age of the participants in the evaluation sample was 12.45 years of age. Knox had a lower average age than other districts because programming was not offered to 9th grade students within that school district.



The race and ethnicity composition of the evaluation sample was 52.3% White, 31.3% Black, and 13.0% Latino (of any race). The racial and ethnic characteristics of each district vary with Carthage, Knox, and New Madrid comprised of mostly white students and Hickman Mills comprised of mostly Black students. Ritenour is the most diverse school district in the sample. Latino students are more prevalent in Carthage and Ritenour than the other districts.

Table 4. Race and Ethnicity of Evaluated Participants by District

	Carthage	Hickman Mills	Knox	New Madrid	Ritenour
Hispanic/Latino (of any race)	27.3	11.0	0.0	1.5	17.3
Not Hispanic or Latino					
White/Caucasian	63.3	9.0	93.2	73.3	44.3
Black/African-American	3.3	79.0	2.7	22.0	33.0
Native American/Alaskan Native	4.3	0.3	2.7	1.1	1.0
Asian	0.3	0.7	0.0	0.0	1.7
Native Hawaiian or Other Pacific Islander	0.7	0.0	0.0	0.0	0.7
Other (not otherwise specified)	0.7	0.0	1.4	2.2	2.0

In comparison to the Missouri Student Survey (MSS), the SPIRIT sample has a smaller percentage of white youth and more Latino youth. There are fewer Black youth included in the National Survey on Drug Use and Health (NSDUH), the survey used to compare SPIRIT to the average youth in the U.S.

Table 5. Percentage of Participants by Race/Ethnicity by Survey

	SPIRIT ¹	Missouri ²	United States ³
Hispanic/Latino (of any race)	13.0	6.5	17.3
Not Hispanic or Latino			
White/Caucasian	52.3	77.3	60.5
Black/African-American	31.3	10.1	13.4
Native American/Alaskan Native	1.8	1.6	1.4
Asian	0.6	2.1	3.2
Native Hawaiian or Other Pacific Islander	0.3	0.2	0.3
Other (not otherwise specified)	0.7	2.2	4.0

¹ SPIRIT Survey (2012), 4th – 9th grade, selected participants

² Missouri Student Survey (2012), 4th – 9th grades

³ National Survey on Drug Use and Health (2009), 12-17 years of age

There were an equal percentage of males (49.6%) and females (50.4 %) in the total SPIRIT sample. An effort was made to select an equal number of males and females from each district, however, due to the size and composition of the participant pool, selection was slightly uneven in Knox and New Madrid.

Chapter 3 - Substance Use

The following chapter presents self-reported use of substances by youth in the 4th – 9th grades. The percentage of users among particular grade levels are generally reported by the following grade groups: 4th – 5th, 6th – 8th, and 9th. 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 2012 MSS and the 2009 NSDUH.

Lifetime Substance Use

Students in 4th – 5th 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 6th – 9th 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. Among the selected 4th – 9th grade sample, 10.8% reported having smoked a cigarette, 28.5% reported ever having had more than a sip or two of alcohol and 7.4% reported use of marijuana in their lifetime.

Lifetime Substance Use Comparisons with State and National Samples. In the 6th – 9th grade sample, 14.5% of students reported using cigarettes in their lifetime, less than those in Missouri (17.9%) and the United States (22.2%) and less than in Year 9. The percentage of youth reporting inhalant use in the U.S. survey (9.6%) was more than twice the percentage of SPIRIT students reporting use (4.2%). The use of prescription drugs without a prescription was also less among SPIRIT students in comparison with those in the MSS.

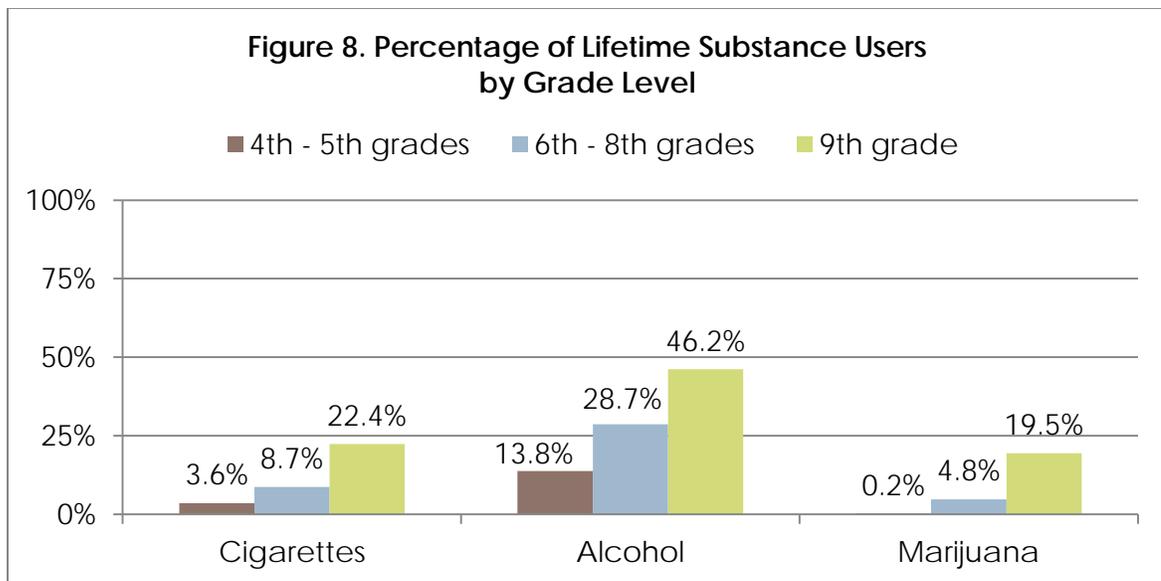
Comparisons cannot be made between SPIRIT, Missouri, and national statistics in the percentage of youth who had *more than a sip* of alcohol in their lifetime because of differences in the question wording.² When asked whether they had used alcohol regularly (once or twice a month), fewer SPIRIT youth (9.7%) reported use compared with those in the U.S. sample (17.0%).

²Because the SPIRIT survey alcohol use question was worded differently from the MSS and NSDUH; 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: “We are not asking about times when you only had a sip or two from a drink or drank only for religious purposes. Throughout these questions, 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 count only those times when they consumed an entire can, bottle, glass, or shot, but rather anything more than a sip or two.

Table 6. Estimates of SPIRIT, Missouri, and U.S. Lifetime Substance Use (6 th – 9 th grade)			
	SPIRIT Total ¹	MO ²	U.S. ³
Cigarettes	14.5	17.9	22.2
Alcohol (more than a sip) ⁴	36.2	---	---
Alcohol (once or twice a month)	9.7	---	17.0
Marijuana	11.1	10.6	---
Ecstasy	1.4	1.6	---
Methamphetamine	0.9	1.1	---
Inhalants	4.2	5.6	9.2
Prescription Drugs without Rx	3.6	6.7	---

- ¹ SPIRIT, spring 2012, 6th – 9th grade, n = 869 (average age = 13.57); note: there were no participating youth in the 9th grade from the Knox school district.
- ² Missouri Student Survey (MSS) 2012, 6th – 9th grade, n = 70,874 (average age = 13.53)
- ³ National Survey on Drug Use and Health (NSDUH) 2009, n = 24,625 (12 – 17 years of age)
- ⁴Please consider the written explanation in the preceding footnote regarding the absence of Missouri and national comparison data.

Lifetime Substance Use by Grade Level. The higher the grade level, the more likely youth were to have used cigarettes, alcohol, and marijuana. An approximate increase of between 15-18% users was found among the 4th – 5th and 6th – 8th grade levels and the 6th – 8th and 9th grade levels. The likelihood of trying cigarettes or marijuana showed only a small increase (approximately 4%) between 4th – 5th grade and 6th – 8th grade, but a large increase (14.5-15.5%) between middle school/junior high and 9th grade.



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.

Past Month (30-day) Substance Use

Students in 4th – 9th 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, 6.5% drinking alcohol, and 4.2% using marijuana in the past 30 days.

30-day Substance Use Comparisons with State and National Samples. A smaller percentage of SPIRIT students used cigarettes in the past 30 days compared to the average 6th - 9th grade student in Missouri or the U.S. The use of alcohol, marijuana, inhalants, and prescription drugs without a prescription in the past month among SPIRIT students did not differ greatly from youth in Missouri or the U.S.

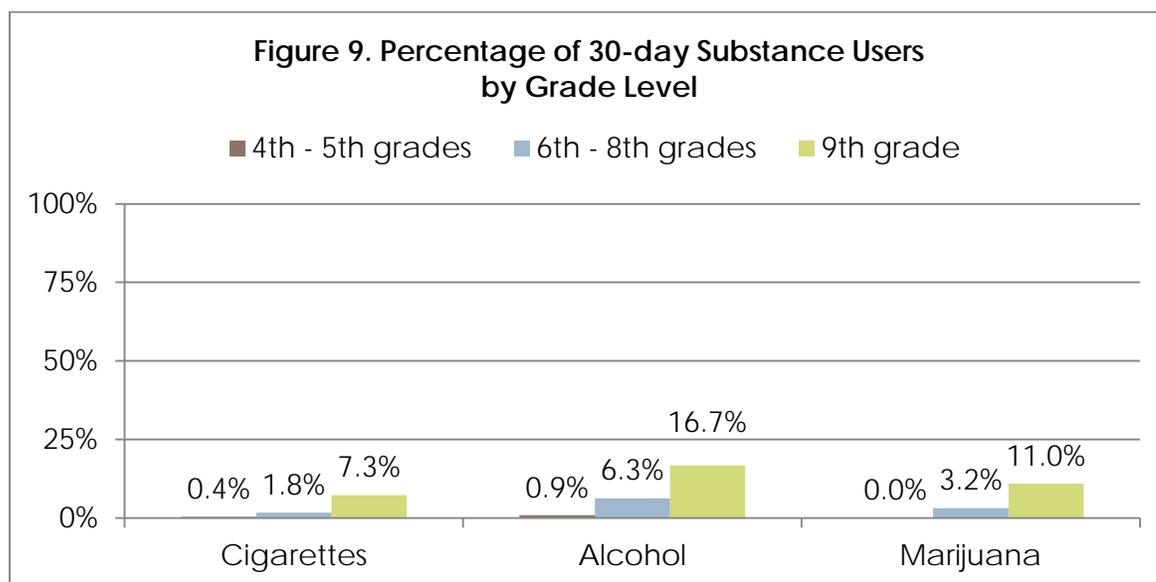
	SPIRIT Total ¹	MO ²	U.S. ³
Cigarettes	4.1	7.8	8.9
Alcohol	10.6	11.7	14.7
Marijuana	6.5	5.6	7.3
Inhalants	1.9	2.7	1.0

¹ SPIRIT, spring 2012, 6th – 9th grade, n = 869 (average age = 13.57); note: there were no participating youth in the 9th grade from the Knox school district.

² Missouri Student Survey (MSS) 2012, 6th – 9th grade, n = 70,874 (average age = 13.53)

³ National Survey on Drug Use and Health (NSDUH) 2009, n = 24,625 (12 – 17 years of age)

30-day Substance Use by Grade Level. The percentage of youth who used cigarettes or marijuana in the past month did not increase much from the 4th – 5th to the 6th – 8th grades. However, there was a larger percentage of 9th grade youth who reported 30-day cigarette and marijuana use. The largest increases occurred among alcohol users, with only 0.9% of 4th-5th grade students reporting past month use of alcohol compared to 6.3% of those in 6th-8th grade 16.7% of 9th graders.



30-day Substance Use by Sex. Males and females were equally as likely to use cigarettes, alcohol, or marijuana in the past month.

30-day Substance Use by Year. While there was a slight decrease in cigarette and alcohol use in the past 30 days from Year 8 to Year 9, the percentage of users did not change from Year 9 to Year 10.

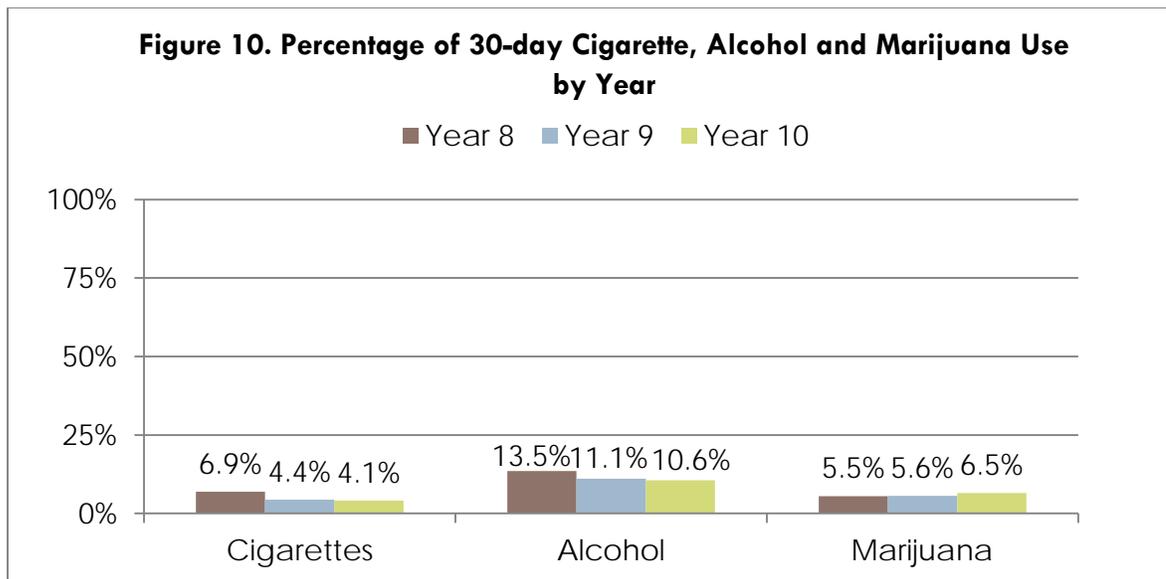


Table 8. Estimates of SPIRIT 30-day Substance Use (6th – 9th grade) in Year 8, Year 9, and Year 10

	SPIRIT Year 8	SPIRIT Year 9	SPIRIT Year 10
Cigarettes	6.9	4.4	4.1
Alcohol	13.5	11.1	10.6
Marijuana	5.5	5.6	6.5
Inhalants	2.8	1.8	1.9

Age of 1st Substance Use (Age of Initiation)

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

Age of 1st Substance Use Comparisons with State Samples. SPIRIT students began using marijuana at an older age than youth in Missouri.

Table 9. Comparison Between Estimates of SPIRIT and Missouri Age of 1st Substance Use

	SPIRIT Total ¹	MO ²
Cigarettes	11.05	11.54
Alcohol (more than a sip) ³	11.17	---
Alcohol (once or twice a month)	12.93	---
Marijuana	12.41	11.21
Ecstasy	12.08	---
Methamphetamine	11.00	---
Inhalants	11.28	11.21
Prescription Drugs without Rx	12.94	---

¹ SPIRIT, spring 2012, 6th – 9th grade, n = 869 (average age = 13.57); note: there were no participating youth in the 9th grade from the Knox school district.

² Missouri Student Survey (MSS) 2012, 6th – 9th grade, n = 70,874 (average age = 13.53)

³ The SPIRIT survey alcohol use question was worded differently from the MSS and NSDUH; thus comparison data have not been included in this report. For a full explanation regarding the absence of Missouri comparison data, please consider the written explanation in the footnote 2 on page 10.

Age of 1st Substance Use by Sex. Females who reported using prescription drugs without a prescription reported doing so for the first time at a younger age than males. Males reported having consumed alcohol for the first time at a younger age than females.

Table 10. Age of 1 st Substance Use by Sex		
	Males	Females
Cigarettes	10.70	11.33
Alcohol (more than a sip)	10.76	11.55
Alcohol (once or twice a month)	13.25	12.70
Marijuana	12.29	12.53
Ecstasy ¹	12.50	---
Methamphetamine ¹	11.83	---
Inhalants	11.60	10.88
Prescription Drugs without Rx	14.00	12.26

¹ Too few females reported using ecstasy or methamphetamines to get an accurate estimate of age of first use.

Substance Use Extent and Circumstances

SPIRIT students in 6th – 9th 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.

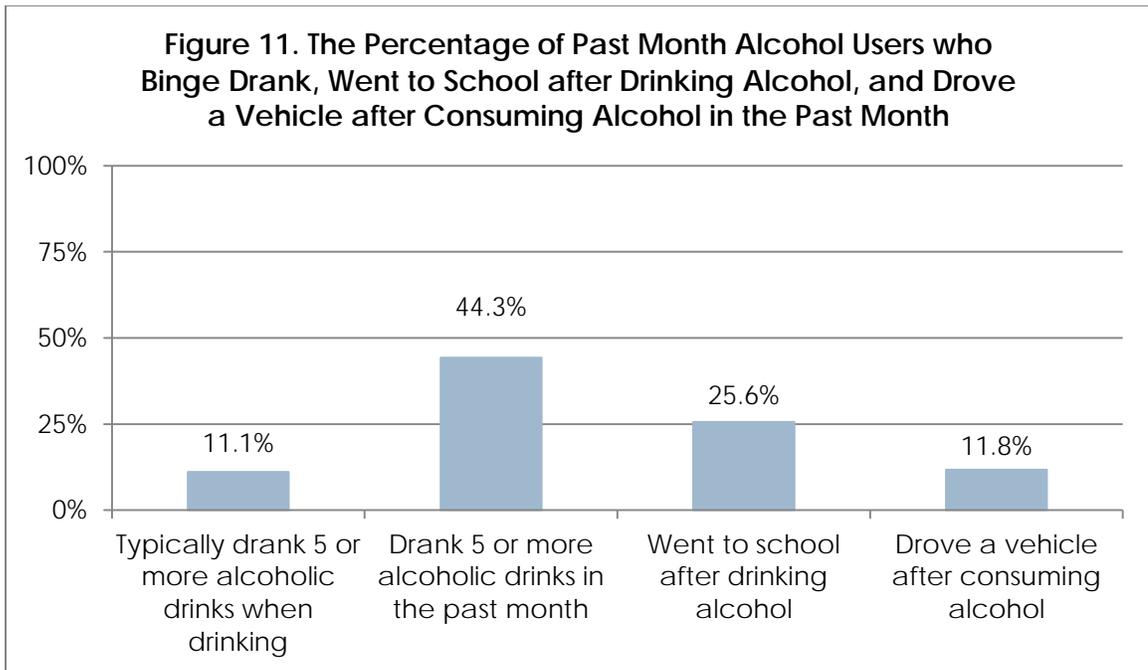
Of those who reported smoking cigarettes in the past 30 days, 22.9% usually had one cigarette or less on the days that they smoked. Although the overall percentage of students who reported smoking during the past month remained the same from Year 9 to Year 10, a higher percentage of students in Year 10 reported smoking 2-5 cigarettes on days they smoked than those the previous year (42.9% vs. 28.2%). A lower percentage of youth reported smoking about a half a pack (6-15 cigarettes) on an average day (8.6% vs. 17.9%). This indicates that students who smoked used fewer cigarettes in Year 10.

Of those who reported drinking alcohol in the past 30 days, 34.4% of the students reported typically only having one drink on the days that they drink and 34.5% reported having 2-4 drinks. In Year 10 compared to Year 9, 7% fewer 6th – 9th graders reported usually having 5 or more drinks on the days that they drank (11% vs. 18%).

The binge drinking rate in Missouri was higher (7.4%) than among SPIRIT youth (4.8%).

Students were asked to report if they had participated in binge drinking in the past month. Binge drinking is defined as having five or more drinks on the same occasion. A total of 4.8% of all 6th – 9th grade youth reported binge drinking. Among those who reported having an alcoholic drink in their lifetime, 12.5% binge drank in the past 30 days. Binge drinking was reported by 44.3% of youth who drank any alcohol in the past month.

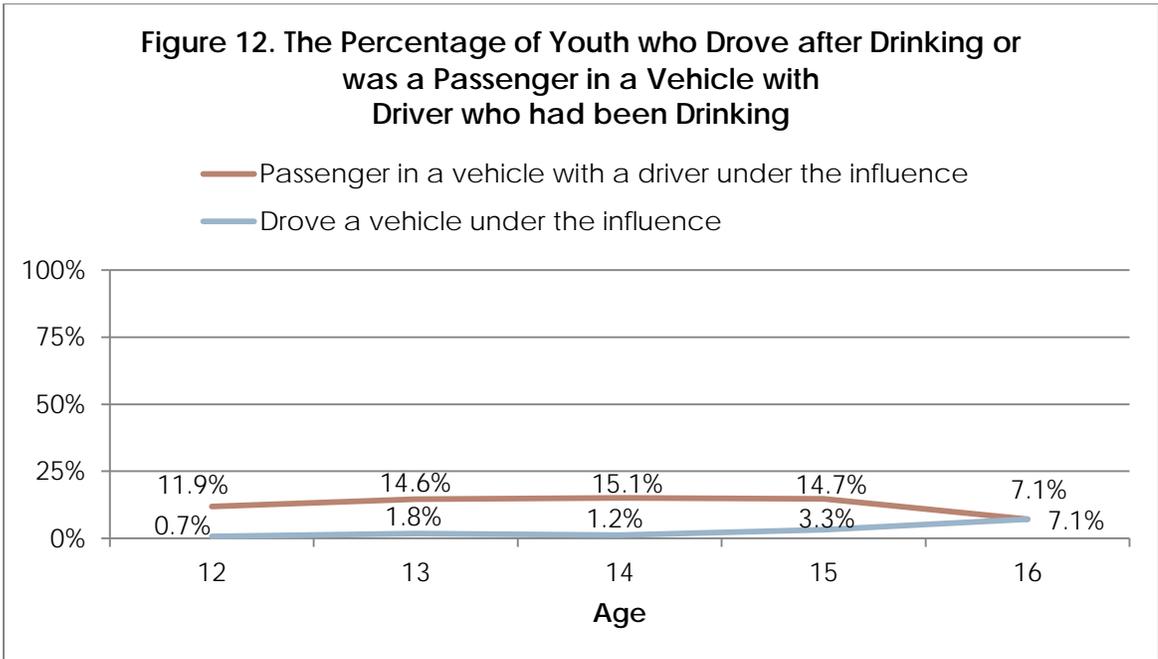
Among all 6th – 9th grade youth, 4.1% reported being drunk or high at school in the past three months; however, among lifetime alcohol users, the percentage of youth who reported being drunk or high at school in the past month was 10.9%. Over one-fourth (25.6%) of students reporting alcohol use within the past month said they were drunk or high at school.



Students were also asked to indicate their experience with drunk driving, both as a driver and a passenger. Among all 6th – 9th grade students, 1.8% reported having driven a car when drinking. Almost 14% of all SPIRIT 6th – 9th grade youth reported that they rode in a car with a driver who had been drinking.

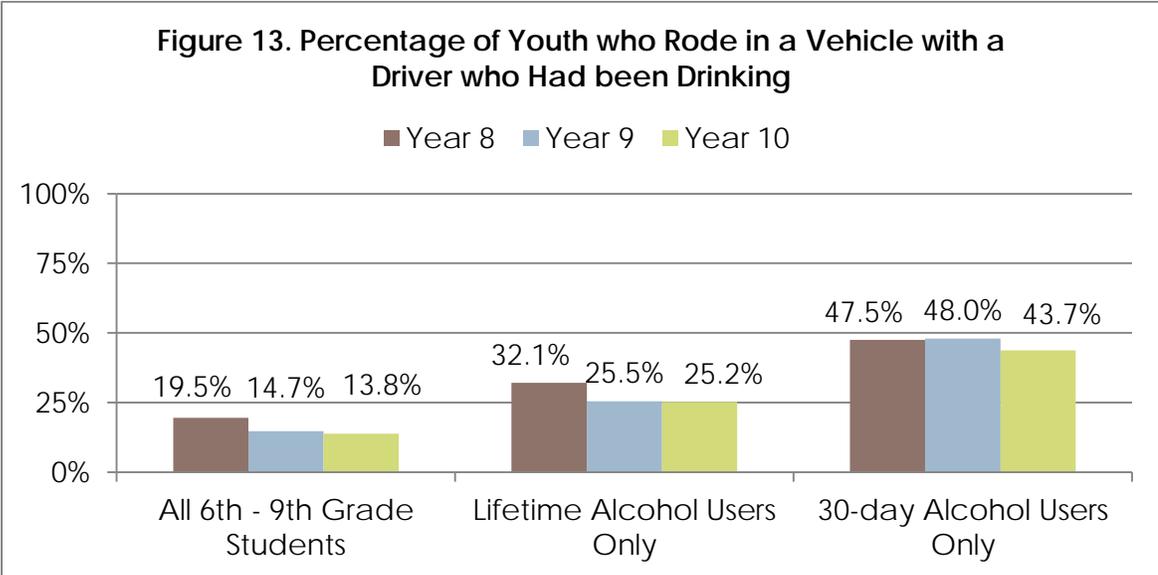
Table 11. Percentage of Youth Within the Past Month Who Rode With a Driver Who Had Been Drinking or Drove Themselves After Drinking (6 th – 9 th Grade)			
	Total Sample (regardless of reported alcohol use)	Among Lifetime Alcohol Users	Among 30-day Alcohol Users
Rode in a vehicle with a driver who had been drinking	13.8	25.2	43.7
Drove after drinking alcohol	1.8	4.2	11.8

Vehicles and Alcohol Use by Age. The percentage of youth under the age of 16 who drove under the influence was 1.7% whereas 7.1% of youth 16 years of age or older reported driving under the influence in the past 30 days. The risk of both driving after drinking and riding in a vehicle with a driver who had been drinking increased among youth who used alcohol within the past 30 days.



Vehicles and Alcohol Use Comparisons with MSS. The reported rates of driving a vehicle after drinking alcohol were similar among the average 6th – 9th grade students in Missouri (2.3%) and SPIRIT students (1.8%). SPIRIT students were much less likely (13.8%), however, to have ridden in a vehicle with a driver who had been drinking compared to other Missouri students (18.7%).

Vehicles and Alcohol Use by Year. Students were less likely to report riding in a vehicle with a driver who had been drinking in Years 9 and 10 than in Year 8, both among all 6th – 9th grade youth and among lifetime alcohol users. In Year 10, youth who had used alcohol in the past 30-days were less likely to report riding in a vehicle when someone was driving under the influence.



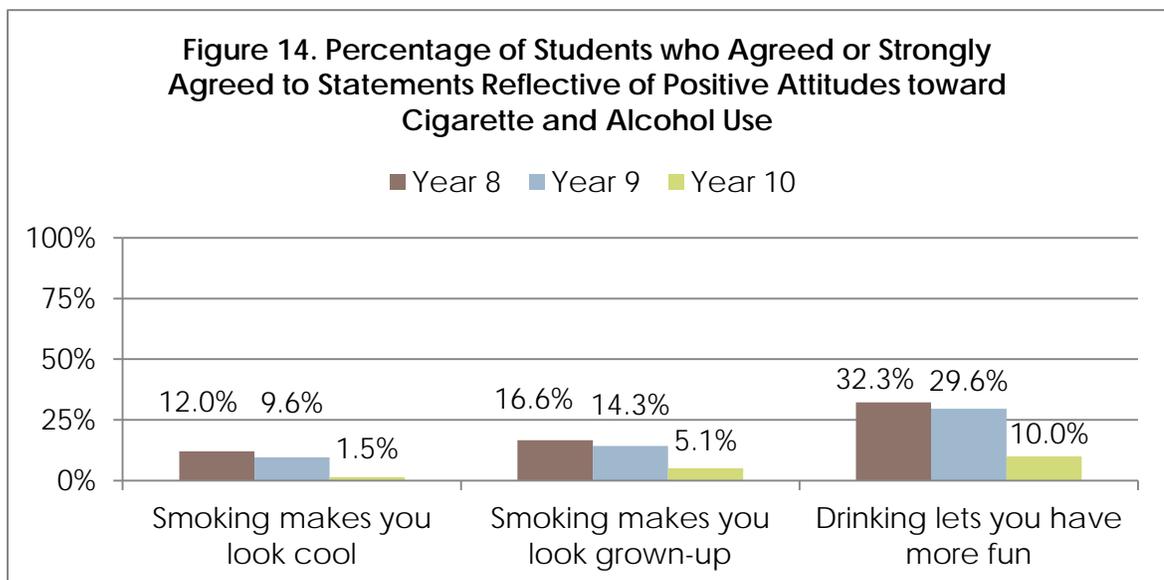
Summary

- Among SPIRIT youth in the 6th – 9th grade sample, 14.5% reported using cigarettes in their lifetime, lower than use among students in Missouri generally (17.9%) and the United States (22.2%) and less than in Year 9.
- Lifetime use of prescription drugs without a prescription was also lower among SPIRIT students than Missouri students.
- The percentage of SPIRIT youth reporting inhalant use in their lifetime (4.2%) was less than half the percentage in the U.S. (9.6%).
- SPIRIT youth began using marijuana at an older age than Missouri youth as a whole.
- Females who reported using prescription drugs without a prescription for the first time were younger than males. Males reported having consumed alcohol for the first time at a younger age than females.
- A smaller percentage of SPIRIT students used cigarettes in the past 30 days compared to the average 6th - 9th grade student in Missouri or the U.S. The use of alcohol, marijuana, inhalants, and prescription drugs without a prescription in the past month among SPIRIT students did not differ greatly from youth in Missouri or from the U.S.
- The percentage of youth who used cigarettes or marijuana in the past month did not increase much from the 4th – 5th grade to the 6th – 8th grade. However, a larger percentage of 9th grade students reported 30-day cigarette and marijuana use.
- SPIRIT students were also much less likely (13.8%) to ride in a vehicle with a driver who had been drinking compared to other Missouri students (18.7%).
- Among those students who had alcohol in the past 30 days, almost half (43.7%) had been a passenger in a vehicle with a driver who had been drinking.
- Between Year 8 and Year 10, use of cigarettes in the past month decreased slightly from 6.9% to 4.1%. Alcohol use decreased from 13.5% to 10.6% and inhalant use decreased from 2.8% to 1.9%.
- Marijuana use between Year 8 and Year 10 increased slightly from 5.5% to 6.5%.
- There was no change from Year 9 to Year 10 in the percentage of 6th – 9th grade students who reported being drunk or high at school in the past three months.
- The percentage of 6th – 9th grade students reporting they had 5 or more drinks on days they drank has gone down each year since Year 8 when 28.9% of the students reported this use. In Year 9, 18% of 6th-9th graders who drank and in Year 10, 11% of students who drank reported usually having 5 or more drinks on the days that they drank.
- SPIRIT students were less likely to report riding in a vehicle with a driver who had been drinking in Years 9 and 10 than in Year 8, both among 6th – 9th grade youth and all lifetime alcohol users.

- In Year 10, SPIRIT students who used alcohol in the past 30-days compared to students who did not were less likely to report riding in a vehicle when someone was driving under the influence than students in Year 8.
- SPIRIT students were also much less likely (13.8%) to ride in a vehicle with a driver who had been drinking compared to other Missouri students (18.7%).

Chapter 4 - Substance Use Attitudes

Students in the 4th – 9th 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. The majority of students strongly disagreed that smoking makes you look cool and that smoking cigarettes makes you look more grown-up (89.1% and 85.1%, respectively). Fewer students, but still a majority (70.8%), strongly disagreed that drinking lets you have more fun. In Year 10 very few students had positive attitudes toward cigarettes and alcohol, much less than in both Year 8 and Year 9.



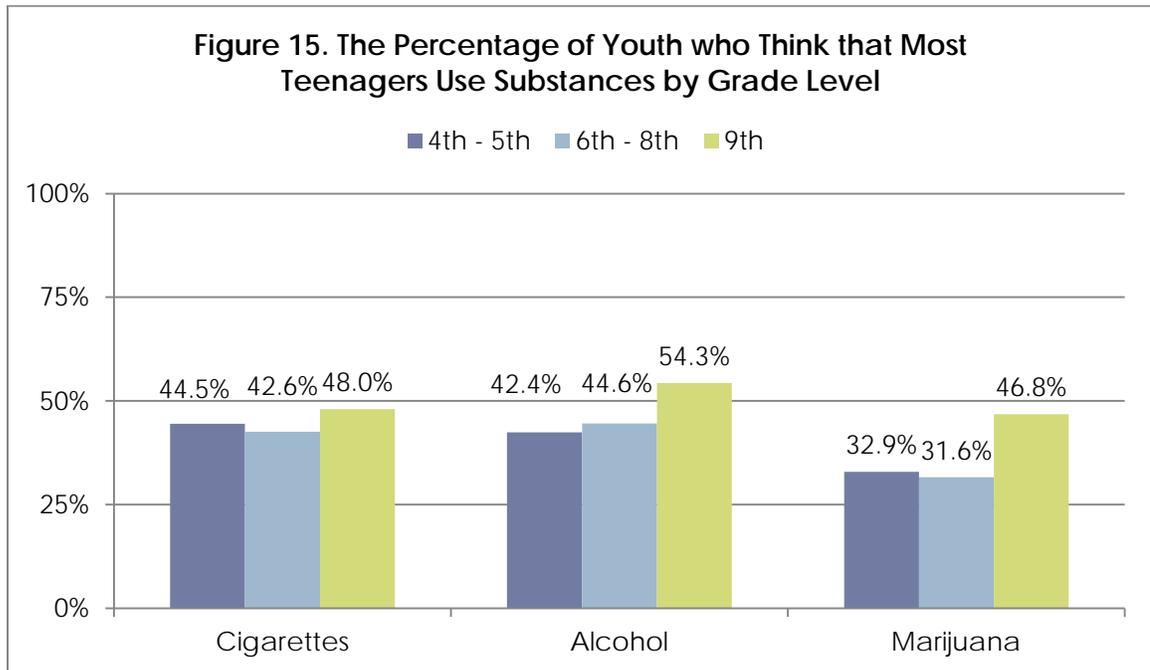
Substance Use Norms

A large percentage (45-47%) of youth reported that they thought most teenagers used cigarettes and alcohol. Youth were more likely to think that most adults used cigarettes and alcohol than most teenagers. Youth were just as likely to think that most teenagers (36.3%) used marijuana as they were to think that most adults (33.3%) used marijuana.

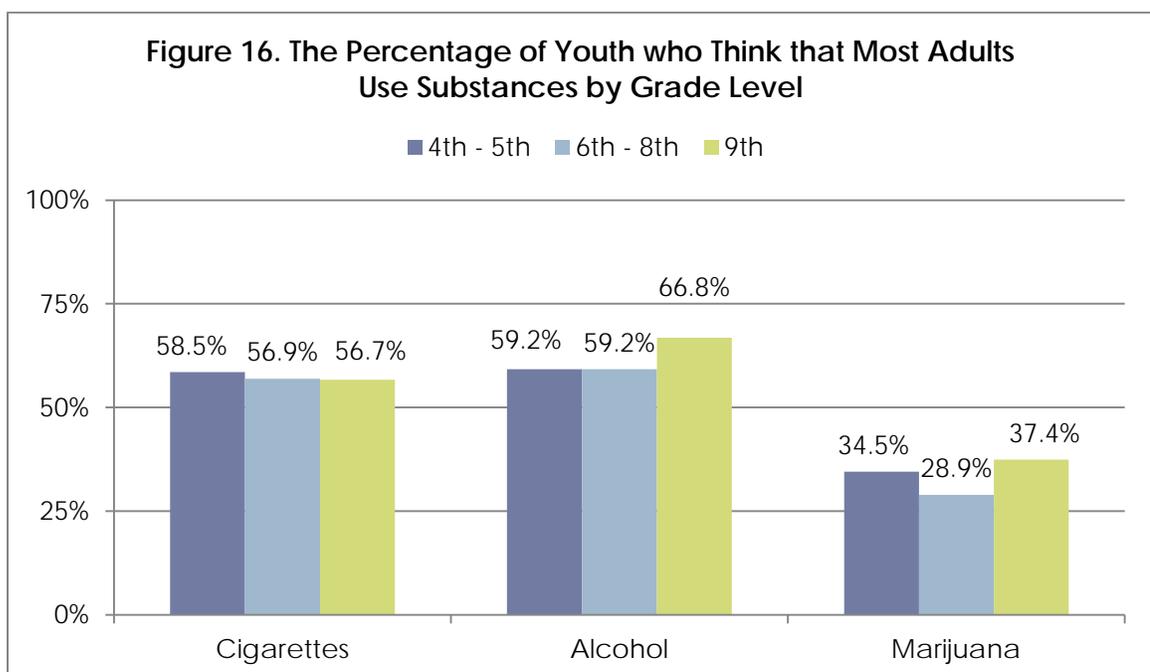
Table 12. Youths' Perception of Substance Use among Adults and Teenagers
(Response to the statement: Most teenagers/adults use "substance.")

		Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Teenager Use	Cigarettes	30.4	24.8	35.3	9.4
	Alcohol	29.6	23.8	35.7	10.9
	Marijuana	40.3	23.3	25.6	10.7
Adult Use	Cigarettes	23.6	19.0	37.6	19.8
	Alcohol	23.2	15.4	39.5	21.9
	Marijuana	41.4	25.4	23.9	9.4

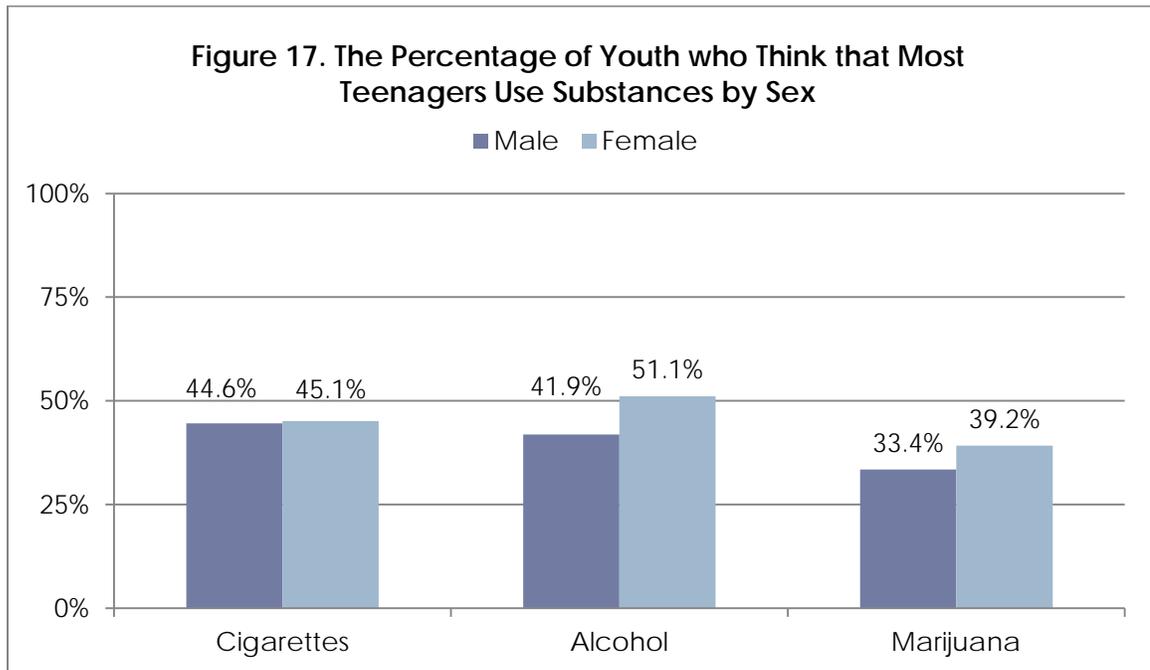
Substance Use Norms by Grade Level. Students' perception of teen cigarette use did not vary by grade level. Youth in the 9th grade were more likely to think that most teenagers used alcohol or marijuana than youth in the lower grades.



Regardless of grade, a similar percentage of youth thought that most adults smoke cigarettes. Youth in 9th grade were more likely to think that most adults used marijuana than younger SPIRIT students. In Year 10, more 9th grade students thought that most adults used alcohol compared to Year 9.



Substance Use Norms by Sex. Females were more likely than males to think that most teenagers used alcohol or marijuana.



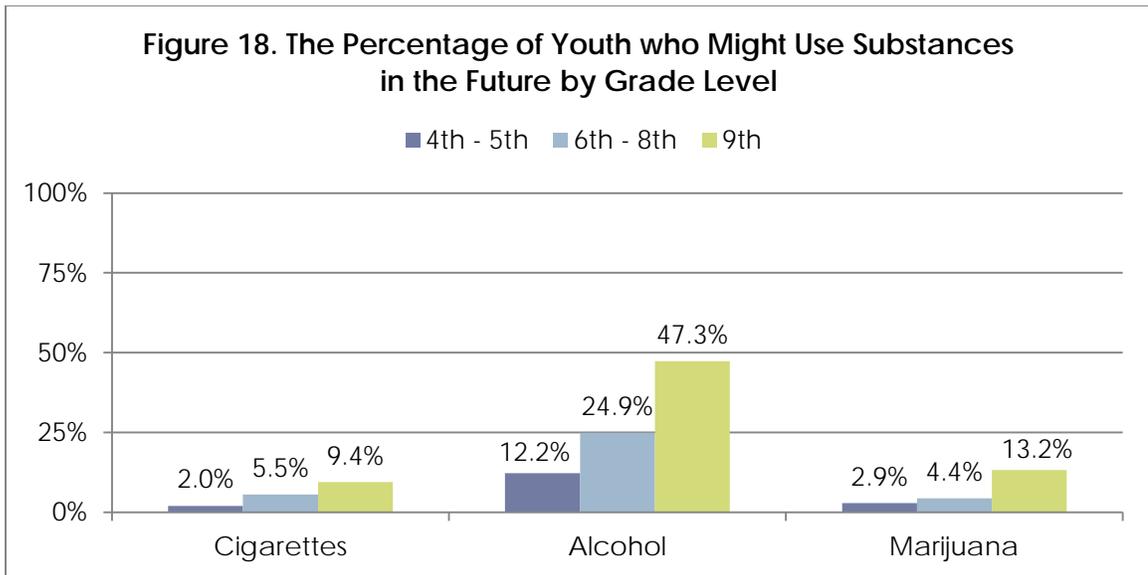
There were no differences between males and females in perceptions of adult substance use.

Substance Use Intentions

Students were more likely to indicate they might use alcohol in the future (26.9%) than cigarettes (5.4%) or marijuana (6.4%).

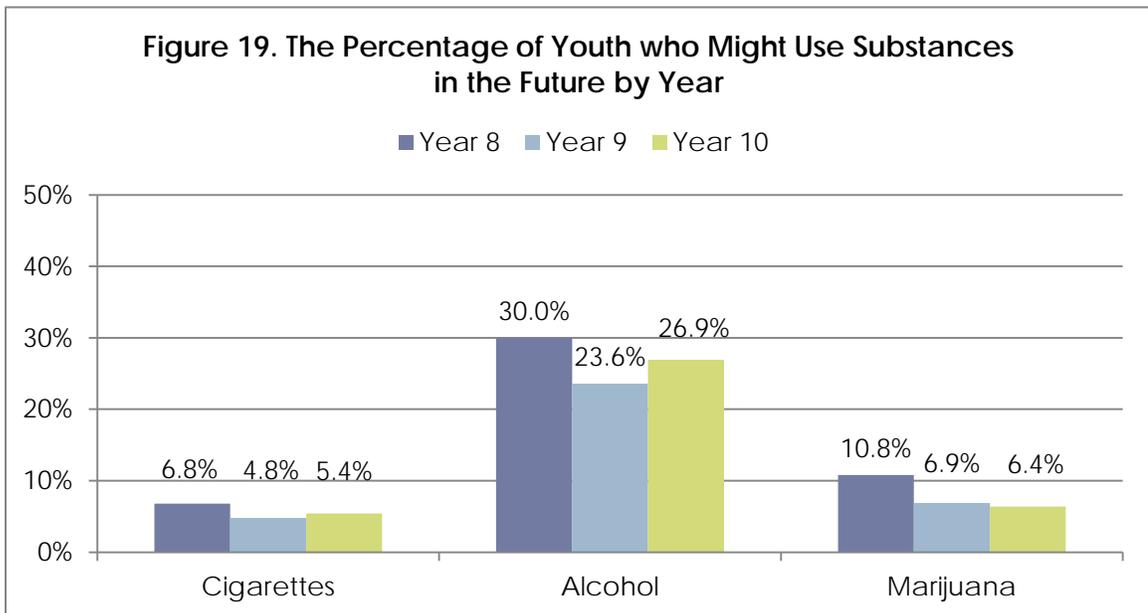
	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Cigarettes	82.2	12.4	4.2	1.2
Alcohol	56.3	16.8	22.0	4.9
Marijuana	83.6	10.0	3.9	2.5

Substance Use Intentions by Grade Level. The percentage of youth who reported that they might use cigarettes and alcohol increased as students aged. The intention to use marijuana remained relatively low and consistent between the 4th-5th grade and the 6th-8th grade level, but increased among 9th grade youth. The largest increases occurred in the intention to use alcohol, from 12.2% of 4th – 5th grade youth to nearly half (47.3%) of those in 9th grade.



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. In Year 9, students were less likely to indicate that they may use substances when they get older than in Year 8. Although students in Year 10 were still less likely to forecast future use than they were in Year 8, the percentage of students who reported they might use alcohol increased from Year 9.



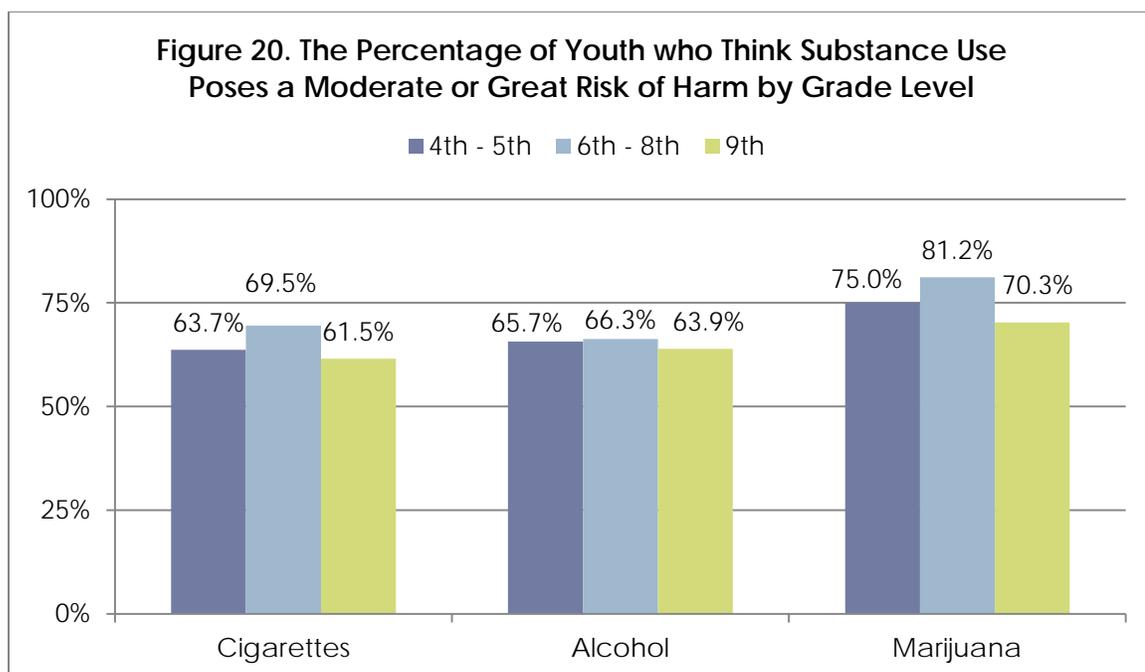
Risk of Harm from Substance Use

All participating students, in grades 4th – 9th, 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). Only youth in grade 6 and higher were asked to report on their perception of the riskiness of other drugs. Approximately 65% of students thought that cigarettes and alcohol posed a moderate or

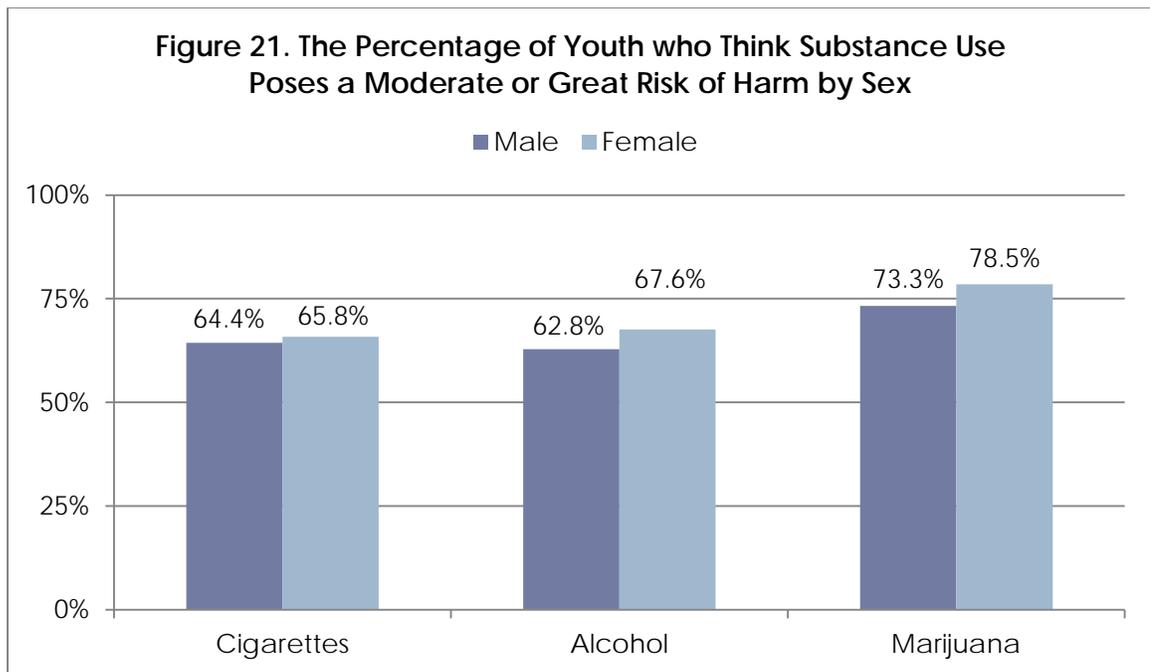
great risk if used. A higher percentage of youth (76%) thought that using marijuana was risky. Among those in the 6th – 9th grades, the majority (86-89%) thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription posed a moderate to great risk. The use of methamphetamine was perceived to be most risky.

Table 14. Youths' Perception of Risk of Harm from Using Substances (4 th – 9 th grade)				
	No Risk	Slight Risk	Moderate Risk	Great Risk
Smoke part or all of a cigarette	12.1	22.6	27.7	37.6
Drink any type of alcohol	11.3	23.3	31.3	34.1
Use Marijuana	14.1	10.0	18.5	57.4
(6 th – 9 th grade)				
Use ecstasy occasionally	7.5	6.8	21.4	64.2
Use meth occasionally	7.3	3.7	14.2	74.8
Use inhalants	7.3	5.7	18.5	68.6
Use prescription drugs w/out Rx	7.8	5.9	18.5	67.8

Risk of Harm by Grade Level. There was no difference in the perception of harm from the use of cigarettes or alcohol depending on grade level. However, youth in the 9th grade perceived marijuana to be less harmful than those in the 6th-8th grades. Additionally, there was a change in the perception of risk among students in grades 6-9 from Year 9 to Year 10. In Year 10, students in grade 9 considered the use of alcohol to be less harmful and those in grades 6-9 considered the use of marijuana to be less harmful.



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



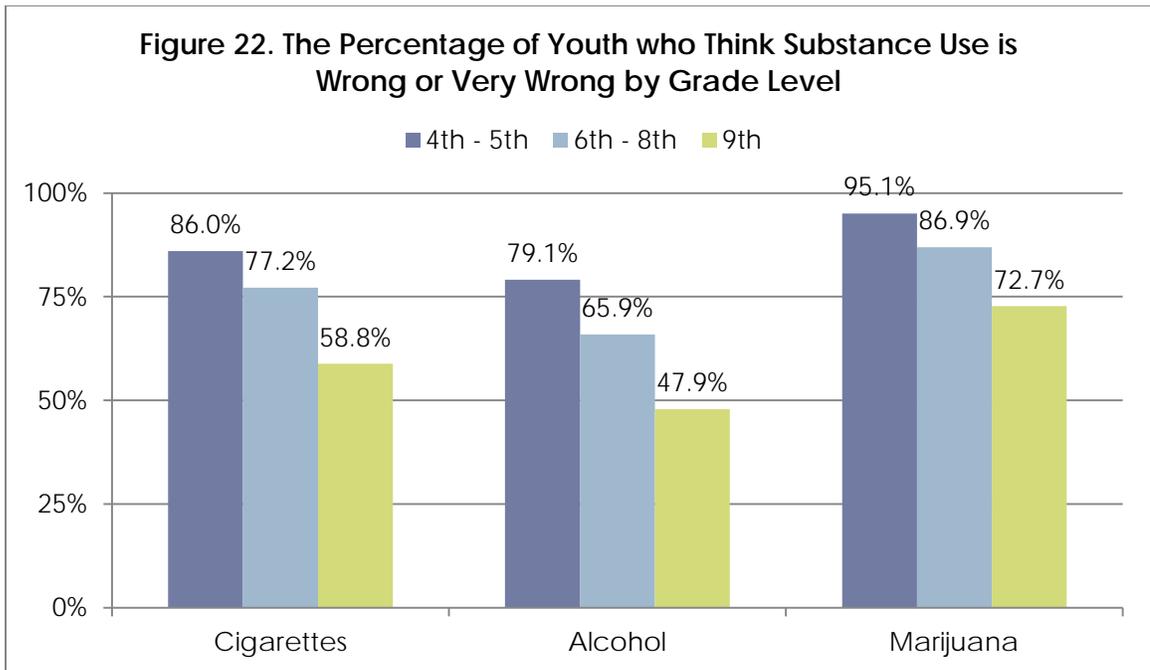
Risk of Harm by Year. There were some differences between perceived risk of harm from the use of substances between Year 9 and Year 10. Students in grades 6-8 and grade 9 perceived greater risk of harm from use of marijuana in Year 9 than in Year 10 and students in grade 9 also perceived less risk in use of alcohol in Year 10. Additionally, males considered use of cigarettes and alcohol less risky in Year 10 than in Year 9.

Disapproving Attitudes toward Substance Use

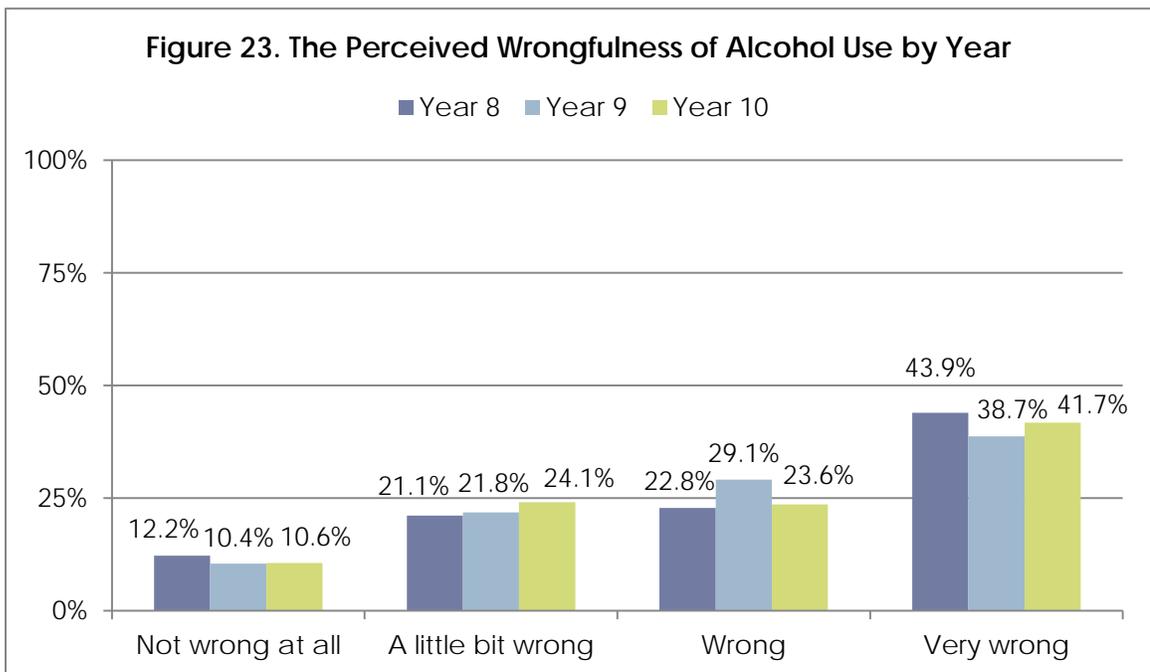
The majority of SPIRIT youth thought that the use of substances was wrong. Alcohol was considered the most acceptable with only 65.3% reporting that they thought it was either wrong or very wrong to drink alcohol. Over 90% of youth in the 6th-9th grades thought ecstasy, methamphetamine, inhalants, and the use of prescription drugs without a prescription was wrong or very wrong.

	Not Wrong at All	A Little Bit Wrong	Wrong	Very Wrong
Smoke part or all of a cigarette	8.3	16.8	27.9	47.0
Drink any type of alcohol	10.6	24.1	23.6	41.7
Use Marijuana	7.0	7.4	14.9	70.7
(6 th – 9 th grade)				
Use ecstasy occasionally	4.4	4.9	18.9	71.9
Use meth occasionally	4.2	2.4	14.4	79.1
Use inhalants	4.2	5.1	18.2	72.6
Use prescription drugs w/out Rx	4.4	4.5	19.5	71.6

Disapproving Attitudes by Grade Level. As grade level increased, students were less likely to consider the use of substances to be wrong. Fewer than half (47.9%) of those in 9th grade thought using alcohol was wrong.



Disapproving Attitudes by Year. The only difference from year to year in students' attitudes toward substances is greater acceptance of marijuana by 9th graders. However, there is a trend toward students being slightly more accepting of alcohol use.



Summary

- The majority of students (89.1%) strongly disagreed that smoking makes you look cool. Most (85.1%) also strongly disagreed that smoking cigarettes makes you look more grown-up. Fewer students, but still a majority (70.8%), strongly disagreed that drinking lets you have more fun.
- In Year 10, very few students had positive attitudes toward cigarettes and alcohol, much fewer than in both Year 8 and Year 9.

- Additionally, a large percentage (45-47%) of youth reported they thought most teenagers and adults used cigarettes and marijuana. Youth were more likely to think that adults used cigarettes than teenagers. Students were just as likely to think that most teenagers (36.3%) used marijuana as they were to think that most adults (33.3%) did.
- Regardless of grade, a similar percentage of students thought that most adults smoke cigarettes. Students in 9th grade were more likely to think that most adults used marijuana than younger SPIRIT ones. In Year 10 compared with Year 9, more 9th grade students thought that most adults used alcohol.
- Students were much more likely to indicate they might use alcohol in the future (26.9%) than cigarettes (5.4%) or marijuana (6.4%). The percentage of students who reported that they might use cigarettes and alcohol increased between every grade level. The intention to use marijuana remained relatively low and consistent between the 4th-5th grade and the 6th-8th grade level, but increased among 9th grade youth. The largest increases occurred in the intention to use alcohol from 12.2% of 4th – 5th grade youth to nearly half (47.3%) of those in 9th grade.
- In Year 9, students were less likely to indicate that they may use substances when they get older than in Year 8. Although students in Year 10 were still less likely to forecast future use than they were in Year 8, the percentage of students who reported they might use alcohol increased.
- There was a change in the perception of risk among youth in grades 6-9 from Year 9 to Year 10. In Year 10, students in grade 9 considered the use of alcohol to be less harmful than students in Year 9, and students in grades 6-9 considered the use of marijuana to be less harmful than students in the previous year.
- Students in grades 6-9 perceived greater risk of harm from use of marijuana in Year 9 than in Year 10 and students in grade 9 also perceived less risk in use of alcohol in Year 10.
- Males considered use of cigarettes and alcohol less risky in Year 10 than in Year 9.
- The majority of SPIRIT students thought that the use of substances was wrong. Alcohol was considered the most acceptable with only 65.3% reporting that they thought it was either wrong or very wrong to drink alcohol.
- Over 90% of youth in the 6th-9th grades thought the use of ecstasy, methamphetamine, inhalants, and prescription drugs without a prescription was wrong or very wrong.
- The only difference from year to year in students' disapproving attitudes toward substances is greater acceptance of marijuana by 9th graders. However, there is a trend toward students being slightly more accepting of alcohol use.
- Youth were less likely to consider the use of substances to be wrong as grade level increased. Fewer than half (47.9%) of those in 9th grade thought using alcohol was wrong.

Chapter 5 - Problem Behavior

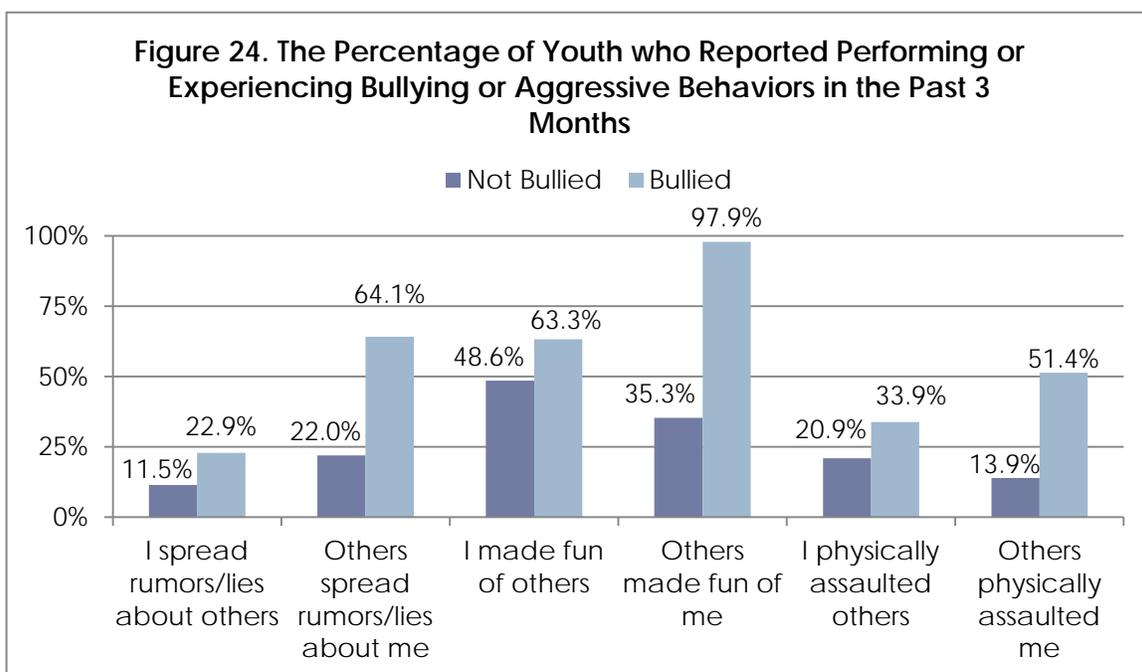
Students in 4th – 9th grades reported the number of times in the past three months they had engaged in aggressive and problem behaviors or were the victims of those behaviors. Over 41.2% of youth in the 4th – 9th grade reported being harassed or bullied within the past three months. Almost 6% reported that they were bullied ten or more times.

A similar percentage of youth reported both making fun of others (54.6%) and being made fun of by others (56.5%). Only 16% of youth reported spreading rumors about others; however a much larger percentage (42.2%) reported others had spread rumors about them.

The percentage of youth who reported being afraid of being beaten up (17.7%) was approximately the same percentage (17.4%) who reported having been in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student (26.0%) or being assaulted by someone else (29.1%). Physical assault includes hitting, pushing, slapping, kicking and shoving when one is not kidding around.

Very few youth reported using the internet (7.2%) or a cell phone (6.8%) to embarrass or hurt another student or being harassed by another student by internet (6.8%) or cell phone (8.4%). A very small percentage of youth reported using a weapon to threaten or bully another (4.4%) or having a weapon used against them in a similar manner (5.6%).

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.

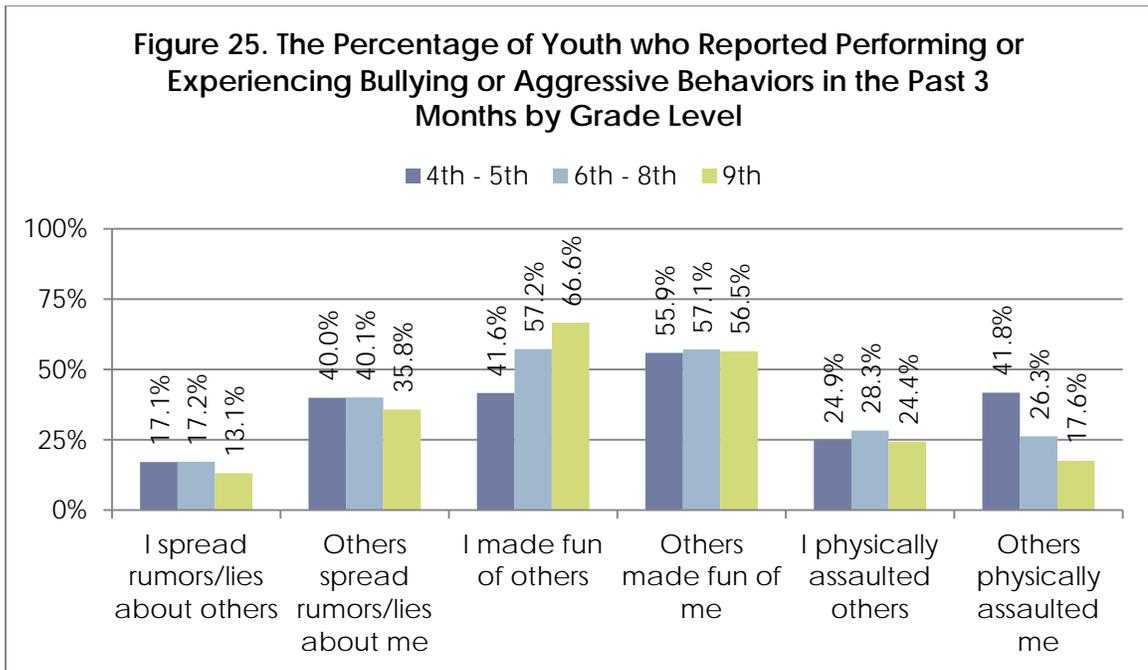


Victims of bullying were more likely to report that others had hurt or embarrassed them using the internet or a cell phone than those who were bullied. But, they were not more likely to report that they had done so to others.

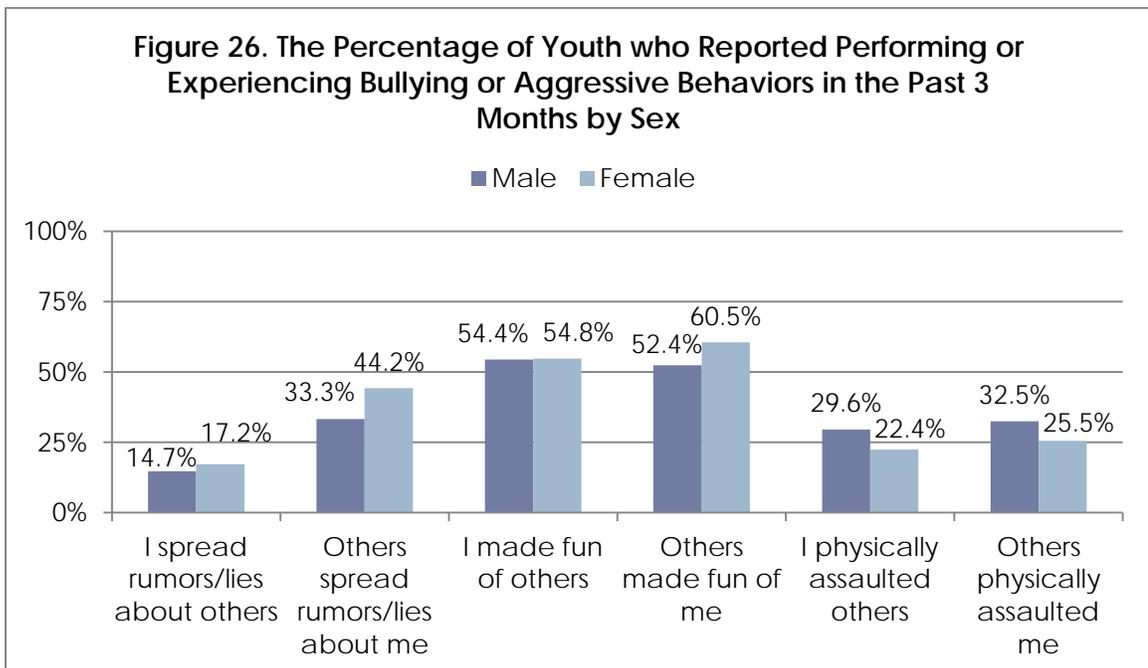
Table 16. Frequency of Problem Behavior in Past 3 months

	Never	1-2 times	3-5 times	6-9 times	10 or more times
Been harassed or bullied	59.8	22.9	7.8	4.0	5.5
Been afraid of being beaten up	82.3	11.4	2.7	1.1	2.4
<i>Emotional/Relational Problem Behavior</i>					
Made fun of other people	45.4	32.7	8.6	3.9	9.3
Been made fun of	43.5	31.9	9.2	5.3	10.1
Spread mean rumors or lies about other kids at school	84.0	12.6	1.9	1.1	0.4
Had mean rumors or lies spread about you at school	61.2	23.6	6.9	3.4	5.0
<i>Emotional/Relational Problem Behavior through Technology</i>					
Used the Internet to post pictures or text that might embarrass or hurt another student	92.8	4.9	1.1	0.7	0.6
Had pictures or text that embarrassed or hurt you posted through the Internet	92.9	5.6	1.1	0.1	0.3
Used a cell phone to send text messages or pictures that might embarrass or hurt another student	93.2	4.9	0.8	0.5	0.7
Had text or picture cell phone messages sent about you that were embarrassing or hurtful	91.6	6.5	0.8	0.5	0.6
<i>Physically Aggressive Problem Behavior</i>					
Hit/pushed other kids at school when not playing around	74.0	17.5	5.2	1.7	1.7
Been pushed, shoved, slapped, hit or kicked by someone who wasn't just kidding around	70.9	17.8	4.8	2.6	3.9
Been in a physical fight	82.6	12.6	2.4	1.1	1.3
<i>Use of weapons to threaten or bully</i>					
Used any weapon to threaten or bully someone	95.6	3.3	0.6	0.1	0.5
Been threatened or injured with a weapon, such as a gun, knife, or other weapon	94.4	3.9	0.8	0.2	0.8

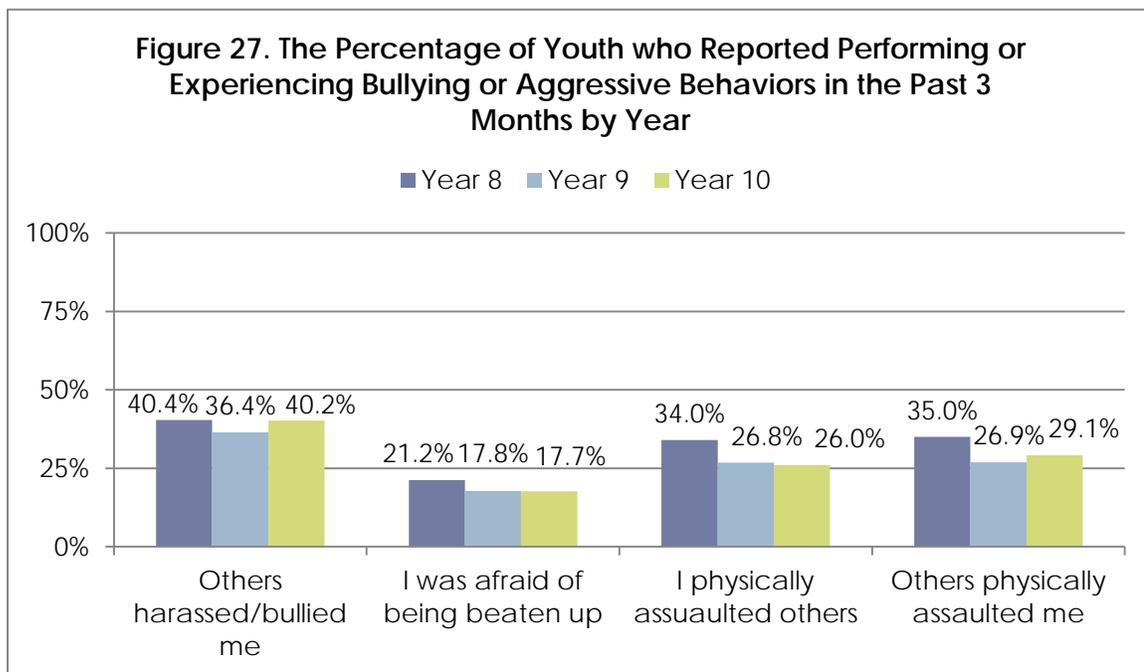
Problem Behavior by Grade Level. The higher the grade, the more likely students were to report making fun of others and less likely to report being the victim of physical assault. This may suggest that as youth age they are more likely to be aggressive verbally rather than physically. Although a lower percentage of 4th-5th grade students reported physically assaulting others in Year 10 (24.9%) than in Year 9 (38.7%), there was a sharp rise in the percent who reported others assaulted them (41.8% and 23.1%, respectively). The opposite pattern occurred with 9th graders with 24.4% reporting assaulting others compared to 17.5% in Year 9. About 27% reported being assaulted in Year 10 compared to 17.6% in Year 9.



Problem Behavior by Sex. Males and females did not differ in their report of most behaviors. However, in general, males were more likely to experience physical aggression, whereas females were more likely to be the victims of verbal abuse. When compared with last year, a lower percentage of males reported assaulting others, a lower percentage of females reported spreading rumors or lies or having lies spread about them, and a lower percent of both sexes reported making fun of others.



Problem Behavior by Year. While bullying has remained relatively consistent throughout the past three years of the SPIRIT program, physical assault was reported by fewer students from Year 8 to Year 9 and remained consistent in Year 10. Among 4th-5th grade students, the percentage reporting physically assaulting others in Year 10 was lower than in Year 9 and was the reverse was true for reports of being assaulted. The opposite pattern occurred with 9th graders.



Summary

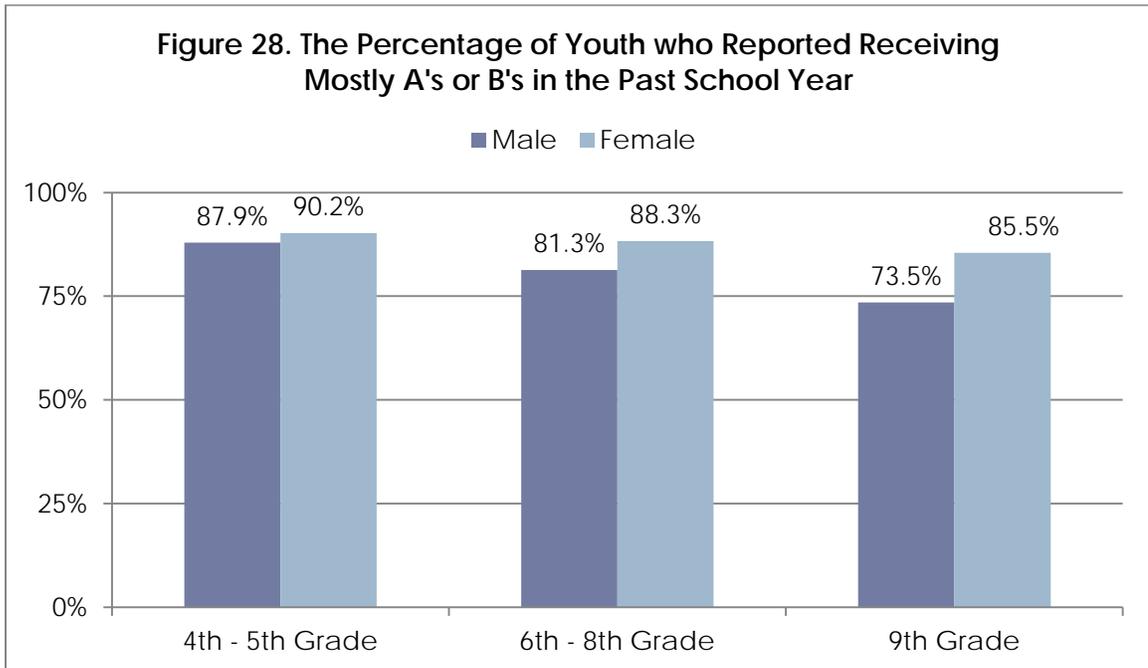
- Victims of bullying were more likely to report that others had hurt or embarrassed them using the internet or a cell phone than those who were bullied. But, they were not more likely to report that they had done so to others.
- Over 41.2% of youth in the 4th – 9th grade reported being harassed or bullied within the past three months. Almost 6% reported that they were bullied ten or more times.
- A similar percentage of youth reported both making fun of others (54.6%) and being made fun of by others (56.5%). Only 16% of youth reported spreading rumors about others; however a much larger percentage (42.2%) reported others had spread rumors about them.
- The percentage of youth who reported being afraid of being beaten up (17.7%) was approximately the same percentage (17.4%) who reported being in a physical fight in the past three months. A greater percentage of youth reported physically assaulting another student (26.0%) or being assaulted by someone else (29.1%). Physical assault includes hitting, pushing, slapping, kicking and shoving when one is not kidding around.
- When compared with Year 9, a lower percentage of males reported assaulting others and a lower percentage of females reported spreading rumors or lies or having lies spread about them.

Chapter 6 - School Performance and Attitudes

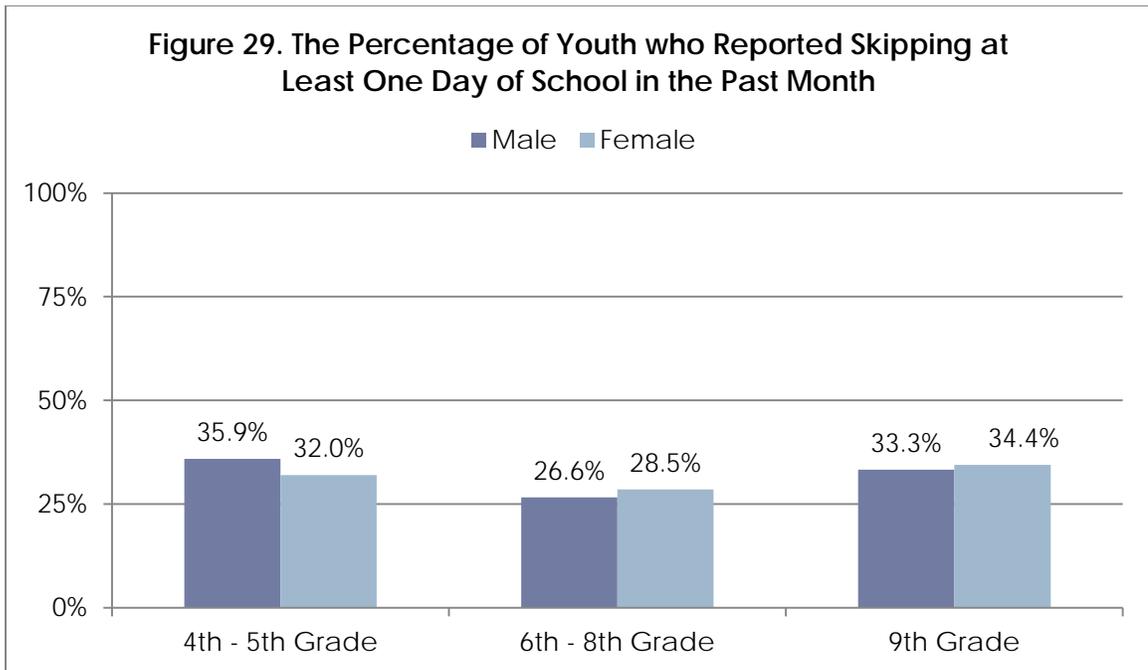
School performance and attitude data were collected from students in 4th – 9th grade. They were asked to report their average grades, the number of times they skipped school, and the number of times they received discipline in the form of in-school suspension/detention and out-of-school suspension.

Grades, Absences, & Disciplinary Incidents

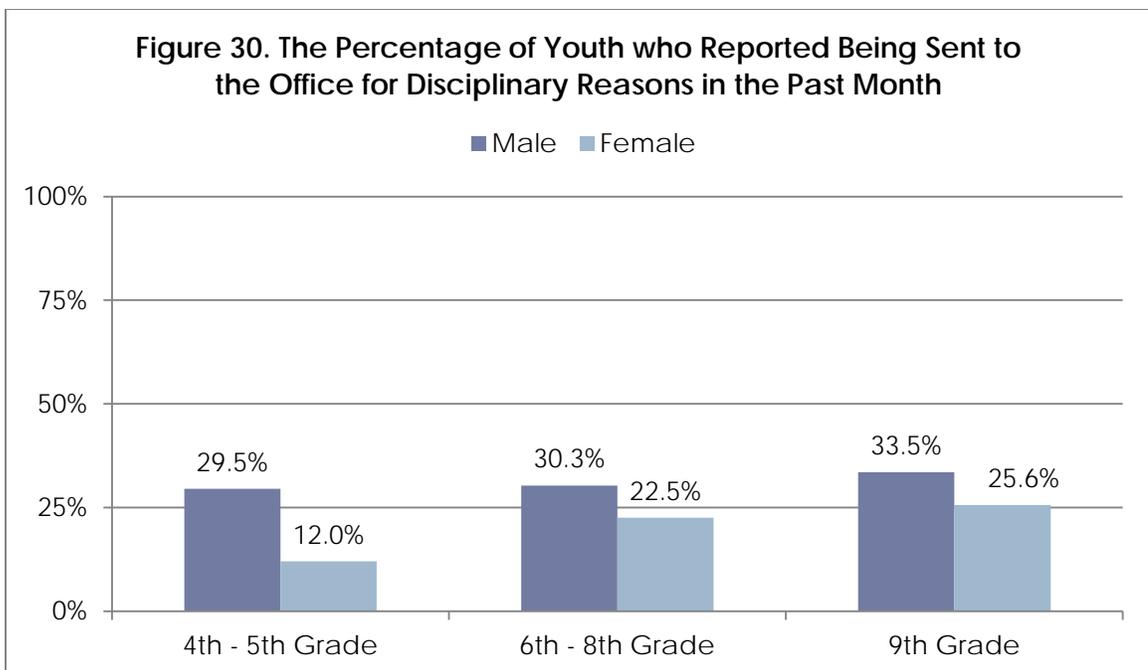
Most students (84.7%) reported their average grades last school year were either A's or B's. Regardless of grade, a greater percentage of females (88.2%) reported mostly A's or B's than did males (81.4%). As grade level increased, fewer students, especially males, reported mostly A's or B's.



When asked how many whole days of school were missed in the past 30 days by students because they skipped or cut, 31.4% of students reported missing at least one day. Approximately 11% of students reported skipping three or more days. Students in the 6th-8th grades were the least likely to report having skipped school. There was no difference between males and females in Year 10. In Year 10 compared to Year 9, a higher percentage of males in 4th-5th grades reported skipping at least one day of school.

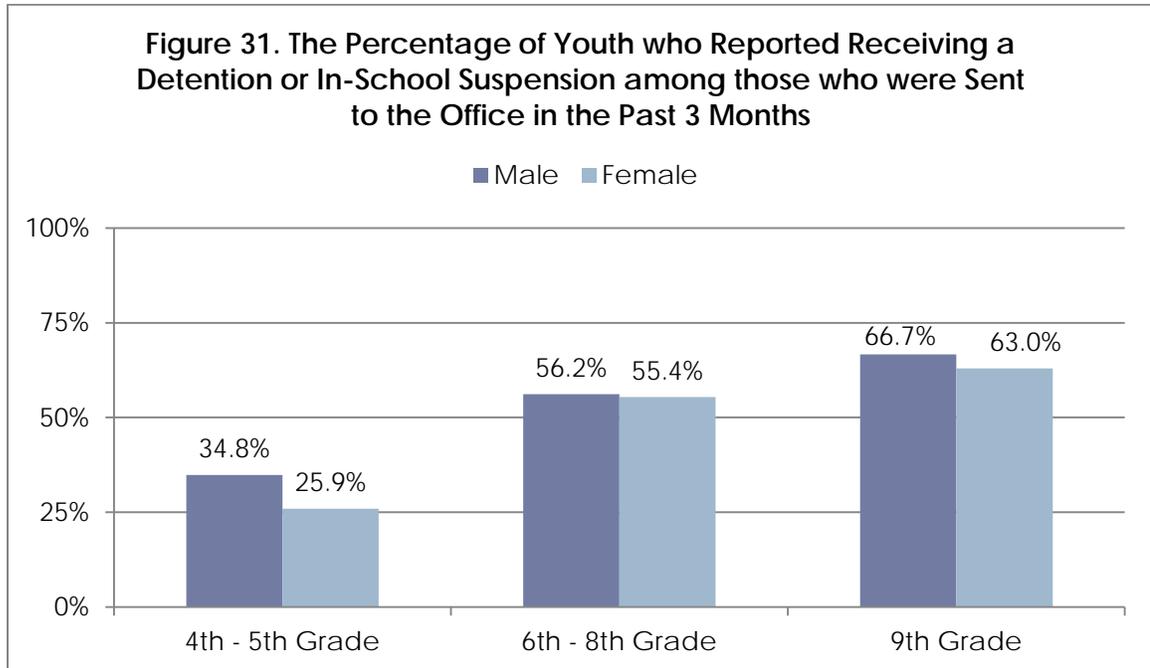


Approximately a quarter (25.3%) of the students reported having been sent to the office for disciplinary reasons in the past three months. Regardless of grade level, males (30.9%) were more likely than females (19.7%) to be sent to the office for disciplinary reasons. In Year 10, however, the percentage of 6th-8th grade males reporting disciplinary actions was lower than in Year 9 (30.3% versus 38.4%) and the percentage of females increased (22.5 versus 29.4%). The higher the grade level the more likely students reported being sent to the office, particularly females.

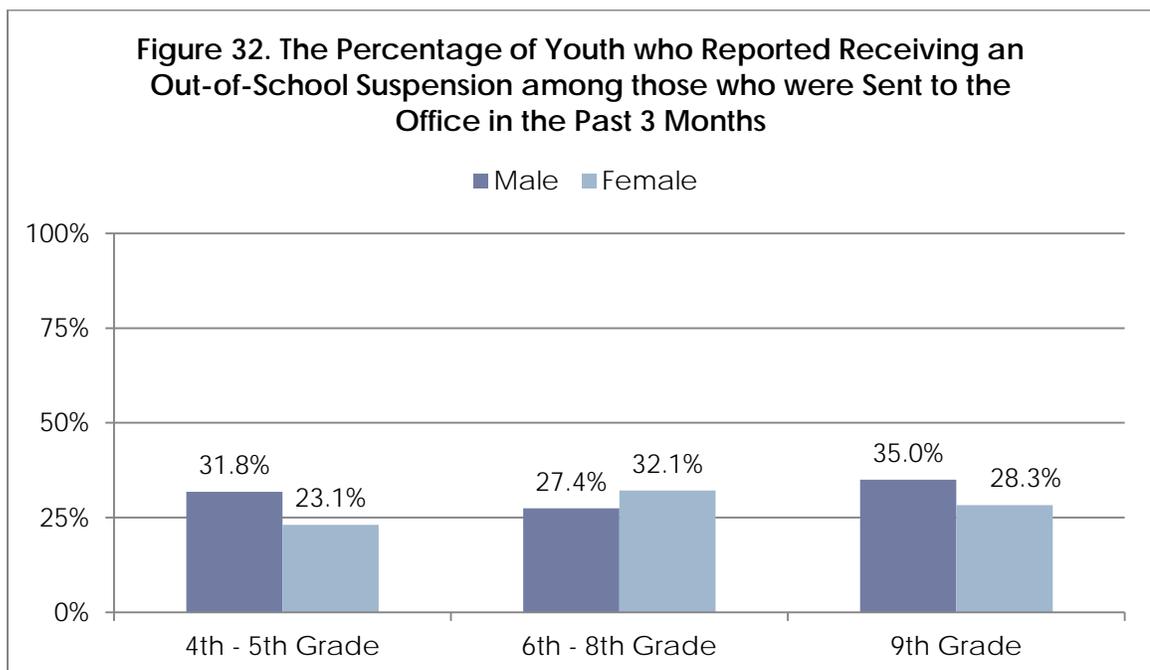


Less than a quarter of students (18.7%) reported receiving in-school suspension or detentions. Again, males (22.7%) were more likely than females (14.7%) to receive in-school suspensions, regardless of grade level. The likelihood of receiving detention or in-school suspension increased as grade level increased.

Of students who reported they had been sent to the office in the past three months, 4th-5th grade males were more likely than females to receive an in-school suspension or detention as a result.



A different pattern emerged regarding out-of-school suspension among those who reported they had been sent to the office in the past three months. Approximately 9% of students received an out-of-school suspension. Males in the 4th, 5th, and 9th grades were more likely than females in those grades to receive an out-of-school suspension as a result of being sent to the office. However, among 6th-8th grade students, females were more likely than males to get suspended when sent to the office.



Attitudes toward School

Students in the 4th – 9th grades reported their attitudes toward school by the extent to which they agreed or disagreed with statements concerning their happiness, safety, and connectedness. Between 72-88% of students reported positive attitudes toward school regardless of the question being asked. However, over a quarter of students (28.1%) did not think teachers treated them fairly and 22.3% reported not being happy at school.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I feel close to people at this school.	3.2	12.4	58.2	26.2
I am happy to be at this school.	7.2	15.1	48.5	29.2
I feel like I am a part of this school.	5.6	13.0	51.5	29.9
The teachers at this school treat students fairly.	8.4	19.7	45.4	26.5
I feel safe at this school.	5.7	12.7	46.8	34.8
I feel safe going to and from this school.	4.3	7.8	49.0	38.8

Attitudes toward School by Grade Level. The higher the grade, the less likely students were to have positive attitudes toward school. However, youth in the 4th-8th grades felt similarly regarding school safety and feeling close to people at school. The most significant drop in positive attitudes was among 9th grade youth. They were much less likely than their younger counterparts to be happy at school and think teachers treated students fairly. Less than three-fourths of the 9th grade students reported feeling safe at school.

	4 th - 5 th Grade	6 th - 8 th Grade	9 th Grade
I feel close to people at this school.	86.1	86.1	80.2
I am happy to be at this school.	85.0	80.7	65.0
I feel like I am a part of this school.	86.4	84.8	71.0
The teachers at this school treat students fairly.	84.8	72.8	55.2
I feel safe at this school.	84.1	85.2	73.8
I feel safe going to and from this school.	88.4	90.3	83.9

Attitudes toward School by Sex. Males were less likely than females to feel close to people at school.

Summary

- Most students (84.7%) reported their average grades last school year were either A's or B's. Regardless of grade level, a greater percentage of females (88.2%) reported mostly A's or B's than did males (81.4%). As grade level increased, fewer students, especially males, reported mostly A's or B's.
- Thirty-one percent (31.4%) of students reported missing at least one whole day of school in the past 30 days because they skipped or cut. Approximately 11% of students reported skipping three or more days. Students in the 6th-8th grades were the least likely to report having skipped school.

- There was no difference in the percentage of males and females who reported skipping school in Year 10; however in Year 10 compared to Year 9, a higher percentage of males in 4th-5th grades reported skipping school at least one day.
- As grade level increased youth were less likely to have positive attitudes toward school. Youth in the 4th-8th grades felt similarly regarding school safety and feeling close to people at school. Ninth grade students were much less likely than their younger counterparts to be happy at school and think teachers treated students fairly.
- Over a quarter of students (28.1%) did not think teachers treated them fairly and 22.3% reported not being happy at school.
- Less than three-fourths of the 9th grade students reported feeling safe at school.
- Males were less likely than females to feel close to people at school.

Chapter 7 - Program Effectiveness

Students in 4th – 9th 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 (84.6%) of students 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 anger management (77.9%), resistance skills (82.4%), and that the time spent on the program was helpful (81.0%).

Table 19. Effectiveness of and Satisfaction with SPIRIT
(4th – 9th grades)

	No, not at all	No, not much	Yes, a little	Yes, a lot
Did you like the program?	6.4	9.1	47.2	37.4
Did the program teach you what to do when you are angry?	8.0	14.2	35.2	42.7
Do you act better because of the program?	10.6	18.7	38.0	32.7
Did the program help you feel better about yourself?	11.6	14.9	36.5	36.9
Does the program help you to say no to harmful things other kids might want you to do?	8.2	9.5	33.9	48.5
Has the program helped you to get along better with other people?	11.1	16.5	38.3	34.1
Are other kids nicer to you because of the program?	21.0	25.9	31.0	22.1
Was the time spent on the program helpful?	9.1	9.8	39.7	41.3

Program Effectiveness by Grade Level. As grade level increased, fewer students reported they liked the program or thought the program affected their behavior, self-esteem, and interpersonal relationships.

Table 20. Effectiveness of and Satisfaction with SPIRIT by Grade Level
(Yes, a lot & Yes, a little, combined Percentages)

	4 th – 5 th Grade	6 th – 8 th Grade	9 th Grade
Did you like the program?	98.0	84.4	75.7
Did the program teach you what to do when you are angry?	84.4	78.6	68.9
Do you act better because of the program?	85.0	69.5	55.1
Did the program help you feel better about yourself?	85.5	73.1	59.2
Does the program help you to say no to harmful things other kids might want you to do?	90.6	82.4	72.4
Has the program helped you to get along better with other people?	83.7	72.5	58.6
Are other kids nicer to you because of the program?	61.9	55.4	39.5
Was the time spent on the program helpful?	91.1	80.2	69.9

Program Effectiveness by Sex. Females were more likely than males to like the program and think that it helped with resistance skills.

Table 21. Effectiveness of and Satisfaction with SPIRIT by Sex
(4th – 9th grades; Yes, a lot & Yes, a little, combined Percentages)

	Male	Female
Did you like the program?	81.8	87.1
Did the program teach you what to do when you are angry?	76.5	78.9
Do you act better because of the program?	70.5	70.8
Did the program help you feel better about yourself?	72.7	74.0
Does the program help you to say no to harmful things other kids might want you to do?	80.4	84.2
Has the program helped you to get along better with other people?	73.6	71.0
Are other kids nicer to you because of the program?	55.6	50.4
Was the time spent on the program helpful?	80.7	81.2

Summary

- The majority (84.6%) of students responded that they liked the program at least a little. Youth were most likely to report that the program helped them with anger management (77.9%), resistance skills (82.4%), and that the time spent on the program was helpful (81.0%).
- As grade level increased, fewer students reported they liked the program or thought the program affected their behavior, self-esteem, and interpersonal relationships.
- Females were more likely than males to like the program and think that it helped with resistance skills.

Chapter 8 - Protective Factors

Youth who have strong decision making skills, high levels of empathy, and 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. These skills and psychological variables are protective factors that form a barrier against these destructive behaviors. Youth in the 4th – 9th grades were asked to report their empathy, decision making skills, and their perception that adults in their life cared about them.

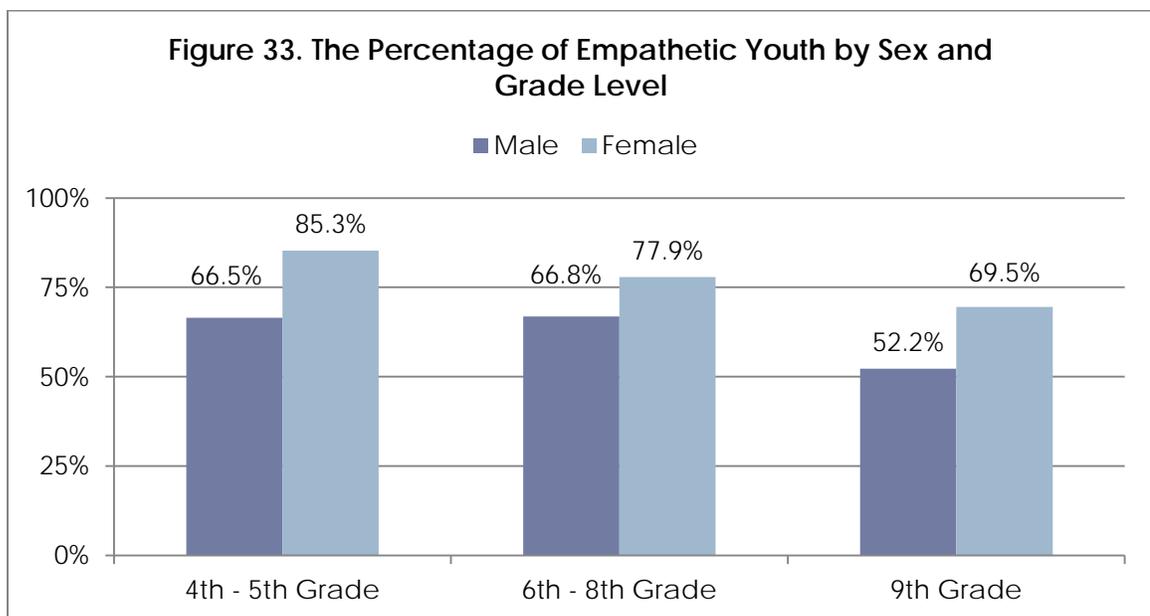
Empathy

The majority of students reported strong levels of empathy. They reported being sad if witnessing an animal being hurt (85.4%), feeling sad if someone was left out (81.5%), and feeling bad if someone else got their feelings hurt (83.6%).

Table 22. Youth Capacity for Empathy
(4th – 9th grades)

	Strongly Disagree	Disagree	Agree	Strongly Agree
It makes me sad if I see someone who is left out.	4.5	14.0	53.2	28.3
I get upset when I see an animal being hurt.	4.3	10.3	35.4	50.0
I feel bad when someone else gets their feelings hurt.	4.1	12.3	51.1	32.5

Empathy by Sex & Grade Level. Students who answered “agree” or “strongly Agree” to every empathy statement showed a strong level of empathy (70.3%). There were fewer empathetic males than females and empathy decreased as grade level increased.

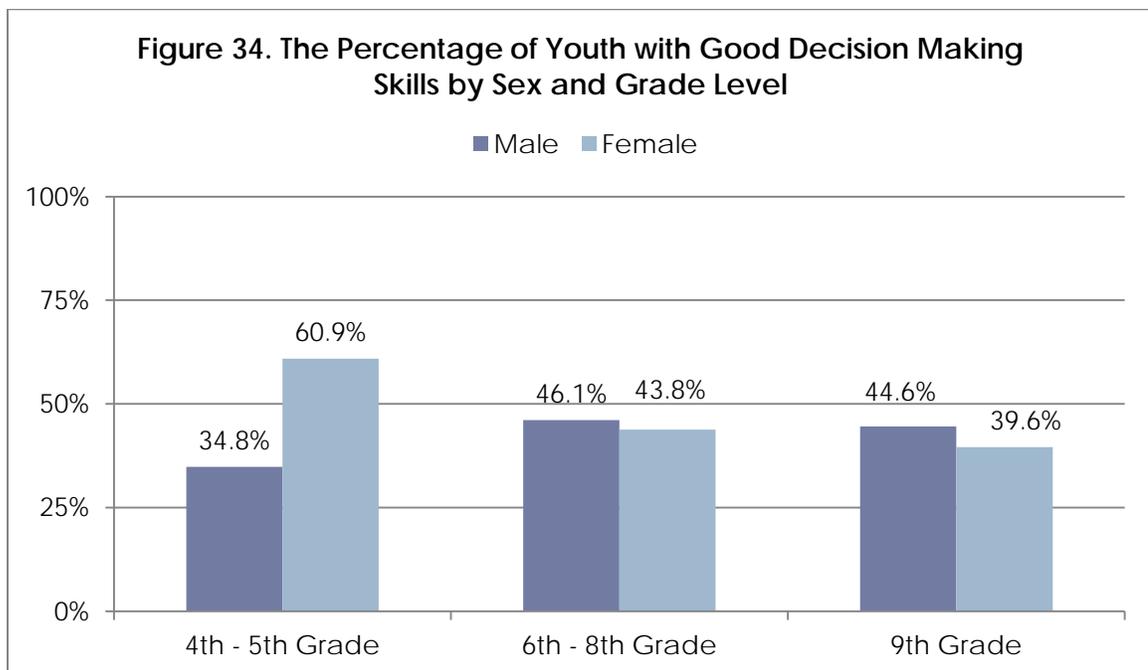


Decision Making

A greater percentage of 4th – 9th grade youth reported that they made good decisions (83.5%) than thought about their choices (63.1%), how those decisions affect others (62.5%), and the consequences of their decisions (83.5%).

Table 23. Youth Decision Making Skills (4 th – 9 th 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?	3.0	33.8	46.9	16.2
How often do you stop to think about how your decisions may affect others' feelings?	5.3	32.2	43.8	18.7
How often do you stop to think about all of the things that may happen as a result of your decisions?	5.7	28.3	45.2	20.8
How often do you make good decisions?	1.1	15.4	64.8	18.7

Decision Making by Sex & Grade Level. About 45% of students answered “often” or “all the time” to every decision making statement. Among 4th-5th grade youth, females were more likely than males to report being good decision makers.

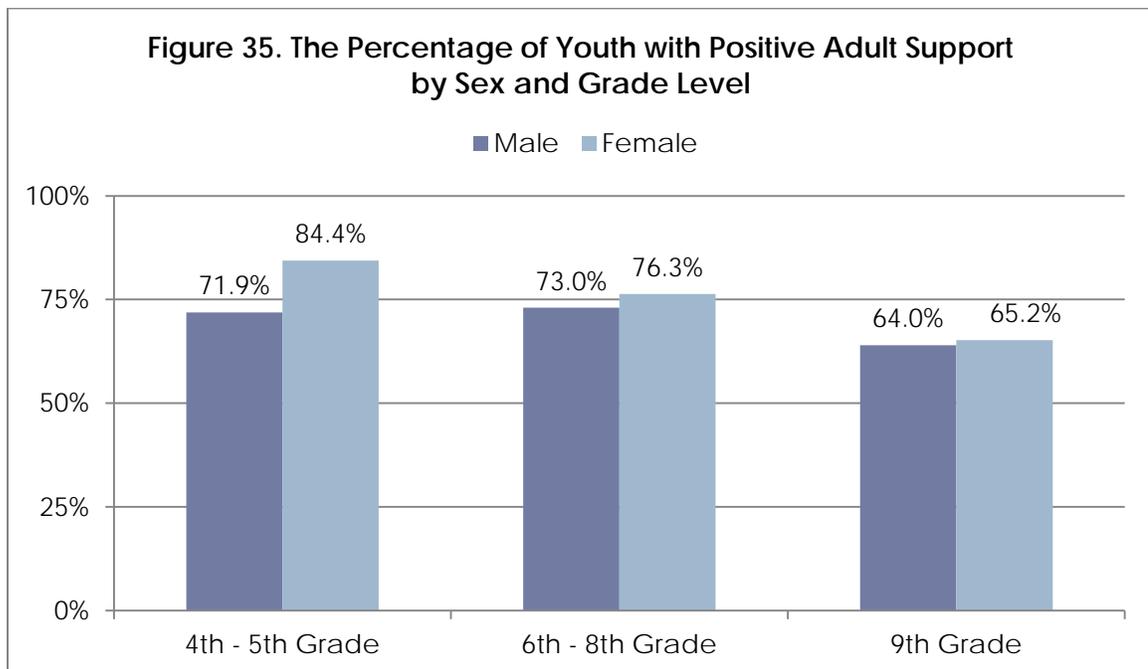


Caring Adults

Youth in 4th – 9th 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 (91-92%) than in school (83-85%).

Table 24. Presence of Caring Adults (4 th – 9 th 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.	5.5	11.4	45.1	38.1
At school, there is a teacher or another adult who listens to me when I have something to say.	4.3	11.1	50.9	33.7
At home, there is a parent or another adult whom I can go to if something is really bothering me.	3.7	5.0	33.4	57.9
At home, there is a parent or another adult who listens to me when I have something to say.	3.1	5.3	35.2	56.4

Caring Adults by Sex & Grade Level. Almost three-fourths of the students answered “agree” or “strongly agree” to every statement about caring adults (72.9%). Among 4th-5th grade youth, females were more likely than males to report the presence of caring adults. The percentage of females reporting the presence of caring adults decreased as grade level increased. A similar percentage of males in the 4th-8th grades reported the presence of caring adults, but the percentage decreased in 9th grade.



Summary

- The majority of students reported strong levels of empathy. They reported being sad if witnessing an animal being hurt (85.4%), feeling sad if someone was left out (81.5%), and feeling bad if someone else got their feelings hurt (83.6%).
- Almost three-fourths of the students answered “agree” or “strongly agree” to every statement about caring adults (72.9%).
- Among 4th-5th grade youth, females were more likely than males to report the presence of caring adults. The percentage of females reporting the presence of caring adults decreased as grade level increased.
- A similar percentage of males in the 4th-8th grades reported the presence of caring adults, but the percentage decreased in 9th grade.

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